



Troubleshooting

To better help our customers - this HP LaserJet 3380MFP 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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Functional checks

Use the following procedures to help diagnose and solve problems that occur in the print engine.

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 horizontal 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 is inside the left side door, below the formatter.

To print an engine test, open the left side door and use a *non-conductive* probe to depress the engine test switch. A single test page will print.

CAUTION

Use a non-conductive probe to depress the engine test switch. Inserting a conductive probe to depress the switch can damage the product.

Note

The formatter must be connected to the ECU in order to perform an engine test. Otherwise, the printer does not print.

You must override the print cartridge door interlock (SW 301). (See [Paper-path check](#).)

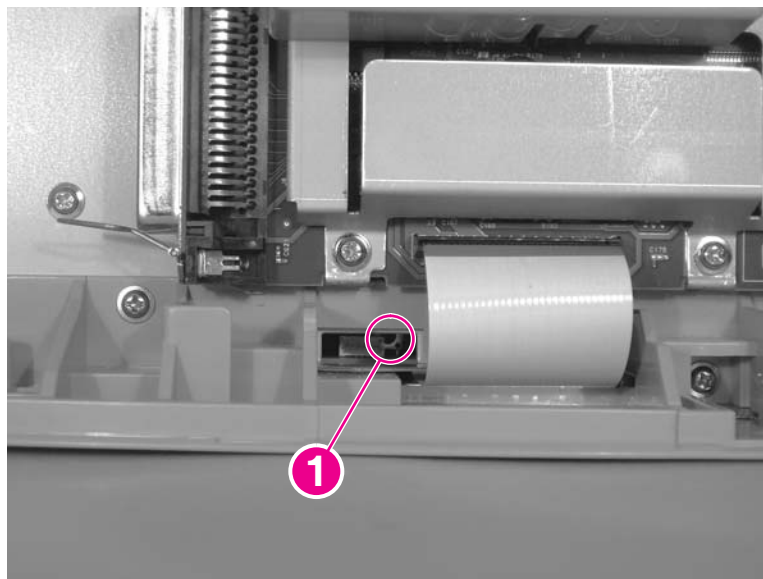


Figure 6-2.

Engine test switch

Control-panel check

Perform the control-panel check to verify that all the control-panel buttons and LEDs are functioning. If any control-panel button or LED is not functioning, replace the control panel.

To perform the control-panel check

Note

Perform this procedure as quickly as possible in order to complete the control-panel check before the formatter begins communicating with the control panel. The control-panel test continues until all of the buttons have been tested or until the formatter attempts to communicate with the control panel (after approximately 40 seconds). The control-panel test will be interrupted if it is not completed before communication occurs.

1. Turn the product power on by using the power switch.
2. Immediately press the > and CANCEL buttons simultaneously.
3. Press and hold down the > and CANCEL buttons until the message **Passed MEM Test** appears on the control-panel display.
4. Release the > and CANCEL buttons.
5. Press the MENU/ENTER button to test the control-panel display LEDs. Continue to press MENU/ENTER until the message **Scroll Check--Press Enter To Pass** appears on the control-panel display.
6. Press MENU/ENTER again.
7. The name of a control-panel button will appear on the control-panel display. Press the corresponding button on the control panel. Repeat this step until all of the control-panel buttons have been tested.

Note

The control-panel test continues until all of the buttons have been tested or there is no activity at the control panel for about 20 seconds. After testing all of the control-panel buttons (or when there is no activity at the control panel for about 20 seconds), the product exits the test and continues the startup processes.

Half self-test functional check

The purpose of the half self-test check is to determine which image-formation process is malfunctioning. The image-formation process can be subdivided into the following stages:

- conditioning stage (charges the drum)
- writing stage (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)
- separation stage (separates the media from the drum)
- fusing stage (applies heat and pressure to make the image on paper permanent)
- cleaning stage (removes excess toner from the drum)

To perform a half self-test check

1. Print a self-test page. (See [Troubleshooting tools](#).)
2. Open the print cartridge door after the paper advances halfway through the printer (about 5 seconds after the motor begins rotation). The leading edge of the paper should have advanced past the print cartridge.
3. Remove the print cartridge.

4. Open the print 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 three functions of the image-formation process are functioning (through the development stage). Troubleshoot the failure as a transfer or fusing problem.

To perform other checks

If, during the half self-test check, no image is present on the photosensitive drum, perform these checks:

1. Make sure that you removed the entire length of the sealing tape from the print cartridge before you installed the cartridge.
2. Perform a drum-rotation functional check. (See [Drum-rotation functional check](#).)
3. Perform a high-voltage power-supply check. (See [High-voltage power-supply check](#).)

Drum-rotation functional check

The photosensitive drum, which is located in the print cartridge, must rotate in order for the print process to work. The photosensitive drum receives its drive from the main drive assembly.

Note

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

1. Open the print-cartridge door.
2. Remove the print cartridge.
3. Mark the drive gear on the cartridge with a felt-tipped marker. Note the position of the mark.
4. Install the print cartridge and close the print-cartridge door. The startup sequence should rotate the drum enough to move the mark.
5. Open the print-cartridge door 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 print-cartridge gears. If the drive gears appear functional and the drum does not move, replace the print cartridge.

Heating-element check

Paper passes between the heating element and a soft pressure roller to fuse toner to the paper.

1. Unplug the product for at least ten minutes. Remove the right cover (see [Printer right-side cover](#)) and back cover (see [Back cover](#)).
2. Verify that the thermistor connector is seated into both the product chassis and the ECU.
3. Unplug the fuser cable connector (callout 1) by pressing and releasing the tab on the back of the connector. 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 25 ohms +/- 10 ohms for the 110 V product and 80 ohms +/- 20 ohms for the 220 V product.

If no resistance is measured, replace the fuser.

4. Remove the thermistor connector (callout 2), and measure the resistance between J206 pins one and two and between J206 pins three and four.

Note

Normal resistance between both pairs of pins is 370 K ohms +/- 50 K ohms at 20° C (68° F).

If no resistance is measured, replace the fuser.

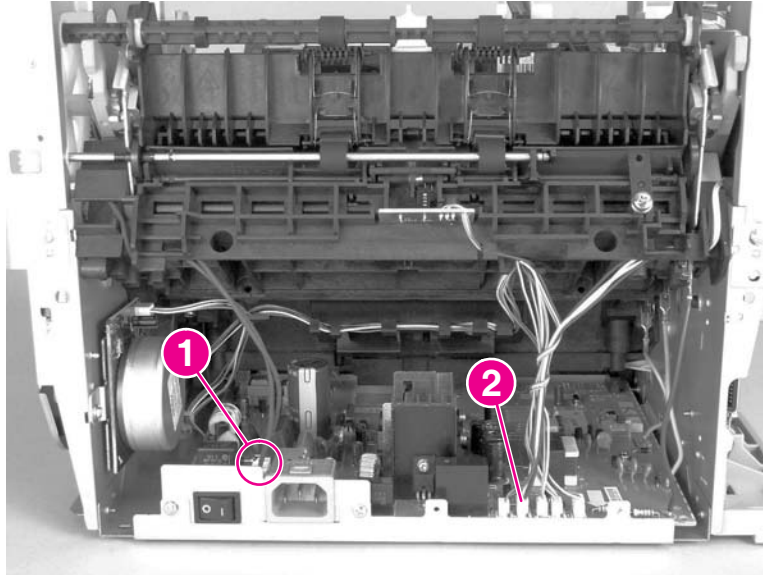


Figure 6-3.

Locating connectors for the heating-element check

High-voltage power-supply check

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

To check the print-cartridge connection points

Turn the print cartridge over and visually inspect the three connection points on the ends of the print cartridge: one on the right side (callout 1), and two on the left side (callout 2). If they are dirty or corroded, clean the connection. If they are damaged, replace the print cartridge.

Note

One of the connection points on the left side is underneath the print-cartridge shutter.

Note

Use only isopropyl alcohol to clean the connections.



Figure 6-4.

Print cartridge high-voltage connection points (right side)

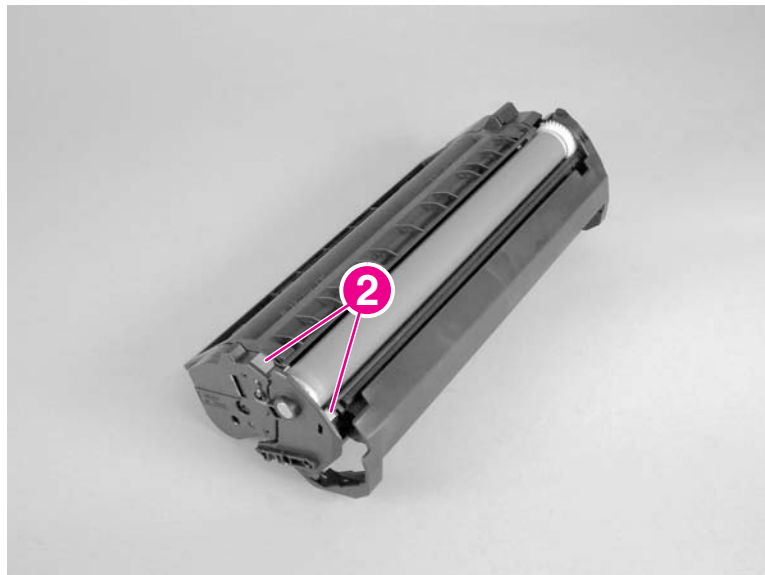


Figure 6-5.

Print cartridge high-voltage connection points (left side)

To check the high-voltage connector assembly

The assembly uses three spring-loaded pins to contact the print cartridge: drum ground (callout 1), charging (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 isopropyl alcohol only. If they are damaged, replace the high-voltage connector assembly.

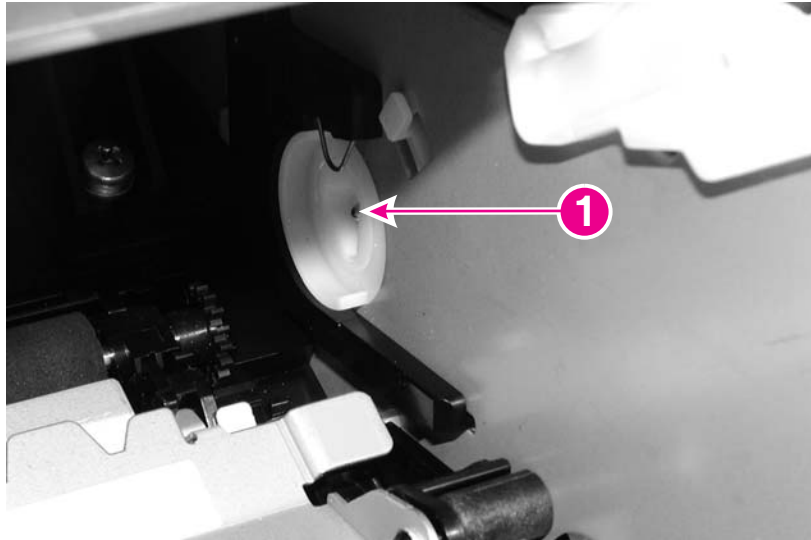


Figure 6-6. High-voltage connector assembly (right side)

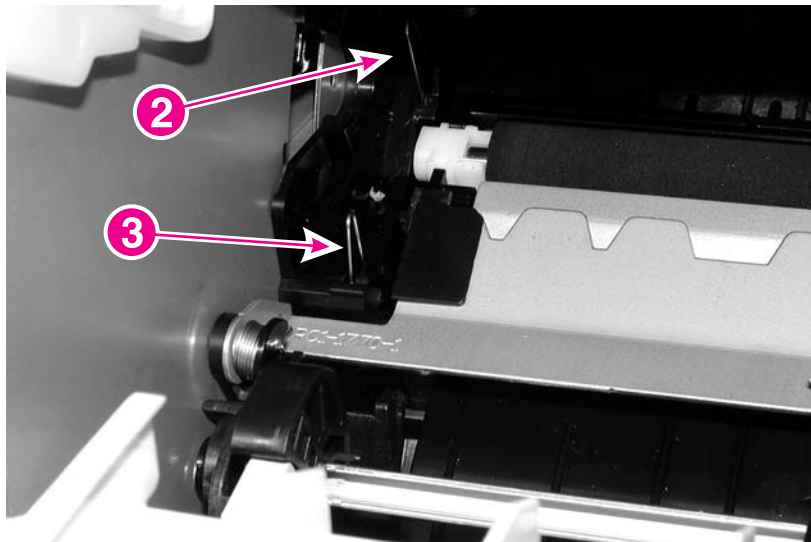


Figure 6-7. High-voltage connector assembly (left side)

Paper-path check

If media is not being picked up or is not moving through the paper path, you might want to observe all of the paper-motion activities. Overriding the door interlock (SW301) allows you to observe these activities:

- 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 6-8.

Overriding SW301

1. Open the left-side door and the print-cartridge door. Disengage the two print-cartridge door arms.
2. Install the print cartridge, which will press SW301.
3. Press down the laser/scanner interlock switch (callout 1) on the laser/scanner.
4. While SW301 and the laser/scanner interlock are engaged, perform an engine test or self-test to observe paper motion. See [Engine test](#) and [Half self-test functional check](#).

Updating or recovering the firmware code

The product has a flash-memory-based formatter that enables the firmware code to be updated in the event that new firmware is released for the product. Using flash memory also provides a way to recover the firmware in the event of code corruption or failure.

Firmware update by using flash executable

The configuration page lists the firmware version of the product. On flash-memory-based products, you can update the firmware code by downloading the latest flash executable for the product and running the program according to the readme instructions that come with it. Turn the printer off and then on before running the executable file. If the firmware becomes corrupted or fails (usually because of an interruption when attempting to update the firmware), the product no longer functions. In this case, a firmware-recovery DIMM is available from HP.

Firmware-recovery DIMM

A firmware-recovery DIMM can be obtained from HP in the rare event that the firmware in flash memory becomes corrupted. When the DIMM is installed in the DIMM slot on the formatter and the product is turned on, the DIMM loads the latest firmware code into the product.

To use the firmware-recovery DIMM

1. Order a firmware-recovery DIMM (RDIMM) from HP. Retain the return mailer.
2. Turn off the product.
3. Open the left-side door, and install the firmware-recovery DIMM into the DIMM slot (callout 1).

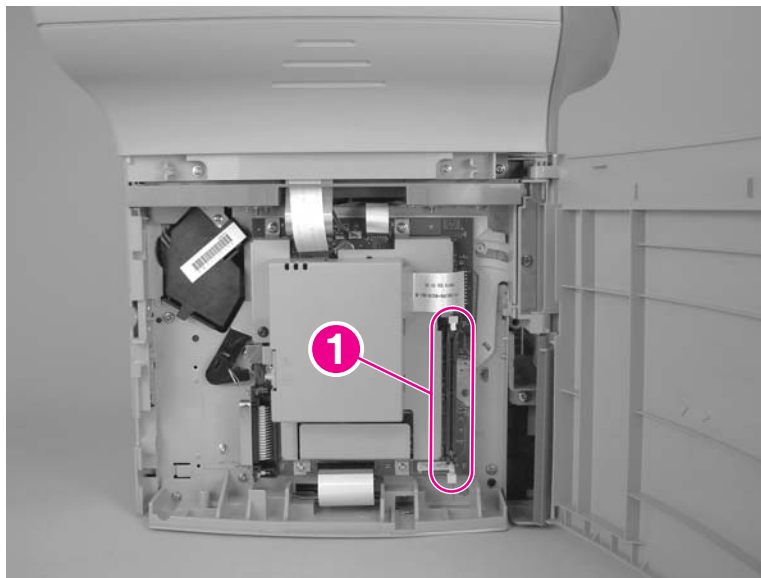


Figure 6-9.

Using the firmware-recovery DIMM

4. Turn on the product. The firmware-recovery DIMM takes a few minutes to automatically restore both blocks of firmware code. Wait until the message **Complete** appears on the control-panel display.
5. Turn off the product and remove the recovery DIMM.

6. Turn on the product. It should start up normally.
7. Use the provided packaging to return the recovery DIMM to HP.