



Troubleshooting

To better help our customers - this HP Laserjet 3200 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).

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Solving paper feed problems

Use the following table to solve problems related to moving paper or documents through the product.

Table 13. Solving paper feed problems

Problem	Cause	Solution
Pages are coming out curled or wrinkled.	Paper is curled or wrinkled when using the paper output bin.	Use the front paper output slot by opening the front paper path door. Reset the fuser mode to the default.
	Paper is not stored properly.	Whenever possible, store paper in its sealed ream at room temperature.
Long pages stop feeding through the document scanner.	The document feeder tray guides are not set correctly, are broken, or are missing.	Check for broken or missing document feeder tray guides and replace as necessary.
	The maximum scannable page length is 889 mm (35 inches). If the page is longer, scanning stops at 889 mm (30 inches).	Do not try to pull the page out because you can damage the document scanner. To remove the page, open the document release door and remove the jammed media.
Print is misaligned on the page (skewed pages).	The paper input tray is overfilled.	Remove some of the media.
	The paper guides are not set correctly, are broken, or are missing.	Be sure to center the paper with the guides. Verify that the guides are not adjusted too tightly or too loosely against the paper. Check for broken or missing paper guides and replace scanner as necessary.
	The paper's weight or surface finish does not meet HP's specifications.	Make sure that the media meets specifications detailed in HP's media specifications guide.
Scanned items are crooked.	The document feeder tray guides are not adjusted properly.	Be sure to center the paper with the guides. Also, verify that the guides are not adjusted too tightly or too loosely against the paper. Check for broken or missing document feeder tray guides and replace the scanner as necessary.

Table 13. Solving paper feed problems (continued)

Problem	Cause	Solution
The product feeds multiple sheets or jams frequently from the paper input bin or single-sheet input slot.	Paper guides are not adjusted properly.	Slide the guides against the sides of the stack in the paper input tray or against the single sheet in the single-sheet input tray to center the paper. Make sure the guides are not adjusted too tightly.
	The special media lever is in the wrong position.	Slide the special media lever back to the normal position. Only slide the special media lever to the right when copying or scanning special media.
	Paper was not removed from the paper input tray before refilling the tray.	Always remove paper from the paper input tray before refilling it.
	The paper input tray is overfilled.	Remove some of the sheets. The paper input tray can hold up to 125 sheets of 75g/m ² (20 lb) bond weight paper (less for heavier paper) or from 7 to 10 envelopes.
	More than one sheet was placed in the single-sheet input slot.	Place only one sheet at a time in the single-sheet input slot.
	The paper was poorly cut by the manufacturer and is sticking together.	“Break” the ream of paper by curving it into an upside-down u-shape; this can effectively decrease multifeeds. Also try turning the paper around to feed the opposite end first, or use a different type of paper.
	The paper does not meet HP’s specifications for print media.	Make sure that the media meets specifications detailed in HP’s media specifications guide.
	The output capacity was exceeded in the paper output bin or front paper output slot.	Do not allow more than 100 sheets of 75g/m ² (20 lb) bond weight paper (less for heavier paper) to fill the paper output bin.
	The pickup roller is dirty.	See chapter 3, “Maintenance.”
	The pickup roller is damaged.	Replace the pickup roller.
	The separation pad is dirty.	Clean the separation pad.
	The separation pad is damaged.	Replace the separation pad.
	A sensor is not operating properly.	Check the sensors to make sure that none of them are jammed. If a sensor cannot be “unjammed,” replace the sensor.
There is a problem in the paper path.	Perform the “paper path check” (see page 171) to determine which parts should be replaced.	

Table 13. Solving paper feed problems (continued)

Problem	Cause	Solution
The product feeds multiple sheets or jams frequently from the document feeder tray.	Guides are not adjusted properly.	Remove the document from the document feeder tray. Straighten the item, then reinsert it. Slide the guides against the sides of the item to center it. Make sure the guides are not adjusted too tightly.
	The document feeder tray is overfilled.	Remove some of the sheets. The document feeder tray can hold up to 10 pages, depending on the thickness of the pages.
	The item was too thick, too slick, or otherwise did not meet specifications.	Make sure that the media meets specifications detailed in HP's media specifications guide.
	The document scanner pickup roller or separation pad is dirty and cannot feed the document.	See chapter 3, "Maintenance."
	The document scanner pickup roller or separation pad is damaged or worn.	Replace the scanner.
	The sensor is not operating properly.	Check the sensor to make sure it is not jammed. If a sensor cannot be "unjammed," replace the scanner.
	There is a problem in the document scanner path.	Check the path for obstructions. Readjust as necessary or replace the scanner.
Items loaded in the document feeder tray fall forward out of the tray.	The item is on a very lightweight media.	Do not try to pull the page out because you may damage the document scanner. Open the document release door and remove the jammed media. Then, curl or roll the item in the direction of the printed side, unroll it, and reload the item.

Functional checks

Engine test

The engine test is used to verify that the print engine is functioning correctly. The formatter is bypassed during an engine test, so the engine test is useful for isolating printer problems. The engine test prints vertical lines down the entire printable area of a page and is also useful for checking and adjusting registration.

Printing an engine test

The engine test switch can be reached without removing the covers. It is located on the back of the product under the memory door.

To print an engine test, lift the memory door on the back of the printer and depress the engine test switch. A single test page will print.

Note

The formatter must be connected to the ECU to perform an engine test (see callouts 1, 2, and 3 in figure 64 on page 137). If it is not, the product prints a black page.



Figure 71. Engine test switch

Half-self-test functional check

The electrophotographic process can be subdivided into the following stages:

- Image formation stage (charges the drum and writes a latent image to the drum with the laser)
- Development stage (forms a toner image on the drum)
- Transfer stage (transfers the image to paper)
- Cleaning stage (removes excess toner from the drum)
- Fusing stage (applies heat and pressure to make the image on paper permanent)

The purpose of the half-self-test check is to determine which process is malfunctioning. Perform the test as follows:

- 1 Print a demonstration page (see “To print a demonstration page” on page 186).
- 2 Open the printer door after the paper advances half-way through the printer (about eight seconds after the motor begins rotation). The leading edge of the paper should have advanced past the toner cartridge.
- 3 Remove the toner cartridge.
- 4 Open the toner cartridge drum shield to view the drum surface. If a dark and distinct toner image is present on the drum surface, assume that the first two functions of the electrophotographic process are functioning (image formation and development). Troubleshoot the failure as a transfer or fixing problem.

If there is no image on the photosensitive drum, perform the following functional checks:

- 1 Make sure you have removed the entire length of the sealing tape from the toner cartridge before you installed the cartridge.
- 2 Perform a drum rotation functional check.
- 3 Perform a high-voltage power supply check.

Drum rotation functional check

The photosensitive drum, located in the toner cartridge, must rotate for the print process to work. The photosensitive drum receives its drive from the main drive assembly. To verify that the drum is rotating:

- 1 Open the printer door.
- 2 Remove the toner cartridge.
- 3 Mark the drive gear on the cartridge with a felt-tipped marker. Note the position of the mark.
- 4 Install the toner cartridge and close the printer door. The start-up sequence should rotate the drum enough to move the mark.
- 5 Open the printer and inspect the gear that was marked in step 3. Verify that the mark moved.

If the mark did not move, inspect the main drive assembly to make sure that it is meshing with the toner cartridge gears. If the drive gears appear functional and the drum does not move, replace the toner cartridge.

Note

This test is especially important if refilled toner cartridges have been used.

Heating element check

Paper passes between the heating element and a soft pressure roller to fuse toner to the paper. To verify that the heating element is functioning correctly:

- 1 Unplug the product for at least ten minutes.
- 2 Verify that the thermistor connector is seated into both the printer chassis and the ECU (see figure 49 on page 121).
- 3 Remove the heating element connector from the ECU (see figure 50 on page 122). To measure the continuity of the heating element, measure the resistance between the two pins at the end of the cable.

Note

Normal resistance is 30 ohms +/- 10 ohms.

- 4 If no resistance is measured, replace the heating element.
- 5 Remove the thermistor connector (see figure 49 on page 121) and measure the resistance between pins one and two.

Note

Normal resistance is 440K ohms +/- 30K ohms at 68° F (20° C).

- 6 If no resistance is measured, replace the heating element.

Paper curl

Paper curl is inherent to the laser printing processes, and occurs when paper is subjected to heat. Paper curl tends to relax as the paper cools while resting on a flat surface. The specification for maximum paper curl when the paper is lying flat before print is 5 mm (0.2 inches).

High-voltage power supply check

The high-voltage power supply PCA provides the necessary voltages for the electrophotographic processes.

Checking the toner cartridge connection points

Visually inspect the three connection points on the underside, right end of the toner cartridge: charging (callout 1), drum ground (callout 2), and developing roller (callout 3). If they are dirty or corroded, clean the connections, or, if they are damaged, replace the toner cartridge.

Note

Use only alcohol to clean the connections.

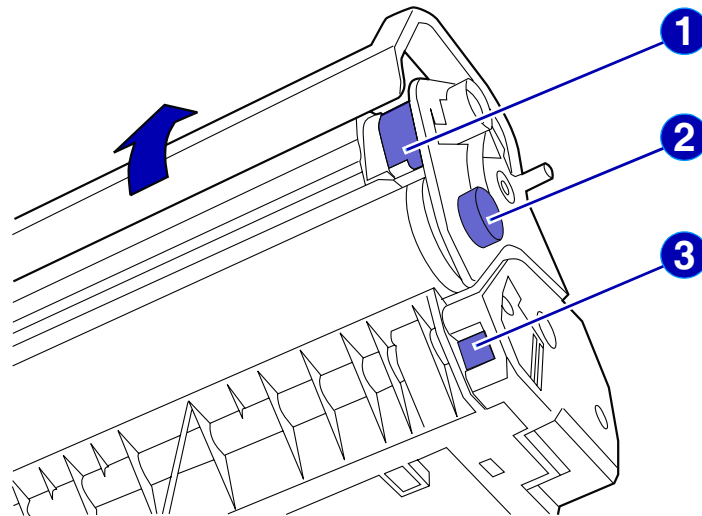


Figure 72. Toner cartridge high-voltage connection points

Checking the high-voltage connector assembly

The assembly uses three spring-loaded pins to contact the toner cartridge: charging (callout 1), drum ground (callout 2), and developing roller (callout 3). Verify that the pins are not dirty or corroded and that the spring-loading action is functional. If the pins are dirty, clean them using alcohol only. If they are damaged, replace the high voltage connector assembly.

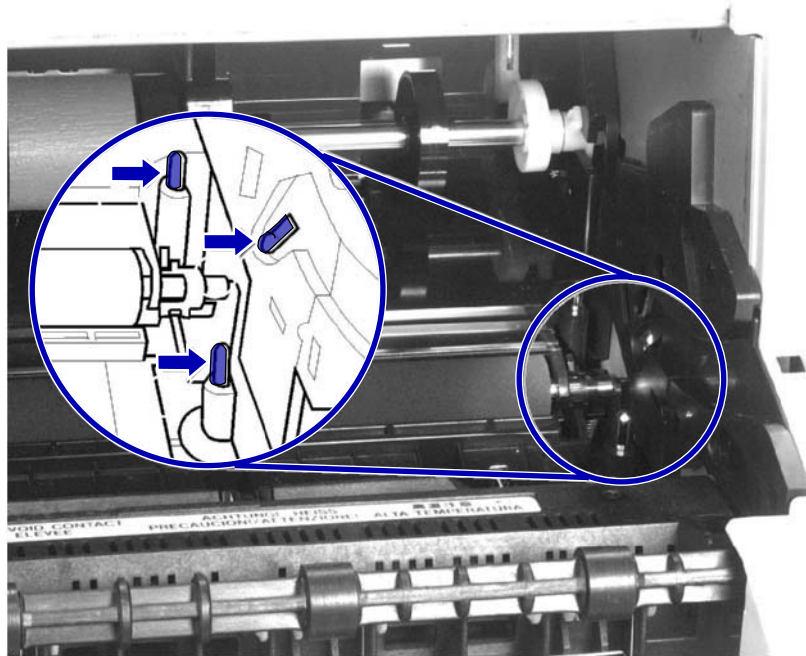


Figure 73. High-voltage connector assembly

Paper path check

If paper is not being picked up or is not moving through the paper path, you may want to observe all of the paper motion activities. Overriding SW301 allows you to observe:

- Motor rotation
- Solenoid action
- Kick plate motion
- Paper pickup roller motion
- Drive roller, transfer roller, fuser roller and gear, and delivery roller motion

To override SW301

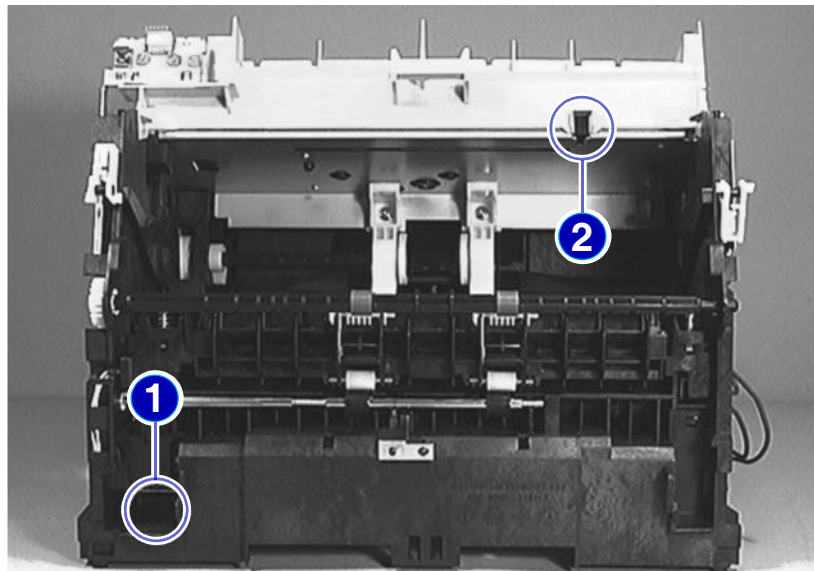


Figure 74. Overriding SW301

- 1 Remove the printer covers
- 2 Install the toner cartridge.
- 3 Make sure the fuser levers on the delivery assembly are closed.
- 4 Press SW301- front door interlock (callout 1).
- 5 Press laser/scanner interlock switch on laser/scanner (callout 2).
- 6 While SW301 and laser/scanner interlock is engaged, perform an engine test to observe paper motion. (See procedures earlier in this chapter.)