Troubleshooting

To better help our customers - this HP Laserjet 3500 3550 3700 series troubleshooting page is simply a guide / additional information for your convenience, as you search for assistance in repairing your machine. Although this information is provided for your convenience it is recommended, for the most part, that a technician inspects your office equipment.

It is recommended to consult with a professional when ordering your printer part(s).

Chapter contents

Troubleshooting

Introduction

This troubleshooting chapter assumes the reader has a basic understanding of the color laser printing process. Explanations of each mechanical assembly, printer system, and the basic theory of operation are found in Chapter 5. Do not perform any of these troubleshooting processes without fully understanding the function of each mechanism.

This chapter contains the following sections:

- **Troubleshooting process** includes a pre-troubleshooting checklist and a troubleshooting flowchart. These tools contain information about common printer errors that can inhibit proper operation or create print quality problems. These tools also include recommendations for solving the cause of the error.
- **Printer error troubleshooting** explains each control panel display message and suggests recommendations for clearing the cause of each message. When the printer message indicates a failure for which the root cause is not obvious, use the printer error troubleshooting section and the troubleshooting tools section found later in this chapter to solve the problem.
- **Paper path troubleshooting** provides techniques to solve feed problems. Explanations regarding print media checks, troubleshooting jams, and the differences between jams caused by media and those caused by the printer are discussed.
- **Image formation troubleshooting** suggests methods for solving print quality problems.
- **Interface troubleshooting** provides techniques for isolating communication problems to the printer hardware, printer configuration, network configuration, or software application.
- **Control panel troubleshooting** provides procedures for printing a menu map from the printer control panel. It also describes the control panel menus, the items within each menu, and the possible values for the menu items.
- **Troubleshooting tools** help isolate the cause of printer failures. This section includes explanations of the printer configuration page and the event log.
- **Diagnostics** provides instructions on how to access and use the diagnostic tools incorporated into the printer.
- **Service menu** provides procedures for entering the service menu and performing service-oriented tasks. These tasks include counts for entering the serial number, service ID, transfer unit maintenance, fuser maintenance, color page, total page, and clearing the event log.
- **Diagrams** provides graphical locations and tables for the printer's internal assemblies and sensors.

Troubleshooting process

When the printer malfunctions or encounters an unexpected situation, the printer control panel alerts you of the situation. This section contains a pre-troubleshooting checklist to filter out many possible causes of the problem. A troubleshooting flowchart helps you diagnose the root cause of the problem. The remainder of this chapter provides steps for correcting problems.

- Use the pre-troubleshooting checklist to evaluate the source of the problem and to reduce the number of steps required to fix the problem.
- Use the troubleshooting flowchart to pinpoint the root cause of hardware malfunctions. The flowchart guides you to the appropriate section of this chapter that provides steps for correcting the malfunction.

Before beginning any troubleshooting procedure, check the following:

- Are supply items within their rated life?
- Does the configuration page reveal any configuration errors?

NOTE The customer is responsible for checking supplies and for using supplies that are in good condition.

Pre-troubleshooting checklist

The list below describes basic questions to ask the customer to help quickly define the problem(s)

Table 7-1. Pre-troubleshooting checklist

Environment	• Is the printer installed on a solid, level surface +/- 1 degree? • Is the power supply voltage within ± 10 volts of the specified power source? • Is the power supply plug inserted in the printer and the outlet? • Is the operating environment within the specified parameters, as listed in Chapter 1 of this manual? • Is the printer exposed to ammonia gas, such as that produced by diazo copiers or office cleaning materials? • Is the printer exposed to direct sunlight?
Media	• Does the customer use only supported media? • Is the media in good condition (no curls, folds, etc.)? • Is the media stored correctly and within environmental limits?
Input trays	• Is the amount of media in the tray within specifications? • Is the media set into the tray correctly? • Are the paper guides aligned with the paper? • Is the cassette properly installed in the printer?
Print cartridges	• Is each print cartridge properly installed?

Table 7-1. Pre-troubleshooting checklist (continued)

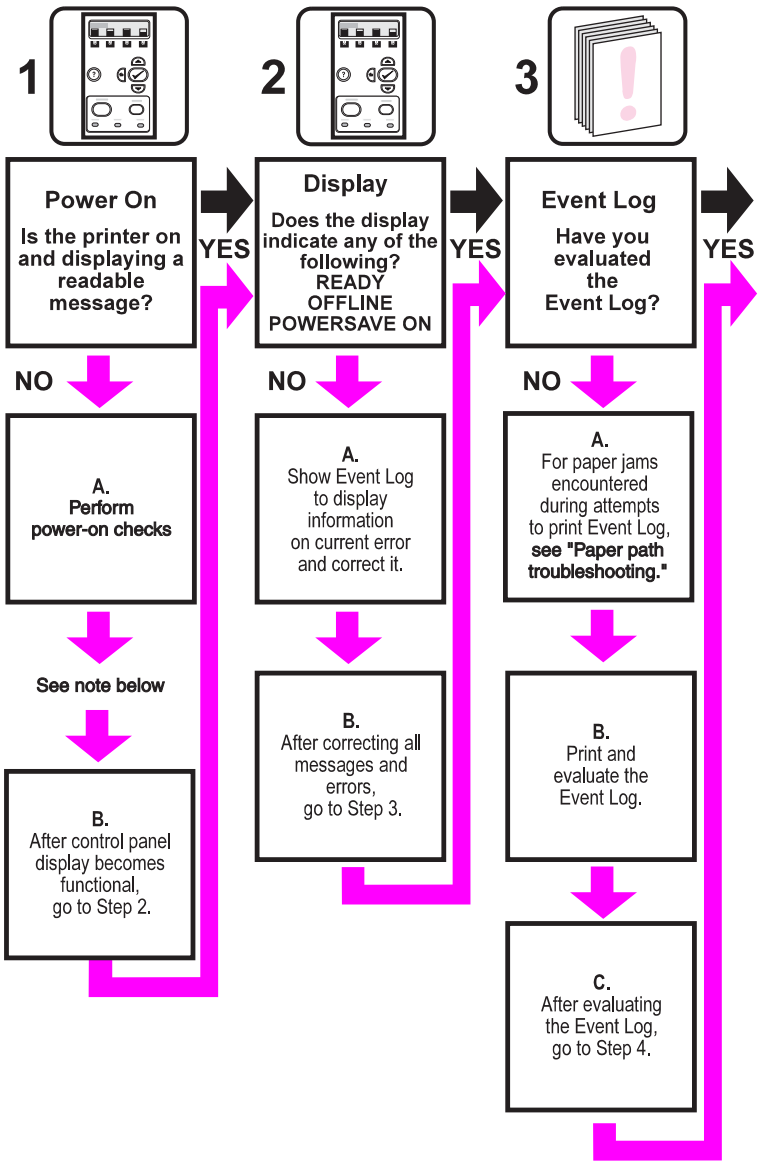
Transfer unit and fuser	• Are the transfer unit and fuser properly installed?
Covers	• Is the front door closed?
Condensation	• Does condensation occur following a temperature change (particularly in winter following cold storage)? If so, wipe affected parts dry or leave the printer on for 10 to 20 minutes. • Was a print cartridge opened soon after being moved from a cold to a warm room? If so, allow the print cartridge to sit at room temperature for one to two hours.
Miscellaneous	• Check for and remove any non-HP components (print cartridges, memory modules, and EIO cards) from the printer. • If hardware or software configuration has not changed or the problem is not associated with any specific software, contact the Customer Care Center (see Chapter 1). • Remove the printer from the network and ensure that the failure is associated with the printer before beginning troubleshooting. • For any print quality issues, calibrate the printer. See Calibrate Now for instructions.

Troubleshooting flowchart

The flowchart on these two pages highlights the general processes to quickly isolate and solve printer hardware problems.

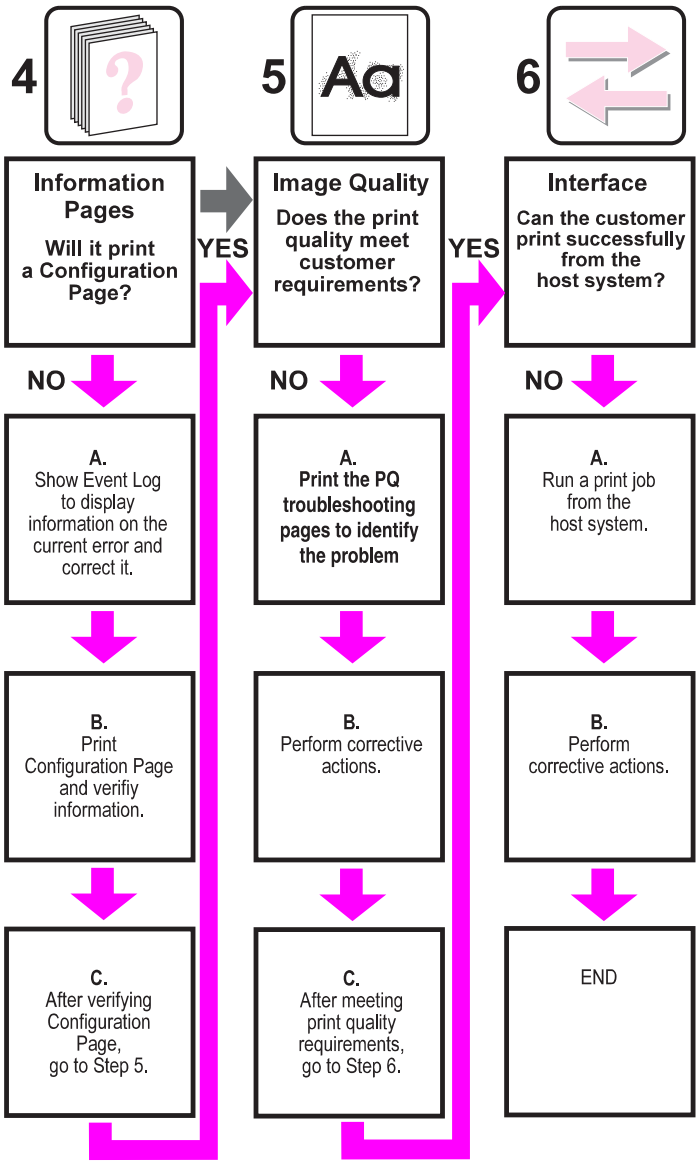
Each heading depicts a major troubleshooting step. A “yes” answer to the questions allows you to proceed to the next major step.

A “no” answer indicates that additional testing is needed. Proceed to the referenced section in this chapter, and follow the instructions. After completing this additional testing, proceed to the next major step in the troubleshooting flowchart.



NOTE

If the printer's display is blank, but the power-on checks pass, try printing an engine test page to determine whether the problem is with the engine/display or with the formatter. See Engine test page for instructions.



Troubleshooting power-on

When you turn on the printer, if it does not make any sound or if the control panel display is blank, check the following items:

1. Verify that the printer is plugged into an active electrical outlet with the correct voltage and not plugged into a surge protector or power strip.
2. Verify that the on/off switch is in the ON position.
3. Make sure the fan is running, indicating the system is operational.
4. Verify that the firmware DIMM (HP 3700 only) and the formatter are seated and operating properly.
5. Remove any HP Jetdirect or other devices, then try to turn the printer on again.

6. Make sure the control panel display is connected.
7. Check the two fuses on the power supply.
8. If necessary, replace the power supply.
9. If necessary, replace the DC controller.

Printer error troubleshooting

The following tables explain messages that might appear on the printer control panel. Alphabetical printer messages and their meanings are listed in the Table 7-2. Alphabetical printer messages table, and numerical printer messages are listed in the Table 7-3. Numerical printer messages table.

NOTE Not all messages are described in the tables; those messages that are not listed are self-explanatory.

Status messages

Status messages reflect the current state of the printer. They inform you of normal printer operation and require no interaction to clear them. They change as the state of the printer changes. Whenever the printer is ready, not busy, and has no pending warning messages, the status message **Ready** is displayed if the printer is online.

Warning messages

Warning messages inform you of data and print errors. These messages typically alternate with the **Ready** or **Status** messages and remain displayed until the ✔ button is pressed. If **CLEARABLE WARNINGS** is set to **Job status =** in the printer's configuration menu, these messages are cleared by the next print job.

Error messages

Error messages communicate that some action must be performed, such as adding paper or clearing a paper jam.

Some error messages are auto-continuable. If **AUTO CONTINUE=ON** is set in the menus, the printer will continue normal operation after displaying an auto-continuable error message for 10 seconds.

NOTE Any button pressed during the 10-second display of an auto-continuable error message will override the auto-continue feature, and the function of the button pressed will take precedence. For example, pressing the STOP button will cancel the job.

Critical error messages

Critical error messages inform you of a device failure. Some of these messages can be cleared by turning the printer off and then on. These messages are not affected by the auto continue setting. If a critical error persists, service is required.

The following table lists and describes control panel messages in alphabetical order.

Alphabetical printer messages

The following table lists the alphabetical control panel messages. The numerical messages are listed in the following table.

Table 7-2. Alphabetical printer messages

Message	Description	Action
Access Denied **MENUS LOCKED**	An attempt has been made to modify a menu item while the control panel security mechanism is enabled by the printer administrator. The message will disappear shortly, and the printer will return to the **Ready** or **BUSY** state.	Contact the printer administrator to change settings. Perform a cold reset to clear passwords.
Calibrating...<TEST>	The printer is calibrating.	No action necessary.
Calibrating... **Media sensor is not calibrated**	The printer is calibrating the media sensor.	No action necessary.
Canceling... X **JOB NAME**	The printer is in the process of canceling a job. The message will continue to be displayed while the job is stopped, the paper path flushed, and any remaining incoming data on the active data channel is received and discarded.	No action necessary.
Cannot duplex close rear bin alternates with **CANNOT DUPLEX**	HP 3700 only. The lower rear door (rear output bin) was opened during the automatic duplex job or the printer detected a paper size that could not go through the auto-duplexer.	Close the lower rear door (rear output bin) or load paper that is supported for autoduplexing. See Supported media weights and sizes, in Chapter 1.
Cannot duplex close rear bin	HP 3700dn and 3700dtn only. A 2-sided print job has been sent to the printer while the lower rear door (rear output bin) is open, or the face-up tray sensor is damaged.	1. Close the lower rear door (rear output bin). 2. Replace the face-up tray sensor lever. 3. Reseat the face-up tray sensor connector J711 or the sensor connection on the DC controller PCB. 4. Replace the face-up tray sensor (PS11). 5. Replace the DC controller PCB.
Checking paper path	The engine is turning its rollers to check for possible paper jams.	No action necessary.
Checking printer	The engine is doing an internal test.	No action necessary.
CHOSEN PERSONALITY NOT AVAILABLE alternates with **To continue press✔**	The printer encountered a request for a personality that did not exist in the printer. The job is aborted and no pages will be printed.	1. 1. Press ✔ to continue. 2. 2. Try a different driver.
CLOSE UPPER REAR DOOR	The upper rear door is open.	Close the upper rear door.
Cleaning...	The printer is in the process of cleaning.	No action necessary.
Clearing event log	This message is displayed while the event log is cleared. The printer will back up one screen to Service Menu upon completion of printing the page.	No action necessary.

Table 7-2. Alphabetical printer messages (continued)

Message	Description	Action
Clearing paper path	HP 3700 only. The printer detected jammed or misplaced paper when turned on and is attempting to eject jammed pages.	No action necessary.
Close front door.	The front door needs to be closed. Damaged door open detection switch actuator. The connector in the +24VB line is not properly connected. Defective front door detection switch. Defective DC controller PCB.	1. Close the front door. 2. Replace the door open detection switch actuator (the switch arm for the front cover and right frame). 3. Reseat the DC controller PCB connector J1010. 4. Replace the door open switch. 5. Replace the DC controller PCB.
Creating... **CLEANING PAGE**	The printer is generating a cleaning page. The printer returns to the Ready state when the cleaning page is finished printing.	1. Press Menu to enter the menus. 2. Load the cleaning page into Tray 1. 3. Select **PROCESS CLEANING PAGE**.
DATA RECEIVED alternates with **Ready**	The printer received data and is waiting for a form feed. When the printer receives another file, the message should disappear.	Press ✔ to continue.
Event Log Empty	**SHOW EVENT LOG** was selected from the control panel, and the event log is empty.	No action necessary.
FLASH DEVICE FAILURE alternates with **Ready** **To clear press ✔**	HP 3700 only. A device failure has occurred on the specified storage device.	1. Printing may continue for jobs that do not require the Flash DIMM. 2. To remove this message from the display, press ✔. 3. If the message persists, remove and re-install the Flash DIMM. 4. If the message persists, replace the Flash DIMM.
Flash disk X **initializing** alternates with **DO NOT POWER OFF**	HP 3700 only. The new flash DIMM installed in slot X is initializing.	No action necessary.
FLASH FILE **OPERATION FAILED** alternates with **Ready** **To clear press ✔**	HP 3700 only. The printer received a PJL file system command that attempted to perform an illogical operation (for example, to download a file to a non-existent directory).	1. Printing may continue. 2. To remove this message from the display, press ✔. 3. If the message reappears, there might be a problem with the software application.

Table 7-2. Alphabetical printer messages (continued)

Message	Description	Action
FLASH FILE **SYSTEM IS FULL** alternates with **Ready** **To clear press✔**	HP 3700 only. The printer received a PJL file system command that attempted to store something on the file system but was unsuccessful because the file system is full.	1. Use HP Web Jetadmin software to delete files from the Flash Memory and try again. 2. To remove this message from the display, press ✔. 3. See HP Web Jetadmin, Chapter 3.
FLASH IS **WRITE PROTECTED** alternates with **Ready** **To clear press✔**	HP 3700 only. The file system is protected and no new files can be written to it.	1. To enable writing to the Flash Memory, turn off write protection using HP Web Jetadmin. 2. To remove this message from the display, turn the printer off and then back on. See Chapter 3, HP Web Jetadmin
[F]]DEVICE **FAILURE** alternates with **To clear press ✔**	HP 3700 only. Device failure [FS] DEVICE can be either: **FLASH DEVICE** or **RAM DISK DEVICE**	To remove this message from the display, press ✔.
[FS] FILE **OPERATION FAILED** alternates with **To clear press ✔**	HP 3700 only. This message indicates a PJL file system command was received that attempted to perform an illogical operation (that is, download a file to a non-existent directory). [FS] DEVICE can be either: **FLASH DEVICE** or **RAM DISK DEVICE**	To remove this message from the display, press ✔.
[FS] FILE **SYSTEM IS FULL** alternates with **To clear press ✔**	HP 3700 only. This message indicates a PJL file system command was received that attempted to store something on a file system but was unsuccessful due to the file system being full. [FS] DEVICE can be either: **FLASH DEVICE** or **RAM DISK DEVICE**	To remove this message from the display, press ✔.
[FS] IS **filesys_is_write_protected_V1_line_2** alternates with **To clear press ✔.**	HP 3700 only. The device is write protected and no new files can be written to it. [FS] DEVICE can be either: **FLASH DEVICE** or **RAM DISK DEVICE**	1. To remove this message from the display, press ✔.
Genuine HP supplies installed	A new HP cartridge has been installed. The printer returns to the Ready state after approximately 10 seconds.	No action necessary.
GENUINE HP SUPPLIES **DESIGNED FOR <PROD>**	This genuine HP supply was not designed for this printer and is not supported. Print quality might be affected.	Replace this supply with a genuine HP supply designed for this printer.
Incorrect	Access to the menu is restricted.	Contact the network administrator.

Table 7-2. Alphabetical printer messages (continued)

Message	Description	Action
INCORRECT <COLOR> CARTRIDGE alternates with **For help press ?**	A color cartridge is installed in an incorrect slot or the cartridge is the wrong type, and the cover is closed, or either the memory controller PCB or the DC controller PCB are defective.	1. Press **?** for help. or Verify that the cartridge is installed into the correct slot (slots are color coded for each cartridge) and that it is properly seated. 2. Replace the memory controller PCB. 3. Replace the DC controller PCB.
Incorrect supplies **For status press ✔**	At least one supply item is incorrectly positioned in the printer and another supply item is missing, incorrectly placed, out, or low. (This message is displayed in the event log as 10.41.00).	Press ✔ and then press **?** for help. or See Ordering parts, in Chapter 8, for more information.
Initializing	This message is displayed when the printer is turned on, as soon as the individual tasks begin initialization.	No action necessary.
Initializing permanent storage	This message is displayed when the printer is turned on to show that permanent storage is being made ready for use.	No action necessary.
Install color cartridge alternates with **For help press ?**	The cartridge is not installed or not correctly installed in the printer, there is poor coupling to the cartridge poor, primary transfer bias contacts, or the high-voltage power supply PCB or the DC controller PCB are defective.	1. Press **?** for help. 2. Verify that the cartridge is installed into the correct slot (slots are color coded for each cartridge) and that it is properly seated. 3. Reseat the cartridge, making sure that the drum drive gears on the cartridge and printer are correctly coupled. 4. Check the printer primary transfer bias contacts to the transfer unit. Clean, if dirty. If the dirt does not come off or the contacts are damaged, replace the unit. 5. Replace the high-voltage power supply PCB. 6. Replace the DC controller PCB.

Table 7-2. Alphabetical printer messages (continued)

Message	Description	Action
INSTALL FUSER **For help press ?**	The fuser is either not installed or not correctly installed in the printer, the connector between the fuser and the printer is not connected properly, there is a break in either the main thermistor or the fuser heater, or the DC controller PCB is faulty.	1. Press **?** for help. 2. Make sure the fuser is correctly seated in its slot. See Fuser removal (in Chapter 6) for more information. 3. Reseat the fuser. Check the connector J5013 between the fuser and the printer. Replace it if damaged. 4. Turn the printer off and remove the fuser. Measure the resistance between the fuser connectors J5013LA-2 (MAINTH) and J5013LA-1 (GND). If it is not within the range of 330k to 50k ohms (at ambient temperature), replace the fuser. 5. Measure the resistance between the fuser connectors J5013L-2 (FSRH) and J5013L-1 (FSRN) with the fuser removed. If it is not within the range of 12 to 52 ohms (at ambient temperature), replace the fuser. 6. Replace the DC controller PCB.
INSTALL SUPPLIES **For status press ✔**	At least one supply item is missing or is not correctly seated in the printer and another supply item is missing, incorrectly placed, out, or low. Insert the supply item or make sure the installed supply item is fully seated.	Press ✔ and then press **?** for help. or Refer to http://www.hp.com/support/clj3550 or http://www.hp.com/support/clj3700.
INSTALL TRANSFER UNIT alternates with **For help press ?**	The transfer unit is either not installed or not correctly installed in the printer, is defective, the high-voltage power supply connection to the transfer unit is defective, or the DC controller PCB is defective.	1. Press **?** for help. 2. Ensure the transfer unit is fully seated, that the contracts are not damaged. See Transfer unit removal (in Chapter 6) for more information. 3. Replace the transfer unit. 4. Replace the high-voltage power supply PCB. 5. Replace the DC controller PCB.
LOAD TRAY X **<TYPE> <SIZE>** alternates with **To use another tray press ✔**	Tray X is either empty or configured for a type and size other than what is specified in the job.	Press **?** for help. or Press ✔ to print from another tray.
LOAD TRAY X **<TYPE> <SIZE>** alternates with **For help press ?**	Tray X is either empty or configured for a type and size other than specified in the job. No other tray is available.	Press **?** for help.

Table 7-2. Alphabetical printer messages (continued)

Message	Description	Action
Loading **program X** alternates with **DO NOT POWER OFF**	HP 3700 only. Programs and fonts can be stored on the printer file system and are loaded into RAM when the printer is turned on. The number X specifies a sequence number indicating the current program being loaded.	No action necessary.
MANUALLY FEED **OUTPUT STACK** alternates with **Then press ✔ to** **print second sides**	The first side of a manual 2-sided print job has been printed and the printer is waiting for the output stack to be inserted for the second side to be printed.	Take the output stack out of the output bin and reinsert it in Tray 1 to print the second side of the 2-sided print job.
If no paper is in the manual feed tray: **MANUALLY FEED** **<TYPE> <SIZE>** alternates with **To continue press ✔**	A job sent requires a specific paper type and size that is not currently available.	Press ✔ to print from the tray. or Press **?** for help.
MANUALLY FEED **<TYPE> <SIZE>** alternates with **For help press ?**	Tray 1 is empty and no other tray is available. MANUAL FEED was set to ON in the control panel.	Press **?** for help. Turn MANUAL FEED off in the control panel.
MANUALLY FEED **<TYPE> <SIZE>** alternates with **To use another** **tray press ✔.**	There is no paper in the tray and a print job sent requires a specific paper type and size that is not currently available through Tray 1.	Press ✔ to print from another tray. or Press **?** for help.
Moving solenoid alternates with **To exit press ✔** **STOP key**	The printer is executing a Component Test and the component selected is Solenoid.	No action necessary.
Moving solenoid **and motor** alternates with **To exit press✔** **STOP key**	The printer is executing a Component Test and the components selected are Solenoid and Motor.	No action necessary.

Table 7-2. Alphabetical printer messages (continued)

Message	Description	Action
No job to cancel	This message is displayed when the user presses the **Stop** key but there is no active job or buffered data to cancel. This message is displayed for two seconds before the printer is returned to the READY state.	No action necessary.
NON HP SUPPLY **DETECTED** alternates with **For help press ?**	Not made by HP. This message is displayed until an HP supply is installed or ✔ is pressed. (This message is displayed in the event log as 10.30.xx).	If you believe you purchased an HP supply, please call the HP fraud hotline at 1-877-219-3183. Service or repairs required as a result of using non-HP supplies is not covered under HP warranty. To continue printing, press ✔. The first pending job will be cancelled. If you believe that you installed a genuine HP toner cartridge, wait approximately one minute to ensure the message does not change to another error message (such as 10.92.XX). If another message appears, troubleshoot this second message. If the message does not change within one minute, perform the following steps: 1. If this toner cartridge was previously used in another printer and is low on toner, it will not be recognized as an HP supply, this is the correct message. You can use the cartridge until the toner is gone, or replace the cartridge to remove the message. To continue printing, press ✔. 2. If this toner cartridge is a new, genuine HP supply, test the cartridge using Diagnostics mode on the printer control panel and select Disable Cartridge Check. If the message follows the cartridge, replace the cartridge and return it to HP.
NON HP SUPPLY **IN USE** alternates with **Ready**	The printer has detected that a non- HP supply is currently installed and ✔ (override) was pressed.	If you believe you purchased an HP supply, please call the HP fraud hotline at 1-877-219-3183. Service or repairs required as a result of using non-HP supplies is not covered under HP warranty.
ORDER <COLOR> **CARTRIDGE** alternates with **LESS THAN X PAGES** alternates with **Ready**	The identified print cartridge is nearing the end of its useful life. The printer is ready and will continue for the estimated number of pages indicated.	Order the identified print cartridge. Printing will continue until **REPLACE <COLOR> CARTRIDGE** is shown. **NOTE** Estimated pages remaining is based upon historical page coverage with this supply. See Ordering parts (in Chapter 8) for more information.

Table 7-2. Alphabetical printer messages (continued)

Message	Description	Action
ORDER FUSER KIT alternates with **LESS THAN X PAGES** alternates with **Ready** **For help press ?**	The fuser is near end of life. The printer is ready and will continue for the estimated number of pages indicated.	Order the fuser kit. Printing can continue until **REPLACE FUSER KIT** is shown. or Press **?** for help. See Ordering parts (in chapter 8) for more information.
Order Supplies alternates with **Ready**	More than one supply item is low.	1. Press ✔ to identify which supplies should be ordered or print a supplies status page. 2. Order the identified supplies. Printing can continue until **REPLACE SUPPLIES** is reached. or Press **?** for help. 3. See Ordering parts (in chapter 8) for more information.
ORDER TRANSFER KIT alternates with **LESS THAN X PAGES** alternates with **Ready** **For help press ?**	The number of pages remaining for the transfer unit has reached the low threshold, and the SUPPLIES LOW setting in SYSTEM SETUP is set to STOP.	Order the transfer kit. Printing can continue until REPLACE TRANSFER KIT is reached. Press **?** for help. See Ordering parts (in chapter 8) for more information.
Paused alternates with **To return to Ready** **press the STOP key**	The printer has paused.	Press the **Stop** key to resume printing.
Performing... **PAPER PATH TEST**	The printer is performing a Paper Path Test.	No action necessary.
Performing **upgrade**	A firmware upgrade is in process.	No action necessary. Do not turn off the printer.
Please wait	The printer is in the process of clearing data.	No action necessary.
Powersave on	The printer is in the PowerSave mode. Any button pressed or the receipt of data will clear PowerSave and execute the action.	Press any control panel button or the receipt of data will clear PowerSave.
Printing... **CONFIGURATION**	The printer is generating the configuration page. The printer will return to the online Ready state when the page is completed. No action necessary.	No action necessary.

Table 7-2. Alphabetical printer messages (continued)

Message	Description	Action
Printing... **DEMO PAGE**	The printer is generating the demo page. The printer will return to the online **Ready** state when the page is completed.	No action necessary.
Printing... **ENGINE TEST**	This message is displayed while the engine test page is being printed, initiated by pressing the engine test button on the DC controller PCB.	No action necessary.
Printing... **EVENT LOG**	The printer is generating the event log page. The printer will return to the online **Ready** state when the page is completed.	No action necessary.
Printing... **FILE DIRECTORY**	HP 3700 only. The printer is generating the mass storage directory page. The printer will return to the **Ready** state when the page is completed.	No action necessary.
Printing... **FONT LIST**	HP 3700 only. The printer is generating either the PCL or PS personality typeface list. The printer will return to the **Ready** state when the page is completed.	No action necessary.
Printing... **MENU MAP**	The printer is generating the printer menu map. The printer will return to the Ready state when the page is completed.	No action necessary.
Printing... **PQ troubleshooting**	The printer is generating the print quality troubleshooting pages. The printer will return to the **Ready** state when the pages are printed.	Follow the instructions on the printed pages.
Printing... **REGISTRATION PAGE**	The printer is generating the registration page. The printer will return to the **SET REGISTRATION** menu when the page is completed.	Follow the instructions on the printed pages.
PRINTING STOPPED **To continue press ✔**	This message is displayed when a Print/Stop Test is run and the time expires.	Press ✔ to continue printing.
Printing... **SUPPLIES STATUS**	The printer is generating the supplies status page. The printer will return to the online **Ready** state when the page is completed.	No action necessary.
Printing... **USAGE PAGE**	HP 3700 only. The printer is generating the usage page. The printer will return to the online Ready state when the page is completed.	No action necessary.
Processing...	This message precedes all other processing tasks, or appears when the printer receives non-printable data.	No action necessary.

Table 7-2. Alphabetical printer messages (continued)

Message	Description	Action
Processing... **INTERMITTENT MODE** alternates with **For help press ?**	The printer has experienced a period of heavy use. To maintain a supported operating temperature, the printer will print and pause in one-minute intervals.	No action necessary. To avoid intermittent mode in the future, reduce the amount of heavy use.
Processing... **<JOB NAME>**	The printer is currently processing a job but is not yet picking pages. When paper motion begins, this message will be replaced by a message that indicates which tray the job is being printed from.	No action necessary.
Processing... **<JOB NAME>** alternates with **from tray X**	The printer is actively processing a job from the designated tray.	No action necessary.
RAM DISK DEVICE **FAILURE** alternates with **Ready** **To clear press ✔**	HP 3700 only. A device failure has occurred on the specified storage device.	1. Printing may continue for jobs that do not require the RAM disk. 2. To remove this message from the display, press ✔.
RAM DISK X **Initializing** alternates with **DO NOT POWER OFF**	HP 3700 only. The new RAM disk installed in slot X is initializing.	No action necessary.
RAM DISK FILE **OPERATION FAILED** alternates with **Ready** **To clear press ✔**	HP 3700 only. The printer received a PJL file system command that attempted to perform an illogical operation (for example, to download a file to a non-existent directory).	1. Printing may continue. 2. To remove this message from the display, press ✔. 3. If the message reappears, there might be a problem with the software application.
RAM DISK FILE **SYSTEM IS FULL** alternates with **Ready** **To clear press ✔**	HP 3700 only. The printer received a PJL file system command that attempted to store something on the file system but was unsuccessful because the file system is full.	1. Use HP Web Jetadmin software to delete files from the RAM disk memory and try again. 2. To remove this message from the display, press ✔. See HP Web Jetadmin (in chapter 3) for more information.
RAM DISK IS **WRITE PROTECTED** alternates with **Ready** **To clear press ✔**	HP 3700 only. The file system is protected and no new files can be written to it.	1. To enable writing to the RAM disk memory, turn off write protection using HP Web Jetadmin. 2. To remove this message from the display, press ✔. See HP Web Jetadmin (in chapter 3) for more information.

Table 7-2. Alphabetical printer messages (continued)

Message	Description	Action
Ready **Diagnostics mode** alternates with **To exit press ✔** **STOP key**	The printer is online and ready for data. No status or device attendance messages are pending at the display.	No action necessary.
Ready	The printer is online and ready for data. No status or device attendance messages are pending at the display.	No action necessary.
Receiving **upgrade**	A firmware upgrade is in progress.	Do not turn the printer off until the printer returns to Ready.
RELOAD TRAY X **TRNSPRNCY <SIZE>** alternates with **Verify transparency** **meets specification**	The transparency currently loaded might not be supported.	**CAUTION** Use only transparencies specified for use with HP Color LaserJet printers. Noncompatible transparencies can damage the printer. See the *HP LaserJet Printer Family Print Media Specification Guide* 1. Remove all non-compatible transparencies from Tray 1. 2. Load compatible transparencies in Tray 1.
REPLACE <COLOR> **CARTRIDGE** alternates with **For help press ?**	The identified print cartridge has reached the end of life. Printing will not continue until the cartridge is replaced.	Press **?** for help. or See Transfer unit removal (in chapter 6) and Ordering parts (in chapter 8) for more information. Or, if the cartridge is new: 1. Replace the memory controller PCB 2. Replace the DC controller PCB.
REPLACE <COLOR> **CARTRIDGE** alternates with **To continue press ✔**	The identified print cartridge is nearing the end of its useful life and the SUPPLIES LOW setting in SYSTEM SETUP is set to STOP. To override, press ✔. Or, if the cartridge is new, the new cartridge is defective, the memory controller PCB or the DC controller PCB is defective.	1. Order the identified print cartridge. 2. Press ✔ to continue. or Press **?** for help. See Ordering parts (in chapter 8) for more information.
REPLACE FUSER KIT **For help press ?**	The fuser kit is at end of life.	Press **?** for help. or See Fuser removal (in chapter 6) and Ordering parts (in chapter 8) for more information.

Table 7-2. Alphabetical printer messages (continued)

Message	Description	Action
REPLACE FUSER KIT alternates with **To continue press ✔**	The fuser is near end of life and the SUPPLIES LOW setting in SYSTEM SETUP is set to STOP.	1. Order the fuser kit. 2. Press ✔ to continue printing. Printing can continue until REPLACE FUSER KIT is reached. or Press for help. See Ordering parts (in chapter 8) for more information.
REPLACE SUPPLIES alternates with **For status press ✔**	At least one supply item is out and needs to be replaced and another supply item is either out or low.	1. Press ✔ to identify which supplies should be replaced. 2. Press **?** for help. or Refer to the appropriate section Removal and replacement strategy in chapter 6 or Ordering parts (in chapter 8) for more information.
REPLACE SUPPLIES alternates with **To continue press ✔**	More than one supply item is low, and the SUPPLIES LOW setting in SYSTEM SETUP is set to STOP.	1. Press ✔ to identify which supplies should be ordered. 2. Order the identified supplies. 3. Press ✔ to continue printing. See Ordering parts (in chapter 8) for more information.
REPLACE TRANSFER KIT **For help press ?**	The transfer unit is at end of life.	Press **?** for help. See Transfer unit removal and Ordering parts (in chapter 8) for more information. Or, if transfer unit is new: 1. Reset the transfer kit page count in the CONFIGURE DEVICE/ RESETS menu 2. Defective waste toner full detection lens. Check the waste toner full detection lens. Clean, if dirty. Replace the lens if damaged. 3. The connectors in the waste toner full detection signal line are not properly connected. Reseat the waste toner full sensor connector J801 and DC controller PCB connector J1009. 4. Defective waste toner full sensor. Replace the waste toner full sensor. 5. Defective DC controller PCB. Replace the DC controller PCB.
REPLACE TRANSFER KIT alternates with **To continue press ✔**	The transfer unit is near end of life and the **SUPPLIES LOW** setting in **SYSTEM SETUP** is set to **STOP**.	1. Order the transfer kit. 2. Press ✔ to continue printing. See Ordering parts, in chapter 8, for more information.

Table 7-2. Alphabetical printer messages (continued)

Message	Description	Action
Request accepted **please wait**	The printer has accepted a request to print an internal page, but the current job must finish printing before the internal page will print.	No action necessary.
Resend **upgrade**	The firmware upgrade was not completed successfully.	Attempt upgrade again. For the HP 3700 printer, you might need to use the parallel port to send the upgrade file.
Restoring **factory settings**	The printer is restoring factory settings.	No action necessary.
Restoring...	The printer is restoring settings.	No action necessary.
Resetting Kit Count	**YES** was selected in the **RESET SUPPLIES** menu to reset the counts for any of the supplies that cannot be detected as new.	No action necessary.
Rotating <COLOR> **motor** alternates with **To exit press ✔** **STOP key**	A component test is in progress; the component selected is **<color> Cartridge motor**.	Press **Stop** when ready to stop this test.
Rotating motor alternates with **To exit press ✔** **STOP key**	The printer is executing a Component. Test and the component selected is **motor**	Press Stop when ready to stop this test.
Setting saved	A menu selection has been saved.	No action necessary.
TRAY X **<TYPE> <SIZE>** alternates with **To change size or** **type press ✔**	The printer is reporting the current configuration of tray X.	Press ✔ to change size or type.

Table 7-2. Alphabetical printer messages (continued)

Message	Description	Action
TRAY X OPEN OR EMPTY	The specified tray is open or is empty and needs to be filled. If the tray is not open or has paper installed, a problem may exist with the sensor, sensor connections, or the DC controller PCB.	If the tray has paper or is closed and the paper guides are in the correct position, perform the following action for the specified tray: **Tray 1** (multipurpose tray) 1. Damaged Tray 1 paper sensor lever, replace the lever. 2. The connectors in the Tray 1 paper detection signal line are not connected properly. Reseat the paper sensor connector J701, relay connector J5028, and DC controller PCB connector J1006. 3. Defective Tray 1 paper sensor. Replace the Tray 1 paper sensor. 4. Defective DC controller PCB. Replace the DC controller PCB. **Tray 2** (cassette tray) 1. Damaged Tray 2 paper sensor lever, replace the lever. 2. The connectors in the Tray 2 paper detection signal line are not connected properly. Reseat the Tray 2 paper sensor connector J702, relay connector J5028, and DC controller PCB connector J1006. 3. Defective Tray 2 paper sensor. Replace the paper pickup sensor. 4. Defective DC controller PCB. Replace the DC controller PCB. **Tray 3** (500-sheet feeder) 1. Damaged paper 500-sheet feeder paper sensor lever. Replace the paper feeder paper sensor lever. 2. The connectors in the 500-sheet paper feeder paper detection signal line are not connected properly. Reseat the paper feeder paper sensor connector J703 and paper feeder PCB connector J4004. 3. Defective 500-sheet paper feeder paper sensor. Replace the paper feeder paper sensor. 4. Defective 500-sheet paper feeder PCB. Action: Replace the paper feeder PCB. 5. Defective DC controller PCB. Replace the DC controller PCB.

Table 7-2. Alphabetical printer messages (continued)

Message	Description	Action
UNAUTHORIZED SUPPLY **IN USE** alternates with **Ready**	The printer has detected that a non-HP supply is currently installed and press ✔ (override) was pressed.	If you believe you purchased an HP supply, please call the HP fraud hotline at 1-877-219-3183. Service or repairs required as a result of using non-HP supplies are not covered under HP warranty.
UNSUPPORTED DATA ON **<FS> DIMM IN SLOT X** alternates with **To clear press ✔**	HP 3700 only. The data on the DIMM is not supported (although the DIMM itself may be supported).	Press ✔ to clear this message. or Press STOP to continue printing.
USE TRAY X **<TYPE> <SIZE>**	The printer is offering a selection of alternate paper to use for the print job.	1. If desired, use ▼ and ▲ to highlight a different size or type, and then press ✔ to select the size or type. 2. Press ⮌ to return to the previous size or type.
Wait for printer **to reinitialize**	Settings have been changed before the printer automatically restarts, or external device modes have changed.	No action necessary.

NOTE Not all messages are described in the tables; those messages that are not listed are self-explanatory.

Numerical printer messages

The following table lists the numerical control panel messages. The alphabetical messages are listed in the previous table.

Table 7-3. Numerical printer messages

Message	Description	Action
10.XX.YY SUPPLY **MEMORY ERROR** alternates with **For help press ?** **NOTE** The printer cannot always determine whether the error is the cartridge or the printer reader/writer	The printer cannot read or write to at least one print cartridge memory tag, or at least one memory tag is missing. **XX Description:** 00 - Memory error on supply 10 - Missing memory on supply **YY Description:** 00 - Black print cartridge 01 - Cyan print cartridge 02 - Magenta print cartridge 03 - Yellow print cartridge	1. Open and close the front door. 2. Ensure the cartridges are fully seated. 3. Swap the cartridge for the color indicated with a cartridge in another slot to determine whether the error follows the cartridge or stays with the slot. If the error follows the cartridge, replace that cartridge, otherwise, continue with step 4. 4. Check the memory controller PCB contacts to the memory tag. Clean if dirty. 5. Reseat the memory controller PCB connector J201 and DC controller PCB connector J1025. 6. Defective memory controller PCB, replace the memory controller PCB. 7. Defective DC controller PCB, replace the DC controller PCB
10.32.00 **UNAUTHORIZED SUPPLY** alternates with **For help press ?**	A new supply has been installed that is not made by HP. This message is displayed until an HP supply is installed or ✔ is pressed.	If you believe you purchased an HP supply, please call the HP fraud hotline at 1-877-219-3183. Service or repairs required as a result of using non-HP supplies are not covered under HP warranty. To continue printing, press ✔. The first pending print job will be cancelled.
10.92.YY CARTRIDGES **NOT ENGAGED** alternates with **Open and close** **front door.**	The cartridges are not engaged, poor primary transfer bias contacts, defective high-voltage supply, or control signal errors. **YY Description:** 00 - Black print cartridge 01 - Cyan print cartridge 02 - Magenta print cartridge 03 - Yellow print cartridge	1. Open and close the front door to fully engage the cartridges. 2. Reseat the print cartridges. 3. Check the printer primary transfer bias contacts to the transfer unit. Clean if dirty. If the contracts cannot be cleaned or they are damaged, replace the transfer unit. 4. Replace the high-voltage power supply PCB. 5. Replace the DC controller PCB.

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
	Four color slippage bands occur across the ITB belt because the right side cleaning blade shipping tab is out of position. This can cause interference with the yellow cartridge, where the cleaning blade shipping tab contacts the OPC white plastic hub and the OPC ground contact adjacent to the OPC hub. This interference between the cleaning blade and the yellow cartridge prevents the proper engagement between the ITB drive roller coupler and the engine ITB resulting in non-engagement of the ITB drive roller coupler to the engine which can produce separate color toner slippage bands across the ITB belt surface beneath each toner cartridge. You may also hear a thumping noise and experience a vibration in the upper right portion of the front cover. Due to the interference, a paper jam 13.xx.xx error (13.20.00 on an HP 3700 with a corresponding 13.05.00 paper jam in the event log, or a 13.50.00 message for an HP 3500/3550 printer).	Perform the following steps to fix the problem: 1. Right side cleaning tab is out of position. (This tab is located on the right side of the ITB, about in the middle of the ITB assembly .) Push it back into position. If it will not move back into position, replace the ITB assembly. 2. Check the yellow cartridge for damage (compare it to the magenta cartridge) and replace it if necessary. 3. Verify that the cleaning blade left-hand tab lock lever is in the forward position. 4. Verify that the ITB assembly shipping locks have been removed. Shipping locks are located at the bottom (toward the door hinge end) of the ITB assembly on the left and right side.

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
	Error occurs at power up and can be caused by: • Cartridges not seated correctly. • Damaged cartridge shutter arm. • Broken ITB coupling lever on the front door (front door engaging tab). • Broken cartridge alignment knob. • Left rail guide out of place or missing. • Left arm drum lock is broken. • ITB gears are not aligned.	Perform the following steps: 1. Open the door and verify the toner cartridges are seated properly. Remove and reinstall the cartridges. 2. Close the door slowly and look inside to see if the toner shutters open properly while the door is closing. If they are sticking, inspect the cartridges for any damage to the wire arm or shutter. Replace the cartridge if it sticks for more than 10 seconds. 3. If the cartridges look OK, go through the diagnostic Disable Cartridge check and change toner cartridges to see if the problem follows the cartridge or if it stays with the location. • Select the ✔. • Move down through the menu and highlight Diagnostics. • Select the ✔. • Move down through the menu and highlight Disable Cartridge check. • Select the ✔. • Remove the cartridge that is the issue. To determine which cartridge is the issue, look at the last two digits of the 10.92.XX error code: 00 = black, 01 = cyan, 02 = magenta, 03 = yellow. • Place the cartridge with the issue in another color slot, and put the good cartridge in the trouble cartridge slot. • Close the door. If the 10.92.XX error is still present, see if it is still the same cartridge. (If the black cartridge was moved to the yellow spot, did the error message change from 10.92.00 to 10.92.03), or did the error remain a 10.92.00. If the error followed the cartridge, replace the cartridge, but if it stayed the same, the printer may have a broken cartridge alignment knob and should be replaced.

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
		1. Check if the left rail guide is in place. If it is not in place, replace it (part number: RC1-1642-000CN. 2. If the left guide is out of place and is put back in place, ensure the left arm guide is working properly (slides in the guide rail). 3. If the Left Guide rail has been replaced, check the left arm drum lock. If the part is broken, it will be in the down position and the cartridge can not be inserted. The black cartridge can be inserted if the part is not broken and working. 4. Reseat the ITB. Ensure the shipping locks are removed if the printer is a new set-up, and that the levers are down. If the levers are up, check the yellow toner cartridge for any damage. If either the yellow cartridge or the ITB are damaged, replace them. Measure the gap between the ITB and the metal bracket at the bottom end (where the ITB makes contact with the yellow cartridge, below the recycling instruction label). If the gap is about 1 to 2 mm (0.4 to 0.08 inches) then the ITB is in the correct position. If the gap is 5 to 6 mm (0.2 to 0.23 inches) then the ITB is alienated and in mono printing mode. The wide gap can cause the 10.92.00 error to occur.
13.XX.YY FUSER JAM **LOWER REAR DOOR** alternates with **For help press ?**	There is a jam inside the lower rear door (rear output bin) behind the fuser.	If the printer is unable to clear the jam automatically, see Paper path troubleshooting, later in this chapter. or Press **?** for help. See Paper path troubleshooting later in this chapter for more paper jam troubleshooting.
13.XX.YY JAM INSIDE **FRONT DOOR** alternates with **For help press ?**	There is a jam inside the front door.	Press **?** for help. or See Paper path troubleshootinglater in this chapter. **NOTE** If Jam Recovery is set to OFF some pages will not be reprinted. Re-send the missing pages.

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
13.90.00 JAM INSIDE **FRONT DOOR** alternates with **REMOVE INCOMPATIBLE** **TRANSPARENCIES**	There is a jam inside the front door caused by incompatible transparencies.	Press **?** for help. or See Paper path troubleshooting, later in this chapter for more information. CAUTION: Use only transparencies specified for use with HP Color LaserJet printers. Noncompatible transparencies can damage the printer. See the *HP LaserJet Printer Family Print Media Specification Guide*. 1. Remove all non-compatible transparencies from Tray 1. 2. Load compatible transparencies in Tray 1.
13.XX.YY JAM **REMOVE TRAY 2** alternates with **For help press ?**	HP 3700 only. There is a jam in the duplex path or the paper access plate in the duplex area needs to be closed.	Press **?** for help. Remove Tray 2 then clear the paper jam in the duplex path or close the paper access plate in the duplex area. See Paper path troubleshooting, later in this chapter. **NOTE** If Jam Recovery is set to OFF some pages will not be reprinted. Re-send the missing pages.
13.XX.YY JAM INSIDE **LOWER REAR DOOR** alternates with **Clear jam then press ✔**	A page is jammed in the lower rear door (rear output bin).	Press **?** for help. See Paper path troubleshooting, later in this chapter.
13.XX.YY JAM INSIDE **UPPER REAR DOOR** alternates with **Clear jam then press ✔**	There is a jam inside the upper rear door, the upper rear door was opened during printing, or the door has been left open and a print job was sent to the printer.	Close the upper rear door. Press **?** for help. or See Paper path troubleshooting, later in this chapter.
13.XX.YY JAM IN **TRAY 1** alternates with **For help press ?** **Clear jam then press ✔**	A page is jammed in the multipurpose tray.	Press **?** for help. or See Paper path troubleshooting, later in this chapter. **NOTE** If Jam Recovery is set to OFF some pages will not be reprinted. Re-send the missing pages.

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
13.XX.YY JAM IN **TRAY X** alternates with **For help press ?** **Clear jam then press ✔**	A page is jammed in tray X.	Press **?** for help. or See Paper path troubleshooting, later in this chapter. **NOTE** If Jam Recovery is set to OFF some pages will not be reprinted. Re-send the missing pages.
20 INSUFFICIENT **MEMORY** alternates with **For help press ?** **To continue press ✔**	The printer has received more data from the computer than fits in available memory.	1. Press ✔ to continue printing. **NOTE** A loss of data will occur. 2. Reduce the complexity of the print job to avoid this error. 3. HP 3700 only - Add additional memory to allow printing of more complex pages. 4. HP 3500/3550 only - on the printer driver, set Raster Compression on the Advanced tab to Maximum.
22 EIO X **BUFFER OVERFLOW** alternates with **To continue press ✔**	HP 3700 only when an EIO device is installed. The printer EIO card in slot X has overflowed its I/O buffer during a busy state.	Press ✔ to continue printing. **NOTE** A loss of data will occur.
22 PARALLEL I/O **BUFFER OVERFLOW** alternates with **To continue press ✔**	HP 3700 only. The printer's parallel buffer has overflowed during a busy state.	Press ✔ to continue printing. **NOTE** A loss of data will occur.
22 SERIAL I/O **BUFFER OVERFLOW** alternates with **To continue press ✔**	HP 3700 only when an EIO device is installed. The printer serial buffer has overflowed during a busy state.	Press ✔ to continue printing. **NOTE** A loss of data will occur.
22 USB I/O **BUFFER OVERFLOW** alternates with **To continue press ✔**	The printer's USB buffer has overflowed during a busy state.	Press ✔ to continue printing. **NOTE** A loss of data will occur.
40 BAD SERIAL **TRANSMISSION** alternates with **To continue press ✔**	HP 3700 only. A serial data error (parity, framing, or line overrun) has occurred while the printer was receiving data.	Press ✔ to continue printing. **NOTE** A loss of data will occur.

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
40 EIO X BAD **TRANSMISSION** alternates with **To continue press ✔**	HP 3700 only when an EIO device is installed. A connection with the card in the EIO slot has been abnormally broken.	Press ✔ to continue printing. **NOTE** A loss of data will occur.
41.3 UNEXPECTED **SIZE IN TRAY X** alternates with **LOAD TRAY X** **<TYPE> <SIZE>**	Paper is loaded that is longer or shorter in the feed direction than the size configured for the tray.	1. Load the paper as instructed. 2. Press ✔ to print. 3. If the incorrect size was selected, press STOP to cancel the job or press **?** for help. 4. If the incorrect tray was selected, press STOP to cancel the job. 5. Configure the trays correctly and resend the job. Ensure all trays are configured correctly.
41.5 UNEXPECTED **TYPE IN TRAY X** alternates with **LOAD TRAY X** **<TYPE> <SIZE>**	The printer senses a different paper type in the paper path than what is configured in the tray.	1. Load the paper as instructed. 2. Press ✔ to print. 3. If the incorrect type was selected, press STOP to cancel the job or press **?** for help. 4. Configure the trays correctly and resend the job. Ensure all trays are configured correctly.

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
41.X **PRINTER ERROR** alternates with **To continue press ✔**	A printer error has occurred. **X Description:** 2 - Beam detect misprint error. 3 - Media feed error (size) 5 - Media feed error (type) 7 - Feed delay error	1. Press ✔ to continue or press **?** for more information. 2. If the message persists after exiting help, turn the printer off and then back on. 3. Perform the following actions for the indicated errors: 41.2 error - laser/scanner error, perform the following steps: 1. Connectors in laser/scanner control line are not connected properly. Reseat the DC controller PCB connectors: J1022, J1026, J1027 and the laser/scanner unit connectors: J101A, J101B, J5001A, J5001B, J5020). 2. Bad laser/scanner unit: replace the laser/scanner. 3. Bad DC controller PCB; replace the DC controller PCB. 41.3 error - occurs when the correct media size is loaded in the designated paper tray, but the printer mis-reads it as the incorrect size, perform the following steps: 1. Registration shutter does not move smoothly and should be reseated; or, shutter is damaged and should be replaced. 2. The DC controller PCB is defective. Replace the DC controller PCB. 41.5 error - occurs when the correct media type is loaded in the designated tray but the printer mis-reads it as the incorrect type, perform the following steps: 1. Defective media sensor, replace the sensor. 2. Defective DC controller PCB, replace the PCB.

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
		41.7 error - occurs when a page is jammed in the paper path. See Paper path troubleshooting, later in this chapter. If the error reoccurs, perform the following steps: 1. Check that your paper meets HP specifications, see the Media Specification guide at http://www.hp.com 2. Check the separation pads and replace if worn. Replacement part numbers: • Tray 1: RC1-0939-000CN • Tray 2: RC1-0954-000CN • Tray 3: RC1-0827-000CN 3. Check the pick-up rollers. The Tray 2/3 pick roller may be broken or out of place. Verify that it is properly positioned. Pick-up rollers wear with age and rough media. Replacement part numbers: • Tray 1: RC1-1535-000CN • Tray 2/3: RC1-0731000CN

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
49.XXXX **PRINTER ERROR** alternates with **To continue** **turn off then on**	A critical firmware error has occurred that caused the processor on the formatter to abort operation. This type of error can be caused by invalid print commands, corrupt data, or invalid operations. In some cases, electrical noise in the cable can corrupt data during transmission to the printer. Other causes include poor quality parallel cables, poor connections, or home-grown applications. On rare occasions, the formatter is at fault, which is usually indicated by a 79 Service Error.	1. Press STOP to clear the print job from the printer memory. 2. Turn the printer off and then back on. 3. Try printing a job from a different software application. If the job prints, go back to the first application and try printing a different file. If the message appears only with a certain software application or print job, contact the software vendor for assistance. 4. HP 3700 only - Try a different driver 5. If the message persists with different software applications and print jobs, disconnect all cables to the printer that connect it to the network or PC. 6. Turn the printer off. 7. HP 3700 only - Remove all memory DIMMs or third-party DIMMs from the printer. (Do not remove the firmware DIMM in the lower slot J1.) 8. For the HP 3700, remove the EIO card from the printer. 9. Turn the printer on. 10. HP 3700 only - If the error no longer exists, install each DIMM and EIO device one at a time, making sure to turn the printer off and back on as you install each device. 11. HP 3700 only - Replace a DIMM or EIO device if you determine that it causes the error. 12. HP 3700 only - Remember to reconnect all cables that connect the printer to the network or computer. 13. HP 3700 only - If the error persists, replace the firmware DIMM. 14. Replace the formatter and calibrate the printer.

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
50.X FUSER ERROR alternates with **For help press ?**	A fuser error has occurred. **X Description** 1 - low fuser temperature 2 - fuser warmup service 3 - high fuser temperature 4 - faulty fuser 8 - low fuser temperature (subthermistor 9 - high fuser temperature (subthermistor)	**WARNING:** The fuser is HOT. Turn the printer off and allow it to cool for approximately 10 minutes before removing the fuser. 50.1 error - Fuser failure (Abnormally Low Temperature Main Thermistor), perform the following steps: 1. The connector between the fuser and the printer is not connected properly. Reseat the fuser. Check the connector J5013 between the fuser and the printer. Replace it if damaged. 2. Break in the main thermistor. Turn the printer off and remove the fuser. Measure the resistance between the fuser connectors J5013LA-2 (MAINTH) and J5013LA-1 (GND). If it is not within the rage of 330k ohms to 50k ohms (at ambient temperature), replace the fuser. 3. Faulty DC controller PCB. Replace the DC controller PCB. 50.2 error - Fuser Failure (Abnormal Warm-up). Perform the following steps: 1. The connector between the fuser and the printer is not connected properly. Reseat the fuser. Check the connector J5013 between the fuser and the printer. Replace it if damaged. 2. Break in the main thermistor. Turn the printer off and remove the fuser. Measure the resistance between the fuser connectors J5013LA-2 (MAINTH) and J5013LA-1 (GND). If it is not within the rage of 330k ohms to 50k ohms (at ambient temperature), replace the fuser. 3. Break in the fuser heater. Measure the resistance between the fuser connectors J5013L-2 (FSRH) and J5013L-1 (FSRN) with the fuser removed. If it is not within the rage of 12 ohms to 52 ohms (at ambient temperature), replace the fuser film unit. 4. Faulty DC controller. PCB Replace the DC controller PCB

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
50.X FUSER ERROR		50.3 error - Fuser Failure (Abnormally High Temperature Main Thermistor) 1. The connector between the fuser and the printer is not connected properly. Reseat the fuser. Check the connector J5013 between the fuser and the printer. Replace it if damaged. 2. Short in the main thermistor. Turn the printer off and remove the fuser. Measure the resistance between the fuser connectors J5013LA-2 (MAINTH) and J5013LA-1 (GND). If it is in the rage of 330k ohms to 50k ohms (at ambient temperature), replace the fuser. 3. Faulty DC controller PCB. Replace the DC controller PCB. 50.4 error - 1. Faulty fuser power supply PCB, replace the low-voltage power supply PCB. 2. Faulty DC controller PCB, replace the DC controller PCB. 3. For the following errors, perform the indicated action. 50.8 error - Fuser Failure (Abnormally Low Temperature Sub Thermistor) 1. The connector between the fuser and the printer is not connected properly. Reseat the fuser. Check the connector J5013 between the fuser and the printer. Replace it if damaged. 2. Break in the sub thermistor. Turn the printer off and remove the fuser. Measure the resistance between the fuser connectors J5013LA-4 (SUBTH) and J5013LA-3 (+3.3V). If it reads 600 ohms or below (at ambient temperature), replace the fuser. 3. Faulty DC controller PCB, replace the DC controller PCB.

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
50.X FUSER ERROR*continued*		50.9 error - Fuser Failure (Abnormally High Temperature Sub Thermistor) 1. The connector between the fuser and the printer is not connected properly. Reseat the fuser. Check the connector J5013 between the fuser and the printer. Replace it if damaged. 2. Short in the sub thermistor. Turn the printer off and remove the fuser. Measure the resistance between the fuser connectors J5013LA-4 (SUBTH) and J5013LA-3 (+3.3V). If it reads 600 ohms or below (at ambient temperature), replace the fuser. 3. Faulty DC controller PCB, replace the DC controller PCB.
51.XY. **PRINTER ERROR** alternates with **To continue** **turn off then on**	A laser/scanner error has occurred **X Description:** 1 - beam detect error 2 - laser error **Y Description:** 0 - no color K - black C - cyan M - magenta Y - yellow	1. Press ✔ to continue. 2. If the message persists, turn the printer off and then back on. 3. The connectors in the laser/scanner control line are not connected properly. Reseat the DC controller PCB connectors (J1022, J1026, J1027) and the laser/scanner unit connectors (J101A, J101B, J5001A, J5001B, J5020). 4. Faulty laser/scanner unit, replace the laser/scanner unit. 5. Faulty DC controller PCB, replace the DC controller PCB.
52.XY **PRINTER ERROR** alternates with **To continue** **turn off then on**	A laser/scanner motor failure has occurred **X Description:** 1 - scanner error 2 - scanner startup error 3 - scanner rotation error **Y Description:** 0 - no color K - black C - cyan M - magenta Y - yellow	1. Press ✔ to continue. 2. If the message persists, turn the printer off and then back on. 3. The connectors in the laser/scanner control line are not connected properly. Reseat the DC controller PCB connectors (J1022, J1026, J1027) and the laser/scanner connectors (J101A, J101B, J5001A, J5001B, J5020). 4. Faulty laser/scanner, replace the laser/scanner. 5. Faulty DC controller PCB, replace the DC controller PCB.

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
53.XY.ZZ CHECK **DIMM A Bank B** alternates with **Press STOP to continue**	HP 3700 only An error occurred in printer memory. Values of A and ZZ are: **A Device Location:** 1 - DIMM Slot 1 (bottom slot) 2 - DIMM Slot 2 3 - DIMM Slot 3 4 - DIMM Slot 4 **ZZ Error Number:** 00 - DIMM unsupported 01 - DIMM SPD failure (unrecognized memory) 03 - DIMM error HP 3500/3550 & HP 3700 **53.10.03 Memory error**	1. Press STOP. See Installing memory and font DIMMs in chapter 3 for DIMM installation information. 2. Check the ZZ error number for the specific DIMM, then: - Reseat the DIMM. - Try the DIMM in another slot (except for the firmware DIMM in slot 1). - Make sure there are DIMMS installed. - Make sure the DIMMs are supported. - Try the DIMM in another printer. **53.10.03** HP 3500/3550 - Replace the formatter. HP 3700 - Perform the following steps: 1. Try the firmware DIMM in slot 1 in another printer. 2. Replace the formatter PCB.

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
54.XX PRINTER **ERROR**	A printer command error has occurred. **NOTE** Some messages are displayed in the event log and some are displayed on both the control panel and in the event log, as identified below. **XX Description:** (Event log only messages) 01 - humidity environmental sensor error 05 - media sensor error 06 - Dmax density sensor out of range 11 - yellow density sensor error 12 - magenta density sensor error 13 - cyan density sensor error 14 - black density sensor error 15 - yellow CPR sensor error 16 - magenta CPR sensor error 17 - cyan CPR sensor error 18 - black CPR sensor error 20 - CPR sensor error (Control panel and event log message) 21 - yellow toner remaining sensor error 22 - magenta toner remaining sensor error 23 - cyan toner remaining sensor error 24 - black toner remaining sensor error 31 - Media sensor calibration failure (Event log only message) 32 - Media sensor is not calibrated (event log only)	1. Turn the printer off and then back on. 2. For the specific error messages, perform the indicated action: 54.01 - Environment Sensor Abnormality 1. The connector in the environment detection signal line is not properly connected. Reseat the DC controller PCB connector J1015. 2. Defective environment sensor, replace the environment sensor. 3. Defective DC controller PCB, replace the DC controller PCB. 54.05 - Media sensor error 1. Perform the steps for error 54.32, below. 2. Replace the media sensor. 3. Replace the DC controller. 54.06 54.11 54.12 54.13 **54.14** 1. Perform a Calibrate Now procedure. 2. The DC controller is defective, replace the DC controller PCB.

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
54.XX PRINTER **ERROR** *continued*	33.0X Scanner Beam Detect adjustment abnormality warning X is the scanner number: 1 = yellow/magenta scanner 2 = cyan/black scanner	**54.15** **54.16** **54.17** **54.18** **54.20** Color misregistration sensor abnormality 1. The connectors between the color misregistration sensor (CPR) and the DC controller PCB are not connected properly. Reseat the color misregistration sensor (CPR) connectors (J505A, J505B) and the DC controller PCB connector J1012. 2. Faulty color misregistration sensor (CPR). Replace the color misregistration sensor (CPR). 3. Faulty DC controller PCB. Replace the DC controller PCB.
		54.21 - 54.22 - 54.23 - 54.24 - Toner (Y/M/C/K) level sensor abnormality 1. The connectors in the toner level sensor control line are not connected properly. Reseat the memory controller PCB connector J201 and the DC controller PCB connector J1025. 2. Faulty memory controller PCB. Replace the memory controller PCB. 3. Faulty DC controller PCB. Replace the DC controller PCB.
	54.30.XX (event log only) HP3700 only Halftone calibration error. XX Description: 06 - magenta data out of range. 07 - yellow data out of range. 08 - black data out of range. 09 - cyan data out of range.	**54.30.XX** Perform a CALIBRATE NOW in the CONFIGURE DEVICE / PRINT QUALITY menu on the printer control panel.

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
		54.31 - Media Sensor Abnormality/ After-adjustment Value Out of Spec 1. Try to calibrate the media sensor again. 2. Dirty media sensor. Clean the media sensor. 3. The connectors in the media detection signal line are not properly connected. Reseat the media sensor connector J601, relay connector J5026, and DC controller PCB connector J1008. 4. Defective media sensor. Replace the media sensor. 5. Defective DC controller PCB. Replace the DC controller PCB.
54.XX PRINTER **ERROR** *continued*	for 54.32 error: The image density adjustment value, color misregistration adjustment value, and PWM adjustment value (see note below) are stored in the EEPROM (NVRAM) of the formatter. Whenever a formatter or laser/scanner unit is replaced, you must calibrate the printer to update the values. a. Image density adjustment (on formatter replacement) b. Color misregistration adjustment (on formatter replacement) c. PWM adjustment (on both formatter and laser/scanner unit replacement) **NOTE** The PWM adjustment value enables reproduction of an image in the best tone. The formatter determines the value based on the amount of laser light received from the printer engine.	54.32 - Electrical Adjustment When the media sensor is replaced, the light intensity of the sensor must be adjusted. Follow the procedure below to adjust the light intensity. 1. Turn the printer OFF. 2. Open the front door. 3. While pressing down the engine test print switch, turn the printer ON. 4. Close the front door. 5. Load paper into Tray 1 (use plain white paper for test printing). 6. As the printer goes into READY period, press the engine test print switch and test print. 7. One sheet of paper will be fed into the printer from Tray 1 and will be delivered to the face-down delivery tray. 54.33 - 1. Defective laser/scanner. Replace the laser/scanner unit. 2. Defective DC controller PCB. Replace the DC controller PCB.

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
55.X **PRINTER ERROR** alternates with **To continue** **turn off then on**	The DC controller is not communicating with the formatter. The problem could be caused by a timing error or an intermittent connection. (Event log only) 55.01.00 - DC controller memory error. 55.5 - HP 3700 only - A job was sent while Resend Upgrade is on the display.	1. Press ✔ to continue. 2. If the message persists, turn the printer off and then back on. 3. Reseat or replace the connectors between the DC controller and the formatter. 4. If the problem persists, replace the DC controller PCB. 5. Replace the formatter. For the following specific error, perform indicated action. • 55.01.00 - Replace the DC controller PCB. • 55.5 - Do not replace the DC controller PCB or formatter PCB. Resend the firmware upgrade before sending any more print jobs.
57.4 **PRINTER ERROR** alternates with **To continue** **turn off then on**	A printer fan error has occurred as a result of a faulty fan connection, fan or DC controller.	1. Turn the printer off and then back on. 2. Reseat the DC controller PCB connector J1024. 3. Replace the fan. 4. Replace the DC controller PCB.

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
59.XY*continued* **PRINTER ERROR** alternates with **To continue** **turn off then on**	A printer motor error has occurred. X and Y are detailed below. **X Description:** 5 - Primary transfer roller engaging motor (M5) startup error. 6 - Primary transfer roller engaging motor (M5) rotation error. 7 - Developer motor (M4) startup error. 8 - Developer motor (M4) rotation error. 9 - Drum motor (M3) startup error. 9 - (when Y is also 9) - Secondary transfer engaging mechanism error. A - Drum motor (M3) rotation error C - Delivery motor (M2) rotation error **Y Description:** 0 - No color K - Black C - Cyan M - Magenta Y - Yellow	Turn the printer off and then back on. For the following errors perform the indicated action: 59.7Y and 59.8Y Error on control panel Error occurred when the developing motor started or while the developing motor was rotating. For all the following errors perform the actions listed below 59.5Y and 59.6Y - Error on control panel. 59.05.00 and 59.06.00 - Event log only. An error occurred when the primary transfer roller engaging motor started or while the motor is rotating. 1. The connectors in the primary transfer roller engaging motor drive signal line are not connected properly. Reseat the motor connector J5005 and the DC controller PCB connector J1014. 2. Faulty primary transfer roller engaging motor. Replace the motor. 3. Faulty DC controller PCB. Replace the DC controller PCB.

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
		59.7Y Control Panel Message 59.07.00 - (HP 3700 only; event log only) 59.07.ZZ - (HP 3500/3550 only; event log only) **ZZ is color:** 00 - Black 01 - Cyan 02 - Magenta 03 - Yellow 59.8Y Control Panel Message 59.08.00 - (HP 3700 only; event log only) 59.08.ZZ - (HP 3500/3550 only; event log only) **ZZ is color:** 00 - Black 01 - Cyan 02 - Magenta 03 - Yellow 1. The connectors in the developing motor drive signal line are not connected properly. Reseat the developing motor connector J5006 and the DC controller PCB connector J1019. 2. Faulty developing motor. Replace the developing motor. 3. Faulty DC controller PCB. Replace the DC controller PCB.

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
59.XY*continued* **PRINTER ERROR** alternates with **To continue** **turn off then on**		59.90 and 59.A0 Errors on control panel 59.09.00 (event log only) 59.10.00 (event log only) An error occurred when the drum motor started or while the drum motor was rotating. 1. The connectors in the drum motor drive signal line are not connected properly. Reseat the drum motor connector J5002 and the DC controller PCB connector J1019. 2. Faulty drum motor. Replace the drum motor. 3. Faulty DC controller PCB. Replace the DC controller PCB. 59.99.00 - (event log only) An error occurred in the secondary transfer engaging mechanism. 1. Faulty secondary transfer engagement sensor. Replace the secondary transfer engagement sensor. 2. Faulty secondary transfer engaging solenoid. Replace the secondary transfer engaging solenoid. 3. Faulty feed motor. Replace the feed motor. 4. Faulty DC controller PCB Action: Replace the DC controller PCB.

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
		59.C0 Error on control panel Unable to move the right swing guide arm all the way back due to a missing "t". If any of these "t's" are missing, replace the right swing guide. These "t's" are white plastic pieces shaped like a "t" inserted into the right swing guide. 59.12.00 (event log only) An error occurred in the developing engaging mechanism. 1. The movement of the developing engaging lever is not smooth. Make the movement of the lever smooth. Replace the gear for the lever, if damaged. 2. Damage on the drive gears. Check each drive gear between the delivery motor and the developing engaging clutch. Replace any, if damaged.
59.XY **PRINTER ERROR** alternates with **To continue** **turn off then on**		3. Faulty developing engaging sensor lever Reseat the developing engaging sensor lever to the correct position if its movement is not smooth or it is out of position. Replace the lever if it is damaged or deformed. 4. Faulty developing engaging sensor. Replace the developing engaging sensor. 5. The connectors in the developing engaging clutch drive signal line are not connected properly. Reseat the connectors J5014 and J1019 between the developing engaging clutch and the DC controller PCB. 6. The connectors in the delivery motor drive signal line are not connected properly. Reseat the connectors J5004 and J1016 between the delivery motor and the DC controller PCB 7. Faulty developing engaging clutch. Replace the developing engaging clutch. 8. Faulty delivery motor. Replace the delivery motor 9. Faulty DC controller PCB. Replace the DC controller PCB.

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
62 NO SYSTEM	No system was found.	1. Turn the printer off and then back on. 2. HP 3700 only - reseat the firmware DIMM. Make sure it is in slot 1 (the bottom slot). 3. Download new firmware (HP 3700 - try downloading through the parallel port). 4. Replace the firmware DIMM.
64 PRINTER ERROR **For help press ?** alternates with **To continue** **turn off then on**	Scan buffer error.	1. Turn the printer off and then back on. 2. Perform a cold reset. 3. HP 3700 only - replace the firmware DIMM. 4. Replace the formatter PCB.
68.X PERMANENT **STORAGE FULL** alternates with **To continue press ✔**	A non-volatile storage device is full. Press ✔ to clear the message. Printing can continue, but there could be unexpected behavior. **X Description:** 0 - for onboard NVRAM 1 - for removable flash disk	1. Press ✔ to continue. 2. For the following errors, perform the indicated action. 68.0 - turn the printer off and then back on. If the error persists, execute an NVRAM initialization. 68.1 - use the HP Web Jetadmin software to delete files from the flash disk.
68.X PERMANENT **STORAGE WRITE FAIL** alternates with **To continue press ✔**	A non-volatile storage device is failing to write. Press ✔ to clear the message. Printing can continue, but there could be unexpected behavior. X Description: 0 - for onboard NVRAM. 1 - for removable flash disk.	press ✔ to continue. For the following errors, perform the indicated action. 68.0 - turn the printer off and then back on. If the error persists, execute an NVRAM initialization. 68.1 - use the HP Web Jetadmin software to delete files from the flash disk.
68.X STORAGE ERROR **SETTINGS CHANGED** alternates with **To continue press ✔**	One or more printer settings saved in the non-volatile storage device is invalid and has been reset to its factory default. Press ✔ to clear the message. Printing can continue, but there could be unexpected behavior. X Description: 0 - for onboard NVRAM. 1 - for removable flash disk.	1. Press ✔ to continue. 2. Turn the printer off and then back on. 3. Check the printer settings to determine which settings have been changed.
79.XXXX **PRINTER ERROR** alternates with **To continue** **turn off then on**	HP Color LaserJet 3700 series printer only. A critical hardware error has occurred.	1. Turn the printer off and then back on. 2. Reseat the firmware DIMM. 3. Reseat the formatter PCB. 4. Replace the firmware DIMM. 5. Replace the formatter PCB.

Table 7-3. Numerical printer messages (continued)

Message	Description	Action
8X.YYYY **EIO ERROR**	HP Color LaserJet 3700 series printer only. The EIO accessory card in slot X has encountered a critical error.	1. Turn the printer off and then back on. 2. Reseat the EIO card. 3. Replace the EIO card.
99 ERROR	(Event log only) RFU (remote firmware upgrade) failed.	Resend firmware upgrade.

Replacement parts configuration

When the parts in the list below are replaced, specific tasks need to be performed. These parts include:

- Formatter and DC Controller replaced at the same time
- Formatter (new and previously installed in another printer)
- DC Controller (new and previously installed in another printer)
- Media sensor (PS5)
- Color Misregistration Sensor (PS12)
- Laser Scanner Assembly
- Fuser
- Transfer unit (ITB assembly)

Configuration procedures for these parts are described in the following sections.

Formatter and DC Controller replaced at the same time

Do not replace both the formatter and the DC Controller at the same time. Replace one at a time. If the formatter and DC Controller are replaced at the same time in an HP Color LaserJet 3700 series printer that has the ability to perform duplex printing, this functionality will be lost. To determine if the printer can duplex, print a configuration page from the INFORMATION menu and reference Paper Trays and Options. If Duplex Unit is listed, the printer is able to duplex and the formatter and DC Controller should be replaced one at a time.

If the DC Controller and Formatter are replaced one at a time, then the duplex printing capability will be transferred to the new DC controller or Formatter.

A printer specific PJL file will be needed to re-enable duplexing in the current printer (will not work on any other printer), if both the formatter and DC Controller are replaced at the same time. This file will only work in the current printer. Call for assistance from HP Support to obtain the PJL file. Also, perform the Formatter and DC Controller replacement steps as required below.

Formatter (New) replacement configuration

The values for Total Mono Pages, Total Color Pages, Serial Number, Service ID, Cold Reset Paper (if needed), and the Fuser Kit Count will need to be reset using the service menu.

NOTE The Transfer Kit count will be unaffected by the replacement of a formatter.

Print a configuration page and a supplies status page in the INFORMATION menu to obtain the page counts, counts for any of the supplies, serial number, and the born-on date. If a configuration page and a supplies status page cannot be printed, this information can be obtained from the Service menu prior to replacing the formatter.

To ensure optimum print quality, the printer will need to be calibrated by performing 3 Calibrate Now's using the printer control panel by selecting CONFIGURE DEVICE / PRINT QUALITY / CALIBRATE NOW.

Formatter (previously installed in another printer) replacement configuration

When the formatter PCB is being replaced with one that was installed in another printer, an NVRAM initialization will need to be performed. Before doing an NVRAM INIT, print a configuration page and a supplies status page in the INFORMATION menu to obtain the page counts, counts for any of the supplies, serial number, and the born-on date. If a configuration page and a supplies status page cannot be printed, this information can be obtained from the Service menu prior to replacing the formatter or performing this action.

1. To perform an NVRAM initialization follow the procedure below.
2. Press and hold the ▼ button after powering up until all LEDs are on, then release the ▼ button.
3. Press the ▲ button once and release.
4. Press Menu once and release. The list of choices will be displayed.
5. Press ▼ or ▲ until NVRAM INIT is highlighted.
6. Press ✔ to invoke an NVRAM INIT.

In addition, the Total Mono Pages, Total Color Pages, Serial Number, Service ID, Cold Reset Paper (if needed), and the Fuser Kit Count will need to be reset using the service menu. The Transfer Kit count will be unaffected by the replacement of a formatter.

To ensure optimum print quality, the printer will need to be calibrated by performing 3 Calibrate Now's using the printer control panel by selecting CONFIGURE DEVICE / PRINT QUALITY / CALIBRATE NOW.

DC Controller (New) replacement configuration

To ensure optimum print quality, the printer will need to be calibrated by performing 3 Calibrate Now's using the printer control panel by selecting CONFIGURE DEVICE / PRINT QUALITY / CALIBRATE NOW.

Light intensity of the media sensor must be adjusted. Follow the procedure below to adjust the light intensity.

1. Turn the printer OFF.
2. Open the front cover.
3. While pressing the engine test print switch on the left side of the printer (see Figure 7-16. Location of solenoids and clutches), turn the printer ON.
4. Close the front cover.
5. Load plain white paper in the multipurpose tray.
6. As the printer goes into READY period, press the engine test print switch and test print.
7. One sheet of paper will be fed into the printer from the multipurpose tray and will be delivered to the face-down delivery tray.

DC Controller (previously installed in another printer) replacement configuration

To ensure optimum print quality, the printer needs to be calibrated by performing 3 Calibrate Now's using the printer control panel by selecting CONFIGURE DEVICE / PRINT QUALITY / CALIBRATE NOW, see Calibrate Now.

Light intensity of the media sensor must be adjusted. Follow the procedure below to adjust the light intensity.

1. Turn the printer OFF.
2. Open the front cover.
3. While pressing the engine test print switch on the left side of the printer (see Figure 7-16. Location of solenoids and clutches), turn the printer ON.
4. Close the front cover.
5. Load plain white paper in the multi-purpose tray.
6. As the printer goes into READY period, press the engine test print switch and test print.
7. One sheet of paper will be fed into the printer from the multipurpose tray and will be delivered to the face-down delivery tray.

The Transfer Kit count is set when it is first placed in a printer by a back up value contained on the formatter. If using a DC Controller that was previously installed in another printer, the Transfer Kit count will be set to the count of the first printer the DC Controller was installed in. The Transfer Kit count cannot be reset in the Service Menu. The Transfer Kit count can be reset to zero by setting CONFIGURE DEVICE / RESETS / RESET SUPPLIES / NEW TRANSFER KIT = YES. (Resetting the Transfer Kit count to zero after it has been used will result in using the Transfer Kit past it's specified life which may result in a failure before low is reached.)

NOTE

For the HP Color LaserJet 3700 series printer, a non-duplexing printer can obtain the ability to duplex if the DC Controller was previously installed in a 3700 printer that had duplexing.

Media sensor (PS5) replacement configuration

Light intensity of the media sensor must be adjusted. Follow the procedure below to adjust the light intensity.

1. Turn the printer OFF.
2. Open the front cover.
3. While pressing down the engine test print switch on the left side of the printer, turn the printer ON.
4. Close the front cover.
5. Load plain white paper in the multi-purpose tray.
6. As the printer goes into READY period, press the engine test print switch and test print.
7. One piece of paper will be fed into the printer from the multipurpose tray and will be delivered to the face down delivery tray.

Color Misregistration Sensor (PS12) replacement configuration

To ensure optimum print quality, the printer will need to be calibrated by performing 3 Calibrate Now's using the printer control panel by selecting CONFIGURE DEVICE / PRINT QUALITY / CALIBRATE NOW.

Laser/scanner Assembly replacement configuration

To ensure optimum print quality, the printer will need to be calibrated by performing 3 Calibrate Now's using the printer control panel by selecting CONFIGURE DEVICE / PRINT QUALITY / CALIBRATE NOW.

Fuser replacement configuration

Under normal circumstances, the printer will prompt you to order a new fuser when the control panel reads ORDER FUSER KIT. This message indicates the fuser is nearing its end of life. When you replace a fuser under these circumstances, the control panel will not automatically prompt you to reset the fuser count. If you continue printing with the ORDER FUSER KIT message it will eventually covert to the REPLACE FUSER KIT message. At that time printing is stopped and a new fuser must be installed. When you replace a fuser under these circumstances, the control panel automatically prompts you to reset the fuser count after you have installed the new fuser.

If you replace the fuser for any reason before the control panel reads REPLACE FUSER KIT, for instance if the fuser is defective, you will need to reset the fuser count manually through the control panel.

The Fuser Kit count can be reset to zero by setting CONFIGURE DEVICE / RESETS / RESET SUPPLIES / NEW FUSER KIT = YES.

Transfer unit (ITB assembly) replacement configuration

Under normal circumstances, the printer will prompt you to order a new transfer unit when the control panel reads ORDER TRANSFER KIT. This message indicates the transfer unit is nearing its end of life. When you replace a transfer unit under these circumstances, the control panel will not automatically prompt you to reset the transfer unit count. If you continue printing with the ORDER TRASFER KIT message it will eventually covert to the REPLACE TRANSFER KIT message. At that time printing is stopped and a new transfer unit must be installed. When you replace a transfer unit under these circumstances, the control panel automatically prompts you to reset the transfer unit count after you have installed the new transfer unit.

If you replace the transfer unit for any reason before the control panel reads REPLACE TRANSFER KIT, for instance if the transfer unit is defective, you will need to calibrate the printer and reset the transfer unit count manually through the control panel.

To ensure optimum print quality, the printer will need to be calibrated by performing 3 Calibrate Now's using the printer control panel by selecting CONFIGURE DEVICE / PRINT QUALITY / CALIBRATE NOW.

The Transfer Kit count can be reset to zero by setting CONFIGURE DEVICE / RESETS / RESET SUPPLIES / NEW TRANSFER KIT = YES.

Paper path troubleshooting

Jam error messages occur if paper fails to arrive at or clear the paper path sensors in the allowed time. Dedicated paper sensors detect whether paper is present in the sensor and if paper is fed normally. When the DC controller detects a jam, it immediately stops the printing process and displays the appropriate jam message for the sensor that detects the jam. The location of all paper path sensors is shown in the figure below.

Paper path jam areas

Jams occur in the areas shown in the figure below. Jam messages on the control panel correlate with these areas. For instructions on clearing jams, see the following sections in this chapter.

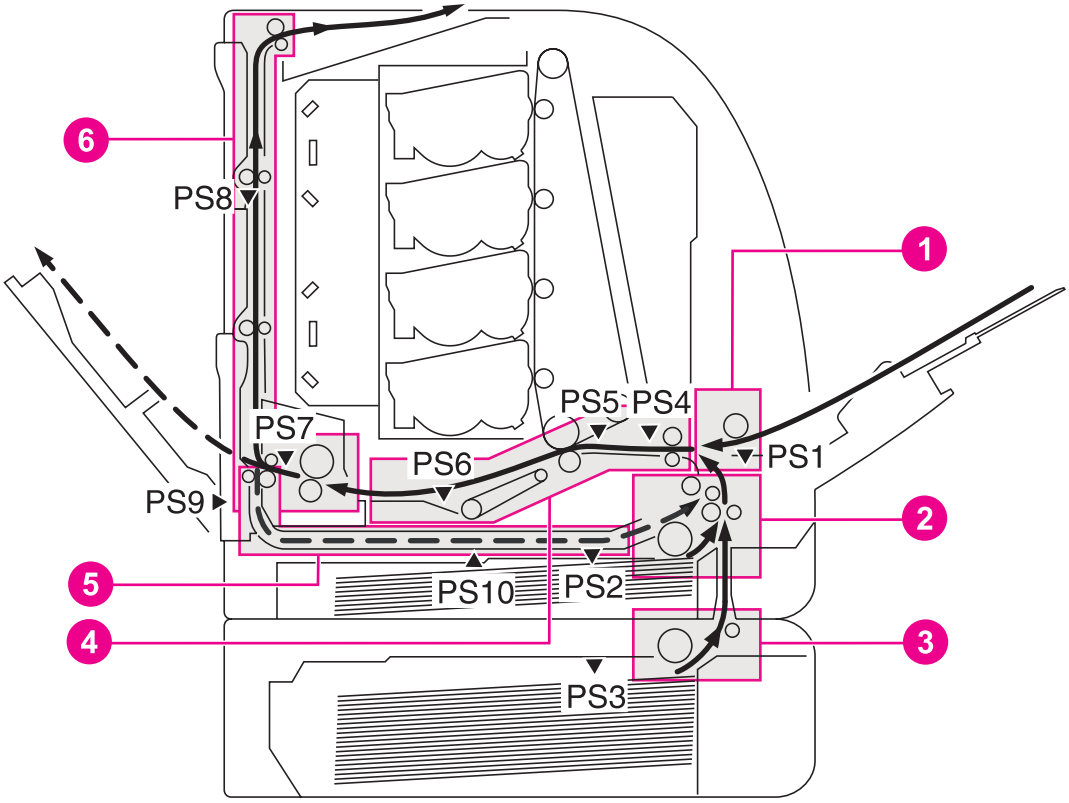


Figure 7-1. Jam area locations and sensor positions

1	Area 1: Tray 1 pick-up area
2	Area 2: Tray 2 pick-up/feed area
3	Area 3: Tray 3 pick-up area
4	Area 4: transfer/feed area
5	Area 5: duplex feed area (HP 3700 only)
6	Area 6: fuser/face-down delivery area
PS1	Tray 1 (multipurpose) paper sensor
PS2	Tray 2 (cassette) paper sensor
PS3	Tray 3 paper sensor (500-sheet feeder)
PS4	Registration paper sensor
PS5	Media sensor
PS6	Fuser front paper sensor
PS7	Fuser delivery paper sensor
PS8	Face-down delivery paper sensor
PS9	Reversed paper sensor (HP 3700 only)
PS10	Duplexing feed delivery paper sensor (HP 3700 only)

Paper jam error message

Use the following table to help pinpoint and clear specific paper jams and refer to Paper path jam areas for jam location areas in the printer. To identify the specific Jam location code for the HP Color LaserJet 3700 series printer, display the event log entries on the control panel.

Table 7-4. Error messages and associated jam locations

Error message	Event log code	Action	Location/ Action Go to jam Location areas:
13.01.00 (HP 3500/3550) **13.20.00 (HP 3700)** **Pick-up delay jam**	13.01.00	This printer checks the paper movement at all pickup sources twice, if necessary, since the paper pickup can be delayed due to a pickup error. When paper does not reach the registration paper sensor (PS4) within time T after paper pickup, the CPU judges it the pickup delay jam. If this error occurs and no jam exists, verify that the two pick-up assembly connectors are securely seated. To locate these connectors, open the front door and remove the connector cover (part number RC!-1488-000CN) on the lower front right side.	1 - Tray 1 pick-up area 2 - Tray 2 pick-up/feed area 3 - Tray 3 pick-up area
13.02.00 (HP 3500/3550) **13.20.00 (HP 3700)** **Pick-up stationary jam**	13.02.00	When the paper does not pass the registration paper sensor (PS4) within time T after a paper is fed from the registration roller, the CPU judges it a pickup stationary jam. After considerable use (150M pages or more), this jam may be the result of torn mylar tabs on the pick-up assembly. If they are torn, replace the assembly (part number RM1-456-000CN).	1 - Tray 1 pick-up area 2 - Tray 2 pick-up/feed area 3 - Tray 3 pick-up area
13.05.00 (HP 3500/3550) **13.20.00 (HP 3700)** **Fuser delay jam**	13.05.00	When the paper does not reach the fuser delivery paper sensor (PS7) within time T after a paper is fed from the registration roller, the CPU judges it a fuser delay jam.	4 - transfer/ feed area 6 - fuser/face-down delivery area
13.06.00 (HP 3500/3550) **13.20.00 (HP 3700)** **Fuser stationary jam**	13.06.00	When the paper does not pass the fuser delivery paper sensor (PS7) within time T after paper has reached the fuser delivery paper sensor (PS7), the CPU judges it a fuser stationary jam.	6 - fuser/face-down delivery area
13.09.00 (HP 3500/3550) **13.20.00 (HP 3700)** **Delivery delay jam**	13.09.00	When the paper does not reach the face-down paper sensor (PS8) within time T after paper has reached the fuser delivery paper sensor (PS7), the CPU judges it a delivery stationary jam.	6 - fuser/face-down deliver area

Table 7-4. Error messages and associated jam locations (continued)

Error message	Event log code	Action	Location/ Action Go to jam Location areas:
13.0A.00 (HP 3500/3550) **13.20.00 (HP 3700)** **Delivery stationary jam**	13.0A.00	When the paper does not pass the face down paper sensor (PS8) within time T after paper has reached the fuser delivery paper sensor (PS7), the CPU judges it a delivery stationary jam.	6 - fuser/face-down delivery area
13.20.00 (HP 3700 only) **Duplexing feed delay jam**	13.10.00	When the paper does not reach the reversed paper sensor (PS9) within time T after the delivery motor has started rotating counterclockwise, the CPU judges it a Duplexing feed delay jam.	5 - duplex feed area
13.20.00 (HP 3700 only) **Duplexing feed stationary jam**	13.11.00	When the paper does not pass through the sensor within time T since a paper has reached the reversed paper sensor (PS9), the CPU judges it a duplexing feed stationary jam.	5- duplex feed area 6- fuser/face-down delivery area
13.20.00 (HP 3700 only) **Duplexing pick-up delay jam**	13.12.00	When the paper does not reach the duplexing feed paper sensor (PS10) within time T after paper has reached the reversed paper sensor.	5- duplex feed area
13.20.00 (HP 3700 only) **Duplexing pick-up stationary jam**	13.13.00	When the paper does not pass the sensor through within time T since a paper has reached the duplexing feed paper sensor (PS10), the CPU judges it the duplexing pickup stationary jam.	5- duplex feed area
13.20.00 (HP 3500/3550 only) **Printer could not automatically eject paper**	13.20.00	Check all areas of the printer for a residual paper jam.	4- transfer/ feed area 5- duplex feed area 6 -Fuser/ facedown delivery area
13.21.00 (HP 3500/3550) **13.20.00 (HP 3700)** **Open door jam**	13.21.00	When the front door is open during printing, the CPU judges it the door open jam.	check all jam locations
13.90.00 **Incompatible transparencies jam**	13.90.00	There is a jam inside the front door caused by incompatible transparencies.	4- transfer/ feed area

Table 7-4. Error messages and associated jam locations (continued)

Error message	Event log code	Action	Location/ Action Go to jam Location areas:
Note: Residual paper jam	n/a	If paper is detected by sensors other than PS6 and PS7, the DC controller delivers the paper automatically.	check all jam locations

Paper path areas jam troubleshooting

Paper jam troubleshooting information is provided in this section for the six paper areas identified in Figure 7-1. Jam area locations and sensor positions in this chapter.

Multiple pages are fed

Table 7-5. Causes for multiple pages feeding

Cause	Solution
Tray 1 (multipurpose tray) separation pad is worn.	Replace the separation pad assembly.
Tray 1 (multipurpose tray) separation pad has a defective spring.	Make sure the spring is set in place. If the spring is damaged, replace the separation pad assembly.
Tray 2 separation pad is worn.	Replace the separation pad assembly.
Tray 2 separation pad has a defective spring.	Make sure the spring is set in place. If the spring is damaged, replace the separation pad spring.

Area 1: Tray 1 pick-up jam troubleshooting

Removing paper jams located in the Tray 1 (multipurpose) area requires removing all paper from the tray including pulling any jammed paper.

Table 7-6. Causes for jams in the Tray 1 pick-up area

Cause	Solution
Dirty, worn, or deformed multi-purpose tray pickup roller.	If dirty, clean the roller. If worn or deformed, replace the roller.
Defective separation pad.	If dirty, clean the pad. If worn or deformed, replace the pad.
Damaged drive gears.	Check the drive gears in the pickup/feed area. If damaged, replace the gear.
Defective multi-purpose tray pickup solenoid.	Disconnect the multi-purpose tray pickup solenoid connector J1006 from the DC controller PCB. Measure the resistance between the connector J1006-14 (MPSL) and J1006-13 (+24VA). If it is not approx. 160 ohms, replace the multi-purpose tray pickup solenoid.

Table 7-6. Causes for jams in the Tray 1 pick-up area (continued)

Cause	Solution
Defective feed motor	Replace the feed motor.
Defective DC controller PCB.	Replace the DC controller PCB.

Area 2: Tray 2 jam troubleshooting

Removing paper jams located in the Tray 2 (cassette) area requires removing the paper tray then removing any paper stuck in the tray input area. Check the area inside the tray opening to ensure that all paper has been removed.

Table 7-7. Causes for jams in the Tray 2 area

Cause	Solution
Worn/Deformed cassette pickup roller.	If worn or deformed, replace the roller.
Defective separation pad.	If dirty, clean the pad. If worn or deformed, replace the pad.
Dirty/Worn/Deformed feed roller.	If dirty, clean the roller. If worn or deformed, replace the roller.
Damaged drive gears.	Check the drive gears in the pickup/feed block. If damaged, replace the gears.
Defective cassette pickup solenoid.	Disconnect the cassette pickup solenoid connector J1016 from the DC controller PCB. Measure the resistance between the connector J1016-6 (CSTSL) and J1016-5 (+24VA). If it is not approx. 160 ohms, replace the cassette pickup solenoid.
Defective feed motor	Replace the feed motor.
Defective DC controller PCB.	Replace the DC controller PCB.

Area 3: Tray 3 (500-sheet feeder) area jam troubleshooting

Removing paper jams located in the Tray 3 (optional 500-sheet feeder) area requires removing the paper tray then removing any paper stuck in the tray input area. Check the area inside the tray opening to ensure that all paper has been removed.

Table 7-8. Causes for jams in the fuser/face-down delivery area

Cause	Solution
Worn or deformed paper feeder pickup roller.	If worn or deformed, replace the paper feeder pickup roller.
Dirty, worn, or deformed feed roller.	If dirty, clean the feed roller. If worn or deformed, replace the roller.
Damaged drive gears.	Check the drive gears in the pickup block. If damaged, replace the gears.

Table 7-8. Causes for jams in the fuser/face-down delivery area (continued)

Cause	Solution
Defective paper feeder pickup solenoid.	Disconnect the paper feeder pickup solenoid connector J4002 from the paper feeder. PCB. Measure the resistance between the connector J4002-1 (SL) and J4002-2 (+24VA). If it is not approx. 160 ohms, replace the paper feeder pickup solenoid.
Defective paper feeder pickup clutch.	Disconnect the paper feeder pickup clutch connector J4003 from the paper feeder PCB. Measure the resistance between the connector J4003-1 (CL) and J4003-2 (+24VA). If it is not approx. 160 ohms, replace the paper feeder pickup clutch.
Defective paper feeder PCB.	Replace the 500-sheet paper feeder PCB.
Defective DC controller PCB.	Replace the DC controller PCB.

Area 4: transfer/feed area jam troubleshooting

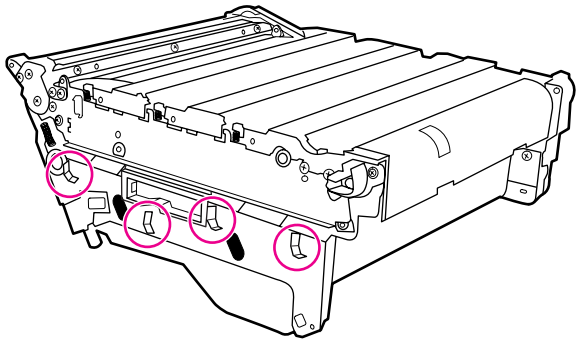
Table 7-9. Transfer/feed area

Cause	Solution
If the jam has occurred around a feed roller indicates a dirty, worn, deformed registration roller or registration sub roller.	If dirty, clean the rollers. If worn or deformed, replace the pick-up/feed assembly
If around a registration roller, indicates defective registration shutter.	If the movement of the registration shutter is not smooth, make it smooth. If its springs are out of positions, reseat them. Clean the shutter if dirty. Replace the pick-up feed assembly if deformed.
Dirty/Worn/Deformed registration roller or registration sub roller.	If dirty, clean the rollers. If worn or deformed, replace the pick-up feed assembly.
Defective registration shutter.	If the movement of the registration shutter is not smooth, make it smooth. If its springs are out of positions, reseat them. Clean the shutter if dirty. Replace the pick-up feed assembly if deformed.
Damaged drive gears.	Check the drive gears in the pickup block. If damaged, replace the gears.
Defective registration clutch.	Disconnect the registration clutch connector J1016 from the DC controller PCB. Measure the resistance between the connector J1016-8 (REGCL) and J1016-7 (+24VA). If it is not approx. 160 ohms, replace the registration clutch.
Defective DC controller PCB.	Replace the DC controller PCB.

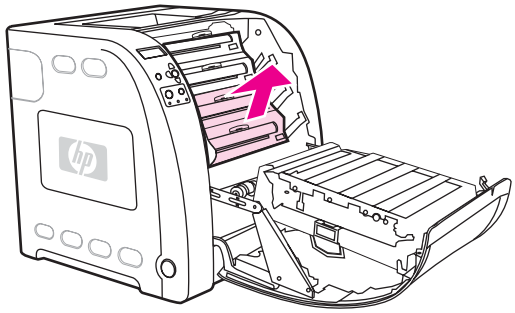
Front door area jams (area 4)

1. Open the front door.

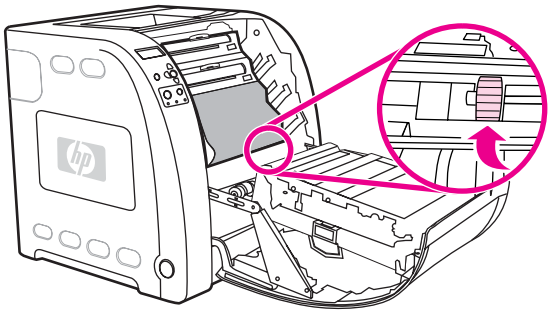
CAUTION Do not place anything on the transfer unit. Do not touch the top of the transfer unit or the contacts on the left side of the transfer unit.



2. Remove the magenta and yellow print cartridges.



3. If necessary, turn the green roller wheel toward the rear of the printer to advance the paper. Remove any paper.



NOTE If the paper tears, make sure that all paper fragments are removed from the paper path before resuming printing.

4. Replace the magenta and yellow print cartridges.
5. Close the door.

Registration/transfer area jams (area 4)

1. Lift the latch (1) on the printer front door and open the door (2).

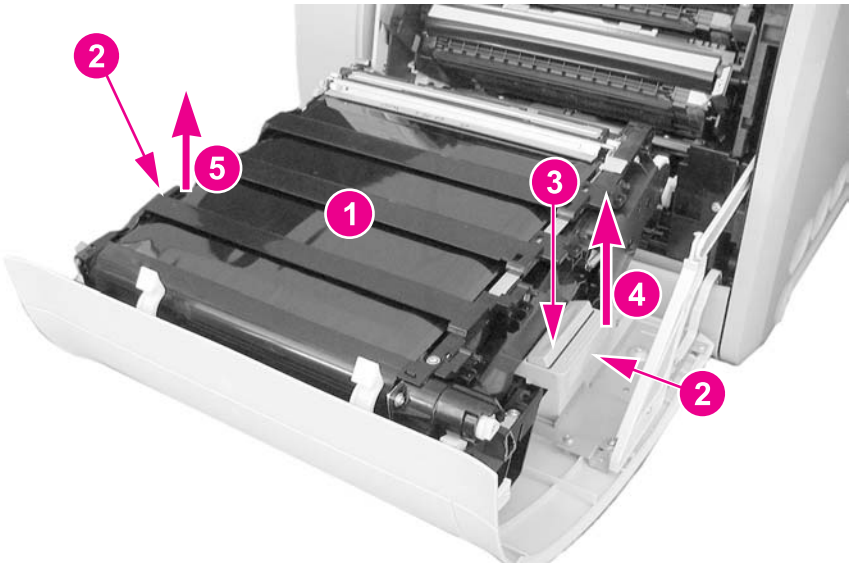
Figure 7-2. Printer front door

CAUTION

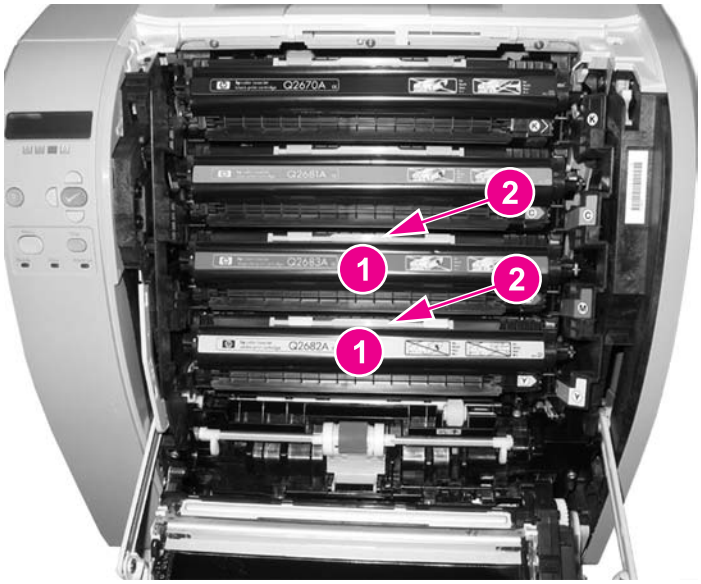
Do not place anything on the surface of the transfer unit.

Also, do not touch the transfer unit contacts located on the left side of the unit.

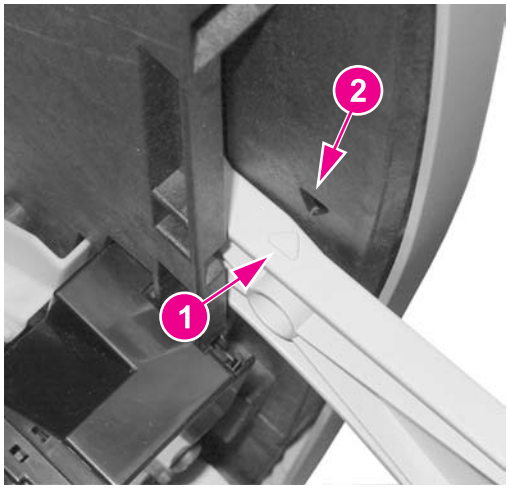
2. Remove the transfer unit (1) by grabbing the blue handles (2) on both sides of the transfer unit. With your right thumb press and hold the lever (3) on the right side handle then lift the handle up (4), followed by lifting the left side (5). Set the unit aside on a flat surface. Be careful not to touch the black upper surface (transfer belt) of the unit.



3. Remove the yellow and magenta cartridges (1) from the printer by grabbing the blue handle (2) on the cartridge and pulling it upward and out.



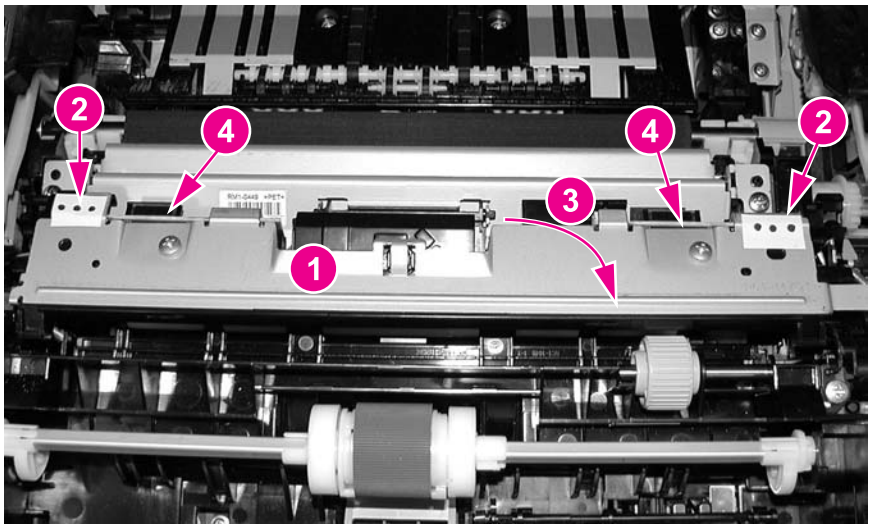
4. Close the front door approximately half-way, matching the arrow on the right door bracket (1) with the arrow on the inside of the printer (2).



5. Remove any visible paper from inside the printer's transfer area.

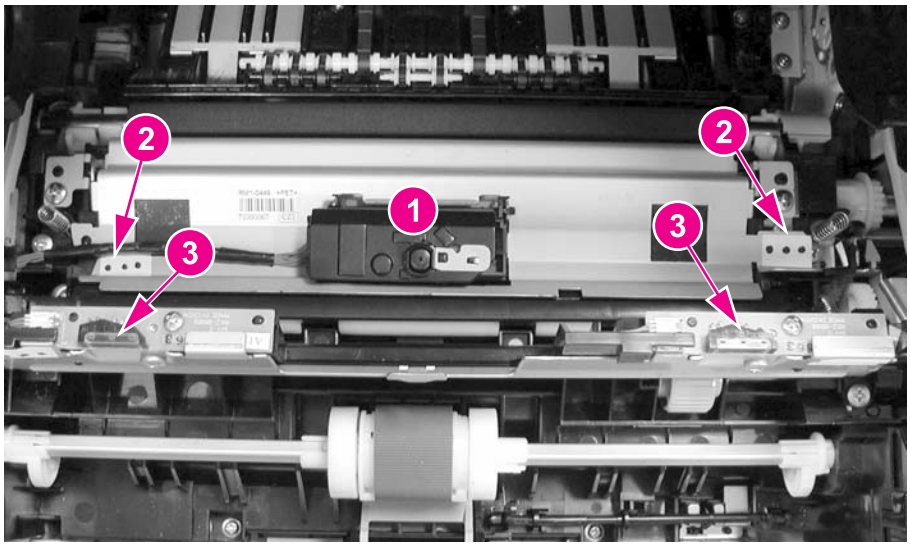
6. Locate the top flat bar (1) and pull up on the white tab marked with black dots (2) to raise the bar to a vertical position (3). The bar will remain vertical.

NOTE Do not touch the registration sensor lenses (4).

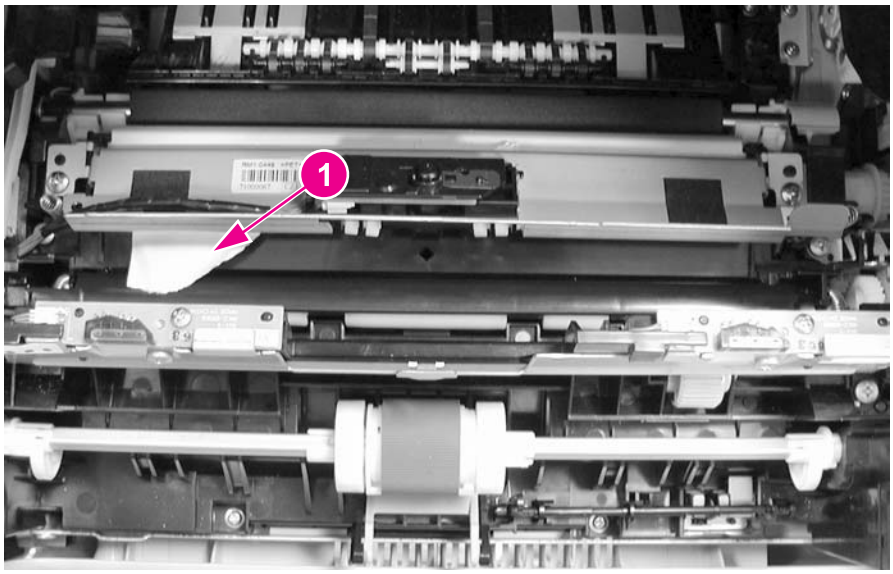


7. Raise the bottom media sensor bar (1) by pulling on the white tabs marked with the black dots (2), located on either side of the sensor.

NOTE Do not touch the registration sensor lenses (3) or the media sensor (1).



8. While holding the media sensor bar upright, remove any visible pieces of paper (1).



9. When the paper is removed, lower the bottom media sensor bar back down into place.
10. Swing the top flat bar down into place over the bottom media sensor bar.
11. Open the front door to its fully open position and reinstall the yellow and magenta cartridges.
12. Reseat the transfer unit by holding the blue handles and inserting the left side first. Align the two holes (2) in the transfer unit with the pegs (1) on the printer door and lower the unit into place. Do not touch the black surface (transfer belt) or the contacts on the left side of the transfer unit.

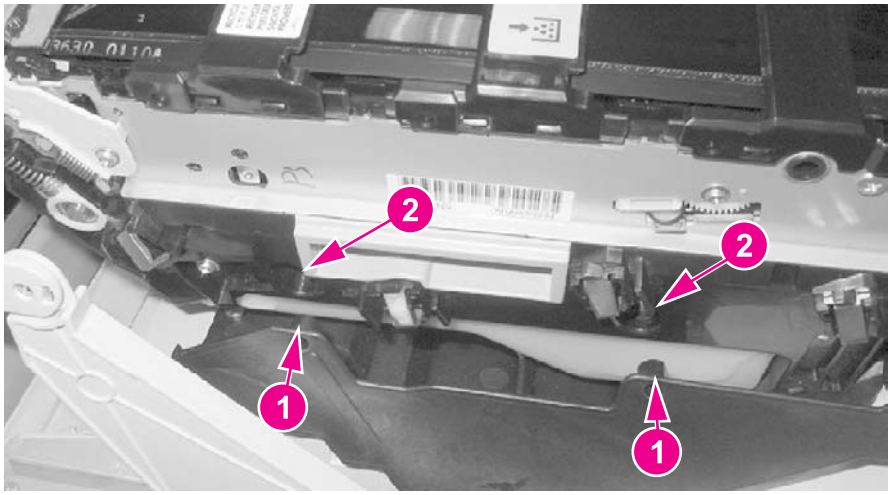


Figure 7-3. **Left side of front door**

13. Close the front door.

Paper is wrinkled or folded

To diagnose the cause of wrinkled or folded paper, use the Print/Stop Test in the Diagnostics test menu. Adjust the stop time so the paper stops before it enters the fuser. Open the front door. If paper is wrinkled at this stage, use Table 7-10. Causes for wrinkled or folded paper (paper path entrance), Table 7-10. Causes for wrinkled or folded paper (paper path entrance), to diagnose the problem. If paper is *not* wrinkled at this stage, use Table 7-11. Causes for wrinkled or folded paper (paper path exit), Table 7-11. Causes for wrinkled or folded paper (paper path exit), to diagnose the problem.

Table 7-10. Causes for wrinkled or folded paper (paper path entrance)

Cause	Solution
Registration shutter is defective.	Make sure the registration shutter is clean and moves smoothly. If the registration shutter is worn or damaged, replace the paper pickup/feed assembly.
Feed roller or registration roller is dirty or defective.	Clean the rollers or replace the paper pickup/feed assembly as required.
Paper path has foreign substances or dirt.	Remove any foreign substances or dirt from the paper path. If the paper pickup/feed assembly is damaged, replace the paper pickup/feed assembly.

Table 7-11. Causes for wrinkled or folded paper (paper path exit)

Cause	Solution
Fuser inlet guide is dirty.	Clean the fuser inlet guide.
Fuser pressure roller is dirty or damaged.	Clean the pressure roller. If the pressure roller is damaged, replace the fuser.
Fuser sleeve is dirty or damaged.	Clean the fuser sleeve. If the fuser sleeve is damaged, replace the fuser.
Fuser delivery roller is dirty.	Clean the fuser delivery roller.

Paper is skewed

Table 7-12. Causes for skewed paper

Cause	Solution
Paper dust or dirt has accumulated in the Tray 2 feed roller or registration roller.	Clean the rollers.
Cassette feed roller and registration roller are worn irregularly.	Replace the feed roller or the pickup/feed assembly.
Registration shutter is defective.	Make sure the registration shutter moves smoothly, its springs are in place, and it is clean. If the registration shutter is damaged, replace the pickup/feed assembly.

Area 5: Duplex jam troubleshooting

Table 7-13. Causes for jams in the duplex area (HP 3700 (only)

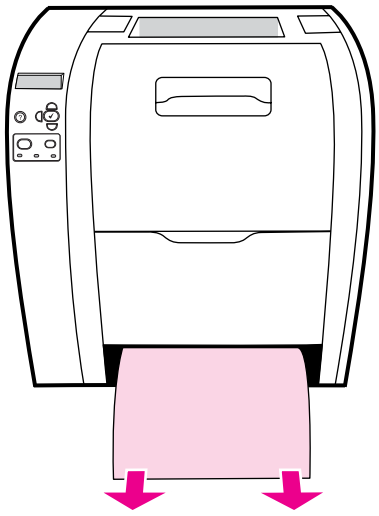
Cause	Solution
Scratched/Dented duplex feed guide.	If damaged or dented, replace the duplex feed guide.
Worn/Deformed oblique roller.	If worn or deformed, replace the oblique roller.
Damaged oblique roller drive gears	Check the oblique roller drive gears in the transfer unit block. Replace the gear if damaged or worn.
Defective duplex feed paper sensor lever.	Reseat the duplex feed paper sensor lever if it does not move smoothly or it is out of position. Replace the lever if damaged or deformed.
Defective duplex feed solenoid.	Disconnect the duplex feed solenoid connector J1013 from the DC controller PCB. Measure the resistance between the connector J1013-5 (DUSL) and J1013-4 (+24VA). If it is not approximately 160 ohms, replace the duplex feed solenoid.
Defective DC controller PCB.	Replace the DC controller PCB.

Duplex jam area removal (area 5)

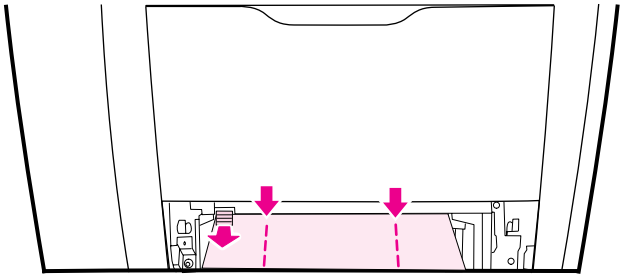
NOTE

This message appears for HP Color LaserJet 3700dn and 3700dtn printer models only. The printer control panel displays the message 13.XX.YY JAM REMOVE TRAY 2.

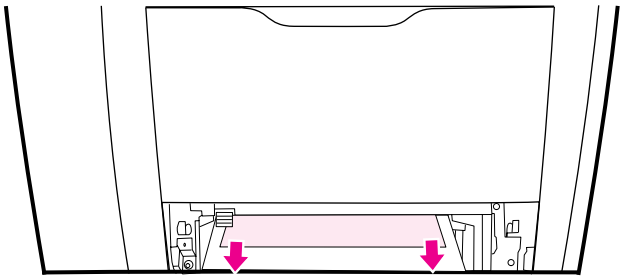
1. Remove Tray 2.
2. Remove any paper in the top of the tray opening.



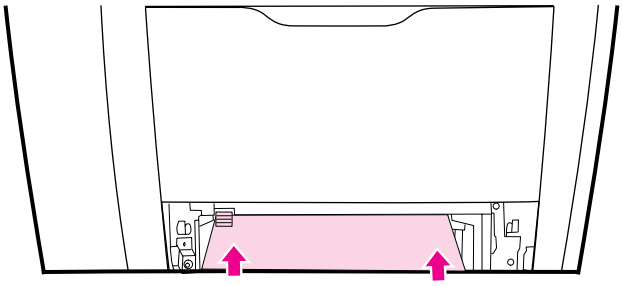
3. On the left side of the tray opening, pull the green lever straight forward until the metal paper-access plate (duplex pan) drops.



4. Remove any jammed paper.



5. Press the metal access plate (duplex pan) up until it locks in place.



6. Replace Tray 2.
7. Press ✔ to resume printing

Area 6: Fuser/face-down delivery jam troubleshooting

Table 7-14. Fuser/face-down delivery area

Cause	Solution
If the jam has occurred around the fuser area, a defective fuser delivery sensor is likely.	Reseat the fuser delivery sensor lever if it does not move smoothly or it is out of position. Replace the lever if damaged or deformed.

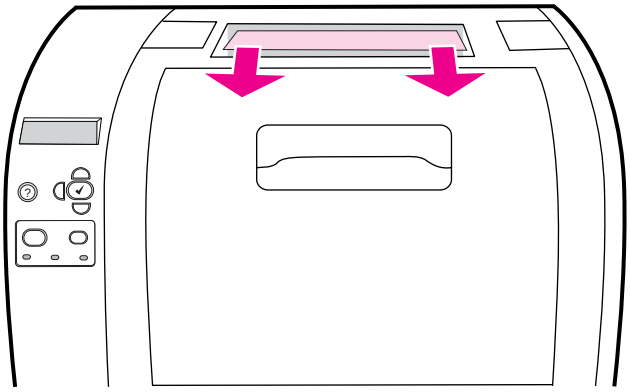
Table 7-14. Fuser/face-down delivery area (continued)

Cause	Solution
Defective face down delivery sensor lever.	Reseat the face-down delivery sensor lever if it does not move smoothly or it is out of position. Replace the lever if damaged or deformed.
Defective fuser delivery sensor lever.	Reseat the fuser delivery sensor lever if it does not move smoothly or it is out of position. Replace the lever if damaged or deformed.
The rotation of the fuser sleeve or pressure roller is not smooth.	Replace the fuser if worn or chipped.
Bumps on the fuser inlet guide due to dirt/ scratches/adhered toner.	Clean the guide.
Dirty/Worn/Deformed fuser sleeve or pressure roller.	Clean the fuser sleeve and pressure roller if there are any bumps of dirt or toner.Replace the fuser if deformed or scratched.
Worn face down delivery roller.	Replace the face down delivery roller.
Damaged face down delivery roller drive gears.	If damaged or worn, replace the face down delivery roller drive gear. If the delivery belt is damaged, replace the belt.
Defective DC controller PCB.	Replace the DC controller PCB.

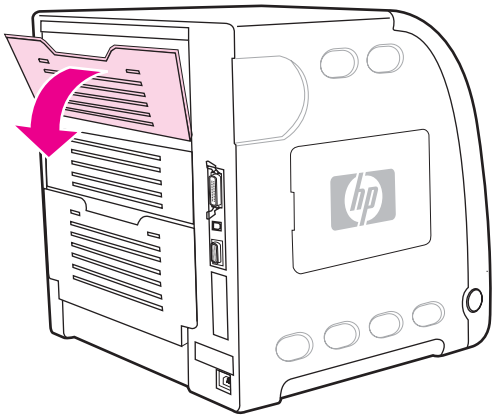
Upper rear door area jams (area 6)

The message **13.XX.YY JAM INSIDE UPPER REAR DOOR** can appear on the printer control panel if the upper rear door is open. Make sure the upper rear door is closed when printing.

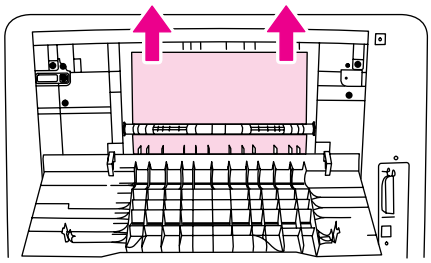
1. Remove any paper visible in the top output bin.



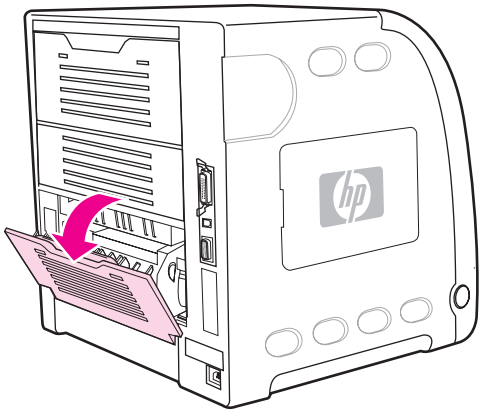
2. Open the upper rear door.



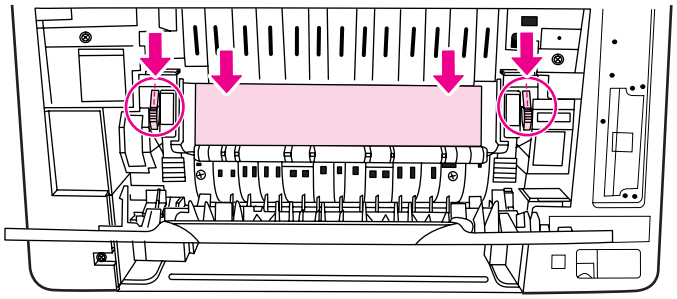
3. Remove any paper.



4. Close the rear door.
5. If no paper is visible, open the lower rear door (rear output bin).



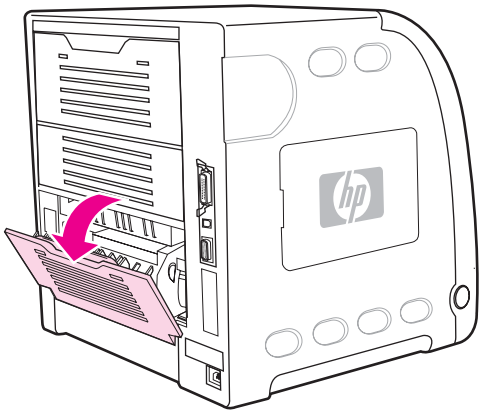
6. Press down on the green levers and remove any paper. Return the green levers to the up position after removing the page.



7. Close the lower rear door.

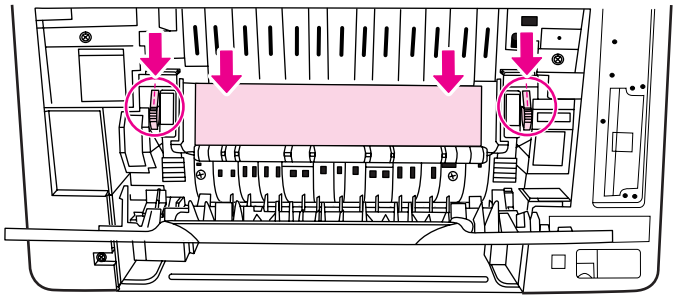
Fuser area jams (area 6)

1. Open the lower rear door (rear output bin).

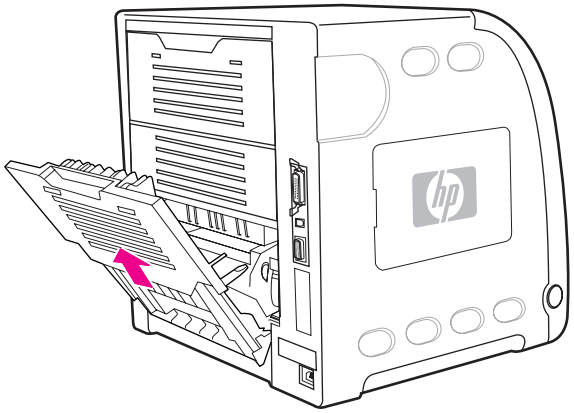


NOTE Make sure the green pressure levers are not in the down position. If the green pressure levers are down, they can cause a jam message to display on the printer control panel.

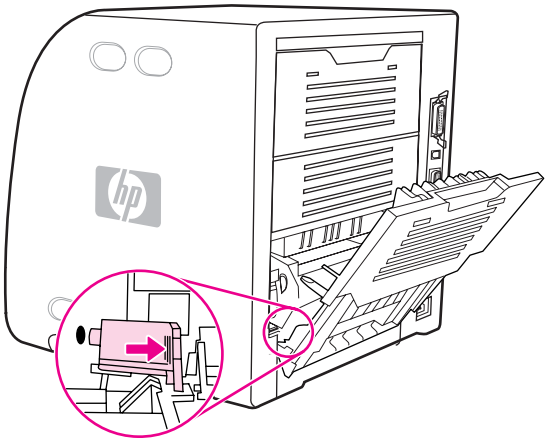
2. If the paper is visible, press down on the green levers and remove the paper. Return the green levers to the up position after removing the paper, and close the lower rear door (rear output bin).



3. If the paper is not visible, turn the printer off.
4. Slide out the lower rear door (rear output bin) tray extender.

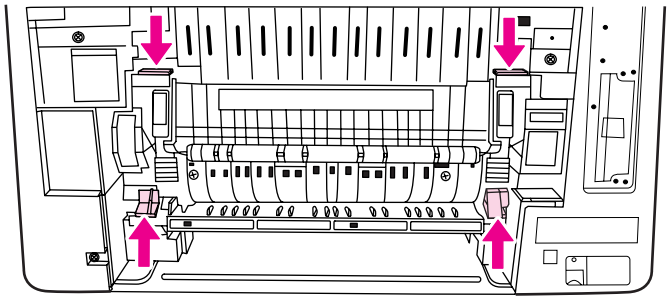


5. Remove the lower rear door (rear output bin) by lifting and pulling the right side of the door while pressing the tab with the ridges on the left side of the door.

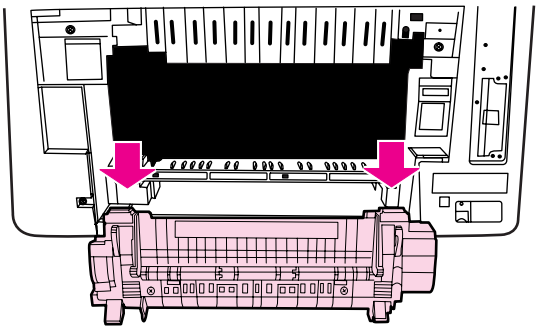


WARNING! The fuser is **hot!** Wait ten minutes after turning the printer off before removing the fuser.

6. Place your thumbs on the blue ridges (near the warning label), and using your fingers, pull up on the blue latches.

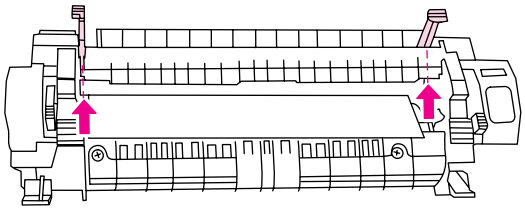


7. Pull the fuser out of the printer.



8. On the fuser, squeeze and lift the black tabs to open the shutter door.

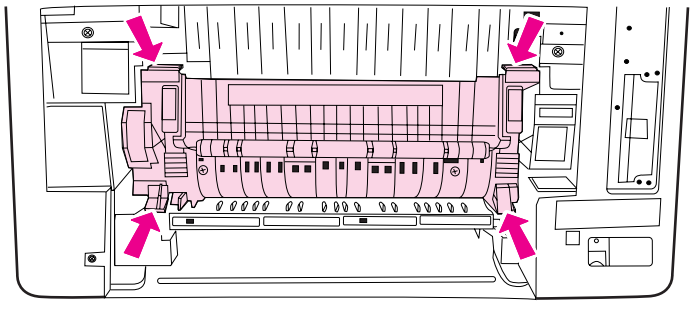
WARNING! Do not open the fuser shutter door while the fuser is in the printer.



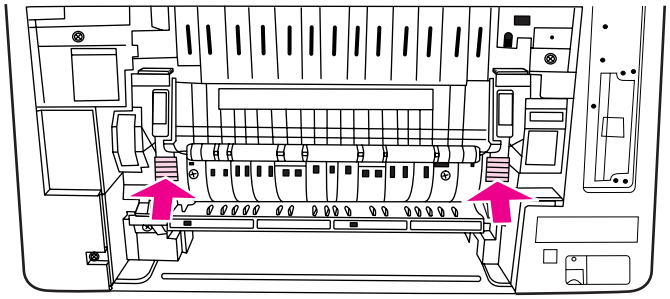
9. Remove any jammed paper

NOTE If the paper tears, make sure that all paper fragments are removed from the paper path before you resume printing.

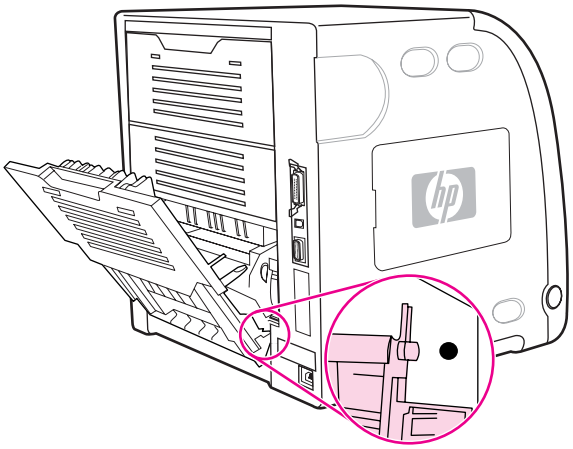
10. Hold the fuser with your thumbs on the blue ridges and your fingers on the blue latches. Push both sides of the fuser into the printer.



11. Press the black ridges on the front of the fuser until the fuser clicks into place.



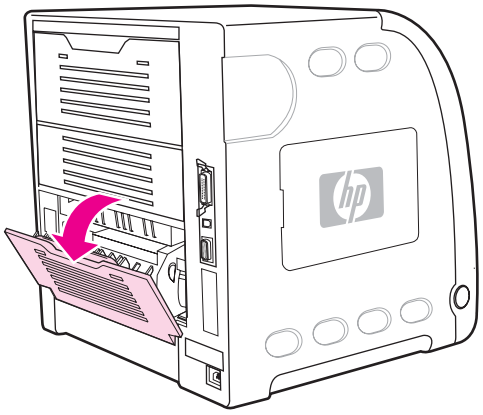
12. To reattach the lower rear door (rear output bin), hold the door at a 45-degree angle, and fit the peg into the round hole on the right side.



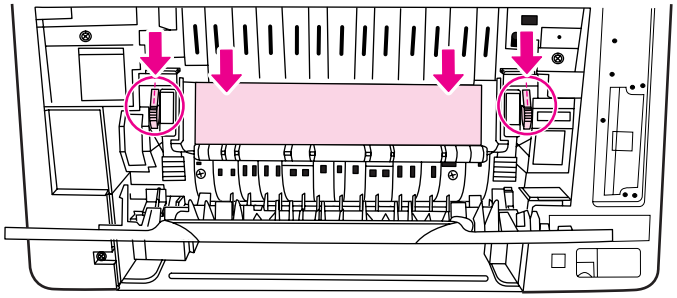
13. Press the ridges on the tab on the left side of the door, and fit the peg into the round hole.
14. Close the lower rear door (rear output bin). Turn the printer on.

Lower rear door area jams (area 6)

1. Open the lower rear door (rear output bin).



2. Press down on the green levers and remove any paper.



3. Lift the green levers and close the lower rear door.
4. If printing does not resume, press ✔.

Paper jam recovery feature

This printer automatically provides paper jam recovery, a feature that allows you to set whether the printer should attempt to automatically reprint jammed pages. The options are:

- **AUTO** Printer will attempt to reprint jammed pages.
- **OFF** Printer will not attempt to reprint jammed pages.

NOTE During the recovery process, the printer may reprint several good pages that were printed before the paper jam occurred. Be sure to remove any duplicated pages.

To disable paper jam recovery

1. Press ✔ to enter the **MENUS**.
2. Press ▼ to highlight **CONFIGURE DEVICE**.
3. Press ✔ to select **CONFIGURE DEVICE**.
4. Press ▼ to highlight **SYSTEM SETUP**.
5. Press ✔ to select **SYSTEM SETUP**.
6. Press ▼ to highlight **JAM RECOVERY**.
7. Press ✔ to select **JAM RECOVERY**.
8. Press ▼ to highlight **OFF**.
9. Press ✔ to select **OFF**.
10. Press the Menu button to return to the Ready state.

To improve print speed and increase memory resources, you may want to disable paper jam recovery. If paper jam recovery is disabled, the pages involved in a jam will not be reprinted.

Avoiding paper jams

The table below lists common causes of paper jams and suggests solutions for resolving them.

Table 7-15. Common causes of paper jams

Issue	Cause	Solution
Common causes of paper jams	Paper does not meet HP-recommended paper specifications.	Use only paper that meets HP specifications. See Supported media weights and sizes.
	A supply item is installed incorrectly, causing repeated jams.	Verify that all print cartridges, the transfer unit, and the fuser are correctly installed.
	You are reloading paper that has already passed through a printer or copier.	Do not use paper that has been previously printed on or copied.
	An input tray is loaded incorrectly.	Remove any excess paper from the input tray. Be sure that the paper does not exceed the maximum stack height mark in the input tray.
	Paper is skewed.	Input tray guides are not adjusted correctly. Adjust input tray guides so they hold paper firmly in place without bending it.
	Paper is binding or sticking together.	Remove paper and flex it, rotate it 180 degrees, or flip it over. Reload paper into the input tray. **NOTE** Do not fan paper. Fanning can create static electricity which can cause paper to stick together.
	Paper is removed before it settles into the output bin.	Reset the printer. Wait until the page completely settles in the output bin before removing it.
	When duplexing, the paper is removed before the second side of the document is printed.	Reset the printer and print the document again. Wait until the page completely settles in the output bin before removing it.
	Paper is in poor condition.	Replace the paper.
	Paper is not picked up by the internal rollers from Tray 2 or Tray 3.	Remove the top sheet of paper. If the paper is heavier than 163 g/m_2 (43 lb), it may not be picked from the tray.
	Paper has rough or jagged edges.	Replace the paper.
	Paper is perforated or embossed.	This paper does not separate easily. You might need to feed single sheets from Tray 1.
	Printer supply items have reached the end of their useful life.	Check the printer control panel for messages prompting you to replace supplies, or print a supplies status page to verify the remaining life of the supplies.
	Paper was not stored correctly.	Replace the print paper. Paper should be stored in the original packaging in a controlled environment.

General paper path troubleshooting

Use the following suggestions to isolate the cause of the problem. Once you have identified the cause, use the tables that follow to find a recommended solution.

NOTE

Use the paper path test in the Diagnostics menu to print pages while troubleshooting. See Paper Path Test section later in this chapter for information about the paper path test.

- View or print the event log and determine if a particular jam error occurs more often than others. Try to identify a pattern.
- From the event log, determine the frequency of a particular jam. If a jam occurs repeatedly around the same page count, consider this a single jam that the customer tried to clear.
- Try printing from all available input trays to identify whether the problem is isolated to one tray.
- Print the job in both simplex and duplex modes to identify if the problem occurs only in one mode or the other.
- Try printing on paper from an unopened ream that has been stored correctly. If the jam does not occur with this media, then the customer's media might be causing the problem.
- If the jam occurs from when the printer is turned on, check the paper path for small torn pieces of paper. Also check for broken sensors or flags, and check for loose or defective connections.
- If the paper is torn, folded, or wrinkled (typically along the leading edge), inspect the paper path for items that could be causing the damage.
- If the customer is using non-HP supplies, try replacing those supplies with genuine HP supplies to see if the problem goes away.
- If necessary, instruct the customer on proper media storage, correct loading technique, and printer operation. Make sure the customer knows not to grab paper in the output bin during duplex printing.

Paper path checklist

- Verify that media is correctly loaded in the input trays and that all length and width guides are set correctly.
- Clean the printer. Toner and paper dust in the paper path can inhibit free movement of media through the printer and can block the sensors.
- Use the paper path test in the Diagnostic menu to vary the input selections of the printer to determine if the problem is associated with a particular area of the printer.
- Worn rollers or separation pads can cause multifeeds. Check the condition of the pickup rollers and separation pads.
- Defective paper sensors along the paper path might signal a false jam.
- Scraps of media left in the paper path can cause intermittent jams. Always check that the paper path is clear when cleaning the printer and when clearing jams. Also, remove the fuser and carefully check it for jam debris.

Persistent jams

If jams occur repeatedly, use the information in this section to diagnose the root cause of the problem. The tables in this section list possible causes and recommended solutions for jams in each area of the paper path. Items are listed in the order you should investigate. In general, items at the beginning of the list are relatively minor repairs. Items at the end of the list are more significant repairs.

Basic troubleshooting for paper jams

The basic troubleshooting process for paper jams consists of the following:

1. Gather data.
2. Identify the cause of the problem.
3. Fix the problem.

Data collection

To troubleshoot paper jams, gather the following information:

- the exact paper jam error code displayed on the control panel
- the location of the leading edge of the paper in the paper path
- whether paper is in the paper path when the jam occurs, or if paper is stuck in the input tray
- whether the jam occurs at power-up or while paper is moving
- whether the paper is damaged, and if it is, where the damage occurs on the paper and where in the paper path the paper stops
- whether the jam occurs when feeding from one particular tray
- whether the jam occurs only when duplex printing
- whether a particular type of paper is jamming or not jamming
- whether any of the supplies are non-HP (non-HP supplies are known to cause paper jams)
- whether the customer is storing the paper correctly, overloading the trays, damaging the edge of the paper during loading, or using paper that has already been fed through the printer

Image formation troubleshooting

The section identifies some things that can result in poor print quality. For additional information, refer to the *HP LaserJet Printer Family Print Media Guide*.

Print quality problems associated with media

Some print quality problems arise from use of inappropriate paper.

- Use paper that meets HP paper specifications. See Supported media weights and sizes.
- The surface of the paper is too smooth. Use paper that meets HP paper specifications. See Supported media weights and sizes.
- The driver setting is incorrect. To change the paper type setting, see **Type and Size**.
- The paper you are using is too heavy for the paper type setting you selected, and the toner is not fusing to the paper.
- The moisture content of the paper is uneven, too high, or too low. Use paper from a different source, from an unopened ream of paper, or dry out the paper (100˚ C for 24 hours).
- Some areas of the paper reject toner. Use paper from a different source or from an unopened ream of paper.
- The letterhead you are using is printed on rough paper. Use a smoother, xerographic paper. If this solves your problem, consult with the supplier of your letterhead to verify that the paper used meets the specifications for this printer. See Supported media weights and sizes, in chapter 1.
- The paper is excessively rough. Use a smoother, xerographic paper.

Overhead transparency defect

Overhead transparencies can display any of the image quality problems that any other type of paper will cause, as well as defects specific to printing on transparencies. In addition, because transparencies are pliable while in the print path, they are subject to being marked by the paper-handling components.

NOTE Allow transparencies to cool for at least 30 seconds before handling them.

- Change the pre-rotation setting in the CONFIGURE DEVICE/PRINT QUALITY/ OPTIMIZE/PRE-ROTATION=ON. This will enhance transparency print quality by reducing what looks like “fire marks” by heating up the fuser pressure roller closer to the temperature of the sleeve.
- Change the transparency mode in the CONFIGURE DEVICE/PRINT QUALITY/PRINT MODES/TRANSPARENCY to B TRNSPRNCY (Best Transparency) mode. This change will optimize transparency print quality and minimize transparency curl.

NOTE If the printer's media sensor rejects a supported Color LaserJet transparency, make sure the transparencies are not from an old box. Try transparencies from a new box.

- In the printer driver **Paper** tab, select **Transparency** as the paper type. Also, make sure that the tray is correctly configured for transparencies.
- Check that the transparencies meet the specifications for this printer. See Supported media weights and sizes, in chapter 1. For more information on media specifications and ordering information, consult the *HP LaserJet Printer Family Print Media Specification Guide*. For the HP Color LaserJet 3500/3550 series printer, go to http://www.hp.com/support/clj3550. For the HP Color LaserJet 3700 series printer, go to http://www.hp.com/support/clj3700. For downloadable manuals, select **Manuals**.
- The transparencies you are using are not designed for proper toner adhesion. Use only transparencies designed for HP Color LaserJet printers.
- Handle transparencies by the edges. Oil from fingers can cause spots and smudges on the transparencies.
- Small, random, dark areas on the trailing edge of solid fill pages may be caused by transparencies sticking together in the output bin. Try printing the job in smaller batches.
- The selected colors are undesirable when printed. Select different colors in the software application or printer driver.
- If you are using a reflective overhead projector, use a standard overhead projector instead.

Print quality problems associated with the environment

If the printer is operating in excessively humid or dry conditions, verify that the printing environment is within specifications. See the getting started guide for this printer for information on operating environment specifications.

Print quality problems associated with paper jams

Make sure that all paper is cleared from the paper path.

- If the printer recently jammed, print two to three pages to clean the printer.
- If the paper does not pass through the fuser, which causes image defects to appear on subsequent documents, print two to three pages to clean the printer. However, if the problem persists, see Print quality troubleshooting pages.

Print quality problems associated with toner buildup

Over time, toner and other particles can build up inside the printer. This buildup can cause the following print quality problems:

- marks at even intervals on the printed side of the page
- toner that smears easily
- toner specs on the page
- vertical streaks or bands on the page

To correct these types of problems, clean the printer. See Cleaning the printer and accessories, in chapter 4.

Print quality troubleshooting pages

Use the built-in print quality troubleshooting pages to help diagnose and solve print quality problems.

1. Press MENU to enter the **MENUS**.
2. Press ▼ to highlight **DIAGNOSTICS**.
3. Press ✔ to select **DIAGNOSTICS**.
4. Press ▼ to highlight **PQ TROUBLESHOOTING**.
5. Press ✔ to print the pages.

The printer returns to the Ready state after printing the print quality troubleshooting pages. If the print quality defects are found when you review the print quality troubleshooting pages, perform a printer calibration. See Calibrating the printer.

Calibrating the printer

Calibration is a printer function that optimizes print quality. If you experience any print quality problems, calibrate the printer.

1. Press MENU to enter the **MENUS**.
2. Press ▼ to highlight **CONFIGURE DEVICE.**
3. Press ✔ to select **CONFIGURE DEVICE.**
4. Press ▼ to highlight **PRINT QUALITY**.
5. Press ✔ to select **PRINT QUALITY.**
6. Press ▼ to highlight **CALIBRATE NOW.**
7. Press ✔ to select **CALIBRATE NOW.**

Using Color

The HP Color LaserJet 3500/3550 series printer and the HP Color LaserJet 3700 series printer offer great color printing as soon as you set up the printer. They provide a combination of automatic color features to generate excellent color results for the general office user. Also, the HP Color LaserJet 3700 series printer provides sophisticated tools for the professional who is experienced with using color.

The HP Color LaserJet 3500/3550 series printer and HP Color LaserJet 3700 series printer provide carefully designed and tested color tables to provide smooth, accurate color rendition of all printable colors.

HP ImageREt 2400

HP ImageREt 2400 is a technology that provides the best color print quality without having to change printer driver settings or make trade-offs between print quality, performance, and memory.

HP ImageREt 2400 has been improved for this printer. The improvements offer trapping technologies, even greater control over dot placement, and more precise control of toner quality in a dot. These new technologies, coupled with HP's multilevel printing process, result in a 600-by-600 dpi printer that provides 2400 dpi color laser-class quality with millions of smooth colors.

Paper selection

For the best color and image quality it is important to select the appropriate paper type from the software printer menu or from the printer control panel. See Selecting paper, in chapter 1.

Color options (available for the HP Color LaserJet 3700 series printer)

Color options automatically enable optimal color output for diverse types of documents.

Color options use object tagging, which allows optimal color and halftone settings to be used for different objects (text, graphics, and photos) on a page. The printer driver determines which objects are used on a page and uses halftone and color settings that provide the best print quality for each object. Object tagging, combined with optimized default settings, produces great color out of the box.

In the Windows environment, the Automatic and Manual color options are on the Color tab in the printer driver.

Standard red-green-blue (sRGB)

Standard red-green-blue (sRGB) is a world-wide color standard originally developed by HP and Microsoft as a common color language for monitors, input devices (scanners and digital cameras), and output devices (printers and plotters). It is the default color space used for HP products, Microsoft operating systems, the World Wide Web, and most office software sold today. The sRGB standard is representative of the typical Windows PC monitor today and the convergence standard for high-definition television.

NOTE Factors such as the type of monitor you use and the room's lighting can affect the appearance of colors on your screen. For more information, see Managing color.

The latest versions of Adobe PhotoShop®, CorelDRAW, Microsoft Office, and many other applications use sRGB to communicate color. Most importantly, as the default color space in Microsoft operating systems, sRGB has gained broad adoption as a means to exchange color information between applications and devices using a common definition that ensures typical users will experience greatly improved color matching. The sRGB standard improves your ability to match colors between the printer, the PC monitor, and other input devices (scanners and digital cameras) automatically, without the need to become a color expert.

Printing in four-colors [CMYK (available for the HP Color LaserJet 3700 series printer)

Cyan, magenta, yellow, and black (CMYK) are the inks used by a printing press. The process is often called four-color printing. CMYK data files are typically used by and originate from graphic arts (printing and publishing) environments. The printer will accept CMYK colors through the PS printer driver. The printer color-rendering of CMYK is designed to provide rich, saturated colors for text and graphics.

CMYK ink set emulation (PostScript only)

The printer's color rendering of CMYK can be made to emulate several standard Offset Press ink sets.

- **Default.** This selection is good for general purpose rendering of CMYK data. It is designed to render photographs well, while at the same time providing rich saturated colors for text and graphics.
- **Specifications for Web Offset Publications (SWOP).** Common ink standard in the U.S. and other locations.
- **Euroscale.** Common ink standard in Europe and other locations.
- **Dainippon Ink and Chemical (DIC).** Common ink standard in Japan and other locations.
- **Device.** Emulation is turned off. To render photographs properly with this selection, images require color management in the application or operating system.

Use the SWOP or EURO emulation of CMYK inks to achieve the best match of PANTONE® four-color (4C) process colors from PANTONE® certified applications, depending on the swatch book used.

Managing color

Setting color options to Automatic will typically produce the best possible print quality for color documents. However, there may be cases when you want to print a color document in grayscale (black and white) or wish to change one of the printer's color options.

Using Windows, print in grayscale or change the color options using settings found on the Color tab in the printer driver.

Using a Macintosh computer, print in grayscale or change the color options using the Color Matching pop-up menu in the Print dialog box.

Print in Grayscale

Selecting the Print in Grayscale option from the printer driver prints a document in black and white. This option is useful for printing color documents that will be photocopied or faxed. When Print in Grayscale is selected, the printer goes into monochrome mode (regardless of what the COLOR/BLACK MIX setting is). This mode will reduce wear on the color cartridges.

Automatic or manual color adjustment

The Automatic color adjustment option optimizes the neutral gray color treatment, halftones, and edge enhancements used for each element in a document. For more information, see your printer driver online Help.

NOTE Automatic is the default setting and is recommended for printing all color documents.

The Manual color adjustment option allows you to adjust the neutral gray color treatment, halftones, and edge enhancements for text, graphics, and photographs. To access the Manual color options, from the Color tab, select Manual, and then Settings.

Manual color options

Manual color adjustment allows you to adjust the Color (or Color Map) and Halftoning options individually for text, graphics, and photographs.

NOTE Some applications convert text or graphics to raster images. In these cases, the Photographs settings will also control text and graphics.

Halftone options affect the resolution and clarity of your color output. You can select halftone settings for text, graphics, and photographs independently. The two halftone options are **Smooth** and **Detail**.

For the HP Color LaserJet 3700 series printer, the following options are available for the Halftone setting:

- The **Smooth** option provides better results for large, solid-filled print areas. It also enhances photographs by smoothing out fine color gradations. Choose this option when uniform and smooth area fills are top priority.
- The **Detail** option is useful for text and graphics that require sharp distinctions among lines or colors, or images that contain a pattern or a high level of detail. Choose this option when sharp edges and details are top priority.

The **Neutral Grays** setting determines the method used for creating gray colors used in text, graphics, and photographs.

For the HP Color LaserJet 3700 series printer, the following options are available for the **Neutral Grays** setting:

- **Black Only** generates neutral colors (grays and black) using only black toner. This guarantees neutral colors without a color cast.
- **4-Color** generates neutral colors (grays and black) by combining all four toner colors. This method produces smoother gradients and transitions to non-neutral colors, and it produces the darkest black.

The **Edge Control** (for the HP Color LaserJet 3500/3550 series printer) setting determines how edges are rendered. Edge control has two components: adaptive halftoning and trapping. Adaptive halftoning increases edge sharpness. Trapping reduces the effect of color plane misregistration by overlapping the edges of adjacent objects slightly.

NOTE Selecting this setting may significantly slow down the HP Color LaserJet 3500/3550 series printer's speed.

For the HP Color LaserJet 3700 series printer, the following levels of edge control are available:

- **Maximum** is the most aggressive trapping setting. Adaptive halftoning is on for this setting.
- **Normal** is the default trapping setting. Trapping is at a medium level and adaptive halftoning is on.
- **Light** sets trapping at a minimal level, and adaptive halftoning is on.
- **Off** turns off both trapping and adaptive halftoning.

For the HP Color LaserJet 3500/3550 series printer, the following levels are available:

- **Maximum** is the most aggressive trapping setting.
- **Normal** sets the trapping at a medium level.
- **Light** sets trapping at a minimal level.
- **Off** is the default trapping setting. Trapping is turned off.

For the HP Color LaserJet 3700 series printer, the following values are available for the RGB Color settings:

- **Default** instructs the printer to interpret RGB color as sRGB. The sRGB standard is the accepted standard of Microsoft and the World Wide Web Consortium (http://www.w3.org).
- **Vivid** instructs the printer to increase the color saturation in the midtones. Less colorful objects are rendered more colorfully. This value is recommended for printing business graphics.
- **Device** instructs the printer to print RGB data in raw device mode. To render photographs properly with this selection, you must manage image color in the application or operating system.

Matching colors

The process of matching printer output color to your computer screen is quite complex because printers and computer monitors use different methods of producing color. Monitors *display* colors by light pixels using an RGB (red, green, blue) color process, but printers*print* colors using a CMYK (cyan, magenta, yellow, and black) process.

Several factors can influence your ability to match printed colors to those on your monitor. These factors include:

- print media
- printer colorants (inks or toners for example)
- printing process (inkjet, press, or laser technology for example)
- overhead lighting
- personal differences in perception of color
- software applications
- printer drivers
- PC operating system
- monitors
- video cards and drivers
- operating environment (humidity for example)

Keep the above factors in mind when colors on your screen do not perfectly match your printed colors.

For most users, the best method for matching colors on your screen to your printer is to print sRGB colors.

Swatch book color matching (HP Color LaserJet 3700 series printer only)

The process for matching printer output to preprinted swatch books and standard color references is complex. In general, you can obtain a reasonably good match to a swatch book if the inks used to create the swatch book are cyan, magenta, yellow, and black. These are usually referred to as process color swatch books.

Some swatch books are created from spot colors. Spot colors are specially created colorants. Many of these spot colors are outside of the gamut (color range) of the printer. Most spot color swatch books have companion process swatch books that provide CMYK approximations to the spot color.

Most process swatch books will have a note on what process standards were used to print the swatch book. In most cases, they will be SWOP, EURO, or DIC. To get optimal color matching to the process swatch book, select the corresponding ink emulation from the printer menu. If you cannot identify the process standard, use SWOP ink emulation.

For best matching of PANTONE® four-color (4C) process colors, use the SWOP or EURO emulation for CMYK inks in the HP Color LaserJet 3700 PostScript emulation driver when printing from PANTONE®-certified applications.

Adjusting color balance

This printer features automatic color calibration to provide high-quality color output. In situations that require critical color control, you can manually adjust the density balance of the printer's four toner colors. The available range for each color is from -5 to +5. The default value is 0.

CAUTION

This procedure should only be performed by your network administrator. Performing this procedure changes the color balance of the printer by altering halftones and affects *all* print jobs.

To adjust color density

1. Press ✔ to enter the **MENUS**.
2. Press ▼ to highlight **CONFIGURE DEVICE MENU**.
3. Press ✔ to select **CONFIGURE DEVICE MENU**.
4. Press ▼ to highlight **PRINT QUALITY**.
5. Press ✔ to select **PRINT QUALITY**.
6. Press ▼ or ▲ to highlight **ADJUST COLOR**.
7. Press ▼ or ▲ to highlight the desired color.
8. Press ▼ or ▲ to highlight the correct density setting.
9. Press ✔ to select the density setting.
10. Press ⮌ to set the density for the next color.
11. After setting the density for each color, press Menu.

Image defects

If specific defects occur repeatedly, print a Print Quality Troubleshooting page (see Print quality troubleshooting pages, in this chapter) and follow the instructions on the first page. If you are unable to resolve the problem, use the information in this section to identify the root cause of the problem.

Image defects fall into the categories listed in Table 7-16. Image defects. Possible causes and recommended solutions for each of these categories are listed in the tables that follow. In general, the items are listed in order from minor repairs to major repairs. Check the items in the order in which they appear.

Table 7-16. Image defects

Image defect	Description	More information
Light image	Image light in all colors.	See Table 7-17. Causes for light images
Light color	Image light in a particular color.	See Table 7-18. Causes for one color printing light
Dark image	Image dark in all colors.	See Table 7-19. Causes for dark images
Dark color	Image dark in a particular color.	See Table 7-20. Causes for one color printing dark
Completely blank	No image is printed.	See Table 7-21. Causes for a completely blank image
All black/solid color	Image is all black or solid color.	See Table 7-22. Causes for an all black or solid colored image
Dots in vertical lines	White dots appear in image.	See Table 7-23. Causes for vertical lines of white dots
Dirt on back of paper	Dirt on the back of the page.	See Table 7-24. Causes for dirt on the back of the paper
Dirt on front of paper	Dirt on the front of the page.	See Table 7-25. Causes for dirt on the front of the paper
Vertical lines	Vertical line appears in image.	See Table 7-26. Causes for vertical lines
White vertical lines	White vertical line appears in image.	See Table 7-27. Causes for white vertical lines
Horizontal lines	Horizontal line appears in image.	See Table 7-28. Causes for horizontal line
White horizontal lines	White horizontal line appears in image.	See Table 7-29. Causes for white horizonal lines
Missing color	Image in a particular color does not come out in color	See Table 7-30. Causes for a missing color

Table 7-16. Image defects (continued)

Image defect	Description	More information
Blank spots	Blank spots appear in image.	See Table 7-31. Causes for blank spots
Poor fusing	Toner image is not fully fixed on paper.	See Table 7-32. Causes for poor fusing
Distorted Image	Image is distorted.	See Table 7-32. Causes for poor fusing
Color misregistration	Some color is misregistered.	See Table 7-34. Causes for smearing
Smearing	Image smeared in whole or in part.	See Table 7-35. Causes for smearing
Misplaced image	Whole image is incorrectly placed.	See Table 7-36. Causes for a misplaced image
Reversed color	White in image is output in color, and color is output in white.	See Table 7-37. Causes for reversed color
Snail tracks	Streaks in the page that look like snail tracks. Eventually, the paper may wrinkle.	See Table 7-38. Causes for reversed color

Light image

Table 7-17. Causes for light images

Cause	Solution
Image density is not adjusted correctly.	Calibrate the printer. See Calibrate Now, later in this chapter.
The image density is not properly adjusted.	Calibrate the printer. See Calibrate Now, later in this chapter.
Deteriorated transfer unit.	If the transfer unit is at the end of its life or its surface is deteriorated, replace the transfer unit.
Poor secondary transfer bias contacts.	On the secondary transfer roller, check the bias contacts to the high-voltage PCB. Clean contacts, if dirty. Replace defective parts with deformed/ damaged contacts.
Deformed/Deteriorated secondary transfer charging roller.	Replace the secondary transfer charging roller.
Defective high-voltage PCB.	Replace the high-voltage PCB.
Defective DC controller PCB.	Replace the DC controller PCB.

Light color

Print out a solid filled image of the problem (light) color using an external device. In the course of printing, turn the printer off and take the problem color's cartridge out. Manually open the cartridge shutter. If the toner image on the photosensitive drum is not fully transferred to the transfer unit, go to step B in the table below. If the toner image on the drum before transfer is light, go to step A.

Table 7-18. Causes for one color printing light

	Cause	Solution
A	Poor developing bias contacts.	Check the developing bias contacts to the high-voltage PCB. Clean contacts, if dirty. Replace defective parts if contacts are deformed or damaged.
	Deteriorated cartridge (photosensitive drum).	Replace the cartridge of the problem (light) color.
	Defective high-voltage PCB.	Replace the high-voltage PCB.
	Defective DC controller PCB.	Replace the DC controller PCB.
B	Poor primary transfer bias contacts.	On the transfer unit, check the primary transfer bias contacts with the high-voltage PCB. Clean contacts, if dirty. Replace defective parts if contacts are deformed or damaged.
	Deformed/Deteriorated primary transfer charging roller.	Replace the transfer unit.
	Defective high-voltage PCB.	Replace the high-voltage PCB.
	Defective laser/scanner unit	Replace the laser/scanner unit.
	Defective DC controller PCB.	Replace the DC controller PCB.

Dark image

Table 7-19. Causes for dark images

Cause	Solution
Image density is not adjusted correctly.	Calibrate the printer. See Calibrate Now, later in this chapter.

Table 7-19. Causes for dark images (continued)

Cause	Solution
Dirty color misregistration sensor lens.	Clean the color misregistration sensor lens.
Defective color misregistration sensor.	Replace the color misregistration sensor.
Defective environmental sensor.	Replace the environmental sensor.
Defective DC controller PCB.	Replace the DC controller PCB.

Dark color

Table 7-20. Causes for one color printing dark

Cause	Solution
Poor contacts with the primary charging bias, developing bias, or drum grounding.	On the problem (dark) color's cartridge, check the primary charging bias and developing bias contacts to the high-voltage PCB, or the drum grounding contacts. Clean contacts, if dirty. Replace defective parts if contacts are deformed or damaged.
Defective high-voltage PCB.	Replace the high-voltage PCB.
Defective DC controller PCB.	Replace the DC controller PCB.

Completely blank image

Table 7-21. Causes for a completely blank image

Cause	Solution
High-voltage PCB is defective (no developing bias output).	Replace the high-voltage PCB.
DC controller PCB is defective.	Replace the DC controller PCB. Calibrate the printer after replacing the DC controller. See Calibrate Now, later in this chapter.

All black or solid color

Table 7-22. Causes for an all black or solid colored image

Cause	Solution
Poor contacts with the primary charging bias, developing bias, or drum grounding.	On the problem (solid) color's cartridge, check the primary charging bias and developing bias contacts to the high-voltage PCB, or the drum grounding contacts. Clean contacts if dirty. Replace defective parts if contacts are deformed or damaged.

Table 7-22. Causes for an all black or solid colored image (continued)

Cause	Solution
Defective cartridge (primary charging roller).	Replace the problem (solid) color's cartridge.
High-voltage PCB is defective.	Replace the high-voltage PCB.
DC controller PCB is defective.	Replace the DC controller PCB. Calibrate the printer after replacing the DC controller. See Calibrate Now, later in this chapter.

Dots in vertical lines

Table 7-23. Causes for vertical lines of white dots

Cause	Solution
Deformed/Deteriorated transfer unit or primary transfer charging roller.	Replace the transfer unit.
Deformed/Deteriorated secondary transfer charging roller.	Replace the secondary transfer charging roller.
High-voltage PCB is defective.	Replace the high-voltage PCB.
DC controller PCB is defective.	Replace the DC controller PCB. Calibrate the printer after replacing the DC controller. See Calibrate Now, later in this chapter.

Dirt on back of paper

If defect is repetitive dirt, go to step A; if not, go to step B.

Table 7-24. Causes for dirt on the back of the paper

	Cause	Solution
A	Repetitive dirt (dirty registration roller, pressure roller, feed roller, fuser delivery roller, or face down delivery sub roller).	Refer to the Table 7-39. Repetitive defect cause table, later in this chapter, to identify the roller with which the problem is associated. Clean the dirty roller. Replace the roller if the dirt does not come off.
B	Dirty cassette pickup roller, feed guide, fuser inlet guide, and fuser delivery guide.	Clean any dirty places on the rollers. Replace the roller if the dirt does not come off.

Dirt on front of paper

If the defect appears in a particular color, go to step A. If it does not appear in a particular color and it is repetitive, go to step B or if it is not repetitive, go to step C.

Table 7-25. Causes for dirt on the front of the paper

	Cause	Solution
A	Defective cartridge (deteriorated toner or scratches on the developing cylinder, photosensitive drum, or primary charging roller).	Replace the cartridge of the color that matches the defect.
B	Repetitive dirt (dirty registration sub roller, fuser sleeve, feed sub roller, or face down delivery roller).	Refer to the Table 7-39. Repetitive defect cause table, later in this chapter, identify the roller with which the problem is associated. Clean the dirty roller. Replace the roller if the dirt does not come off.
C	Dirty multi-purpose tray pickup roller.	Clean dirty places on the roller. Replace the roller if the dirt does not come off.
	Defective transfer unit.	Check the transfer unit surface. If scratched or dented, replace the transfer unit.
	Defective transfer unit cleaning blade	Replace the transfer unit.

Vertical lines

Table 7-26. Causes for vertical lines

Cause	Solution
Photosensitive drum has grooves going around the circumference.	Replace the cartridge for the color of the vertical lines.
Fuser sleeve has grooves around the circumference.	Replace the fuser.

White vertical lines

If the lines appear in a particular color, go to step A. If they appear in full-color print, go to step B.

Table 7-27. Causes for white vertical lines

	Cause	Solution
A	Circumferential scratches on the developing cylinder (print cartridge).	Replace the print cartridge.
	Circumferential scratches on the photosensitive drum.	Replace the print cartridge.
B	Vertical scratches on the transfer unit.	Replace the transfer unit.
	Vertical scratches on the fuser sleeve.	Replace the fuser.

Horizontal line

If the line appears in a particular color, go to step A. If it appears in full-color print, go to step B.

Table 7-28. Causes for horizontal line

	Cause	Solution
A	The developing cylinder is deformed by being left engaged with the photosensitive drum for a long time.	Refer to the Table 7-39. Repetitive defect cause table, later in this chapter, to find out if the interval of line agrees with that of a developing cylinder. If so, output about 20 pages of print to solve the problem. If the problem is not resolved, replace the cartridge.
	Horizontal scratches on the photosensitive drum (cartridge).	Refer to the Table 7-39. Repetitive defect cause table, later in this chapter, to find out if the interval of line agrees with that of a photosensitive drum. If so, replace the cartridge.
	Print cartridge cleaning blade leaves a line of toner on the drum (C-blade blur). This error is similar to using a dust pan and broom. The line repeats every 77mm.	At the printer control panel, set CONFIGURE DEVICE/PRINT QUALITY/OPTIMIZE/ PRE-ROTATION=ON
B	Horizontal scratches on the fuser sleeve.	Refer to the Table 7-39. Repetitive defect cause table, later in this chapter, to find out if the interval of line agrees with that of a fuser sleeve. If so, replace the fuser.

White horizontal line

If the line appears in a particular color, go to A. If it appears in full color, go to B.

Table 7-29. Causes for white horizonal lines

	Cause	Solution
A	Horizontal scratches on the photosensitive drum (cartridge).	Refer to the Table 7-39. Repetitive defect cause table, later in this chapter, to find out if the interval of line agrees with that of a photosensitive drum. If so, replace the print cartridge.
B	Horizontal scratches on the transfer unit.	Check the transfer unit surface for horizontal scratches. If any, replace the transfer unit.
C	The fuser sleeve is deformed by being left engaged with the pressure roller for a long time.	Refer to the Table 7-39. Repetitive defect cause table, later in this chapter, to find out if the interval of line agrees with that of a fuser sleeve. If so, replace the fuser.

Color missing

Table 7-30. Causes for a missing color

Cause	Solution
Defective laser shutter.	Check the problem color laser shutter. Clean the shutter if dirty. Replace the shutter if deformed or damaged.
Poor developing bias contacts.	For the cartridge with the color problem (color missing) color's cartridge, check the developing bias contacts to the high-voltage PCB. Clean contacts, if dirty. Replace defective parts if the contacts are deformed or damaged.
Defective cartridge (primary charging roller).	Replace the problem (color missing) color cartridge.
Laser/scanner unit is defective.	Replace the laser/scanner for any missing color. Calibrate the printer after replacing the laser/scanner. See Calibrate Now, later in this chapter.
High-voltage PCB is defective.	Replace the high-voltage PCB.
DC controller PCB is defective.	Replace the DC controller PCB. Calibrate the printer after replacing the DC controller. See Calibrate Now, later in this chapter.

Blank spots

Table 7-31. Causes for blank spots

Cause	Solution
Poor secondary transfer bias contacts.	On the secondary transfer roller, check the bias contacts to the high-voltage PCB. Clean contacts, if dirty. Replace defective parts if the contacts are deformed or damaged.
High-voltage PCB is defective.	Replace the high-voltage PCB.
DC controller PCB is defective.	Replace the DC controller PCB. Calibrate the printer after replacing the DC controller. See Calibrate Now, later in this chapter.

Poor fusing

Table 7-32. Causes for poor fusing

Cause	Solution
Media is not within specifications. For example, media that is too thick causes poor fusing.	Use media that meets specifications. See F, in chapter 1.

Table 7-32. Causes for poor fusing (continued)

Cause	Solution
Fuser is not within nip width specifications.	Refer to the Table 7-39. Repetitive defect cause, later in this chapter, to find out if the interval of the poorly fixed places agrees with that of a fuser sleeve. If so, replace the fuser sleeve unit. Replace the fuser.
Fuser sleeve is scarred or damaged.	Replace the fuser.
Pressure roller is scarred or damaged.	Refer to the Table 7-39. Repetitive defect cause, later in this chapter, to find out if the interval of the poorly fixed places agrees with that of a pressure roller. If so, replace the fuser.
Thermistor is deteriorated.	Replace the fuser.
DC controller PCB is defective.	Replace the DC controller PCB. Calibrate the printer after replacing the DC controller. See Calibrate Now, later in this chapter.

Image distortion

Table 7-33. Causes for distortion or blurring

Cause	Solution
Transfer unit is defective.	Replace the transfer unit. Calibrate the printer after replacing the transfer unit. See Calibrate Now, later in this chapter.
Defective secondary transfer roller	If it does not rotate smoothly or it is deformed, replace the secondary transfer roller.
DC controller PCB is defective.	Replace the DC controller PCB. Calibrate the printer after replacing the DC controller. See Calibrate Now, later in this chapter.

Color misregistration

If the misregistration occurs in a particular color, go to A. If it occurs in all colors, go to step B; otherwise, perform the steps in order, from the top down.

Table 7-34. Causes for smearing

	Cause	Solution
	The color misregistration is not properly adjusted.	Calibrate the printer. See Calibrate Now, later in this chapter. Remove the ITB shipping locks. Open the front door to access these locks. There are two locks located on the left and right sides of the ITB assembly toward the bottom (toward the printer) of the door.

Table 7-34. Causes for smearing (continued)

	Cause	Solution
A	Defective cartridge.	Check if the photosensitive drum in the problem (misregistered) color's cartridge rotates smoothly. If not, replace the cartridge.
	Worn/Chipped cartridge drive gears.	Check drive gears connected into the problem (misregistered) color's cartridge. If worn or chipped, replace the gear.
B	Dirty color misregistration sensor.	Clean the lens of the color misregistration sensor.
	Defective color misregistration sensor.	Replace the color misregistration sensor.
	Defective transfer unit.	If the transfer unit does not rotate smoothly, replace the transfer unit.
	Worn/Chipped drive gears.	Check drive gears between the image drive unit and the drum motor. If worn or chipped, replace the gear.
	Defective image drive unit.	Replace the image drive unit.
	Defective laser/scanner unit.	Replace the laser/scanner unit.
	Defective DC controller PCB.	Replace the DC controller PCB.

Smearing

Table 7-35. Causes for smearing

Cause	Solution
Poor contacts to each cartridge and printer grounding.	Clean the grounding contacts on each cartridge and the printer. If the problem remains after cleaning, check contacts for deformation or damage. Replace parts, if deformed or damaged. Make sure all contacts are connected correctly.
The movement of the fuser front paper sensor lever is not smooth.	Reseat the lever to make the movement smooth.
Foreign substances/dirt on the fuser inlet guide.	Clean the fuser inlet guide.

Misplaced image

Table 7-36. Causes for a misplaced image

Cause	Solution
Paper is skewed.	See Table 7-12. Causes for skewed paper to resolve the reason for the skew.
Oblique rollers are worn. (If problem only occurs on the back side of duplex printing only.)	Replace the oblique rollers.

Table 7-36. Causes for a misplaced image (continued)

Cause	Solution
DC controller PCB is defective.	Replace the DC controller PCB. Calibrate the printer after replacing the DC controller. See Calibrate Now, later in this chapter.

Reversed color

Table 7-37. Causes for reversed color

Cause	Solution
The FFC (flat cable) that connects the DC controller to the formatter is not correctly connected.	Reseat the FFC to the DC controller PCB J1001.
Defective DC controller PCB.	Replace the DC controller PCB.

Snail tracks

Table 7-38. Causes for reversed color

Cause	Solution
Occurs in high temperature, high humidity environments on the 2nd side printed when duplexing. Cased by the fuser pressure roller being bent in or out.	Replace the fuser.

NOTE

See the print modes in CONFIGURE DEVICE/ PRINT QUALITY/ PRINT MODES to associate each paper type with a specific print mode. For example, there are several “BEST” print modes that can be set for a specific media type that will enhance print quality. Results will vary, depending on the media being used.

Also see the OPTIMIZE setting later in this chapter, for further print quality adjustments.

Repetitive defects troubleshooting

Defects on printer rollers can cause image defects to appear at regular intervals on the page. Use the repetitive defects ruler, see Figure 7-4. Repetitive defects ruler following the table on the next page, to measure the distance between defects that recur on a page. Use Table 7-39. Repetitive defect cause table, below, to determine which roller is causing the defect. To resolve the problem, try cleaning the roller first. If the roller is still dirty after cleaning or if it is damaged, replace it.

CAUTION Do not use solvents or oils to clean rollers. Instead, rub the roller with lint-free paper. If dirt is difficult to remove, rub the roller with lint-free paper dampened with rubbing alcohol.

NOTE Defects on the Tray 2 pickup roller or the multipurpose tray pickup roller do not cause a repetitive defect. Defects on these rollers cause a defect to appear only on the leading edge of the image.

Table 7-39. Repetitive defect cause

Problem Area	Period of defect (mm)	Problem			
		Dirt on front	Blank spots	Dirt on back	Poor fuser
Tray 2 feed roller	About 42	X			
Tray 2 feed sub roller	About 41			X	
Registration roller	About 44			X	
Registration sub roller	About 41	X			
Primary charging roller	About 26		X		
Photosensitive drum	About 77	X	X		
Developing cylinder	About 38	X			
fuser sleeve	About 75	X			X
Pressure roller	About 41			X	X
fuser delivery roller	About 46			X	
Face-down delivery roller	About 41	X			
Face-down delivery sub roller	About 28			X	
Cassette pick-up roller	Note			X	
Multi-purpose tray pick-up roller	Note	X			

NOTE A problem that appears only at the leading edge of image with no repetition.

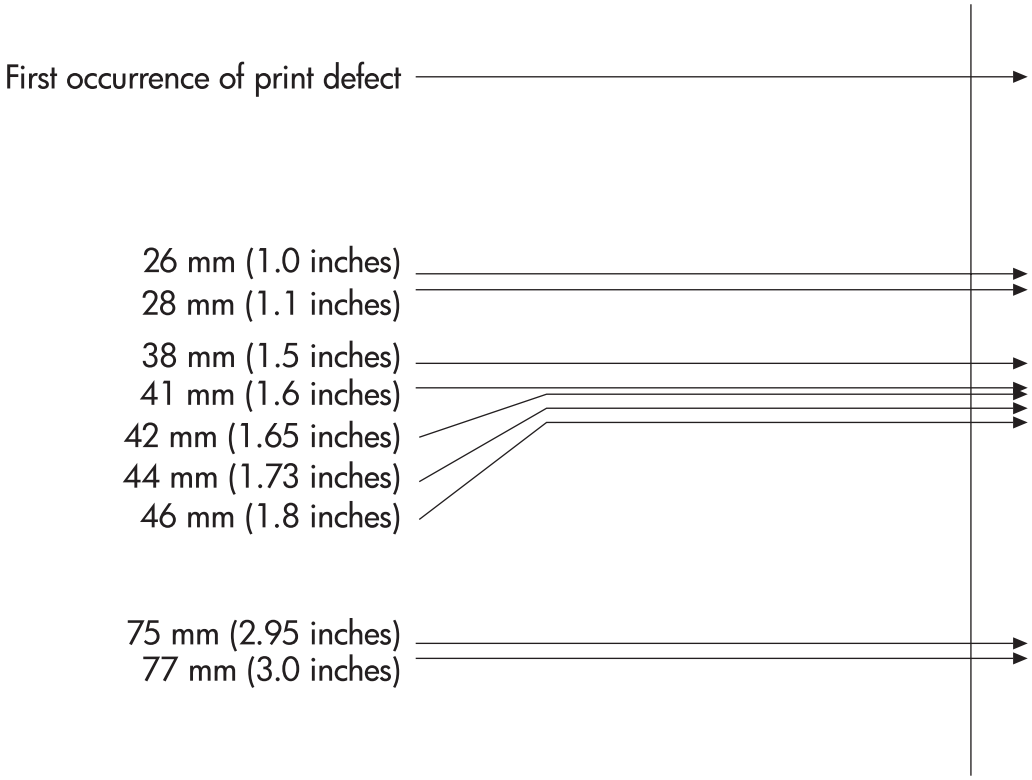


Figure 7-4. **Repetitive defects ruler**

NOTE Repetitive defects for the transfer unit normally will appear every other page since the transfer belt is longer that a page. However, the distance of the repetitive can vary depending on the type of paper fed. It is possible to see a repetitive defect more than once on the same page.

Interface troubleshooting

This section contains information about printer communication troubleshooting.

Communications checks

NOTE

Communication problems are normally the customer's responsibility. Time spent attempting to resolve these problems might not be covered by the product's Hewlett-Packard warranty.

Refer the customer to the network administrator for assistance in troubleshooting network problems.

If the printer is not connected to an MS-DOS-based host, proceed to Table 7-40. Communications check, Communications check.

Table 7-40. Communications check

Check	Action
Is your computer configured to the parameters described in the configuration instructions?	These parameters are required to communicate with the printer. Verify that the configuration of the computer's communications port matches these parameters. **NOTE** If these parameters are not set properly, an error might display on the control panel.

EIO troubleshooting

If the printer contains an optional HP Jetdirect print server, and you cannot communicate with the printer over the network, verify the operation of the print server. Print a configuration page. If the Jetdirect card does not appear under "Installed personalities and options" on the configuration page (indicated by the arrow in), see the troubleshooting section of the *HP Jetdirect Print Server Software Installation Guide*.

If the host system and printer are still not communicating, replace the formatter PCB and the EIO card and reconfigure the printer. If the problem persists, a protocol analyzer might be needed to find the source of the problem.

CAUTION HP LaserJet printers are not designed to work with mechanical switch-box products without proper surge protection. These devices generate high transient voltages that cause permanent damage to the formatter PCB. This circumstance is not covered by the Hewlett-Packard warranty.

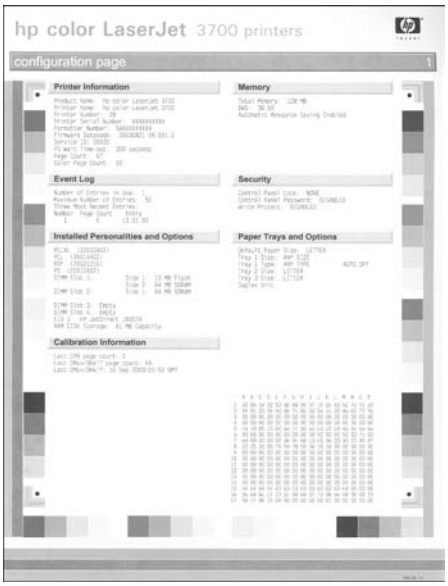


Figure 7-5. **Configuration page**

AUTOEXEC.BAT standard configurations

This section contains information about programming the printer.

Parallel DOS commands

Ensure that the AUTOEXEC.BAT file contains the following statements for parallel interface communications:

MODE LPT1: ,,P

For MS-DOS version 4.0 and above:

MODE LPT1: ,,B

NOTE This example assumes that you are using parallel printer port LPT1. If you are using LPT2 or LPT3, replace LPT1 in the example with the appropriate printer port.

Printer Job Language (PJL) commands

See the *HP Printer Job Language Technical Reference Manual* for a complete description of PJL commands. This manual is available with the *HP PCL/PJL Reference Set* on CD-ROM, part number 5021-0337.

@PJL [Enter]

This command enables the specified printer language. If the printer does not receive this command it enables the default language. This ensures the correct operation applications that do not support PJL. The command syntax is:

@PJL [Enter] LANGUAGE = {PCL/PostScript} [<CR>] <LF>

UEL (universal exit language)

This command (also referred to as the universal exit language command) terminates the current printer language and returns control to PJL. It performs the following actions:

- Prints all data received before this command.
- Performs a reset: **<esc>E in PCL, <cntrl>D in PostScript**.
- Turns control over to PJL.

This command is also a valid HP-GL/2 terminator.

The UEL command must be immediately followed by the “@PJL” command prefix. Characters or control codes other than @PJL (such as **<CR>** or **<LF>**), enable the default language and process the print job in that language. All jobs must begin and end with the UEL command. Besides entering PJL, the UEL command has the same effect as the **<esc>E** command. However, the **<esc>E** command should always be included to ensure backward compatibility.

@PJL COMMENT

This command designates the current line as a comment, which is ignored. The syntax is:

@PJL COMMENT <words> [<CR>] <LF>

@PJL INFO CONFIG

This command solicits a response to describe the installed options and allows the printer to configure the installed options automatically as the applications require.

@PJL INFO ID

This command identifies the printer type to the host for reference when selecting printer drivers for automatic installation. The command syntax is:

@PJL INFO ID <CR> <LF>

@PJL INFO USTATUS

This command queries the state of unsolicited JOB status. PAGE and TIMED status are not supported. The syntax is:

@PJL INFO USTATUS <CR> <LF>

@PJL INFO PAGECOUNT

This command returns the number of pages printed by the engine.

@PJL JOB

This command informs the printer of the start of a PJL job and synchronizes the job status information. The printer counts print jobs, including nested jobs, incrementing the job counter for the @PJL JOB command and decrementing it for @PJL EOJ.

The printer accepts the NAME= parameter and returns the name string in the unsolicited JOB start status message (if unsolicited job status is enabled). The printer transmits the unsolicited JOB status message to every I/O channel that has enabled this function. This message's format is:

@PJL USTATUS JOB <CR><LF>

START<CR><LF>

[NAME=<job name><CR><LF>]

<FF>

The printer resets the nested job counter whenever it switches the source to a different I/O channel. This prevents a corrupt job on one channel from disrupting the activities on another channel.

@PJL EOJ

This command identifies the end of a print job and is a hint for the I/O switching algorithm. The printer counts nested jobs and recognizes job boundaries when the counter decrements to zero. The printer ignores isolated EOJ commands. Each EOJ must be preceded by a JOB command.

@PJL ECHO

This printer supports the ECHO command which transmits its parameters over the I/O channel to the host that issued the command.

@PJL USTATUS JOB=ON/OFF

This command enables or disables the JOB status for the I/O channel that delivers the command.

@PJL USTATUSOFF

This command disables the unsolicited JOB status for the I/O channel that delivered the command. For this printer, it duplicates the function of **@PJL USTATUS JOB=OFF, AND @PJL USTATUS DEVICE=OFF**.

NOTE

All commands not supported by this printer's PJL command set are returned with the message **@PJL XXXX<CR><LF>?<CR><LF>**.

Control panel troubleshooting

When you press ✔ to enter the menus, the high-level menus are displayed in the following order:

- **INFORMATION**
- **PAPER HANDLING**
- **CONFIGURE DEVICE**
- **DIAGNOSTICS**
- **SERVICE**

A menu map shows how individual items are configured within each of these menus. shows a sample of one page of the menu map. The menu map prints on three pages.

Printing a menu map

1. Press Menu to enter the **MENUS**.
2. Press ▼ to highlight **INFORMATION**.
3. Press ✔ to select **INFORMATION**.
4. Press ▼ to highlight **PRINT MENU MAP**.
5. Press ✔ to select **PRINT MENU MAP**.

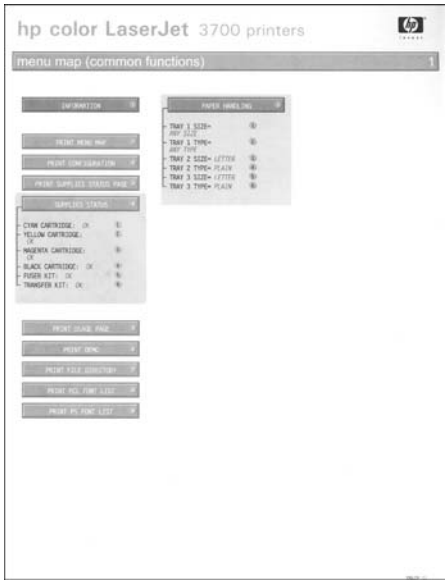


Figure 7-6. **Printer menu map (HP 3700 shown)**

Information menu

Use the Information menu to access and print specific printer information.

Table 7-41. Information menu

Menu item	Description
PRINT MENU MAP	Prints the control panel menu map, which shows the layout and current settings of the control panel menu items.
PRINT CONFIGURATION	Prints the printer configuration page.
PRINT SUPPLIES AND STATUS PAGE	Prints the estimated remaining life for the supplies; reports statistics on total number of pages and jobs processed, print cartridge manufacture date, serial number, page counts, and maintenance information.
SUPPLIES STATUS	Displays the supplies status in a scrollable list.
PRINT USAGE PAGE	HP 3700 only Prints a count of all media sizes that have passed through the printer; lists whether they were simplex, duplex, monochrome, or color; and reports the page count.
PRINT DEMO	Prints a demonstration page.
PRINT FILE DIRECTORY	HP 3700 only Prints the name and directory of files stored in the printer.
PRINT PCL FONT LIST	HP 3700 only Prints the available PCL fonts.
PRINT PS FONT LIST	HP 3700 only Prints the available PS (emulated PostScript) fonts.

Paper handling menu

The Paper handling menu allows you to configure input trays by size and type. It is important to configure the trays with this menu before you print for the first time.

NOTE

If you have used previous HP LaserJet printers, you might be accustomed to configuring Tray 1 to first mode or cassette mode. To mimic the settings for first mode, configure Tray 1 for size = ANY SIZE and type = ANY TYPE. To mimic the settings for cassette mode, set either the size or type for Tray 1 to a setting other than ANY SIZE or ANY TYPE.

Table 7-42. Paper handling menu

Menu item	Value	Description
TRAY 1 SIZE	A list of available sizes appears.	Allows you to configure the paper size for Tray 1. The default value is ANY SIZE. See Supported media weights and sizes for a complete list of available sizes.

Table 7-42. Paper handling menu (continued)

Menu item	Value	Description
TRAY 1 TYPE	A list of available types appears.	Allows you to configure the media type for Tray 1. The default value is ANY SIZE. See Supported media weights and sizes for a complete list of available types.
TRAY 2 SIZE **TRAY 3 SIZE**	A list of available sizes appears.	Allows you to configure the paper size for Tray 2 or Tray 3. The default size is Letter or A4 depending on the country/region. See Supported media weights and sizes for a complete list of available sizes.
TRAY 2 TYPE **TRAY 3 TYPE**	A list of available types appears.	Allows you to configure the paper type for Tray 2 or Tray 3. The default is PLAIN. See Supported media weights and sizes for a complete list of available types.

Configure device menu

The configure device menu allows you to change or reset the default print settings, to adjust the print quality, and to change the system configuration and I/O options.

Printing menu

These settings affect only jobs without identified properties. Most jobs identify all of the properties and override the values set from this menu. This menu can also be used to set default paper size and type.

Table 7-43. Printing menu

Menu item	Values	Description
COPIES	1 - 32000	Allows you to set the default number of copies. The default number of copies is 1.
DEFAULT PAPER SIZE	A list of available sizes appears.	Allows you to set the default paper size.
DEFAULT CUSTOM PAPER SIZE	UNIT OF MEASURE X DIMENSION Y DIMENSION	Allows you to set the default size for any custom job without dimensions. Available for Tray 1.

Table 7-43. Printing menu (continued)

Menu item	Values	Description
DUPLEX	OFF ON	HP 3700dn and 3700dtn only Allows you to enable or disable the duplex function (automatic 2-sided printing). The default is **OFF**. You can override this setting in the printer driver.
DUPLEX BINDING	LONG EDGE SHORT EDGE	Allows you to choose whether a duplex job will be flipped on the long edge or the short edge.
OVERRIDE A4/LETTER	NO YES	Allows you to set the printer to print an A4 job on letter-size paper when no A4 paper is loaded, or to print a letter-size job on A4 when no letter-size paper is loaded. The default is **NO**.
MANUAL FEED	NO OFF	The default is **OFF**. Setting it to **ON** makes **MANUAL FEED** the default for jobs that do not select a tray. You can override this setting in the printer driver.
COURIER FONT	REGULAR DARK	HP 3700 only. Allows you to select a version of the Courier font. The default is **REGULAR**.
WIDE A4	NO YES	HP 3700 only. Allows you to change the printable area of A4 paper so that eighty 10-pitch characters may be printed on a single line. The default is **NO**.
PRINT PS ERRORS	OFF ON	HP 3700 only. Allows you to select to print PS (emulated PostScript) error pages. The default is **OFF**.

Table 7-43. Printing menu (continued)

Menu item	Values	Description
PCL	FORM LENGTH ORIENTATION FONT SOURCE FONT NUMBER FONT PITCH SYMBOL SET APPEND CR TO LF SUPPRESS BLANKPAGES	Allows you to configure settings for the printer control language. **FORM LENGTH** sets the number of lines per page. The default is 0. **ORIENTATION** determines long-edge versus short-edge page layout. The default is **PORTRAIT** (HP Color LaserJet 3700 series printer only). **FONT SOURCE** selects the source of the font used on the printer control panel. The default is **INTERNAL**. **FONT NUMBER** is the number of the font you select. If this font is a contour font, use **FONT PITCH** to set the pitch of a fixed-space font. The default is 10.00 (HP Color LaserJet 3700 series printer only). **SYMBOL SET** sets the symbol set used by the printer control panel. The default is PC-8. **APPEND CR TO LF** sets whether a carriage return is appended to each line feed in a backward-compatible PCL job. The default is NO. **SUPPRESS BLANK PAGES** sets whether jobs using PCL that include blank form feeds will automatically suppress the blank pages. YES indicates that form feeds will be ignored if the page is blank (HP Color LaserJet 3700 series printer only).

Print quality menu

The Print quality menu allows you to adjust all aspects of print quality, including calibration, registration, and color halftone settings.

Table 7-44. Print quality menu

Menu item	Values	Description
ADJUST COLOR	CYAN DENSITY MAGENTA DENSITY YELLOW DENSITY BLACK DENSITY RESTORE COLOR VALUES	Allows you to modify the halftone settings for each color. The default for each color is **0**.
SET REGISTRATION	PRINT TEST PAGE SOURCE ADJUST TRAY 1 ADJUST TRAY 2 ADJUST TRAY 3	Allows 1-sided and 2-sided image alignment. The default for **SOURCE** is **TRAY 2**. The default for the sub-items **ADJUST TRAY 1**, **ADJUST TRAY 2**, and **ADJUST TRAY 3** is **0**.
AUTO SENSE MODE	EXPANDED SENSING TRANSPARENCY ONLY	If a tray is configured to **PLAIN** or **ANY SIZE**, and the print job does not specify the media type, the printer will adjust the print quality for the type of print media it senses. The default is **EXPANDED SENSING**, which senses transparencies, glossy paper, and tough paper.
INK TRANSPARENCY	REJECT-GUARD FUSER ACCEPT-NOT ADVISED	**REJECT-GUARD FUSER** stops the print job when a noncompatible transparency is detected. This option protects the printer fuser from damage. **ACCEPTED-NOT ADVISED** allows the job to print normally even though a non-compatible transparency is being used. The default value is **REJECT-GUARD FUSER**.
PRINT M0DES	A list of available modes appears	Allows you to associate each paper type with a specific print mode

Table 7-44. Print quality menu (continued)

Menu item	Values	Description
OPTIMIZE	T1 UP T1 DOWN T2 UP 1 T2 UP 2 T2 DOWN 1 T2 DOWN 2 LEADING EDGE UP LEADING EDGE DOWN REDUCE BKGROUND 1 REDUCE BKGROUND 2 FUSER DOWN 1 FUSER DOWN 2 FILM OFFSET GHOST PREVENTION PRE-ROTATION RESTORE OPTIMIZE	Allows you to optimize certain parameters for all jobs rather than (or in addition to) optimizing by paper type. The default for each item is **OFF**. **RESTORE OPTIMIZE** resets all of the values to **OFF**. T1 UP - Use when toner does not adequately transfer from the print cartridge drum to the ITB. T1 DOWN - Use when toner transfers unevenly from the print cartridge drum to the ITB. T2 UP 1 - Use when poor transfer occurs on the entire surface of the media from the ITB to the paper at the secondary transfer roller. T2 UP 2 - Use when T2 UP 1 did not completely solve the problem. T2 DOWN 1 - Use when poor transfer in black or freckles appear on the entire surface of the media, especially in purple. T2 DOWN 2 - Use when T2 DOWN 1 did not completely solve the problem. LEADING EDGE UP - Unassigned. LEADING EDGE DOWN - Unassigned. REDUCE BKGROUND 1 - Unassigned. REDUCE BKGROUND 2 - Unassigned. FUSER DOWN 1 - Use when hot offset occurs (the image repeats because toner sticks to the fuser film instead of the paper; toner gets transferred to the paper later, in the wrong place). FUSER DOWN 2 - Use when FUSER DOWN 1 did not completely solve the problem.

Table 7-44. Print quality menu (continued)

Menu item	Values	Description
OPTIMIZE*continued*		FILM OFFSET - Use when fuser electrostatic offset occurs (like fuser hot offset but is caused by an electrostatic charge on the fuser film). GHOST PREVENTION - Use when positive ghost appears. PRE-ROTATION - Use when a repetitive horizontal line occurs every 77 mm due to a print cartridge drum stoppage; or, use to reduce non-uniform color areas in overhead transparencies. RESTORE OPTIMIZE - Restores default values
CALIBRATE NOW	n/a	Performs all printer calibrations to optimize print quality.
CREATE CLEANING PAGE	n/a	Prints a cleaning page to be used for cleaning the fuser roller. This page contains instructions for processing the cleaning page. See Cleaning the printer and accessories for more information.
PROCESS CLEANING PAGE	n/a	After the cleaning page is loaded in Tray 1, this menu item allows the printer to process the cleaning page. The cleaning process takes a few moments. See Cleaning the printer and accessories for more information.

System setup menu

The system setup menu allows you to make changes to default settings for general printer configuration, such as PowerSave Time, printer personality (language), and jam recovery.

Table 7-45. System setup submenu

Menu item	Values	Description
SHOW ADDRESS	AUTO OFF	**AUTO** allows the printer's IP address to be shown on the printer control panel, alternating with the Ready message. The default is **OFF**. This menu item is displayed only if the printer is connected to a network (available for the HP Color LaserJet 3700n, 3700dn, and 3700dtn printer models).
COLOR/BLACK MIX	AUTO MOSTLY COLOR PAGES MOSTLY BLACK PAGES	This menu item establishes how the printer switches from color to monochrome (black and white) mode for maximum performance and print cartridge life. **AUTO** will reset the printer to the factory default setting. The default is **AUTO**. Select **MOSTLY COLOR PAGES** if nearly all of your print jobs are color with high page coverage. Select **MOSTLY BLACK PAGES** if you print mostly monochrome print jobs, or a combination of color and monochrome print jobs.

Table 7-45. System setup submenu (continued)

Menu item	Values	Description
TRAY BEHAVIOR	USE REQUESTED TRAY MANUALLY FEED PROMPT PS DEFER MEDIA	Allows you to specify settings for the tray selection behavior. (This setting allows you to configure the trays to behave like trays in some previous HP printers.) The default for **USE REQUESTED TRAY** is **EXCLUSIVELY**. The default for **MANUALLY FEED PROMPT** is **ALWAYS**. **PS DEFER MEDIA** affects how paper is handled when printing from an Adobe PS print driver. **ENABLED** uses HP's paper handling. Disabled uses the Adobe PS paper handling. The default is **ENABLED**.
POWERSAVE TIME	2 MINUTE 15 MINUTES 30 MINUTES 1 HOUR 4 HOURS 15 HOURS	Reduces power consumption when the printer has been inactive for an extended period. Allows you to set the length of time the printer remains inactive before going into PowerSave mode. The default is **30 MINUTES**.
DISPLAY BRIGHTNESS	1 - 10	Allows you to adjust the brightness of the printer's control panel. The default is **5**.
PERSONALITY	AUTO PCL PS	Sets the default personality to automatic switching, PCL, or PostScript emulation. The default is **AUTO**.

Table 7-45. System setup submenu (continued)

Menu item	Values	Description
CLEARABLE WARNINGS	ON JOB	Allows you to set the amount of time that a clearable warning is displayed on the printer control panel. The default is JOB, which is displayed until ✔ is pressed. ON is displayed until the end of the job that generated the warning.
AUTO CONTINUE	ON OFF	Determines printer behavior when the system generates an Auto Continuable error. The default is **ON**. **ON** automatically continues printing after 10 seconds. **OFF** pauses printing. Press ✔ to continue printing.
SUPPLIES LOW	CONTINUE STOP	Sets low supplies reporting options. The default is **CONTINUE**. **STOP** pauses printing when a low supply is reported. Press ✔ to continue printing.
JAM RECOVERY	AUTO ON OFF	Sets whether the printer will attempt to reprint pages after a jam. The default is **AUTO**.

Table 7-45. System setup submenu (continued)

Menu item	Values	Description
RAM DISK	AUTO OFF	Determines how the RAM disk feature is configured. **AUTO** allows the printer to determine the optimal RAM disk size based on the amount of available memory. **OFF** disables the RAM disk, but a minimal RAM disk is still available. The default is **AUTO**. HP Color LaserJet 3700 series printer only.
LANGUAGE	A list of available languages appears.	Sets the default control panel language.

I/O menu

The I/O menu allows you to configure the printer's I/O options.

Table 7-46. I/O submenu

Menu item	Values	Description
I/O TIMEOUT	5 - 300	Allows you to select the I/O timeout in seconds.
PAGE BUFFERING	OFF ON	Sets whether the printer should maximize performance or minimize engine wear while waiting for information to be transferred. Select **ON** if the printer uses USB 1.1 or Ethernet 10 base T. The default is **OFF** (available for the HP Color LaserJet 3500/3550 series printer).
PARALLEL INPUT	HIGH SPEED ADVANCED FUNCTIONS	Allows you to select the speed at which the parallel port communicates with the host and to enable or disable the bidirectional parallel communication. The default for **HIGH SPEED** is **YES**. The default for **ADVANCED FUNCTIONS** is **ON**. HP Color LaserJet 3700 series printer only.

Table 7-46. I/O submenu (continued)

Menu item	Values	Description
EIO 1	Possible values are: TCP/IP IPX/SPX APPLETALK DLC/LLC SECURE WEB RESET SECURITY LINK SPEED	HP 3700 only Allows you to configure EIO devices installed in the EIO slot. See Enhanced I/O (EIO) configuration (HP color LaserJet 3700 series printer only), in chapter 3 for more information.

Resets menu

The Resets menu allows you to reset factory settings to, disable and enable PowerSave, and update the printer after new supplies are installed.

Table 7-47. Resets submenu

Menu item	Values	Description
RESTORE FACTORY SETTINGS	None.	Allows you to clear the page buffer, remove all perishable personality data, reset the printing environment, and return all default settings to factory defaults. However, this menu does not restore HP Jetdirect network settings to factory default values.
POWERSAVE	ON OFF	Allows you to enable and disable PowerSave. The default is **ON**.
RESET SUPPLIES	NEW TRANSFER KIT NEW FUSER KIT	Allows you to inform the printer that a new transfer kit or new fuser kit has been installed. The page count for the new supply will be set to 0.

Diagnostics menu

The Diagnostics menu allows you to run tests that can help you identify and solve problems with the printer.

Table 7-48. Diagnostics menu

Menu item	Description
PRINT EVENT LOG	Prints an event log that displays the last 50 entries in the printer's event log, starting with the most recent.

Table 7-48. Diagnostics menu (continued)

Menu item	Description
SHOW EVENT LOG	Displays the last 50 events on the control panel display, starting with the most recent.
PQ TROUBLESHOOTING	Prints a series of print quality assessment pages that help troubleshoot any print quality problems.
DISABLE CARTRIDGE CHECK	Allows you to print with one or more print cartridges removed to help troubleshoot many print problems.
PAPER PATH SENSORS	Shows the values of the sensors. Values are updated as paper passes each sensor. Jobs can be initiated from the control panel or sent from the computer
PAPER PATH TEST	Used to isolate the cause of paper jams.
MANUAL SENSOR TEST	Allows you to test the paper path sensors and switches for correct operation.
COMPONENT TEST	Activates individual parts independently to isolate noise, leaking, and other hardware issues.
PRINT/STOP TEST	Isolates print quality faults more accurately by stopping the printer in mid print cycle. This allows you to see where the image begins to degrade. Note, this causes a jam that may need to be removed.

Service menu

The Service menu is PIN protected for added security. Only authorized service people have access to the service menu. When you select **SERVICE** from the list of menus, you are prompted to enter your 8-digit PIN number. The PIN for the HP Color LaserJet 3500/3550 printer is 10350003 and for the HP Color LaserJet 3700 printer is 10370003.

1. Press ▼ or ▲ until the first digit of the PIN is displayed.
2. Press ✔ to save the digit. The display will replace the digit with an asterisk.
3. Repeat steps 1 and 2 until all eight digits are entered.
4. Press ⮌ at any time to move to the previous digit.

Use the Service menu to reset counts, clear the event log, enter the serial number, enter the date the printer was first used, and reset the default paper size.

Table 7-49. Service menu

Menu item	Values	Description
CLEAR EVENT LOG		Allows you to clear the printer's internal event log
TOTAL MONO PAGES	Range: 0 - 9999999	Allows you to reset the page count after replacing the formatter. The page count should reflect the number of pages printed on the print engine rather than the formatter.

Table 7-49. Service menu (continued)

Menu item	Values	Description
TOTAL COLOR PAGES	Range: 0 - 9999999	Allows you to reset the page count after replacing the formatter. The page count should reflect the number of pages printed on the print engine rather than the formatter.
REFURBISH PAGE COUNT	Range: 0 - 9999999	Allows the page count to be reset to the original refurbished page count when the printer is repaired.
TRANSFER KIT COUNT	Range, for the: HP 3500/3550: 0 - 60000 HP 3700/3550: 0 - 75,000	This item automatically resets to zero when the transfer unit is replaced and the user selects the choice to reset the transfer count. **NOTE** This value is now stored on the DC controller instead of the formatter. The transfer kit count will not change the actual page count of the transfer kit. The transfer kit count can only be reset to zero in the resets menu.
FUSER KIT COUNT	Range, for the: HP 3500: 0 - 60,000 HP 3700/3550: 0 - 75,000	Allows you to reset the page count of the current fuser if the value is lost. This item automatically resets to zero when the fuser is replaced and the user selects the choice to reset the fuser count.
SERIAL NUMBER	XXXXXXXXXX	Allows you to update the serial number if you replace the formatter.
SERVICE ID	YYDDD	If you replace the formatter, this item allows you to set the date to the date the printer was first used, rather than the date the new formatter was installed. See Service ID, in this chapter for information on the date format.
COLD RESET PAPER	LETTER A4	If the customer uses default paper size of A4 (used in Europe), this item allows you to reset the default if you replace the formatter.

Tools for troubleshooting

This section contains information about the Printer's embedded Web server.

Embedded Web server (HP Color LaserJet 3700 series printer only)

Using the embedded Web server (HP Color LaserJet 3700 series printer only)

When the printer is directly connected to a computer, use the HP Toolbox to view web pages for the printer status.

When the printer is connected to the network, the embedded Web server is automatically available. You may access the embedded Web server from Windows 95 and later. The embedded Web server allows you to view printer and network status and to manage printing functions from your computer instead of from the printer control panel. Below are examples of what you can do using the embedded Web server:

- View printer control status information
- Set the type of paper loaded in each tray
- Determine the remaining life on all supplies and order new supplies
- Change the tray configurations view
- Change the printer control panel menu confiuration
- Print internal pages
- Receive notification of printer and supplies events
- Change the network configuration
- View support content that is specific to the current state of the printer

To use the embedded Web server, you must have Microsoft Internet Explorer 4 and later, or Netscape Navigator 4 and later. The embedded Web server works when the printer is connected to an IP-based network. The embedded Web server does not support IPX-based or AppleTalk printer connections. Internet access is not require to open and use the embedded Web server.

Embedded Web server access through a network connection

In a supported Web browser on your computer, type the IP address for the printer in the address/URL field. (To find the IP address, print a configuration page. For more information about printing a configuration page, see Printer configuration page.)

NOTE Once you open the URL, you can bookmark it so that you can return to it quickly in the future.

1. The embedded Web server has three tabs that contain settings and information about the printer: the Information tab, the Settings tab, and the Network tab. Click the tab that you want to view.
2. See the following sections for more information about each tab.

Information tab

The Information pages group consists of the following pages.

- **Device Status.** This page displays the printer status and shows the life remaining of HP supplies, with 0 percent indicating that a supply is empty. The page also shows the type and size of print paper set for each tray. To change the default settings, click Change Settings.
- **Configuration page.**This page shows the information found on the printer Configuration page.
- **Supplies Status.** This page shows the life remaining of HP supplies, with 0 percent indicating that a supply is empty. This page also provides supplies part numbers. To order new supplies, click Order Supplies in the Other Links area on the left side of the window. To visit any website, you must have Internet access.
- **Event log.**This page shows a list of all printer events and errors.
- **Usage page.** This page shows a summary of the number of pages the printer has printed, grouped by size and type.
- **Device Information.**This page also shows the printer network name, address, and model information. To change these entries, click Device Information on the Settings tab.
- **Control Panel.**Displays messages from the printers control panel, for example Ready or PowerSave.

Settings tab

This tab allows you to configure the printer from your computer. The Settings tab can be password protected. If this printer is networked, always consult with the printer administrator before changing settings on this tab.

The **Settings** tab contains the following pages.

- **Configure Device.** Configure all printer settings from this page. This page contains the traditional menus found on printers using a control panel display. These menus include Information, Paper Handling, Configure Device, and Diagnostics.
- **Alerts.** Network only. Set up to receive e-mail alerts for various printer and supplies events.
- **E-mail.**Network only. Used in conjunction with the Alerts page to set up incoming and outgoing e-mail, as well as to set e-mail alerts.
- **Security.** Set a password that must be entered to gain access to the Settings and Networking tabs. Enable and disable certain features of the embedded Web server.
- **Other links.** Add or customize a link to another website. This link is displayed in the Other Links area on all embedded Web server pages. These permanent links always appear in the Other Links area: HP Instant Support™, Order Supplies, and Product Support.
- **Device Information.**Name the printer and assign an asset number to it. Enter the name and e-mail address for the primary contact who will receive information about the printer.
- **Language.**Determine the language in which to display the embedded Web server information.
- **Time Services.** Allows time synchronization with a network time server.

Networking tab

This tab allows the network administrator to control network-related settings for the printer when it is connected to an IP-based network. This tab will not appear if the printer is directly connected to a computer, or if the printer is connected to a network using anything other than an HP Jetdirect print server card.

Other links

This section contains links that connect you to the Internet. You must have Internet access in order to use any of these links. If you use a dial-up connection and did not connect when you first opened the embedded Web server, you must connect before you can visit these web sites. Connecting might require that you close the embedded Web server and reopen it.

- **HP Instant Support TM.** Connects you to the HP website to help you find solutions. This service analyzes your printer error log and configuration information to provide diagnostic and support information specific to your printer.
- **Order Supplies.** Click this link to connect to the HP website and order genuine HP supplies, such as print cartridges and paper.
- **Product Support.** Connects to the support site for the HP Color LaserJet 3500/3550 series printer and the HP Color LaserJet 3700 series printer. Then, you can search for help regarding general topics.

HP Toolbox

The HP Toolbox is a Web application that you can use for the following tasks:

- Check the printer status.
- Configure the printer settings.
- View troubleshooting information.
- View online documentation.
- Set up pop-up alerts (Windows only).

You can view the HP Toolbox when the printer is directly connected to your computer or when it is connected to a network. You must perform a complete software installation to use the HP Toolbox.

NOTE You do not have to have Internet access to open and use the HP Toolbox. However, if you click a link in the Other Links area, you must have Internet access to go to the site associated with the link. See Other links for more information.

Supported operating systems

The HP toolbox is supported for the following operating systems:

- Windows 98, 2000, Me, and XP
- Mac OS 10.2 or later

Supported browsers

To use the HP toolbox, you must have one of the following browsers:

For Windows

- Microsoft Internet Explorer 5.2 or later
- Netscape Navigator 6 or later
- Opera Software ASA Opera™

For Macintosh

- Microsoft Internet Explorer 5.2 or later
- Netscape Navigator 6 or later
- All pages can be printed from the browser.

To view HP Toolbox

On the **Start** menu, select **Programs**, and then **HP toolbox**. Double-click the Status Client icon.

The HP toolbox opens in a Web browser.

NOTE Once you open the URL, you can bookmark it so that you can return to it quickly in the future.

HP toolbox sections

The HP toolbox software contains the following sections:

- Status tab
- Troubleshooting tab
- Alerts tab
- Documentation tab
- Advanced Printer Settings window

Each page in HP toolbox contains links to the HP website for product registration, product support, and for ordering supplies. You must have Internet access to use any of these links. If you use a dial-up connection and did not connect when you first opened the HP toolbox, you must connect before you can visit these web sites.

Status tab

The Status tab has links to the following main pages:

- **Device Status.** View printer status information. This page will indicate printer conditions, such as a paper jam or an empty tray. After you correct a problem with the printer, click the Refresh button to update the device status.
- **Supplies Status.** View detailed supplies status, such as the percentage of toner remaining in the print cartridge and the number of pages printed with the current print cartridge. This page also has links to order supplies and to find recycling information.
- **Print Info.** Print the configuration page and various other information pages that are available for the printer, such as the supplies status page and the demo page.

Troubleshooting tab

The Troubleshooting tab provides links to various printer troubleshooting information, such as how to clear a paper jam, how to resolve print quality problems, and how to resolve other problems with the printer.

Alerts tab

- The Alerts tab allows you to configure the printer to automatically notify you of printer alerts. The Alerts tab has links to the following main pages:
- Set up status alerts
- Set up e-mail alerts (available for the HP Color LaserJet 3500/3550 series printer only)
- Administrative settings

Set up status alerts page

On the Set up status alerts page, you can choose to turn alerts on or off, specify when the printer should send an alert, and choose from two different types of alerts:

- a pop-up message
- a task bar icon

Click **Apply** to activate the settings.

Set up e-mail alerts page

On the Set up e-mail alerts page, you can set the e-mail addresses you want to have alerts sent to and specify what kind of alerts should go to which e-mail address. You can have up to four e-mail destinations concerning the following alerts:

- Supplies
- Service
- Paper path
- Advisory

You must set up an SMTP server to send e-mail alerts.

Administrative settings page

On the Administrative settings page, you can set the frequency of how often the HP toolbox checks for printer alerts. Three settings are available:

- once per minute (every 60 seconds)
- twice per minute (every 30 seconds)
- twenty times per minute (every 3 seconds)

If you want to reduce network I/O traffic, reduce the frequency that the printer checks for alerts.

Documentation tab

The Documentation tab contains links to these information sources:

- **User Guide.** Contains the information about the printer usage, warranty, specifications, and support that you are currently reading. The user guide is available in both HTML and PDF format.
- **Install Notes.** Contains late-breaking information about the printer.

Advanced Printer Settings window

When you click the **Advanced Printer Settings** link, a new window opens. The Advanced Printer Settings window has the following tabs:

- Information tab
- Settings tab
- Network tab

Information tab

The Information tab provides quick links to the following information:

- Device status
- Configuration
- Supplies status
- Device information
- Event log
- Usage page (HP Color LaserJet 3700 series printer only)
- Print Info pages

Settings tab

The Settings tab has links to several pages that allow you to view and change the printer's configuration.

NOTE Software settings can override settings made in HP toolbox.

- **Configure Device.** Configure all printer settings from this page. This page contains the traditional menus found on printers using a control panel display. These menus include Information, Paper Handling, Configure Device, and Diagnostics.
- **Device Information.**Name the printer and assign an asset number to it. Enter the name and e-mail address for the primary contact who will receive information about the printer.

Network tab

The Network tab allows the network administrator to control network-related settings for the printer when it is connected to an IP-based network. This tab will not appear if the printer is directly connected to a computer, or if the printer is connected to a network using anything other than an HP Jetdirect print server.

HP toolbox links

The HP toolbox links at the left of the screen provide links to the following options:

- **Select a device.** Select from all HP toolbox-enabled devices.
- **View current alerts.**View the current alerts for all set up printers. (You must be printing to view current alerts.)
- **Text only page.** View HP toolbox as a site map linking to text-only pages.

Printer 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.

1. Press ✔ to enter the **MENUS**.
2. Press ▼ to highlight **INFORMATION**.
3. Press ✔ to select **INFORMATION**.
4. Press ▼ to highlight**PRINT CONFIGURATION PAGE**.
5. Press ✔ to select**PRINT CONFIGURATION PAGE**.

The message **PRINTING... CONFIGURATION** appears on the display until the printer finishes printing the configuration page. The printer returns to the **READY** state after printing the configuration page.

NOTE

If the printer is configured with EIO cards (for example, an HP Jetdirect Print Server) an additional configuration page (shown below) will print for the HP Color LaserJet 3700 series printer only that provides EOI network information.

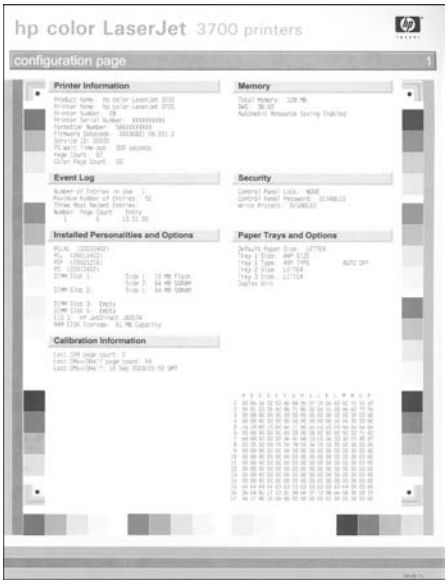


Figure 7-7. **Printer configuration page**

1 Printer information
2 Event log
3 Installed personalities and options
4 Memory
5 Security
6 Paper trays and options

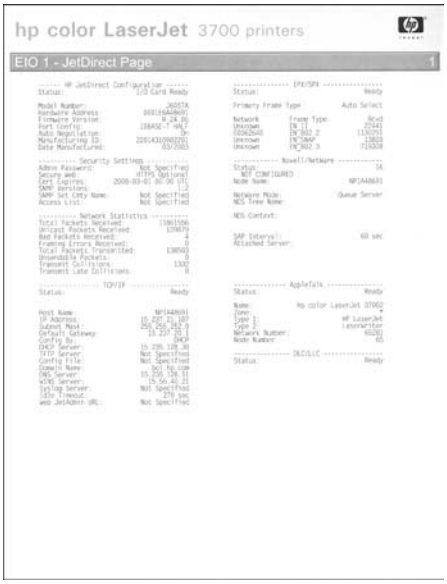


Figure 7-8. **EIO page**

1 HP JetDirect configuration
2 Security settings
3 Network statistics
4 TCP/IP settings
5 IPX/SPX settings
6 Novell/Netware settings
7 AppleTalk settings
8 DLC/LLC settings

Supplies status page

The supplies status page illustrates the remaining life for the following printer supplies:

- Print cartridges (all colors)
- Transfer unit
- Fuser

To print the supplies status page:

1. Press ✔ to enter the **MENUS**.
2. Press ▼ to highlight **INFORMATION**.
3. Press ✔ to select **INFORMATION**.
4. Press ▼ to highlight **PRINT SUPPLIES STATUS**.
5. Press ✔ to select **PRINT SUPPLIES STATUS**.

The message **PRINTING... SUPPLIES STATUS** appears on the display until the printer finishes printing the supplies status page. The printer returns to the Ready state after printing the supplies status page.

NOTE If you are using non-HP supplies, the supplies status page will not show the remaining life for those supplies.

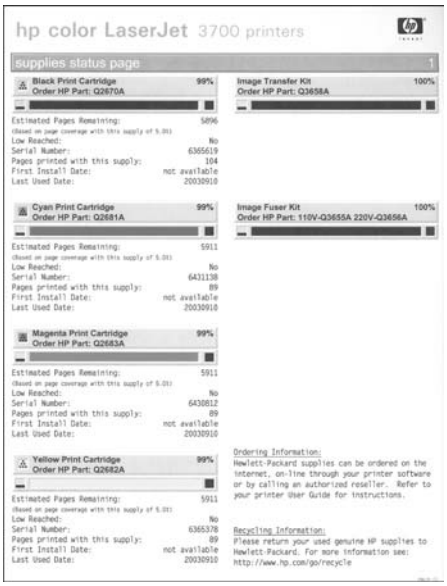


Figure 7-9. **Supplies status page**

1 Black print cartridge information
2 Cyan print cartridge information
3 Magenta print cartridge information
4 Yellow print cartridge information
5 Transfer unit kit information
6 Image fuser kit information

Usage page (HP 3700 only)

The usage page lists a page count for each size of media that has passed through the printer. This page count includes the number of pages that were printed on one side, the number that were printed on two sides (duplexed), and totals of the two printing methods for each media size. It also lists the average percentage of page coverage for each color.

1. Press ✔ to enter the **MENUS**.
2. Press ▼ to highlight **INFORMATION**.
3. Press ✔ to select **INFORMATION**.
4. Press ▼ to highlight **PRINT USAGE**.
5. Press ✔ to select **PRINT USAGE**.

The message **PRINTING... USAGE** appears on the display until the printer finishes printing the usage page. The printer returns to the Ready state after printing the usage page.

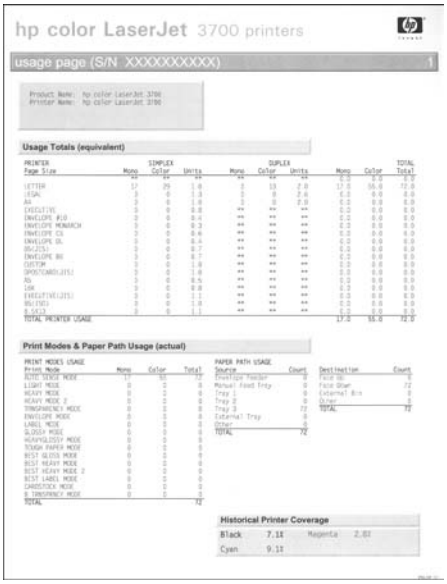


Figure 7-10. **Usage page**

1 Printer identification information
2 Usage totals
3 Percent of coverage broken down by color

Event log

The event log lists the printer events, including printer jams, service errors, and other printer conditions.

1. Press ✔ to enter the **MENUS**.
2. Press ▼ to highlight **DIAGNOSTICS**.
3. Press ✔ to select **DIAGNOSTICS**.
4. Press ▼ to highlight **PRINT EVENT LOG**.
5. Press ✔ to select **PRINT EVENT LOG**.

The message **PRINTING... EVENT LOG** appears on the display until the printer finishes printing the event log. The printer returns to the Ready state after printing the event log.

Figure 7-11. **Event log**

1 Current page count and printer serial number
2 Event number (the most recent is at the top of the list)
3 Error code
4 Page count at which the event occurred
5 Description of the event

Diagnostics

Additional diagnostic information is provided in this section.

Diagnostics flowchart

Use this flowchart to help identify the cause of high-level printer problems. These problems are indicated by abnormalities in the printer's power-on sequence. The LED that the flowchart refers to is on the formatter. Figure 7-13. Formatter LED on the next page indicates where this LED is located. This is a "heartbeat" LED that blinks on and off when the formatter is operating properly.

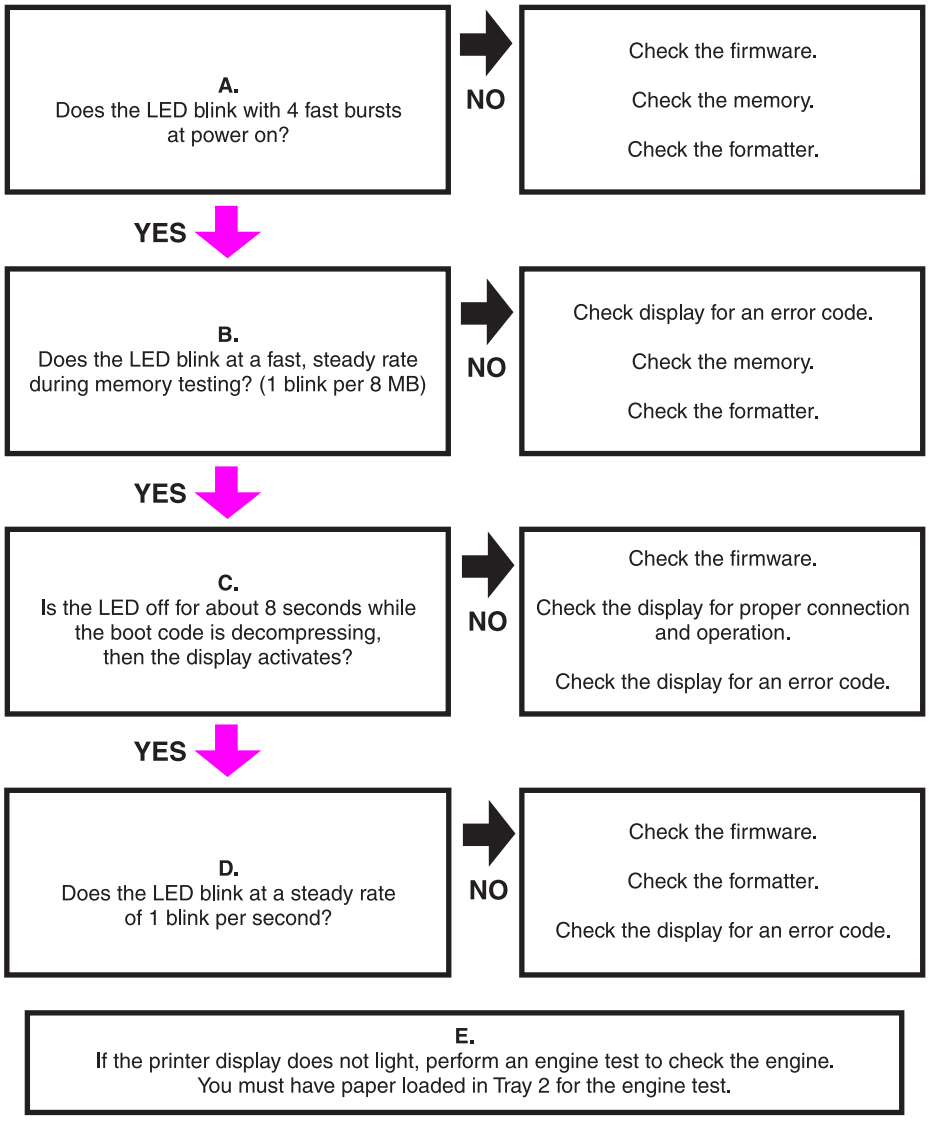


Figure 7-12. **Diagnostics flowchart**

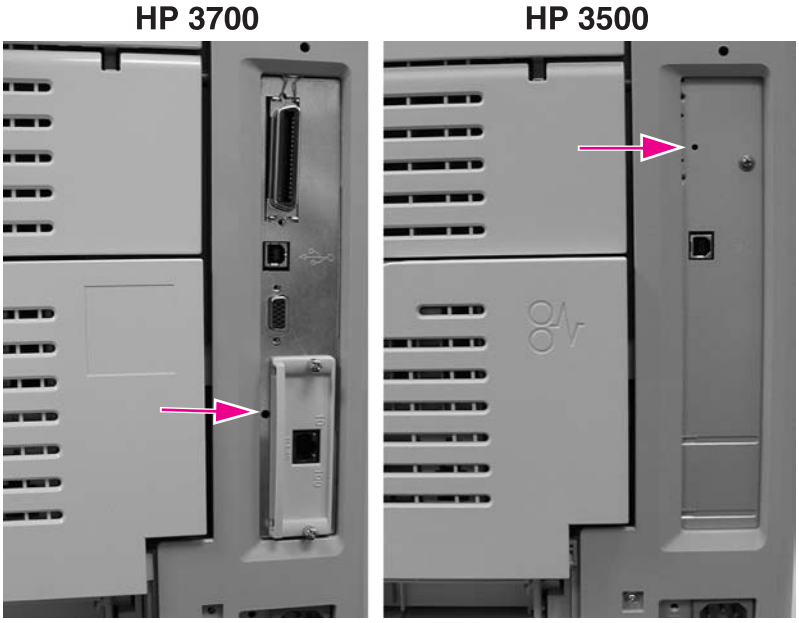


Figure 7-13. **Formatter LED**

Engine diagnostics

This section provides an overview of the engine diagnostics incorporated into the HP Color LaserJet 3500/3550 and 3700 series printer. The printer contains extensive internal diagnostics that help in troubleshooting print quality issues, paper path issues, noise issues, component issues, and timing issues.

Diagnostics mode

Some of the diagnostic tests automatically put the printer into a special diagnostics mode. The special diagnostics mode allows the printer to perform actions that it normally could not because the printer would enter an error state. Always follow the control panel directions in the Diagnostic menu to properly exit the special diagnostics mode and return the printer to a normal state.

Diagnostics that put the printer into special diagnostics mode

There are four diagnostic tests that put the printer into a special state:

- Disable cartridge check
- Paper path sensor test
- Manual sensor test
- Component test

While the printer is in the special diagnostics mode, the display should read:

Ready Diagnostics Mode

To exit press Stop KEY

When the printer is in the special diagnostics mode, the four tests listed above appear in the menu and are available to be run. To access other diagnostic tests or to leave the special state, press the STOP button, and then select **Exit diagnostics**. The printer will reset itself, and then return to the normal state.

NOTE

A good understanding of how the printer operates is required to use the engine diagnostics successfully. Before proceeding with these diagnostic tests, be sure you understand the information in Chapter 5 of this manual.

Diagnostics tests

Different tests can be used to isolate different types of issues. For component or noise isolation, you can run the diagnostics with the left, right, and rear covers removed. Do not operate the printer with the front door open. Operating the printer with the front door open will cause the gears on the right side of the printer to become out of sync with the front door. Upon closing the front door, the gears on the right side and print cartridges can be damaged.

WARNING!

Take caution when performing printer diagnostics to avoid risk of injury. Only trained service personnel should access and run the diagnostics with the covers removed. Never touch any of the power supplies with the printer turned on.

Diagnostics from the Control Panel

This section provides information about performing the printer diagnostics.

Printer display menu

Control Panel Fuel Gauges used to determine if cyan, magenta, yellow, or the black print cartridge is in a low or out condition.

Diagnostics test menu

Print Event Log

This item prints an event log that displays the last 50 entries in the printer's event log, starting with the most recent.

Show Event Log

This item displays on the control panel the last 50 events in the event log, starting with the most recent.

PQ Troubleshooting

This item prints a series of print quality assessment pages that help troubleshoot print quality problems.

Disable Cartridge Check – special mode test

This diagnostic test allows you to print internal pages or sends an external job to the printer with one or more print cartridges removed or swapped. Because the cartridges are not keyed, the diagnostic test can be run with one to four cartridges removed or swapped to another location. Consumable supply errors are ignored while in this mode. Once in this mode, you can navigate the menus and print internal pages or send an external print job to the printer. This diagnostic test can be used to isolate print quality problems related to individual cartridges and to isolate individual cartridge problems such as noise.

NOTE Do not remove or swap cartridges before entering the disable cartridge check diagnostic. After entering the test, you can remove or swap cartridges.

While performing the disable cartridge check, you can navigate the menus and print internal pages as desired from the control panel. Use the button to access the menus as you normally would. You can also send external print jobs to the printer.

To exit this diagnostic, press the STOP button and then select **EXIT diagnostics**.

Paper Path Sensors – special mode test

This test allows you to test the printer's sensors for proper operation. Each sensor is represented by a letter, as indicated in the table below. A one below the letter on the display indicates paper is present. This test allows you to print internal pages or send an external job to the printer. This test will also test the new Media sensor (PS5) which senses OHT, Gloss, Gloss Film, and Plain paper.

Manual Sensor Test – special mode test

This test allows you to *manually* test paper path sensors and the door open switch. Each sensor is represented by a letter, as indicated in the tables below.

NOTE The reversed paper sensor (PS9) and duplexing feed delivery paper sensor (PS10) are for the HP Color LaserJet 3700 series printer only

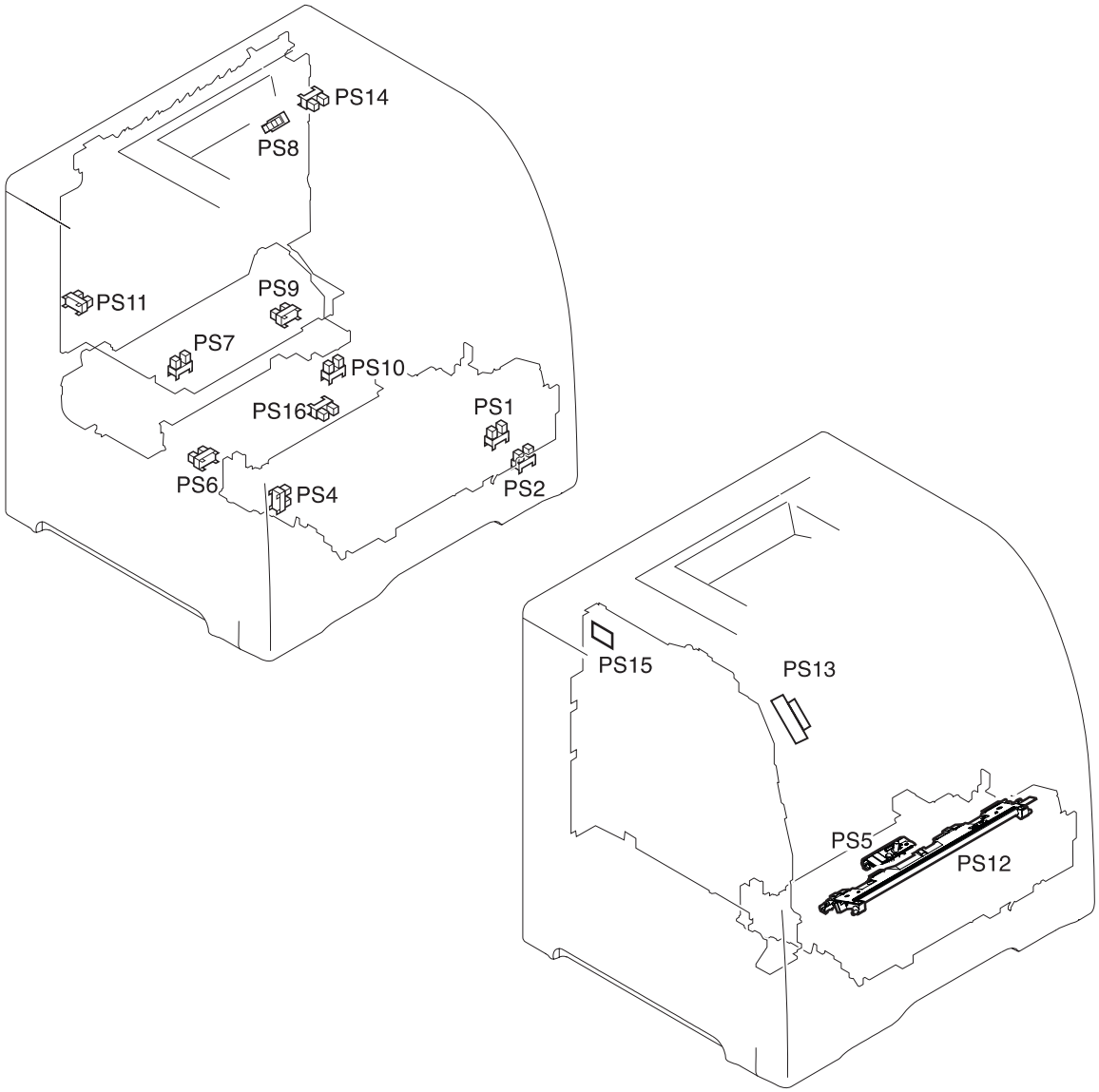


Figure 7-14. **Location of sensors**

PS1 Tray 1 paper sensor
PS2 Tray 2 (cassette) paper sensor
PS3 Tray 3 paper sensor (see 500-sheet paper feeder)
PS4 Registration paper sensor
PS5 Media sensor
PS6 Fuser front paper sensor
PS7 Fuser delivery paper sensor
PS8 Face-down delivery paper sensor
PS9 Reversed paper sensor (HP 3700 only)
PS10 Duplexing feed delivery paper sensor
PS11 Face-up tray sensor
PS12 Color misregistration sensor
PS13 Waste toner level sensor
PS14 Developing engaging sensor
PS15 Environmental conditions sensor
PS16 Secondary transfer roller engaging sensor

Table 7-50. Paper path and manual sensor test control panel information

	Name	Symbol	PAPER PATH SENSORS	MANUAL SENSOR TEST
A	HP 3700 only Reversed paper sensor	PS9	0 or 1	0 or 1
B	HP 3700 only Duplexing feed paper sensor	PS10	0 or 1	0 or 1
C	Multi-purpose tray paper sensor	PS1	0 or 1	0 or 1
D	Cassette paper sensor	PS2	0 or 1	0 or 1
E	Paper feeder (Tray 3) paper sensor	PS3	0 or 1	0 or 1
F	Registration paper sensor	PS4	0 or 1	0 or 1
G	Fixing front paper sensor	PS6	0 or 1	0 or 1
H	Fixing delivery paper sensor	PS7	0 or 1	0 or 1
I	Face-down delivery paper sensor	PS8	0 or 1	0 or 1
J	Developing engaging sensor	PS14	0 or 1	0 or 1
K	Media sensor	PS5	0, 1, 3, 4, 5, or 6*	X
L	Misprint		0 or 1	X
M	Face-up tray sensor	PS11	HP 3500/3550 - 0 or 1 HP 3700 - X	0 or 1
N	Waste toner full sensor	PS13	HP 3500/3550 - 0 or 1 HP 3700 - X	0 or 1
O	Door-open detection switch	SW1	HP 3500/3550 - 0 or 1 HP 3700 - X	0 or 1

* - Media sensor: 0- unknown, 1- normal, 3- OHT, 4- glossy, 5-gloss film, 6- non-assured OHT

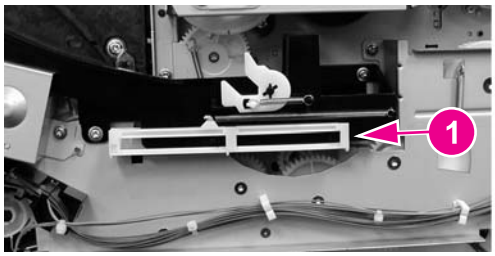
X - indicates a blank; no value is displayed.

N: this sensor can be tested by shining a light into the lower sensor hole.

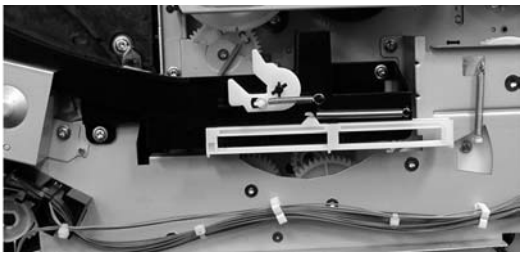
O: only toggle this switch by opening and closing the front door. Do not toggle this switch with the door open using a screw driver. You can damage the gears on the right side and the print cartridges when closing the front door after the switch has been defeated. If the front door switch is toggled with the front door open, you will not be able to close the front door. If this happens, to close the door you must perform the following steps:

1. Remove the right cover. See Right cover removal, in chapter 6.
2. Align the engaging rack to the CORRECT position (1) as shown by the figure below.

CORRECT



INCORRECT



3. Close the front door.

PS16, the secondary transfer roller engaging sensor, is not included in the sensor tests. A 59.99 on the control panel indicates an error occurred in the secondary transfer roller engaging mechanism. PS16 may be the cause of the error.

Paper Path Test

This diagnostic will generate one or more test pages that you can use to isolate the cause of paper jams. To isolate a problem, you can specify which input tray to use, specify whether to use the duplex path, and specify the number of copies to print. Multiple copies can be printed to help isolate intermittent problems. The following options become available after you enter the diagnostic:

Print test page. Run the paper path test from the default settings: Tray 2, no duplex, and one copy. To specify other settings, scroll down the menu and select the setting, then scroll back up and select PRINT TEST PAGE to execute the test.

Source. Select Tray 1, Tray 2, or Tray 3 (if the optional 500-sheet paper feeder is installed).

Duplex. Enable or disable 2-sided printing. (for the 3700 only)

Copies. Set the numbers of copies to be printed; the choices are 1,10, 50, 100, or 500.

Component Test – special mode test

The component test allows you to exercise individual parts independently to isolate problems. Each component test can be exercised once or repeatedly. If **CONTINUOUS** is selected as the repeat option, the test will cycle the component on and off. This process will repeat for 2 minutes, and then the test will terminate.

Menus cannot be accessed during component tests, so the button serves the same function as the STOP button. There are 18 component tests.

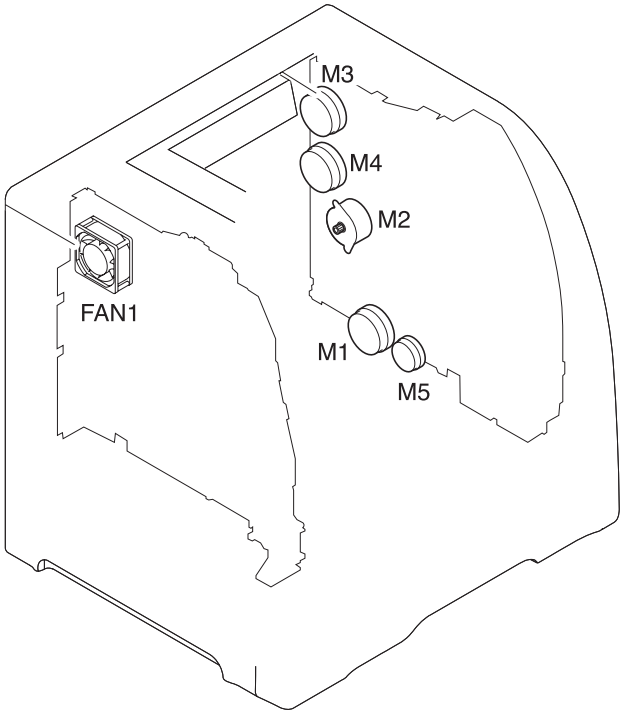


Figure 7-15. **Location of motors and fans**

M1	Feed motor
M2	Delivery motor
M3	Drum motor
M4	Developing motor
M5	Primary transfer roller engaging motor
FAN1	Exhaust fan

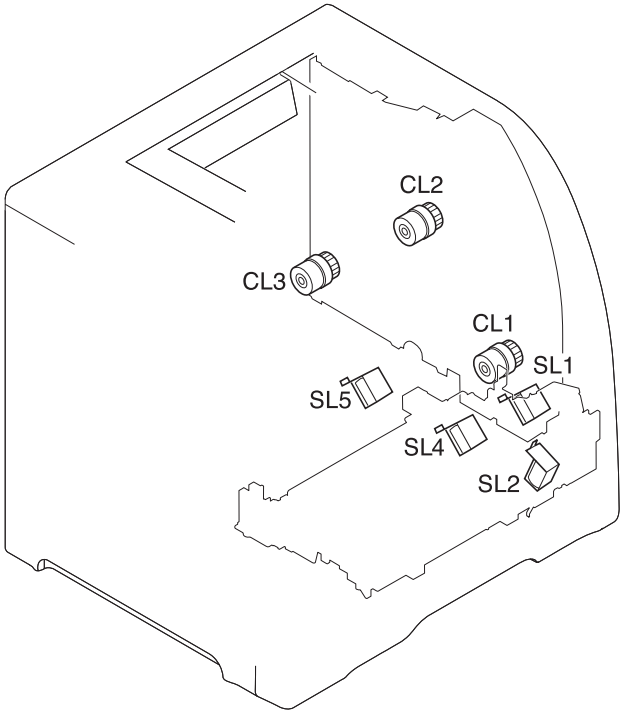


Figure 7-16. **Location of solenoids and clutches**

SL1 Tray 1 pick-up solenoid
SL2 Tray 2 pick-up solenoid (pick-up/feed assembly)
SL4 Secondary transfer roller engaging solenoid
SL5 Duplex feed solenoid
CL1 Registration clutch
CL2 K development clutch (image drive unit)
CL3 Developing engaging clutch (developing engaging drive unit)

The following 18 tests are available in the component test menu:

1. TRANSFER MOTORS

   Drives the drum motor (M3) and developing motor (M4) for 10 seconds which rotates the ITB belt, CMYK print cartridge OPC drums, and CMY developers.

2. DRUM AND DRUM MOTOR

   Drives the drum motor (M3) for 10 seconds which rotates the ITB belt and the CMYK print cartridge OPC drums.

3. BLACK LASER SCANNER

   Drives the scanner motor (cyan/black) for 10 seconds.

4. CYAN LASER SCANNER

   Drives the scanner motor (cyan/black) for 10 seconds.

5. MAGENTA LASER SCANNER

   Drives the scanner motor (magenta/yellow) for 10 seconds.

6. YELLOW LASER SCANNER

   Drives the scanner motor (magenta/yellow) for 10 seconds.

7. DEVELOPER MOTORS

   Drives the developer motor (M4) which rotates the C,M,Y print cartridge developers.

8. ALIENATION MOTOR

   Drives the delivery motor (M2) and the developing engaging clutch (CL3) which rotates the rear output paper path rollers and engages/disengages the CMYK print cartridge developer rollers. This test does not rotate the print cartridge developer rollers.

9. TRANSFER 1 MOTOR

   Drives the primary transfer roller engaging motor (M5) which engages/disengages the CMYK ITB primary charging rollers.

10. MP TRAY SOLENOID

    Drives the feed motor (M1) and the multi purpose pickup solenoid (SL1) which picks paper from the Tray 1.

11. TRAY 2 SOLENOID

    Drives the feed motor (M1) and the cassette Tray 2 pickup solenoid (SL2) which picks paper from Tray 2.

12. FUSER MOTOR

    Drives the feed motor (M1) and registration clutch (CL1) for 10 seconds which rotates the fuser, paper path rollers, and Tray 3 drive rollers.

13. DUPLEX MOTOR (3700 only)

    Drives the delivery motor (M2) which rotates the rear output paper path rollers.

14. TRANSFER 2 SOLENOID

    Drives the feed motor (M1) and the secondary transfer roller engaging solenoid (SL4) which rotates the fuser, paper path rollers, Tray 3 drive rollers, and engages the secondary transfer roller which raises it about 1/2 inch.

15. DUPLEX SOLENOID

    Drives the feed motor (M1) and the duplexing feed solenoid drive (SL5) which rotates the fuser, paper path rollers, and duplexing feed roller. Remove Tray 2 to see the gear turning on the right side of the duplex area inside Tray 2.

16. BLACK DEVELOPER DRIVE

    Drives the drum motor (M3) and black print cartridge drive clutch (CL2) for 10 seconds which rotates the ITB belt, CMYK print cartridge OPC drums, and black developer.

17. TRAY 3 DRIVE

    Drives the feed motor (M1) and paper feeder pick-up clutch (CL4) for 10 seconds which rotates the fuser, paper path rollers, and Tray 3 drive rollers.

18. TRAY 3 SOLENOID

    Drives the feed motor (M1) and paper feeder pickup solenoid (SL3) which picks paper from Tray 3.

Print/Stop Test

This diagnostic test can be used to isolate the cause of problems, such as image formation defects and jams, within the engine. This test allows you to stop the paper anywhere along the printer's paper path. The test can be programmed to stop printing internal pages or an external print job when the paper reaches a certain position. The test can also be programmed to stop from 0 to 60,000 mS. If the timer is set to a value that is greater than it takes to print the job, there are two ways to recover the printer.

After the print job completes, press Stop to return to the diagnostic menu before the timer times out.

After the timer times out, press Stop. You will have to cycle the door switch by opening and closing the front door to restart the engine and return it to a normal state. When the timer trips, the display shows the message **PRINTING STOPPED, PRESS Check TO CONTINUE**. Pressing ✔ will print the previously selected job. If you do not want the previous job to print, press Stop first, and then press the ✔ button.

NOTE Do not attempt to execute a Print/Stop test while the printer is calibrating; a power cycle will be required. If you encounter a jam message during testing, cycle the door switch.

Information menu

From the information menu, the following pages can be printed.

Print Menu Map. prints the control panel menu map, which shows the layout and current settings of the control panel menu items.

Print Configuration used to help troubleshoot printer problems or to verify installation of optional accessories such as memory (DIMMs), paper trays, and printer languages.

Print Supplies Status Page prints a page that indicates remaining life of supplies.

Supplies Status displays on the control panel the remaining life of supplies.

Print Usage Page HP 3700 only. Indicates page count for each tray and the size and type of media printed.

Print Demo used to test print quality by printing a demo page.

Print File Directory HP 3700 only. Prints the name and directory of files stored in the printer such as a RAM disk.

Print PCL Font test page HP 3700 only. Prints available PCL fonts.

Print PS Font List HP 3700 only. Prints the available PS (emulated PostScript) fonts.

Configure device menu/printing menu

Print PS Errors HP 3700 only. Allows you to print the PS error pages.

Configure device menu/resets menu

Restore Factory Settings allows you to clear the page buffer, remove all perishable personality data, reset the printing environment, and return all default settings to factory defaults.

Reset Supplies New Transfer Kit or New Fuser Kit – Allows you to inform the printer that a new transfer kit or new fuser kit has been installed which will reset the page count of that supply to zero.

Configure device menu/print quality menu

Calibrate Now used to calibrate the printer to maintain optimum print quality. It executes all printer calibrations: DMAX, DHALF, color plane registration, and drum phase adjustment.

Adjust Color, Print Modes, and Optimize These can be used to optimize print quality.

Set Registration Allows 1 sided and 2 sided image alignment.

Create Cleaning Page used to generate a cleaning page to clean spots off the fuser rollers.

Process Cleaning Page used to feed a cleaning page to clean spots off the fuser rollers.

Test pages

Printing test pages helps you determine whether the printer engine and the formatter are functioning.

Engine test page

To verify that the printer engine is functioning, print an engine test page. Use a small pointed object to depress the test page switch located on the left side of the printer, as shown in . The test page should have a series of horizontal lines. The test page can use only Tray 2 as the paper source, so ensure paper is loaded in Tray 2.

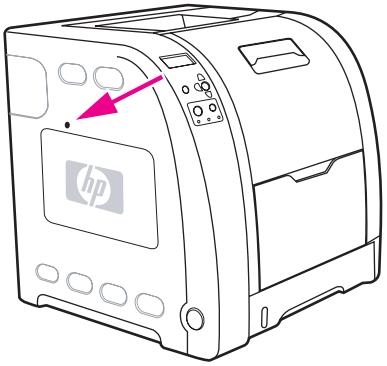


Figure 7-17. **Test page switch**

Formatter test page

To verify that the formatter is functioning, print a configuration page as follows:

1. Press ✔ to enter the **MENUS**.
2. Press ▼ to highlight **INFORMATION**.
3. Press ✔ to select **INFORMATION**.
4. Press ▼ to highlight **PRINT CONFIGURATION**.
5. Press ✔ to select **PRINT CONFIGURATION**.

Engine resets

This section provides information about the printer's cold reset and the NVRAM initialization.

Cold reset

A cold reset unlocks menus that have been locked and resets variables in the control panel. However, it does not clear the values in the Service menu (such as the serial number and page counts).

To perform a cold reset

1. Turn the printer on.
2. As the printer performs its power-on sequence, press and hold ✔ until all three lights on the control panel are lit.
3. When **SELECT LANGUAGE** appears on the display, press ▲ until **COLD RESET** appears on the display.
4. Press ✔. The printer will perform a cold reset and then continue its power-on sequence.

NVRAM initialization

CAUTION Initializing NVRAM will reset the serial number, the event log, the page counts, the calibration settings, and the EIO card (HP 3700 only). Use the Service menu to restore the serial number and page counts. You will also need to reconfigure any computers that print to this printer to recognize the printer. Initialize NVRAM only when absolutely necessary. In most situations, use a Cold reset to reset printer variables but still retain the needed values in the Service menu.

Before initializing NVRAM, print a configuration page and a supplies status page or go to the service menu to gather the following information:

- total page count and color page count
- fuser kit count
- serial number

To initialize NVRAM

1. Turn the printer on and watch the control panel display.
2. When the display begins showing the memory count, press and hold ▼ until all three lights on the control panel are lit.
3. Press ▲.
4. Press Menu. The display should show **SKIP DISK LOAD**.
5. Press ▼ until **NVRAM INIT** is highlighted.
6. Press ✔. The printer will initialize NVRAM and then continue its power-on sequence.

Calibration bypass

During certain diagnostic procedures, you will need to bypass the automatic calibration that is performed whenever the printer is turned on.

To bypass calibration

1. Turn the printer on and watch the control panel display.
2. When the display begins showing the memory count, press and hold ▼ until all three lights on the control panel are lit.
3. Press ▲.
4. Press Menu. The display should show **SKIP DISK LOAD**.
5. Press ▲ until **SKIP CALIBRATION** is highlighted.
6. Press ✔. The printer will skip calibration and then continue its power-on sequence.

Calibrate Now

Use the following procedure to calibrate the printer whenever you replace the DC controller, the formatter, the color misregistration sensor (PS12), the transfer unit, or the laser/scanner.

1. Press ✔ to enter the **MENUS**.
2. Press ▼ to highlight **configure device**.
3. Press ✔ to select **configure device**.
4. Press ▼ to highlight **PRINT quality**.
5. Press ✔ to select **PRINT quality**.
6. Press ▼ to highlight **CALIBRATE NOW**.
7. Press ✔ to select **CALIBRATE NOW**.
8. Wait for the printer to calibrate.

Service menu

This section provides information about accessing the service menu and its operation.

Accessing the Service menu

The Service menu is PIN protected for added security. Only authorized service people have access to the Service menu. When you select **SERVICE** from the list of menus, you are prompted to enter your 8-digit PIN number. The PIN for the HP Color LaserJet 3500/3550 series printer is 10350003 and for the HP Color LaserJet 3700 series printer is 10370003.

1. Press ▲ or ▼ until the first digit of the PIN is displayed.
2. Press ✔ to save the digit. The display will replace the digit with an asterisk.
3. Repeat steps 1 and 2 until all eight digits are entered.
4. Press ⮌ at any time to move to the previous digit.

Clear event log

This item allows you to clear the printer's internal event log.

Total page count

The page count stored in NVRAM and printed on the configuration page represents the number of pages that the formatter has formatted (not including engine test prints). If you install a new formatter when repairing a printer, use this menu item to reset the page count to the previous value. In this way, the page count reflects the number of pages printed by the engine rather than starting over for the new formatter. The page count is broken into two categories: total mono pages and total color pages.

Transfer kit count

This value can be changed in the service menu but it will not change the value of the transfer kit. This value is initially set to zero at the factory. This value is automatically reset to zero when a customer installs a new transfer kit and sets **NEW TRANSFER KIT** to **YES** in the Resets menu.

If only the formatter is replaced, the transfer kit page count will not be lost.

Fuser kit count

This item allows you to reset the fuser count if the value is lost, such as when you replace the formatter. This value is initially set to zero at the factory. Enter a value up to 60,000 for the hp 3500 and 75,000 for the HP 3700/3550. This value is automatically reset to zero when a customer installs a new transfer kit and sets **NEW FUSER KIT** to **YES** in the Resets menu.

Serial number

If you replace the formatter, use this item to reset the serial number of the printer.

Service ID

This item allows the date that the printer was first used to be shown through the control panel, eliminating the need for customers to keep paper receipts for proof of warranty. Because the printer does not have an internal clock, the service ID date's availability is dependent on the printer being connected to a source that can provide the date, such as the installer, the driver, or the embedded Web server. In cases where the printer is not connected to a date source, the service ID will not be available, and the control panel will display **000000**.

Restoring the Service ID

If you replace the formatter, the date is lost. Use this menu item to reset the date to the original date the printer was first used. The date format is YYDDD. Calculate the date as follows:

1. To calculate YY, subtract 1990 from the calendar year. For instance, if the printer was first used in 2002, calculate YY as follows: 2002 – 1990 = 12. YY = 12.
2. To calculate DDD, use the following formula: 30(calendar month – 1) + calendar day = DDD. If the calendar day is 31, use 30 instead. For instance, if the printer was first used on October 17, calculate DDD as follows:
3. Subtract 1 from 10 (October is the tenth month of the year): 10 – 1 = 9.
4. Multiply 9 by 30: 9 x 30 = 270.
5. Add 17 to 270: 270 + 17 = 287. Thus, DDD = 287.

Converting the Service ID to an actual date

You can use the printer's Service ID number to determine whether the printer is still under warranty. Convert the Service ID into the installation date as follows:

1. Add 1990 to YY to get the actual year that the printer was installed.
2. Divide DDD by 30. If there is a remainder, add 1 to the result. This is the month.
3. The remainder from the calculation in step 2 is the date.

Using the Service ID 12287 as an example, the date conversion is as follows:

1. 12 + 1990 = 2002, so the year is 2002.
2. 287 divided by 30 = 9 with a remainder of 17. Since there is a remainder, add 1 to 9 to get 10, which represents October.
3. The remainder in step 2 is 17, so that is the date.
4. The complete date is 17-October-2002.

NOTE A 6-day grace period is built into the date system.

Cold reset paper

When you perform a cold reset, the paper size stored in NVRAM is reset to the default factory setting. If you replace a formatter board in a country/region such as Europe that uses A4 as the standard paper size, use this menu to reset the default paper size to A4. **LETTER** and **A4** are the only available values.

Diagrams

This section contains printer diagrams for locating parts for troublshooting.

Main parts

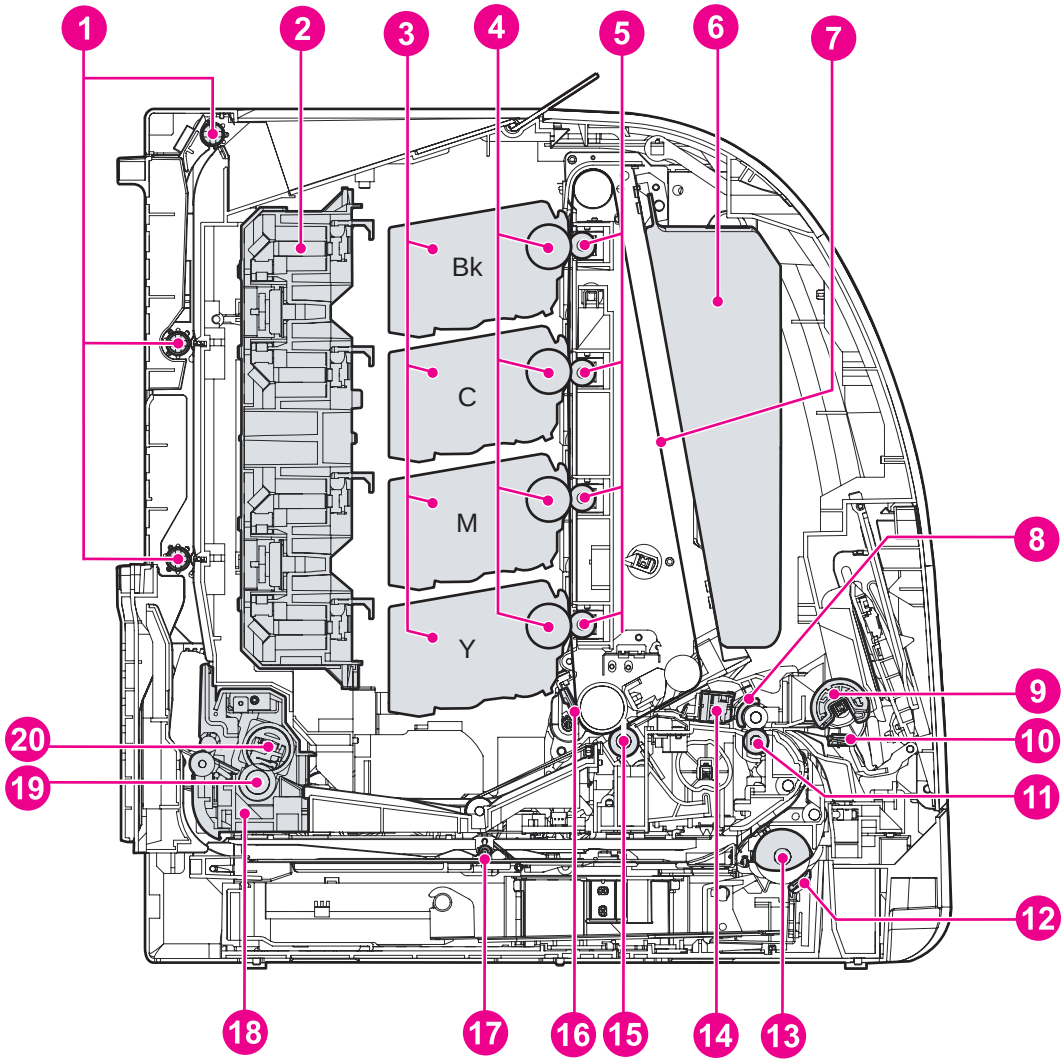


Figure 7-18. **Location of main parts**

1 Face-down delivery roller
2 Laser/scanner assembly
3 Print (toner) cartridge
4 Photosensitive drum
5 Primary transfer charging roller
6 Toner collection unit
7 Transfer unit
8 Registration shutter
9 Tray 1 (multipurpose) pickup roller
10 Tray 1 (multipurpose tray) separation roller
11 Registration roller
12 Tray 2 (cassette) separation roller
13 Tray 2 (cassette) pickup roller
14 Media sensor
15 Secondary transfer charging roller
16 ITB (transfer unit) cleaning blade
17 Duplex feed roller
18 Fuser
19 Pressure roller
20 Fuser (fixing) sleeve unit

Switches

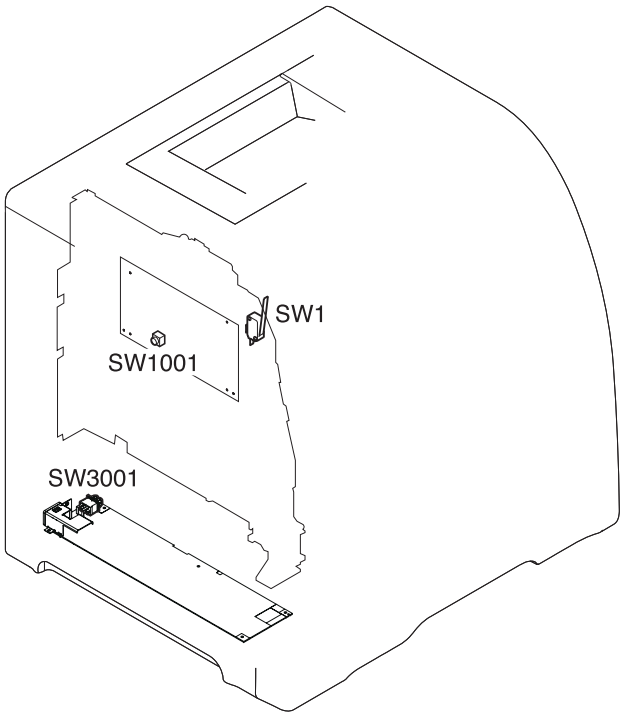


Figure 7-19. **Location of switches**

SW1 Door switch
SW1001 Test print switch
SW3001 Power switch

Sensors

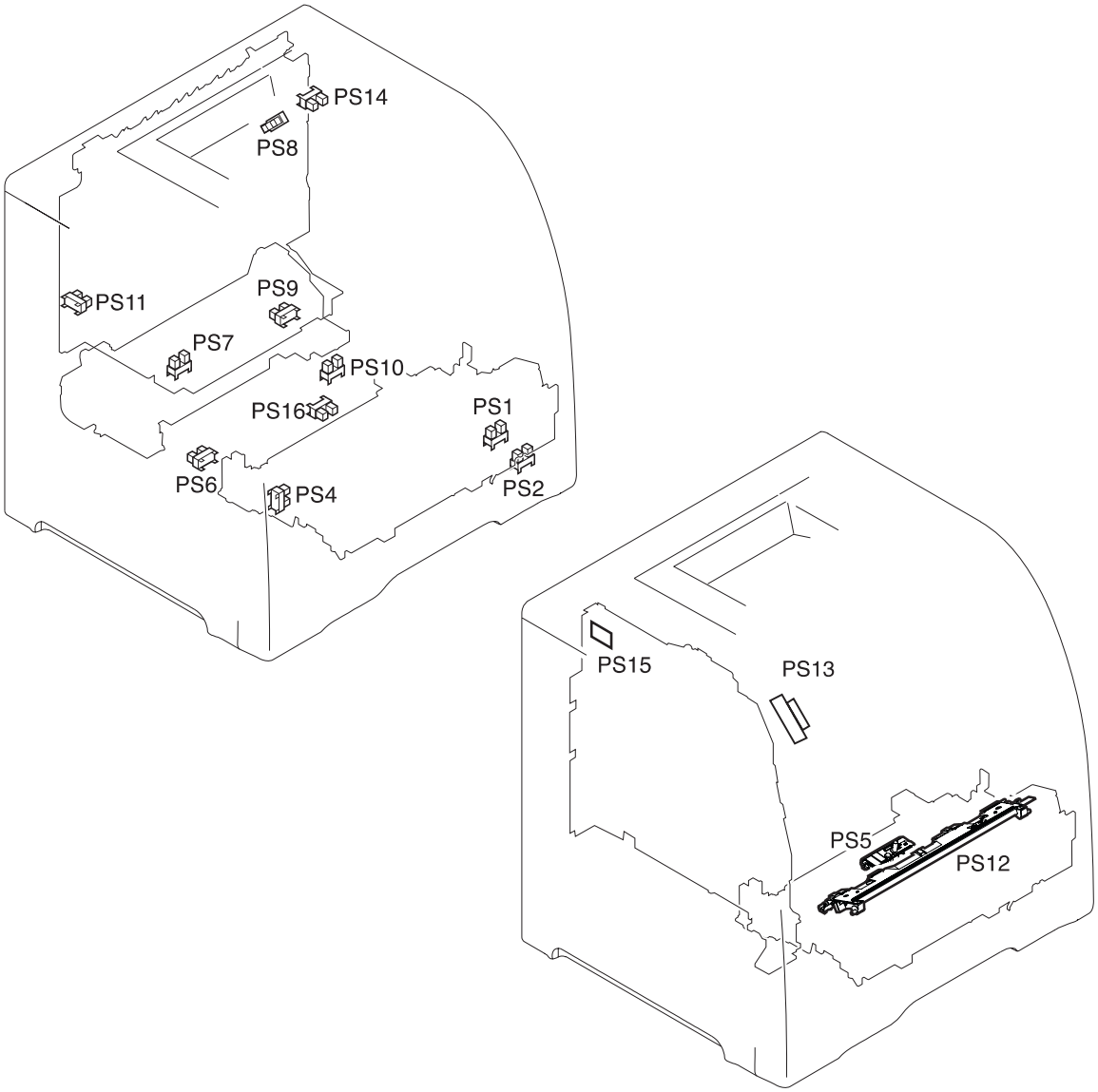


Figure 7-20. **Location of sensors**

PS1 Tray 1 paper sensor
PS2 Cassette paper sensor
PS4 Registration paper sensor
PS5 Media sensor
PS6 Fuser front paper sensor
PS7 Fuser delivery paper sensor
PS8 Face-down delivery paper sensor
PS9 Reversed paper sensor
PS10 Duplexing feed delivery paper sensor
PS11 Face-up tray sensor
PS12 Color misregistration sensor
PS13 Waste toner level sensor
PS14 Developing engaging sensor
PS15 Environmental conditions sensor
PS16 Secondary transfer roller engaging sensor

Solenoids and clutches

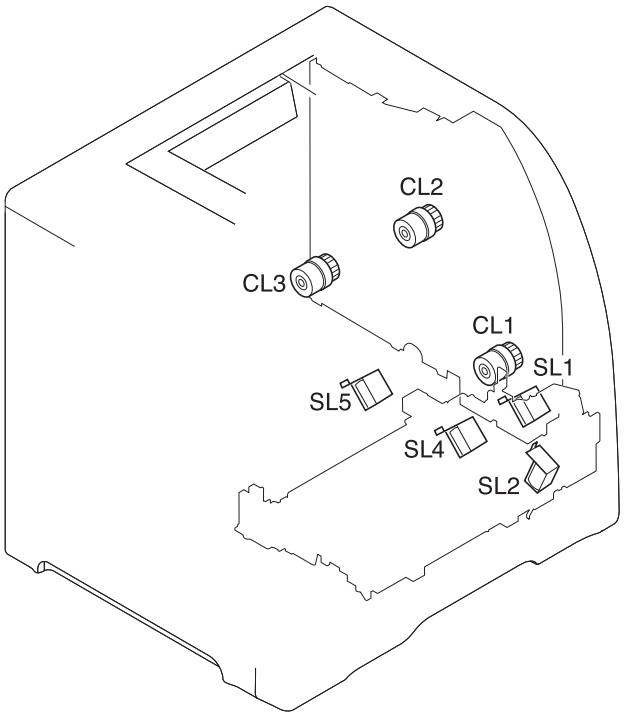


Figure 7-21. **Location of solenoids and clutches**

SL1 Tray 1 pick-up solenoid
SL2 Tray 2 pick-up solenoid (pick-up/feed assembly)
SL4 Secondary transfer roller engaging solenoid
SL5 Duplex feed solenoid
CL1 Registration clutch
CL2 K development clutch (image drive unit)
CL3 Developing engaging clutch (developing engaging drive unit)

Motors and fans

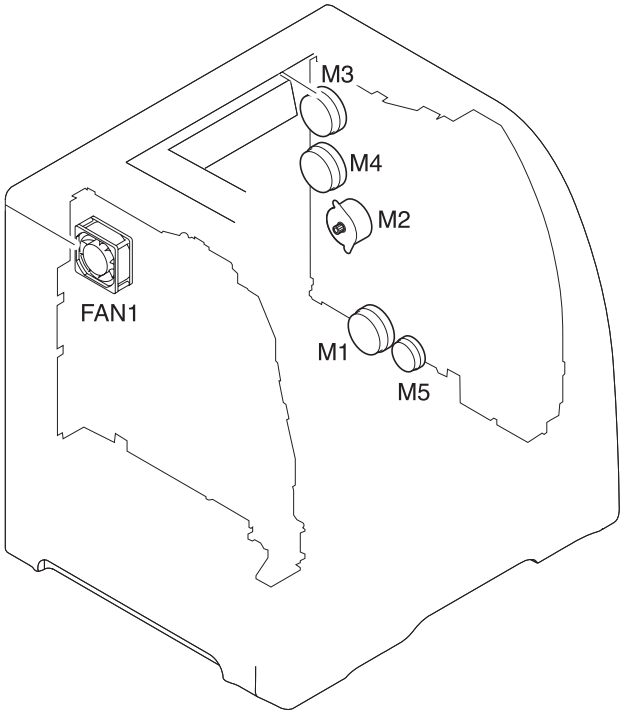


Figure 7-22. **Location of motors and fans**

M1	Feed motor
M2	Delivery motor
M3	Drum motor
M4	Developing motor
M5	Primary transfer roller engaging motor
FAN1	Exhaust fan

PCBs

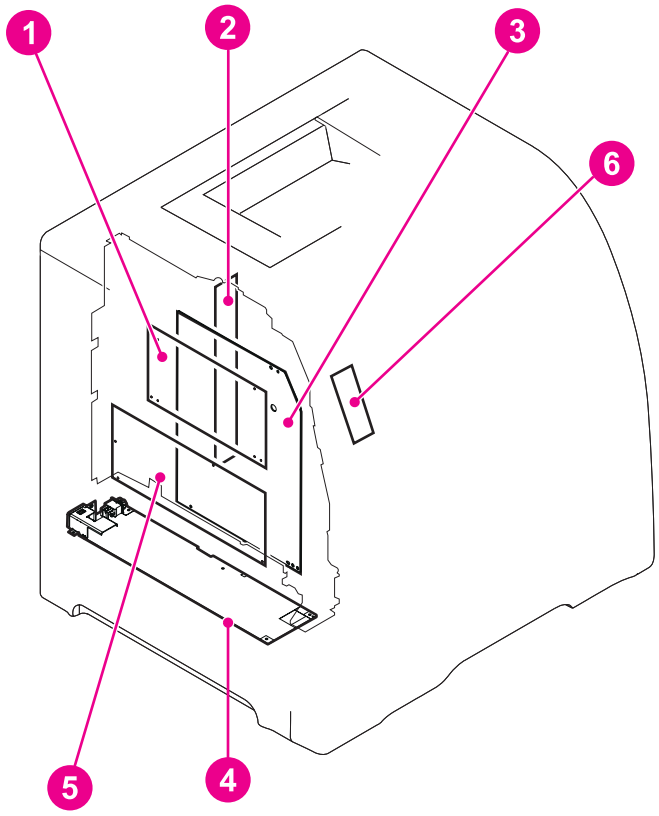


Figure 7-23. **PCB locations**

1 DC controller PCB
2 Memory controller PCB
3 High-voltage power supply PCBs
4 Low-voltage power supply PCB
5 Formatter PCB
6 Control panel PCB

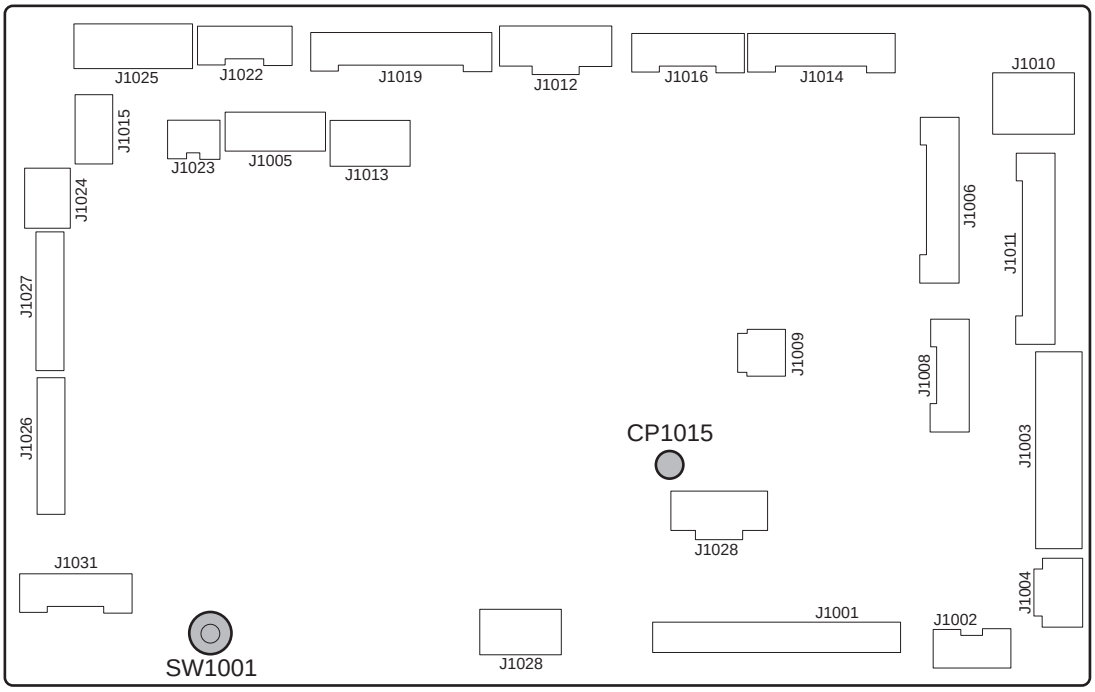


Figure 7-24. **Location of DC controller PCB connectors (HP 3700)**

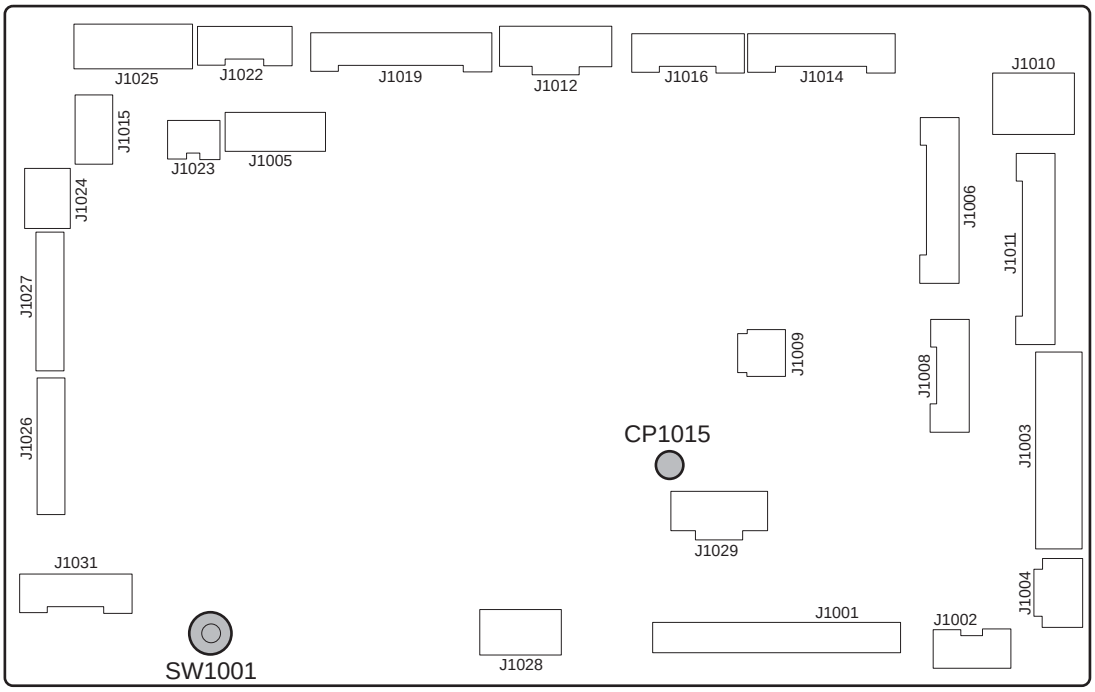


Figure 7-25. **Location of DC controller PCB connectors (HP 3500/3550)**

Connector locations

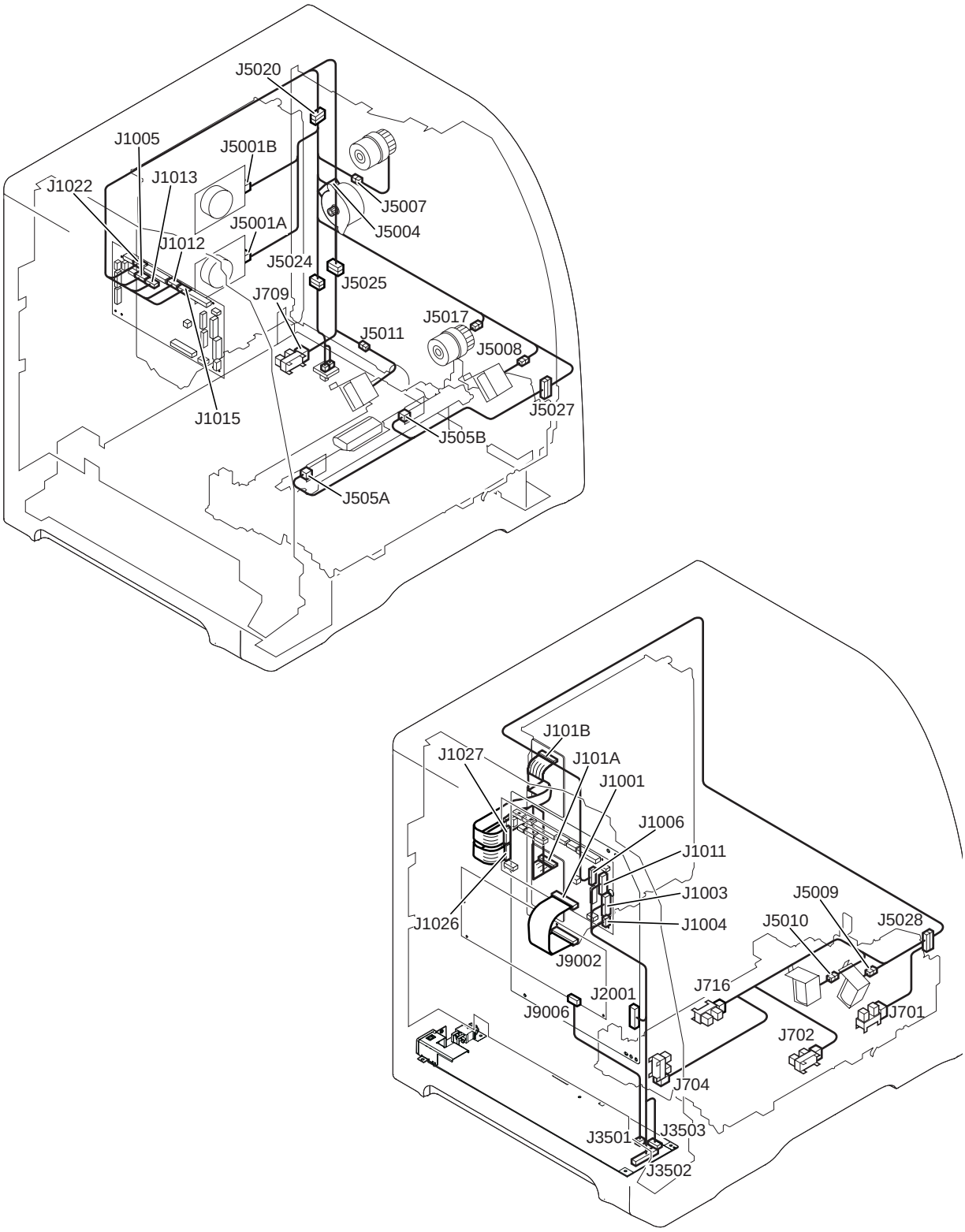


Figure 7-26. **Connector locations for the HP Color LaserJet 3700 printer (1 of 2)**

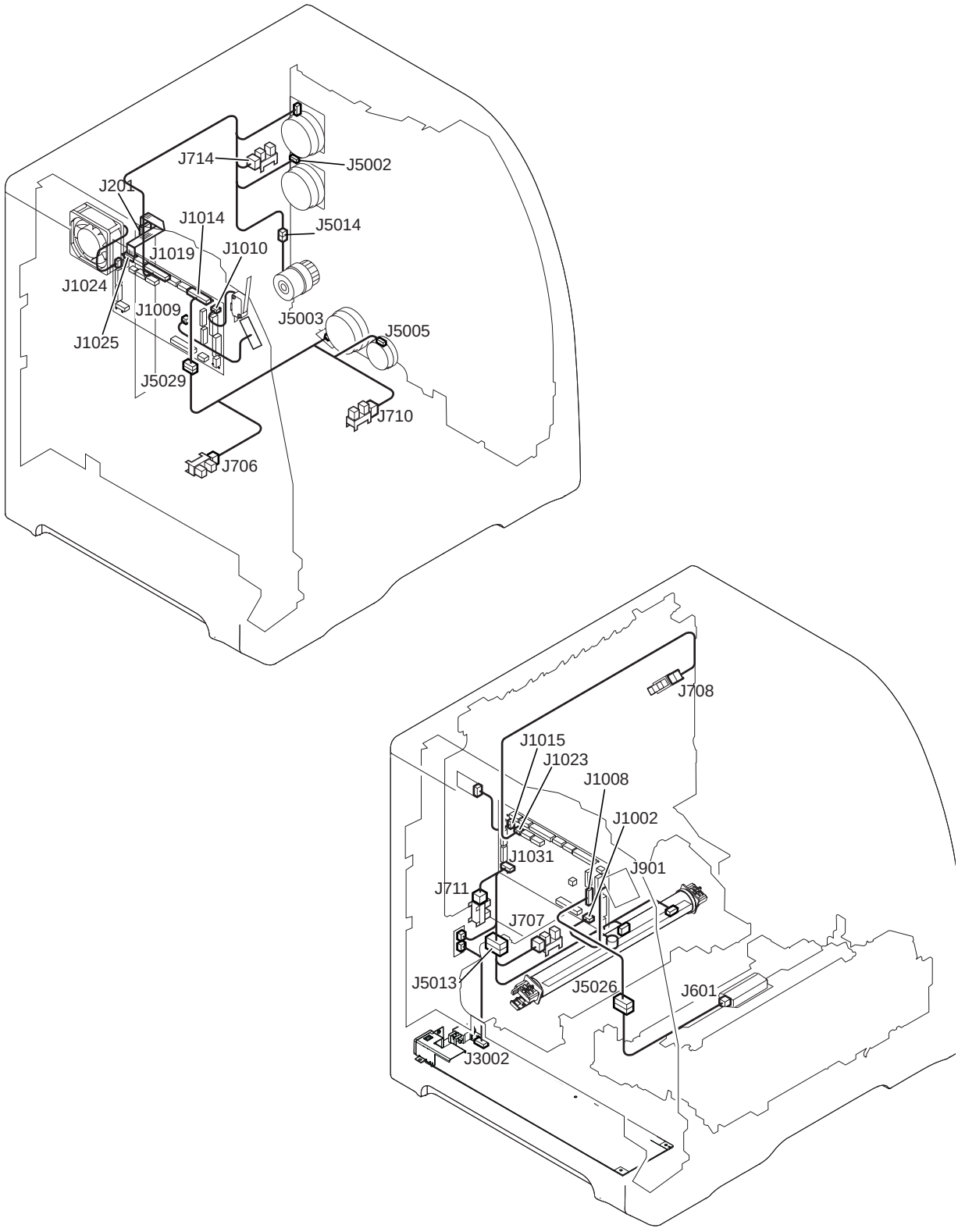


Figure 7-27. **Connector locations for the HP Color LaserJet 3700 printer (2 of 2)**

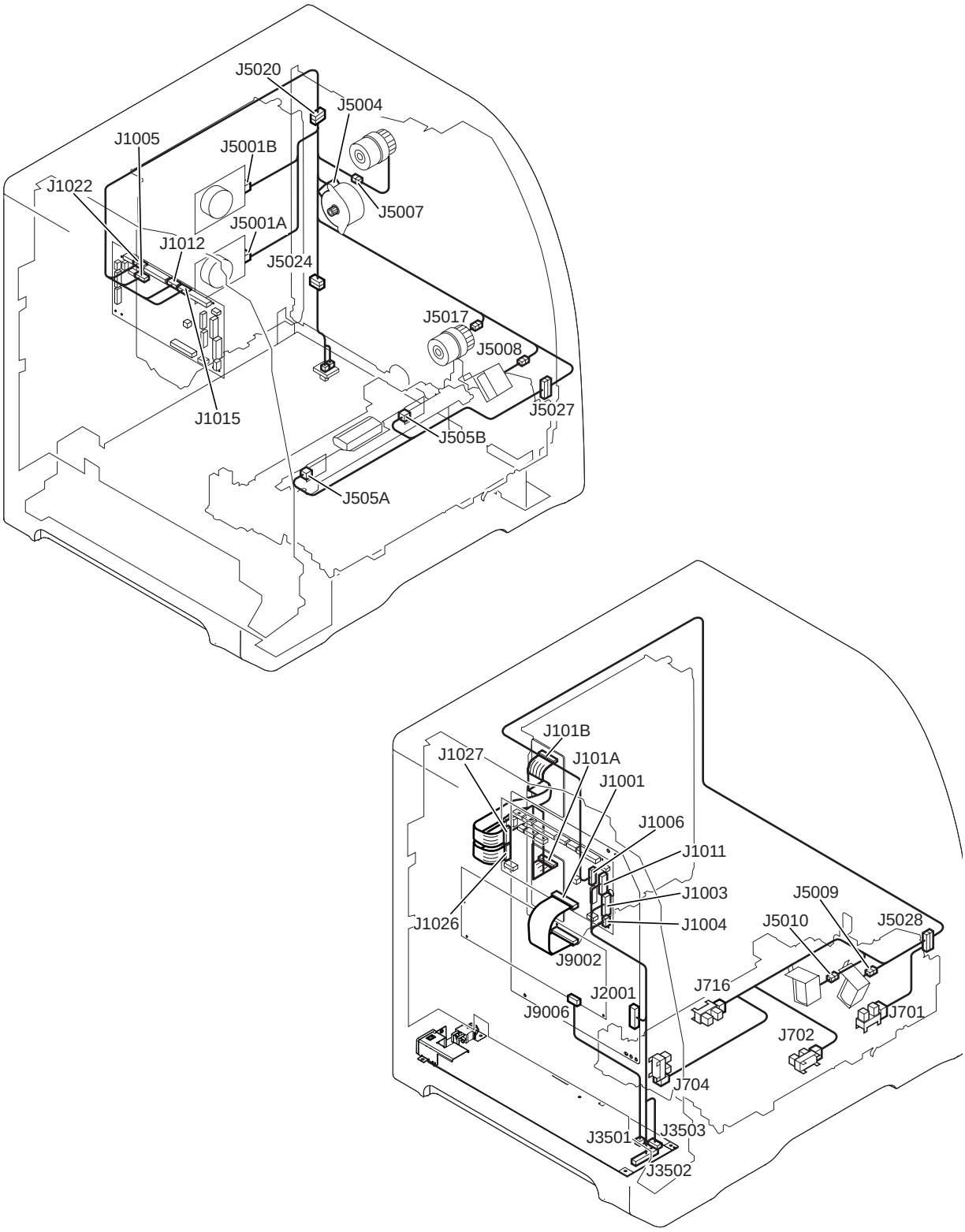


Figure 7-28. **Connector locations for the HP Color LaserJet 3500/3550 printer (1 of 2)**

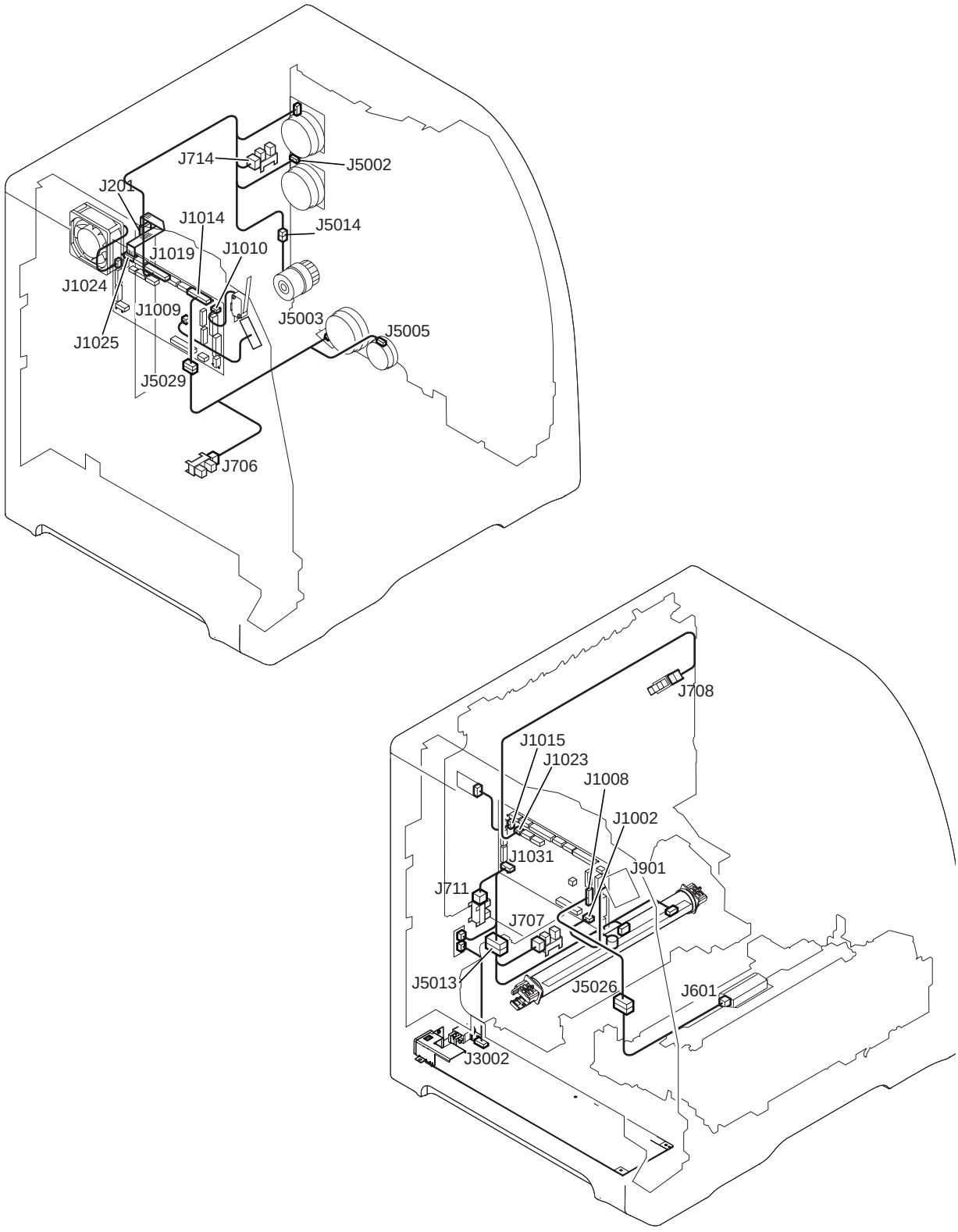


Figure 7-29. **Connector locations for the HP Color LaserJet 3500/3550 printer (2 of 2)**

500-sheet paper feeder connectors

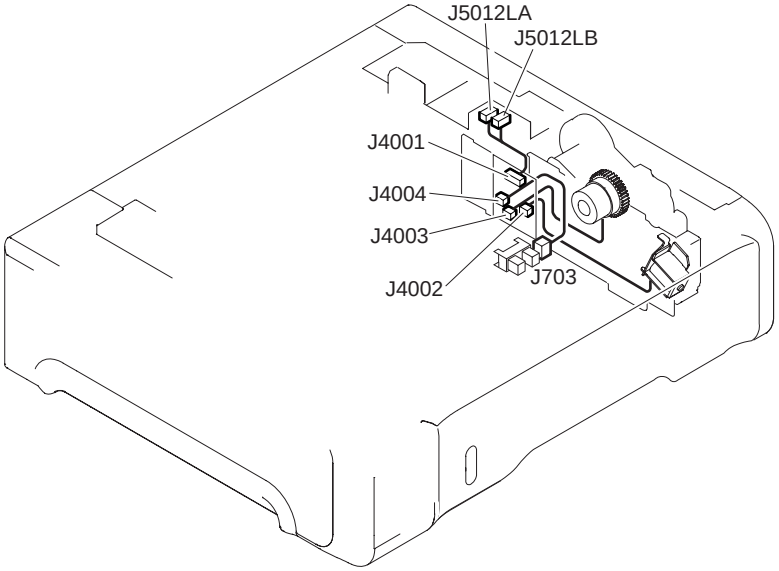


Figure 7-30. **Connector locations for the 500-sheet paper feeder**