



Troubleshooting

To better help our customers - this HP Laserjet 9050 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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User- and service-level diagnostics

The following sections describe diagnostics for the printer.

Paper-path test

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

To print a paper-path test

- 1 Press **✓** to open the menus.
- 2 Use **▲** or **▼** to scroll to `CONFIGURE DEVICE`, and then press **✓**.
- 3 Use **▲** or **▼** to scroll to `DIAGNOSTICS`, and then press **✓**.
- 4 Use **▲** or **▼** to scroll to `SET PAPER PATH TEST`, and then press **✓**.
- 5 Use **▲** or **▼** to select the input tray that you want to test, the output bin, the duplex printing accessory (if available), and the number of copies.
- 6 Use **▲** or **▼** to scroll to `PRINT TEST PAGE`, and then press **✓** to start the paper-path test.

Service test

The service test verifies that the print engine is functioning correctly. This test is very useful for isolating printer problems. The test can be performed with that paper-handling accessories attached, but it will not activate any of the accessory motors, switches, or sensors.

To perform a service test

- 1 Turn off the printer.
- 2 Make sure that the paper path of the printer is clear of all media, and that the left, front, and right doors are closed.
- 3 Open tray 2 and tray 3.
- 4 Turn on the printer, and when the printer is ready press **✓** to open the menus.
- 5 Use **▲** or **▼** to scroll to `CONFIGURE DEVICE`, and then press **✓**.
- 6 Use **▲** or **▼** to scroll to `DIAGNOSTICS`, and then press **✓**.
- 7 Use **▲** or **▼** to scroll to `SERVICE TEST`, and then press **✓**. The service test can take up to two minutes to complete. The message `PERFORMING SERVICE TEST` appears on the control panel.
- 8 When the test is complete, the message `SERVICE TEST PASSED` appears on the control panel, or up to five sets of four-digit numbers appear on the control panel. If no abnormalities were noted, (0000 0000 0000 0000 0000) appears. If abnormalities were noted, the four-digit code or codes appear in parentheses (0101 0111 0132 0000 0000). Write down these codes and match them to the descriptions and FRUs that are listed in table 21.
- 9 Close tray 2 and tray 3.

Table 22. Service test abnormality codes

Code	Description	FRU
0101	Cassette pickup-rod motor	Paper-input unit
0102	Cassette feed motor	Paper-input unit
0103	Cassette lifter motor	Paper-input unit

Table 22. Service test abnormality codes (continued)

Code	Description	FRU
0104	Tray 1 feed motor	Tray 1
0105	Switchback motor	Duplexer
0106	Duplex feed motor	Duplexer
0107	Duplex feed motor 2	Duplexer
0108	Side registration motor	Duplexer
0109	Pre-registration roller clutch	Registration assembly
0110	Registration roller clutch	Registration assembly
0111	Tray 1 feed roller clutch	Tray 1
0112	Coil jam sensor solenoid	Fuser assembly
0113	Face-up flapper solenoid	Delivery assembly
0114	Tray 1 pickup solenoid	Tray 1
0115	Duplex deflector solenoid	Duplexer
0116	Duplex flapper solenoid	Duplexer
0117	Upper cassette paper out solenoid	Paper-input unit
0118	Upper cassette lifter position sensor	Paper-input unit
0119	Upper cassette paper level sensor A	Paper-input unit
0120	Upper cassette paper level sensor B	Paper-input unit
0121	Upper cassette feed sensor A	Paper-input unit
0122	Upper cassette feed sensor B	Paper-input unit
0123	Lower cassette paper out sensor	Paper-input unit
0124	Lower cassette lifter position sensor	Paper-input unit
0125	Lower cassette paper level sensor A	Paper-input unit
0126	Lower cassette paper level sensor B	Paper-input unit
0127	Lower cassette feed sensor A	Paper-input unit
0128	Lower cassette feed sensor B	Paper-input unit
0129	Registration paper sensor	Registration assembly
0130	Pickup rod home position sensor	Paper-input unit
0131	Fusing unit delivery sensor A	Fuser assembly
0132	Fusing unit delivery sensor B	Fuser assembly
0133	Face-down bin delivery sensor	Delivery assembly
0135	Tray feed sensor	Tray 1
0136	Switchback sensor	Duplexer
0137	Duplex feed sensor	Duplexer
0138	Duplexer reaming paper sensor	Duplexer
0139	Face-down bin paper-full sensor	Delivery assembly
0140	Right door sensor	Paper input unit
0141	Duplex feed roller 1 home-position sensor	Duplexer
0142	Side registration guide home-position sensor	Duplexer
0143	OHT sensor	Registration assembly
0144	Coil jam sensor	Fuser assembly

Service-level diagnostics

Engine test

The engine test verifies that the print engine is functioning correctly. Because the formatter is completely bypassed during an engine test, this test is very useful for isolating printer problems. The engine test prints a full page of horizontal lines across the entire printable area.

Note

Media can be picked up from tray 2 or tray 3 if the formatter is installed. If the formatter is removed, the tray that you do *not* want to print from must be open. Also, make sure that the print cartridge is installed in the printer.

Service menu

The service menu printer commands should be used only by authorized service personnel. The service menu can only be opened by using the PIN code 00900001 for the HP LaserJet 9000 series printers, 04904005 for the HP LaserJet 9040 series printers, or 09905004 for the HP LaserJet 9050 series printers. While in the service menu, you can perform the following tasks:

- Clear the event log
- Verify and set the page count and serial number (these appear on the configuration page)
- Change the maintenance intervals
- Set the cold-reset media size

If a stapler/stacker is installed you can also perform these tasks:

- Calibrate the staple position
- Review and edit the serial number of the output device
- Review and edit the page count of the output device

Table 23. Service menu

Item	Explanation
Clear event log	Clear the event log after maintenance or repairs are complete.
Total page count	Reset the total page count.
Maintenance count	Reset the pages since the last maintenance count.
Maintenance interval	Change or reset the maintenance interval.
Serial number	Reset the printer serial number.
Cold reset paper	Set the cold-reset the media size.
Stapler/stacker	Perform a staple position calibration.

Diagnostics flowchart

Use this flowchart to help identify the cause of high-level printer problems for the HP LaserJet 9000, HP LaserJet 9000mfp, HP LaserJet 9000Lmfp, HP LaserJet 9040/9050, and HP LaserJet 9040mfp/9050mfp. These problems are indicated by abnormalities in the printer power-on sequence. The LED that the flowchart refers to is on the formatter.

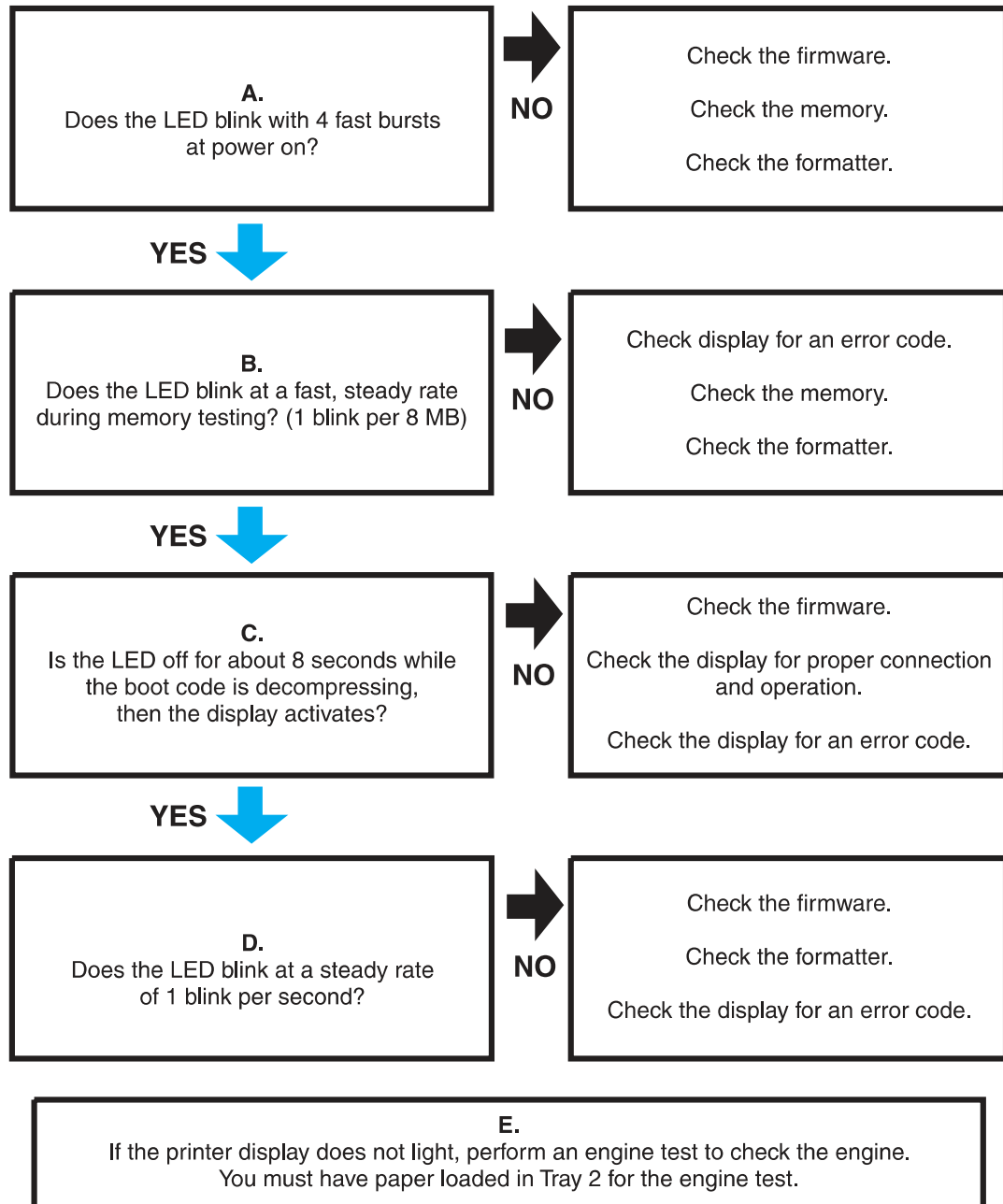


Figure 122. Diagnostics flowchart

Other diagnostics for the HP LaserJet 9000, 9000mfp, and 9000Lmfp

Cold reset

Performing a cold reset clears all data from the printer memory and returns all of the default settings to the factory settings.

CAUTION

Performing a cold reset resets the Jetdirect configuration. To avoid making changes to your network configuration, remove the HP Jetdirect print server before performing a cold reset.

Note

If possible, print a configuration page and menu map before performing a cold reset. This documents current settings for later reference.

To perform a cold reset, set the display language, or reset the maintenance kit

- 1 Turn off the printer.
- 2 Press and hold ✓ (the 6 button on MFPs).
- 3 Turn on the printer.
- 4 Continue to hold ✓ until all three control panel lights illuminate, and then release ✓ (the 6 button on MFPs).
- 5 Use ▼ (the 9 button on MFPs) or ▲ (the 3 button on MFPs) to scroll to the appropriate selection (COLD RESET, SELECT LANGUAGE, or NEW MAINTENANCE KIT).

Note

Other functions are available in this menu, but are not applicable.

- 6 Press ✓ (the 6 button on MFPs).

The printer boot sequence is complete when READY appears on the control-panel display.

To initialize (format) a hard disk

Note

Initializing a hard disk erases all of the data on the installed mass-storage devices.

- 1 Turn off the printer.
- 2 Press and hold PAUSE/RESUME (START on MFPs).
- 3 Turn on the printer.
- 4 Hold PAUSE/RESUME or START down until all three error lights illuminate.
- 5 Release the PAUSE/RESUME or START key.
- 6 Press ◀ (the 5 button on MFPs) until INITIALIZE DISKS appears on the control-panel display.
- 7 Press ✓ (the 6 button on MFPs).

The printer boot sequence is complete when READY appears on the control-panel display.

To initialize NVRAM or perform a skip disk

Note

The model number, the serial number, the usage data, and the error event log information is retained when performing a disk initialization.

- 1 Turn off the printer.
- 2 Press and hold ▼ (the 9 button on MFPs).
- 3 Turn on the printer.
- 4 Release ▼ (the 9 button on MFPs).
- 5 Press ▲ (the 3 button on MFPs).
- 6 Press PAUSE/RESUME (START on MFPs).
- 7 Use ▼ (the 9 button on MFPs) or ▲ (the 3 button on MFPs) to scroll to the appropriate selection (NVRAM INIT or SKIP DISK).

Note

Other functions are available in this menu, but are not applicable.

- 8 Press ✓ (the 6 button on MFPs).

The printer boot sequence is complete when READY appears on the control-panel display.

Other diagnostics for the HP LaserJet 9040/9050, 9040mfp, and 9050mfp

Cold reset

Performing a cold reset clears all data from the printer memory and returns all of the default settings to the factory settings.






CAUTION

Performing a cold reset resets the Jetdirect configuration. To avoid making changes to your network configuration, remove the HP Jetdirect print server before performing a cold reset.

Note


If possible, print a configuration page and menu map before performing a cold reset. This documents current settings for later reference.

To perform a cold reset, set the display language, reset the maintenance kit, enable or disable embedded LAN

- 1 Turn off the printer.
- 2 Turn on the printer.
- 3 Wait until the printer begins counting memory.
- 4 Press and hold  (the 6 button on MFPs).
- 5 Continue to hold  until all three control panel lights illuminate, and then release  (the 6 button on MFPs).
- 6 Use  (the 9 button on MFPs) or  (the 3 button on MFPs) to scroll to the appropriate selection (COLD RESET, SELECT LANGUAGE, NEW MAINTENANCE KIT, or ENABLE/DISABLE EMBEDDED LAN).

Note

Other functions are available in this menu, but are not applicable.



- 7 Press  (the 6 button on MFPs).

The printer boot sequence is complete when READY appears on the control-panel display.

To initialize (format) a hard disk

Note

Initializing a hard disk erases all of the data on the installed mass-storage devices.

- 1 Turn off the printer.
- 2 Turn on the printer.
- 3 Wait until the printer begins counting memory.
- 4 Press and hold MENU (START on MFPs).
- 5 Hold PAUSE/RESUME or START down until all three error lights illuminate.
- 6 Release the MENU or START key.
- 7 Press  (the 5 button on MFPs) until INITIALIZE DISKS appears on the control-panel display.
- 8 Press  (the 6 button on MFPs).

The printer boot sequence is complete when READY appears on the control-panel display.

To initialize NVRAM or perform a skip disk

Note

The model number, the serial number, the usage data, and the error event log information is retained when performing a disk initialization.

- 1 Turn off the printer.
- 2 Turn on the printer.
- 3 Wait until the printer begins counting memory.
- 4 Press and hold ▼ (the 9 button on MFPs) until all three error lights illuminate.
- 5 Release ▼ (the 9 button on MFPs).
- 6 Press ▲ (the 3 button on MFPs).
- 7 Press **MENU** (**START** on MFPs).
- 8 Use ▼ (the 9 button on MFPs) or ▲ (the 3 button on MFPs) to scroll to the appropriate selection (NVRAM INIT or SKIP DISK).

Note

Additional functions are available in this menu but they are not applicable.

- 9 Press ✓ (the 6 button on MFPs).

The printer boot sequence is complete when **READY** appears on the control-panel display.

Drum-rotation functional check

The photosensitive drum 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. Use this procedure to test whether the drum is rotating:

- 1 Open the front cover.
- 2 Remove the print cartridge.
- 3 Mark the cartridge drive gear with a felt-tipped marker. Note the position of the mark.
- 4 Install the print cartridge, and close the front cover. 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 print cartridge gears. If the drive gears appear functional, and the drum does not move, replace the print cartridge.

Note

This test is especially important if refilled print cartridges are being used.

High-voltage power-supply check

The high-voltage power-supply PCA provides the necessary voltages for the electrophotographic processes. Use the following procedures to verify the operation of the high-voltage system.

Print cartridge connection points

Visually inspect the four connection points on the inside, right end of the print cartridge. If they are dirty or corroded, clean the connections. If they are damaged, replace the print cartridge.

High-voltage contacts

The high-voltage contact springs are mounted on the high-voltage power-supply PCA and protrude through the print cartridge cavity to contact the print cartridge. Verify that the contacts are not dirty or corroded and that the spring action is functional. If they are damaged, replace the high-voltage power-supply PCA.