

7

Troubleshooting

Chapter contents

Introduction	334
Troubleshooting process	334
Pre-troubleshooting checklist	334
Power checks	336
Control panel checks	336
Troubleshooting tools and procedures	337
Hardware and electrical troubleshooting tools	337
Engine diagnostic tools	337
Defeating interlocks	337
Engine diagnostics preconditions	338
Disable cartridge test	338
Print stop test	349
Engine-test button	350
Sensor test (interactive)	339
Engine-test button	350
Component test: Belt only test	341
Component test: Image drum motors test	342
Component test: Print cartridge motors test	343
Component test: Developer motors test	344
Component test: YMCK laser test	344
Component test: Fuser motor test	345
Component test: Tray 1 feed motor test	345
Component test: Tray 2 feed-drive test	346
Component test: Tray 3 feed drive test	347
Component test: Pre-registration test	347
Component test: Registration test	348
Component test: Face-up solenoid test	348
Engine-test button	350
Engine test print page	364
Formatter heartbeat LED	351
Information pages	352
Configuration page	352
Supplies status pages	354
Usage page	356
File directory page	357
Electrical connection and contact failures	358
Image-formation and print-quality troubleshooting tools	359
Print-quality problems associated with the environment	359
Reseating consumables	359
Cleaning the post charger	359
Cleaning the post charger	359
Cleaning the fuser input	359
Print-quality troubleshooting pages	360

Color band test	364
Engine test print page	364
Laser/scanner adjustment page	365
Door ruler and repeating defect frequencies	365
Sample defects and solutions	366
Repeating marks (98 mm)	367
Repeating marks (45 mm)	368
Lines and bands appear perpendicular to feed direction.	371
Lines, streaks or scratches appear parallel to feed direction.	374
Diagonal bands or lines	378
Light or faint image and dropouts	380
Wavy brush marks	384
Color plane misregistration	385
Primary color covers entire page	387
Ghosted image (98 mm)	388
Ghosted image (140 mm)	389
Distorted or misplaced image	391
Poorly fused image	392
Missing color plane	394
Blank	395
Hand or fingerprints	395
Fine, yellow dot background	397
Toner halos or explosions occur around solid secondary colors	398
Control panel print-quality adjustments	400
Media and paper-path troubleshooting tools	403
Paper-path jam sensors	403
Determine the problem source: print media or printer	408
Using the straightest paper path	409
Determine if problem is caused by the duplexing process	409
Isolate the source of the jam	409
Determine where media jams occur	409
Determine whether the printer is experiencing misfeeds or multifeed jams	409
Print-quality problems associated with media	409
Isolate a media brand	410
Isolate a media type	410
Wrinkling envelopes	410
Poor fusing	410
Overhead transparency defects	411
Media jam	411
Customer print job	412
Clearing jams	412
Clearing repeated jams	413
Tests for troubleshooting paper-path problems	413
Print stop test	413
Paper-path test	413
Sensor test	413
Tray alignment adjustment	413
Noise-troubleshooting tools	414
Event log page	416
Print an event log	416
Show an event log	417
Interpret an event log	417
Sample event log page	418
Control panel messages for the HP LaserJet 9500 Series printer	415
Control panel and event log message format	416
Error message interpretation	419
Alphabetical error messages for the HP LaserJet 9500 Series printer	419
Numerical error messages for the HP LaserJet 9500 Series printer	431

Data and communication troubleshooting tools	466
Test message	466
EIO troubleshooting	466
Software/network troubleshooting	466
Jetdirect configuration	467
Verify network and server operation.	467
Jetdirect page.	468
Troubleshooting tools for the HP LaserJet 9500hdn printer tray 4	469
Tray 4 diagnostics label (LJ 9500)	469
Tray 4 motor test (LJ 9500).	469
Tray 4 standalone running test (LJ 9500)	469
Tray 4 sensor test (LJ 9500)	470
Tray 4 light pattern interpretation (LJ 9500)	471
Tray 4 does not print media (LJ 9500)	471

Introduction

This chapter contains information, tools, and procedures to use in isolating, identifying, and correcting problems with the HP color LaserJet 9500 Series printer and these product are designed for effective technician-supported, over-the-phone diagnosis. Always check the online databases for updates to known issues and troubleshooting methods.

Note When troubleshooting the MFP version, first try to isolate the problem to the print or copy function. In most cases, printing the internal print-quality assessment pages will help isolate the problem. Use this manual to troubleshoot print-related issues, and use the *HP Scanner/ADF Service Manual for the HP LaserJet 9000mfp/9000Lmfp/9040mfp/9050mfp/9500mfp* (PN C8449-90955) to troubleshoot copy-related issues.

Troubleshooting process

WARNING! You *must* unplug the HP color LaserJet 9500mfp *before* attempting to service it. When the MFP is plugged into a wall receptacle, the 110 vac cable between the printer and the scanner/ADF carries electrical current even when the MFP is turned off.

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

Pre-troubleshooting checklist

Check the following items before diagnosing a malfunction. If a failure is found, the service technician clears the problem and gives the instruction to the customer.

Note Throughout this document, the term “printer” is used to refer to both the HP LaserJet 9500 Series printer models *and* the HP LaserJet 9500mfp. Make sure to read the headings and text carefully to understand the context of the term.

Table 52. Pre-troubleshooting checklist

Environment	<ul style="list-style-type: none">● Is the printer installed on a solid, level surface?● 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 direct sunlight?● Is the room temperature kept between 15° C and 30° C, and is the relative humidity between 10 percent and 80 percent?● Is the printer near sites generating ammonia gas, high temperature or high humidity (near a water faucet, kettle, or humidifier, for example), cold places, open flames, and dusty areas?
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Table 52. Pre-troubleshooting checklist (continued)

<p>Media</p>	<ul style="list-style-type: none"> ● Is the correct media type selected on the control panel? ● Is the media ream broken (slightly bend the stack before loading media)? ● Does the customer use only supported media (see table 8 in chapter 1)? ● Is the media in good condition (no curls, folds, etc.)? ● Is the media stored correctly and within environmental limits? ● Is the media type set correctly on the control panel? ● Is the media not damp or dirty? ● Was the media not opened until it was ready to use? ● Is the amount of media in the input source within specifications? ● Are the media guides aligned with the media?
<p>Input trays</p>	<ul style="list-style-type: none"> ● Is the amount of media in the tray within specifications? ● Is the media set into the tray correctly? ● Are the media guides aligned with the media? ● Is the tray properly installed in the printer?
<p>Consumables loaded</p>	<ul style="list-style-type: none"> ● Is each print cartridge and image drum properly installed? ● Are the intermediate transfer belt (ITB) unit, the fuser unit, the ITB cleaner, the waste toner bottle, and the secondary transfer roller unit installed correctly?
<p>Cover and doors</p>	<ul style="list-style-type: none"> ● Are the covers and doors closed? ● Are the front doors, the image drum door, right upper (ITB) door, left upper door, left lower (fuser access) door, paper-path access door, and right lower door closed correctly at power on? ● Are the right front cover, left front cover, left upper cover, left cover unit, right cover unit, and right lower cover all closed correctly?
<p>Condensation</p>	<ul style="list-style-type: none"> ● Was an image drum or print cartridge opened soon after being moved from a cold to a warm room? If so, allow the printer to sit at room temperature for one to two hours. ● 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. <p>Note Condensation might result in light images or incorrect contrast.</p>
<p>Miscellaneous</p>	<ul style="list-style-type: none"> ● 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 make sure that the failure is associated with the printer before beginning troubleshooting. ● For any print-quality issues, calibrate the printer.

Power checks

Table 53. Power checks

Check	What to do
Is the printer plugged in?	<ol style="list-style-type: none"> 1 Make sure that the printer and the finishing device(s) are plugged into a known good source of ac power.
Is the printer on/off switch set to the on position?	<ol style="list-style-type: none"> 1 Push the switch to the “on” position. 2 Make sure that the switch is set to low-voltage power supply linkage if a switch problem is suspected.
Is ac power available at the print engine power receptacle?	<ol style="list-style-type: none"> 1 Make sure that power is available. See “Product specifications for the printer” in Chapter 1. 2 Test outlet with a known good appliance or in a known good power outlet.
Are the printer fans on? Do the printer fans turn on?	<p>Note The fan operation is important because all of the fans are controlled by the DC controller PCA. Fans 1 through 6 operate at full speed for 30 seconds during the WAIT period. Fans 1 through 5 slow to half-speed, and fan 6 stops during the STBY period, and when the printer is in PowerSave mode. Make sure that the printer is not in PowerSave mode.</p> <p>Operational fans indicate the following:</p> <ul style="list-style-type: none"> • the ac power is present in the printer • the DC power supply is probably functional (both +24 VDC and +5 VDC are being generated) • the DC controller PCA is probably functional.

Control panel checks

WARNING!

You *must* unplug the HP color LaserJet 9500mfp *before* attempting to service it. When the MFP is plugged into a wall receptacle, the 110 vac cable between the printer and the scanner/ADF carries electrical current even when the MFP is turned off.

It is important to have the control panel functional as soon as possible in the troubleshooting process so that the printer diagnostics can be used to assist in locating printing errors.

The control panel should show `READY`, `PAUSED`, or `POWERSAVE ON`. For information about error messages that appear on the control panel or in the event log, see the event log. If the control panel is blank, see “Event log page” on page 416.

Use the following steps to troubleshoot the control panel if the power checks are successful, but the control panel is still blank:

- 1 Check connector J3008 on the back of the control panel and connector J123 on the DC controller.
- 2 Check connector J2103 on the DC controller and J9002 on the formatter.
- 3 Check the wire harness between J3008 and J123 for damage. Replace the wire harness if necessary.
- 4 Replace the control panel or the DC controller.

Troubleshooting tools and procedures

WARNING!

You *must* unplug the HP color LaserJet 9500mfp *before* attempting to service it. When the MFP is plugged into a wall receptacle, the 110 vac cable between the printer and the scanner/ADF carries electrical current even when the MFP is turned off.

Use these troubleshooting tools and procedures to help diagnose and correct problems with the printer.

The following list identifies the troubleshooting tools used to solve printer problems:

- Hardware and electrical. See page 337.
- Image formation and print quality. See page 359.
- Media and paper-path. See page 403.
- Noise. See page 414.
- Alphabetical error message interpretation. See page 419.
- Numerical error message interpretation. See page 431.
- Data and communication. See page 466.
- Tray 4. See page 469.

Hardware and electrical troubleshooting tools

Diagnosing and troubleshooting the HP color LaserJet 9500 Series printer and the 9500mfp is similar to the procedures for other laser jet printers, but is more complicated because the product uses four print cartridges and four image drums.

Engine diagnostic tools

The engine diagnostic tools include:

- event log (print or show): indicates high-voltage errors and calibration errors
- print-quality troubleshooting: selected in diagnostics, prints print quality pages
- disable cartridge check: prints normally without one or more color plane(s)
- paper-path test: source, destination, duplex, copies, and sensors.
- sensor test
- component test
- print/stop test

Defeating interlocks

Defeating the interlocks might be difficult because the same switch controls the front and side doors on the right side of the printer. To defeat the interlocks, use rolled up paper.

- Front left door switch:
 - 1 Defeat the front left door switch from the inside left (fuser) door and use rolled up paper. The paper should not too long so that it interferes with the diverter assembly.
- Front right door and right top door (ITB access)
 - 1 Open the right top door.
 - 2 Remove the filter.
 - 3 Remove two screws and remove the right upper cover.
 - 4 Insert the rolled up paper into the switch.

Engine diagnostics preconditions

- Interlocks must be defeated if the activity is to be seen.
- Tests that turn the ITB (transfer motors and belt only) require:
 - removal of the ITB
 - installation of the toner collection bottle
- Pull out both trays to exercise either of the two cassette drives.
- At power on, the ITB cleaner must be present. If it is not, the engine reports an erroneous cartridge state that might eventually damage the ITB (by turning the image drum while contacting the ITB).
- The p-carg (image drum) drive test only turns the image drums that are removed to avoid ITB damage.

Disable cartridge test

The disable cartridge test can be used for eliminating drum mechanics, diagnosis of color plane-dependent problems and all repeating defects, and noise problems. This test checks the printer and performs all of the standard initializations (similar to the functions associated with opening and closing a door).

- 1 Defeat the appropriate interlocks.
- 2 Press **✓** or **MENU** (MFP version) to open the menus.
- 3 Use **▲** or **▼** to scroll to **DIAGNOSTICS**, and then press **✓**.
- 4 Use **▲** or **▼** to scroll to **DISABLE CARTRIDGE CHECK**, and then press **✓**.
- 5 Remove one or more of the image drums.
- 6 Print a job from the control panel or from a connected PC.

The printer ignores the missing image drums which allows the printer to print normally without one or more color planes. To exit the test:

- 1 Press **CANCEL JOB** (LJ 9500) or **EXIT** (LJ 9500mfp).
- 2 Use **▲** or **▼** to scroll to **EXIT DIAGNOSTICS**, and then press **✓**.
- 3 The printer will reboot.

Paper-path test (and automatic sensors test)

The paper-path test can be used to make sure that various paper paths are working correctly or to troubleshoot problems with tray configuration. It also allows you to print a page or pages with complete control over source, duplex, and destination.

If the sensors option is ON, you can see the paper-path sensor status when the page is printing. The media jam sensor status is reported if **SENSORS** is selected. If it is not selected, the normal error message appears and all errors are entered into the event log.

- 1 Press **✓** or **MENU** (MFP version) to open the menus.
- 2 Use **▲** or **▼** to scroll to **DIAGNOSTICS**, and then press **✓**.
- 3 Use **▲** or **▼** to scroll to **PAPER PATH TEST**, and then press **✓**.
- 4 Use **▲** or **▼** to select the input tray you want to test, the output bin, the duplexer (if available), and the number of copies. Press **✓** after you set the value for each location.

Note

If **SENSORS** is selected, the printer enters a special diagnostic mode. If you are in the diagnostic mode, the sensor status appears and the **SENSORS** message will *not* appear as an option.

- 5 If the `SENSORS` option is selected, the letters `A` through `K` appear on the control panel. The values include:
- `A` = Tray 2 feed A
 - `B` = Tray 2 feed B
 - `C` = Tray 3 feed A
 - `D` = Tray 3 feed B
 - `E` = Preregistration
 - `F` = Pre-T2
 - `G` = Pre-fuser
 - `H` = Fuser outlet
 - `I` = Duplex reverse
 - `J` = Fuser feed
 - `K` = Face-down output.
- 6 After selecting the last option, use **▲** or **▼** to scroll to `PRINT TEST PAGE`, and then press **✓**.
- Perform the following steps to exit the test if `SENSORS` is selected:
- 1 Press **CANCEL JOB** (LJ 9500) or **EXIT** (LJ 9500mfp).
 - 2 Use **▲** or **▼** to scroll to `EXIT DIAGNOSTICS`, and then press **✓**.
 - 3 The printer will re-boot.

Sensor test (interactive)

The sensor test can be used to determine if a bad sensor is causing a problem.

Note

If a tray is out and causes a warning message, the message covers the sensor test message. When the warning message is cleared, the sensor test appears.

The duplex re-feed sensor cannot be accessed for manual testing. Testing this sensor can be done by covering the sensor with paper or tape, inserting the duplexer, and running a manual sensor test. Also, this sensor is *not* monitored during the paper-path test with sensors.

-
- 1 Defeat the appropriate interlocks.
 - 2 Press **✓** or **MENU** (MFP version) to open the menus.
 - 3 Use **▲** or **▼** to scroll to `DIAGNOSTICS`, and then press **✓**.
 - 4 Use **▲** or **▼** to scroll to `SENSOR TEST`, and then press **✓**.

5 Touch the sensors and compare the reading on the control panel to the reading on the decoder table. The decoder values include:

- A = Preregister
- B = T2
- C = Paper path
- D = Fuser outlet
- E = Face-down output
- F = Face-down capacity full
- G = Tray 1 media detection
- H = Tray 2 media detection
- I = Tray 2 feed sensor A and B (HP CLJ 9500 only)
- J = Tray 2 X dimension (cross feed direction)
- K = Tray 2 Y dimension (feed direction)
- L = Tray 3 media detection
- M = Tray 3 feed sensor A and B
- N = Tray 3 X dimension (cross feed direction)
- O = Tray 3 Y dimension (feed direction) (HP CLJ 9500 only)
- P = Lower right door
- Q = Right front/upper right door interlock
- R = Left front/lower left door interlock
- S = Upper left door

When the sensors are manually toggled, the control panel shows the sensors going from ON to OFF, and then from OFF to ON.

Note

If it is difficult to see the control panel message when toggling the sensors, remove the control panel so it hangs in front of the printer. Also, using a mirror might be helpful.

All of the preconditions might not have been met if the diagnostic fails to operate and you are sent back to the menu.

Perform the following steps to exit the test:

- 1 Press **CANCEL JOB** (LJ 9500) or **EXIT** (LJ 9500mfp).
- 2 Use ▲ or ▼ to scroll to **EXIT DIAGNOSTICS**, and then press ✓.
- 3 The printer will re-boot.

Components test

To repeat any of the following component tests, perform the following steps:

- 1 Press ✓ or **MENU** (MFP version) to open the menus.
- 2 Use ▲ or ▼ to scroll to **DIAGNOSTICS**, and then press ✓.
- 3 Use ▲ or ▼ to scroll to **COMPONENT TEST**, and then press ✓.
- 4 Use ▲ or ▼ to scroll to **REPEAT**, and then press ✓.

Component test: Transfer motors test

The transfer motor test can be used to audibly check the four OPC drive motors and the ITB motor when other printer processes are not operating.

Note

The ITB lever must be in the “up” position, and the cleaning blade must be removed for this test and other tests that involve the ITB. If the cleaning blade is not removed during the test, the test fails and the printer returns to the previous menu. When the printer is turned on, the ITB cleaner must be installed.

- 1 Make sure that all of the printer components are installed.
- 2 Remove the toner collection bottle and the cleaning blade.
- 3 Replace the toner collection bottle without the cleaning blade.
- 4 Defeat the appropriate interlocks.
- 5 Press **✓** or **MENU** (MFP version) to open the menus.
- 6 Use **▲** or **▼** to scroll to **DIAGNOSTICS**, and then press **✓**.
- 7 Use **▲** or **▼** to scroll to **COMPONENT TEST**, and then press **✓**.
- 8 Use **▲** or **▼** to scroll to **TRANSFER MOTORS**, and then press **✓**.
- 9 **ROTATING MOTORS** appears on the control panel.
- 10 Check the movement of the OPC drive motor and the ITB from the front or the right side of the printer.

Perform the following steps to exit the test:

- 1 Press **CANCEL JOB** (LJ 9500) or **EXIT** (LJ 9500mfp).
- 2 Use **▲** or **▼** to scroll to **EXIT DIAGNOSTICS**, and then press **✓**.
- 3 The printer will re-boot.

Component test: Belt only test

The belt only test can be used to audibly and visually check the ITB motor, the ITB drive train, and the rotation of the ITB.

Note

The ITB lever must be in the “up” position, and the cleaning blade must be removed for this test and other tests that involve the ITB. If the cleaning blade is not removed during the test, the test fails and the printer returns to the previous menu. When the printer is turned on, the ITB cleaner must be installed.

- 1 Make sure that all of the printer components are installed.
- 2 Remove the toner collection bottle and the cleaning blade.
- 3 Replace the toner collection bottle without the cleaning blade.
- 4 Remove the four image drums.
- 5 Defeat the appropriate interlocks.
- 6 Press **✓** or **MENU** (MFP version) to open the menus.
- 7 Use **▲** or **▼** to scroll to **DIAGNOSTICS**, and then press **✓**.
- 8 Use **▲** or **▼** to scroll to **COMPONENT TEST**, and then press **✓**.
- 9 Use **▲** or **▼** to scroll to **BELT ONLY MOTOR**, and then press **✓**.
- 10 **ROTATING MOTORS** appears on the control panel.
- 11 Check the movement of the ITB from the front or the right side of the printer.

Perform the following steps to exit the test:

- 1 Press **CANCEL JOB** (LJ 9500) or **EXIT** (LJ 9500mfp).
- 2 Use ▲ or ▼ to scroll to **EXIT DIAGNOSTICS**, and then press ✓ .
- 3 The printer will reboot.

Component test: Image drum motors test

The image drum motor test can be used to check that the drum motor(s) are rotating, that the motors and drive assemblies are working correctly, and to isolate image drum and image drum drive assembly problems.

Interface problems can be easily detected, and the image drum motors test is helpful when the back of the printer is removed to check the motors and drive assemblies. This test can also help isolate image drum and image drum drive assembly problems.

The test turns each image drum motor that has the image drum cartridge removed for approximately 10 seconds. If multiple drums are removed, the printer turns the next motor for approximately 10 seconds. This continues until all of the image drum motors have turned.

If you begin the test with the image drums removed and then try to enter the diagnostics menu to select **DRUM MOTORS** test, you must do this when the **CHECKING PRINTER** appears on the control panel. If too much time elapses, the printer displays the supplies status information and will not allow the customer to enter the menu structure to select the diagnostic test. If the supplies status information is displayed, open the door and press ✓ (LJ 9500) or **MENU** (LJ 9500mfp) to open the menus, and then close the door.

Note

For the print cartridge motors test and the image drum motors test, the printer will *not* check if the cartridge is installed until a door is opened or closed. If the printer does not recognize that a cartridge is removed, it is probably because the front door interlocks are defeated. Open and close the door that does *not* have the interlocks defeated so the change is recognized.

The image drum motors test works with one or more image drums removed.

- 1 Defeat the front door interlocks.
- 2 Open the front doors.
- 3 Press ✓ or **MENU** (MFP version) to open the menus.
- 4 Use ▲ or ▼ to scroll to **DIAGNOSTICS**, and then press ✓ .
- 5 Use ▲ or ▼ to scroll to **COMPONENT TEST**, and then press ✓ .
- 6 Use ▲ or ▼ to scroll to **DRUM MOTORS**, and then press ✓ .
- 7 Remove the image drum(s) that need to be tested.
- 8 Open and then close one of the doors.

Perform the following steps to exit the test:

- 1 Replace the image drums.
- 2 Use ▲ or ▼ to scroll to **EXIT DIAGNOSTICS**, and then press ✓ .
- 3 The printer will reboot.

Note

Pressing **CANCEL JOB** (LJ 9500) or **EXIT** (LJ 9500mfp) cancels the test.

Component test: Print cartridge motors test

The print cartridge motor test can be used to visually and audibly check that the print cartridge motor(s) are rotating, that the motors and drive assemblies are working correctly, and to isolate print cartridge and print cartridge drive assembly problems. If multiple print cartridges are removed, the printer turns each motor individually for approximately 10 seconds.

Note

For the print cartridge motors test and the image drum motors test, the printer will *not* check if the cartridge is installed until a door is opened or closed. If the printer does not recognize that a cartridge is removed, it is probably because the front door interlocks are defeated. Open and close the door that does *not* have the interlocks defeated so the change is recognized.

If you begin the test with the print cartridges removed and then try to enter the diagnostics menu to select `CARTRIDGE MOTORS` test, you must do this when the `CHECKING PRINTER` appears on the control panel. If too much time elapses, the printer displays the supplies status information and will not allow the customer to enter the menu structure to select the diagnostic test. If the supplies status information is displayed, open the door and press `✓` (LJ 9500) or `MENU` (LJ 9500mfp) to enter the menus, and then close the door.

Note

The print cartridge motors test works with one or more print cartridges removed.

- 1 Defeat the front door interlocks.
- 2 Open the front doors.
- 3 Press `✓` or `MENU` (MFP version) to open the menus.
- 4 Use `▲` or `▼` to scroll to `DIAGNOSTICS`, and then press `✓`.
- 5 Use `▲` or `▼` to scroll to `COMPONENT TEST`, and then press `✓`.
- 6 Use `▲` or `▼` to scroll to `CARTRIDGE MOTORS`, and then press `✓`.
- 7 Remove one or more of the print cartridges.
- 8 Open and then close one of the doors that is not interlock defeated.

Perform the following steps to exit the test:

- 1 Replace the image drums.
- 2 Use `▲` or `▼` to scroll to `EXIT DIAGNOSTICS`, and then press `✓`.
- 3 The printer will reboot.

Note

Pressing `CANCEL JOB` (LJ 9500) or `EXIT` (LJ 9500mfp) cancels the test.

Component test: Developer motors test

The developer motor test can be used to visually and audibly check that the developer motor(s) are rotating, that the motors and drive assemblies are working correctly, and to isolate image drum and image drum developer drive assembly problems. Interface problems can be easily detected, and the developer motors test is helpful when the back of the printer is removed to check the motors and drive assemblies. This test can also help isolate image drum and image drum drive assembly problems.

Each motor is turned in sequence for approximately 10 seconds.

Note

For the print cartridge motors test and the image drum motors test, the printer will *not* check if the cartridge is installed until a door is opened or closed. If the printer does not recognize that a cartridge is removed, it is probably because the front door interlocks are defeated. Open and close the door that does *not* have the interlocks defeated so the change is recognized.

Note

This test can be performed with the image drums installed or removed.

- 1 Press **✓** or **MENU** (MFP version) to open the menus.
- 2 Use **▲** or **▼** to scroll to **DIAGNOSTICS**, and then press **✓**.
- 3 Use **▲** or **▼** to scroll to **COMPONENT TEST**, and then press **✓**.
- 4 Use **▲** or **▼** to scroll to **DEVELOPER MOTORS**, and then press **✓**.

Perform the following steps to exit the test:

- 1 Use **▲** or **▼** to scroll to **EXIT DIAGNOSTICS**, and then press **✓**.
- 2 The printer will reboot.

Note

Pressing **CANCEL JOB** (LJ 9500) or **EXIT** (LJ 9500mfp) cancels the test.

Component test: YMCK laser test

The YMCK laser test can be used to check the each of the four laser scanner assemblies individually for correct functionality.

- 1 Press **✓** or **MENU** (MFP version) to open the menus.
- 2 Use **▲** or **▼** to scroll to **DIAGNOSTICS**, and then press **✓**.
- 3 Use **▲** or **▼** to scroll to **COMPONENT TEST**, and then press **✓**.
- 4 Select **YELLOW LASER SCANNER**, **MAGENTA LASER SCANNER**, **CYAN LASER SCANNER**, or **BLACK LASER SCANNER**, and then press **✓**.
- 5 The mirror motor of each laser scanner assembly starts up and runs so an audible check can be performed. Check if any of the assemblies sound different.

Perform the following steps to exit the test:











- 1 Use **▲** or **▼** to scroll to **EXIT DIAGNOSTICS**, and then press **✓**.
- 2 The printer will reboot.

Note




Pressing **CANCEL JOB** (LJ 9500) or **EXIT** (LJ 9500mfp) cancels the test.

Component test: Fuser motor test

The fuser motor test can be used to test the fuser motor and all of the mechanisms that it drives. You might remove the fuser during the test in order to isolate the fuser-generated noise.

- 1 Defeat the appropriate interlocks.
- 2 Press  or **MENU** (MFP version) to open the menus.
- 3 Use  or  to scroll to **DIAGNOSTICS**, and then press .
- 4 Use  or  to scroll to **COMPONENT TEST**, and then press .
- 5 Use  or  to scroll to **FUSER MOTOR**, and then press .

Perform the following steps to exit the test:

- 1 Use  or  to scroll to **EXIT DIAGNOSTICS**, and then press .
- 2 The printer will reboot.

Note











Pressing **CANCEL JOB** (LJ 9500) or **EXIT** (LJ 9500mfp) cancels the test.

Component test: Tray 1 feed motor test

The tray 1 feed motor test can be used to test the tray 1 paper feed motor, the secondary transfer roller, registration roller, and the pre-registration roller motor (which all use the registration motor M11). The clutch starts and stops the drive motor.




Note

The tray 1 feed motor test will not operate unless the ITB is engaged and the green lever is “up”.

- 1 Defeat the right side door (ITB access) interlocks.
- 2 Press  or **MENU** (MFP version) to open the menus.
- 3 Use  or  to scroll to **DIAGNOSTICS**, and then press .
- 4 Use  or  to scroll to **COMPONENT TEST**, and then press .
- 5 Use  or  to scroll to **MP PAPER FEED DRIVE**, and then press .
- 6 **MOVING SOLENOID AND MOTOR** appears on the control panel.

The motor turns and the tray 1 solenoid will “fire”. The clutch (CL1 on the pre-registration roller) disengages partially into the test. CL2 to the registration roller disengages during the entire test.

Perform the following steps to exit the test:

- 1 Use  or  to scroll to **EXIT DIAGNOSTICS**, and then press .
- 2 The printer will reboot.

Note

Pressing **CANCEL JOB** (LJ 9500) or **STOP** (LJ 9500mfp) cancels the test.

Component test: Tray 2 feed-drive test

The tray 2 feed-drive test can be used to check the tray 2 pick rollers. M23 rotates clockwise to drive the tray 2 mechanism.

- 1 Remove tray 2 and tray 3.

Note

If tray 2 and tray 3 are not removed the test fails and MOVING SOLENOID AND MOTOR appears on the control panel.

There is not a solenoid, and M24 is not tested.

- 2 Press ✓ or MENU (MFP version) to open the menus.
- 3 Use ▲ or ▼ to scroll to DIAGNOSTICS, and then press ✓.
- 4 Use ▲ or ▼ to scroll to COMPONENT TEST, and then press ✓.
- 5 Use ▲ or ▼ to scroll to UPPER CASSETTE FEED DRIVE, and then press ✓.

Perform the following steps to exit the test:

- 1 Use ▲ or ▼ to scroll to EXIT DIAGNOSTICS, and then press ✓.
- 2 The printer will reboot.

Note

Pressing CANCEL JOB (LJ 9500) or EXIT (LJ 9500mfp) cancels the test.

Component test: Tray 3 feed drive test

The tray 3 feed drive test can be used to check the tray 3 pick rollers. M23 rotates counter clockwise to drive the tray 3 mechanism.

- 1 Remove tray 2 and tray 3.

Note

If tray 2 and tray 3 are not removed the test fails and MOVING SOLENOID AND MOTOR appears on the control panel.

There is not a solenoid, and M24 is not tested.

- 2 Press ✓ or MENU (MFP version) to open the menus.
- 3 Use ▲ or ▼ to scroll to DIAGNOSTICS, and then press ✓ .
- 4 Use ▲ or ▼ to scroll to COMPONENT TEST, and then press ✓ .
- 5 Use ▲ or ▼ to scroll to LOWER CASSETTE FEED DRIVE, and then press ✓ .

Perform the following steps to exit the test:

- 1 Use ▲ or ▼ to scroll to EXIT DIAGNOSTICS, and then press ✓ .
- 2 The printer will reboot.

Note

Pressing CANCEL JOB (LJ 9500) or EXIT (LJ 9500mfp) cancels the test.

Component test: Pre-registration test

The pre-registration test can be used to test M11 with the associated clutch (CL1) engaged. CL1 is also tested during the tray 1 feed motor test.

- 1 Disable the appropriate interlocks on the right side (ITB access) door.
- 2 Use ▲ or ▼ to scroll to DIAGNOSTICS, and then press ✓ .
- 3 Use ▲ or ▼ to scroll to COMPONENT TEST, and then press ✓ .
- 4 Use ▲ or ▼ to scroll to PRE-REGISTRATION, and then press ✓ .

Perform the following steps to exit the test:

- 1 Use ▲ or ▼ to scroll to EXIT DIAGNOSTICS, and then press ✓ .
- 2 The printer will reboot.

Note

Pressing CANCEL JOB (LJ 9500) or EXIT (LJ 9500mfp) cancels the test.

Component test: Registration test

The registration test can be used to test M11 with the associated clutch (CL2) engaged. CL2 is OFF during the tray 1 feed motor test.

- 1 Disable the appropriate interlocks on the right side (ITB access) door.
- 2 Use ▲ or ▼ to scroll to `DIAGNOSTICS`, and then press ✓ .
- 3 Use ▲ or ▼ to scroll to `COMPONENT TEST`, and then press ✓ .
- 4 Use ▲ or ▼ to scroll to `REGISTRATION`, and then press ✓ .

Perform the following steps to exit the test:

- 1 Use ▲ or ▼ to scroll to `EXIT DIAGNOSTICS`, and then press ✓ .
- 2 The printer will reboot.

Note

Pressing **CANCEL JOB** (LJ 9500) or **EXIT** (LJ 9500mfp) cancels the test.

Component test: Face-up solenoid test

The face-up solenoid test can be used to test the face-up solenoid (SL2) for correct functionality.

- 1 Disable the interlocks on the left side (fuser access) door.
- 2 Use ▲ or ▼ to scroll to `DIAGNOSTICS`, and then press ✓ .
- 3 Use ▲ or ▼ to scroll to `COMPONENT TEST`, and then press ✓ .
- 4 Use ▲ or ▼ to scroll to `FACE UP SOLENOID`, and then press ✓ .
- 5 Check the mechanisms that SL2 drives in the right side (fuser access) door.

The solenoid “fires”, and several seconds later it releases. Defeating the right side interlocks and checking performing a visual test is suggested.

Perform the following steps to exit the test:

- 1 Use ▲ or ▼ to scroll to `EXIT DIAGNOSTICS`, and then press ✓ .
- 2 The printer will reboot.

Note

Pressing **CANCEL JOB** (LJ 9500) or **EXIT** (LJ 9500mfp) cancels the test.

Print stop test

The print stop test can be used to check the image on a belt before a secondary transfer occurs, stopping media at any point in the paper path to check the post-secondary transfer image condition, and to check the media condition at any point on the paper path.

Note

Before performing the print stop test, use the control panel to open the `CONFIGURE DEVICE` menu and then the `PRINT` submenu. Make sure that the duplex option is set to `OFF`.

- 1 Press `✓` or `MENU` (MFP version) to open the menus.
- 2 Use `▲` or `▼` to scroll to `DIAGNOSTICS`, and then press `✓`.
- 3 Use `▲` or `▼` to scroll to `PRINT/STOP TEST`, and then press `✓`.
- 4 Select the desired millisecond delay (0 to 60,000). The printer displays `READY DIAGNOSTIC MODE`.
- 5 Send a print job from the control panel or from a PC.

The suggested delay times include:

- **0 to 3,000 milliseconds:** Earliest page-stop point (60 mm from the top of the left side of the lower access door).
- **1,000 milliseconds:** T1 (Y on belt)
- **1,500 milliseconds:** T1 (M on belt)
- **2,000 milliseconds:** T1 (C on belt)
- **3,000 milliseconds:** T1 (K on belt)
- **4,000 milliseconds:** ITB image at post charger
- **4,100 milliseconds:** Page at pre-registration
- **4,500 milliseconds:** ITB image is complete for all colors (YMCK)
- **5,000 milliseconds:** Page at registration (buckled)
- **7,000 milliseconds:** ITB image and page at mid-secondary transfer
- **7,500 milliseconds:** Page just prior to duplex diverter
- **8,000 milliseconds:** Page at mid-fuser
- **8,500 milliseconds:** Two-thirds of ITB image cleaned
- **12,500 milliseconds:** Page partially delivered to face-down output tray

Note

To adjust the delay times, one millisecond equals about 0.14 to 0.15 mm (66 milliseconds for 10 mm) of image or media travel.

- 6 When the printer stops, remove the ITB.

Note

Removing the ITB reduces the chance of toner sticking to the ITB when it is hot. Sticking toner might cause print-quality defects.

Be careful when stopping pages in the T2 area. Do not knock un-fused toner off the page into the printer.

The printer stops about three milliseconds after the specified amount of time expires. Entering 0 immediately stops the page when the top of the page is detected. Also, the suggested delay times are approximate times on a letter-size configuration page, and varies with different media sizes and job size.

After the pages and images are checked, clear the paper path of any remaining media.

Note

To exit the test, a power-cycle might be required when the jam is cleared.

Engine-test button

The engine test button is located on the DC controller PCA. You can reach it through a hole (callout 1) at the right rear of the printer by using a small, non-metallic screwdriver or long, thin object.

Note For the MFP, disconnect the finishing device before performing an engine test.

Note If this test is performed with the formatter installed, the printer or MFP will not return to the `READY` state, and a `49 SERVICE ERROR` will appear on the control panel display. To clear the error, turn the power off and then on.

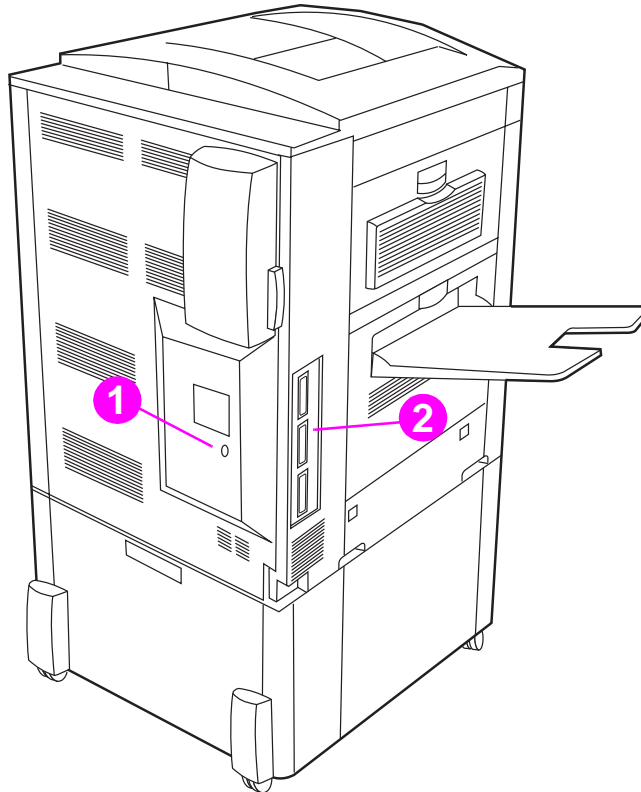


Figure 274. Engine-test button

Engine-test-print page

The engine-test-print page verifies that the print engine is functioning correctly. This test is very useful for isolating printer problems because the formatter is completely bypassed during an engine test. The engine-test-print page consists of 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. Make sure that the tray switch is set to standard size. If the formatter is removed, the tray from which you do *not* want to print must be open. Also, make sure that the print cartridges are installed in the printer.

Note If a finishing device is installed, remove it before performing an engine-test-print page.

Follow these steps to perform an engine test print page if a formatter is installed:

- 1 Turn the printer on.

- 2 Use a non-metallic object to press the engine test button.

Note

When an engine test is printed with the formatter installed, a 49 error will occur after the page prints.

Follow these steps to perform an engine test print page if a formatter is *not* installed:

- 1 Turn the printer on, and wait until the printer is idle.
- 2 Use a non-metallic object to press and hold the engine test button until the printer begins to initialize the EP process.
- 3 When the printer is idle again, press the engine test button again to print an engine test print page.

If the duplexer is installed, the test pattern is printed on both sides of the page. The page is printed from tray 3 if it is installed. If tray 3 is not installed, the page prints from tray 2.



Figure 275. Engine test print page

Formatter heartbeat LED

The formatter heartbeat (callout 2 in figure 274) is a blinking light that indicates that the formatter is functioning correctly. The formatter heartbeat is located above the Jet-Link connector on the left side of the printer.

If the LED is off, the formatter hardware is not seated correctly or is not functioning correctly. Re-seat the formatter hardware. If the LED is flashing, the formatter is functioning correctly. Look in other areas for the cause of the problem.

Note

Before replacing a formatter, first attempt to upgrade the firmware. See “Firmware upgrades to the printer or MFP” on page 109.

Information pages

Note

All of the information pages in this section use a page from the HP LaserJet 9500 Series printer as an example. Pages from the MFP will vary from these examples.








From the control panel, you can print pages that show detailed information about the printer and its current configuration. The following information pages are available:

- Configuration page
- HP Jetdirect page
- Supplies status pages
- File directory page
- Usage page

Note

For a complete list of the printer information pages, print a menu map. See “Menu map” in chapter 3.

To select and print items from the information menu:

- 1 Press  or **MENU** (MFP version) to open the menus.
- 2 Use  or  to scroll to **INFORMATION**, and then press  .
- 3 Use  or  to scroll to the information page that you want, and then press  .

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) and printer languages.

The content of the configuration page varies, depending on the options that are currently installed in the printer.

If any of the installed devices are not shown on the configuration page, make sure that the Jet-Link cabling is correctly connected and functional, and that dc power is available to the finishing device. Check and reseal suspect cable connections. If any of the cables are replaced, you must turn the printer off and on again to have the printer recognize the finishing device.

Configuration page elements

Figure 276 shows a sample configuration page, which contains information about the following attributes:

- A. Printer information (the “Printer Number” is the DC controller firmware version, and the “Firmware Datecode” is the formatter firmware version)
- B. Event log
- C. Installed personalities and options (indicates installed devices and recognized sizes)
- D. Memory
- E. Security
- F. Media trays and options (indicates installed devices and recognized sizes)
- G. Color plane registration marks
- H. EP parameters

The configuration page is titled "configuration page" and contains the following sections:

- Printer Information (A):**
 - Product Name: hp color LaserJet 9500
 - Printer Name: hp color LaserJet 9500
 - Printer Number: 54
 - Printer Serial Number: XXXXXXXX
 - Firmware Datecode: XXXXXXXX.XX.XXX.X
 - Service ID: 00000
 - PS Wait Timeout: 300 seconds
 - Page Count: 4865
 - Color Page Count: 4368
- Memory (D):**
 - Total Memory: 288 MB
 - DWS: 70.00
 - Automatic Resource Saving Enabled
- Event Log (B):**
 - Number of Entries in Use: 50
 - Maximum Number of Entries: 50
 - Three Most Recent Entries:

Number	Page Count	Entry
50	4720	59.10.00
49	4720	59.10.00
48	4720	13.11.07
- Security (E):**
 - Control Panel Lock: NONE
 - Control Panel Password: DISABLED
 - Write Protect: DISABLED
- Installed Personalities and Options (C):**
 - PCLXL (20010402)
 - PCL (20010402)
 - PDF (20021216)
 - PS (20010402)
 - DIMM Slot 1: Side 1: 16 MB Flash, Side 2: 32 MB SDRAM
 - DIMM Slot 2: Side 1: 128 MB SDRAM, Side 2: 128 MB SDRAM
 - DIMM Slot 3: Empty
 - DIMM Slot 4: Empty
 - DIMM Slot 5: Empty
 - EIO 1: Empty
 - EIO 2: HP JetDirect J6057A
 - EIO 3: HP J6054B
 - DISK Storage: 9462 MB Capacity
- Paper Trays and Options (F):**
 - Default Paper Size: LETTER
 - Tray 1 Size: LETTER
 - Tray 1 Type: LABELS LABEL
 - Tray 2 Size: LETTER STANDARD
 - Tray 3 Size: 11X17 STANDARD
 - Duplex Unit
 - Device 1: HEWLETT-PACKARD 2000 SHEETS INPUT TRAY 03.37 C8531A
 - Input Trays: 1: TRAY 4, 2000 Sheets
- Color Plane Registration Marks (G):** A series of colored squares used for registration.
- EP Parameters (H):** A grid of characters used for exposure parameters.


Figure 276. Sample configuration page

Supplies status pages

Use the supplies status pages to view the current printer supply status, to help troubleshoot printer problems, or to verify printer information.

Supplies page 1 elements

- A. Ordering information
- B. Print cartridge information
- C. Image drum information
- D. Recycling information

hp color LaserJet 9500 printers 

Supplies Status Page 1

A Ordering Information:
Hewlett-Packard Supplies can be ordered on the internet at <https://www.hp.com/go/ordersupplies/na> or by calling Hewlett-Packard. (Please refer to your printer User Guide for the telephone number.
For highest print quality always use genuine Hewlett-Packard supplies.

B

Supply Type	HP Part Number	Level
Black Print Cartridge	C8550A	1%
Cyan Print Cartridge	C8551A	50%
Magenta Print Cartridge	C8553A	ATTENTION: a non Hewlett-Packard supply has been detected.
Yellow Print Cartridge	C8552A	1%

C


Supply Type	HP Part Number	Level
Black Image Drum	C8560A	1%
Cyan Image Drum	C8561A	50%
Cyan Image Drum	C8561A	80%
Yellow Image Drum	C8562A	1%

D Recycling Information:
Please return your genuine HP supplies to Hewlett-Packard. For more information see: <http://www.hp.com/go/recycle>.

Figure 277. Sample supplies status page (1 of 2)



Supplies page 2 elements


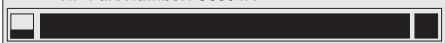
- A. Ordering information
- B. Image transfer kit information
- C. Image cleaning kit information
- D. Image fuser kit information
- E. Recycling information



hp color LaserJet 9500 printers 

Supplies Status Page 2

A Ordering Information:
Hewlett-Packard Supplies can be ordered on the internet at <https://www.hp.com/go/ordersupplies/na> or by calling Hewlett-Packard. (Please refer to your printer User Guide for the telephone number.
For highest print quality always use genuine Hewlett-Packard supplies.

B  **Image Transfer Kit** 94%
HP Part Number: C8555A

Pages Remaining: 16875

C  **Image Cleaning Kit** 100%
HP Part Number: C8554A

Pages Remaining: 17952

D  **Image Fuser Kit** 100%
HP Part Number: C8556A

Pages Remaining: 17952

E Recycling Information:
Please return your used genuine HP supplies to Hewlett-Packard. For more information see:
<http://www.hp.com/go/recycle>

ENGLISH(1)

Figure 278. Sample supplies status page (2 of 2)

Usage page

Print a usage page from the control panel (or gain access to the information remotely from HP Web Jetadmin) to determine how many simplex or duplex pages of each media size have been scanned on the copy module and printed on the printer. Average toner coverage is approximated by counting pixels. Jams are not counted. The data cannot be reset manually, and values such as total print and scan impressions, toner coverage, serial number, default language, and default media size are backed up between the printer NVRAM and the hard disk.

The total page count on the usage page does not match the page count on the configuration page. The reasons for this include:

- the configuration page counts “clicks” and the usage pages counts letter/A4 equivalents
- the configuration page counts jammed pages and the usage page does not count jammed pages

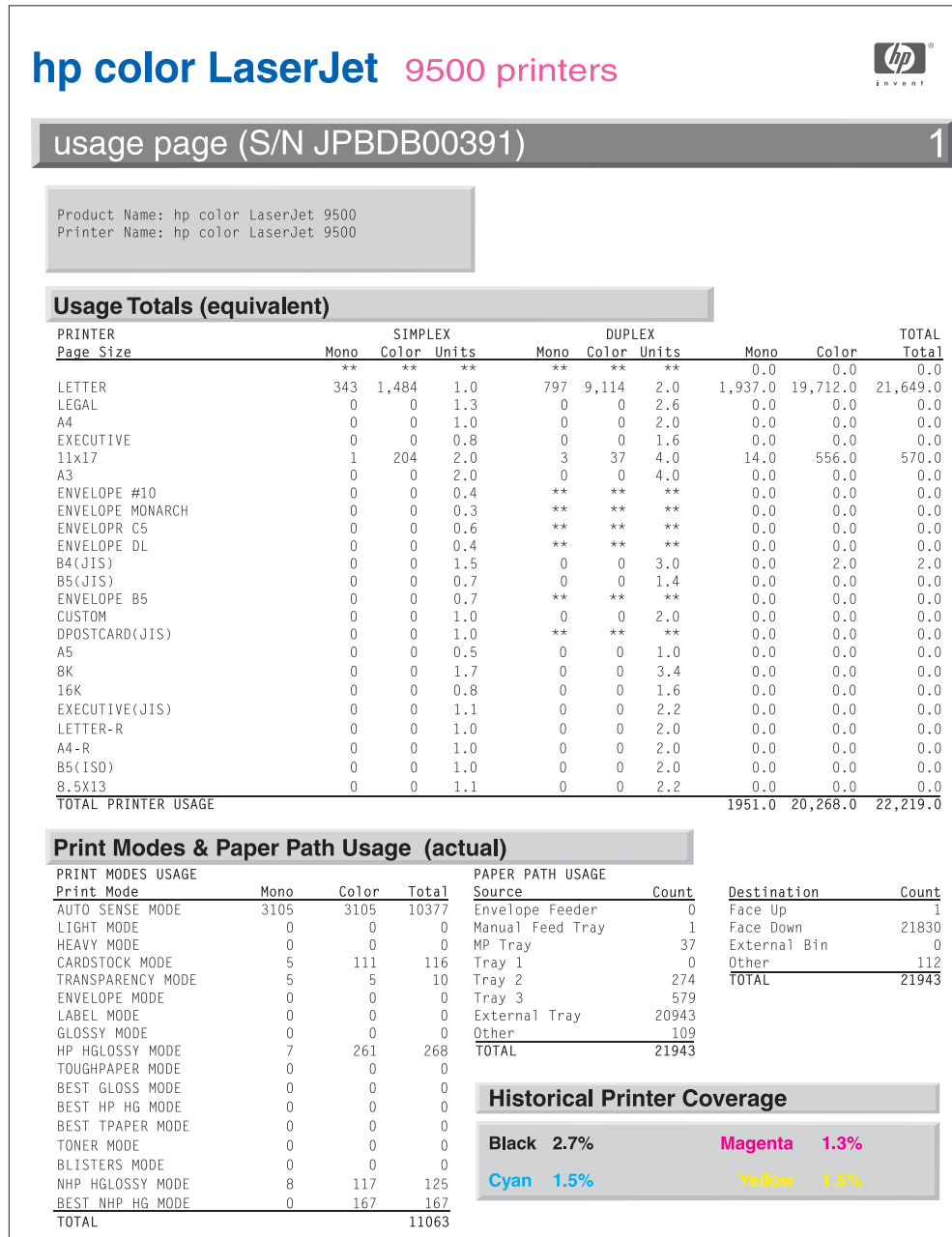


Figure 279. Sample usage page

Electrical connection and contact failures

The printer has 23 high-voltage paths, and each path has four or five connectors. Two signs that indicate that there is a poor electrical connection include high-voltage arcing and a loss of high-voltage bias. Some of the most common connector problems include the following:

- for connectors and flat flexible cables (FFCs):
 - a service reconnection failure
 - shipping/printing microvibrations and corrosion that cause intermittent connections
- image drum (p-crg) internal and external connections
- consumables memory failures and past-life consumables (also refills)

See the following for troubleshooting electrical connection problems:

- Timing charts (page 124) in chapter 5
- Wiring diagrams (page 126) in chapter 5
- DC controller circuit (page 143) in chapter 5
- DC controller operations (page 146) in chapter 5

To fix a connection failure

- 1 Open and close the doors (including the image drum door).
- 2 Reseat the consumables.
- 3 Check for poor contact or corrosion on the consumable and on the door connections.
- 4 Reseat the connectors, particularly the FFCs, after servicing the printer.
- 5 Turn the printer on again.

Signs that a bad connection might exist include:

- sensor failures
- motor stalls
- beam detect errors
- OPC velocity errors
- ITB velocity errors
- developer sleeve motor stalls
- cartridge (p and t) memory errors
- scanner velocity errors
- formatter hangs
- CPR failures
- complete color plane dropouts
- dead control panel
- auger marks that change direction
- reversing stepper motors

CAUTION

If any of these signs occur or if any of the related PCAs or assemblies are replaced, be careful when disconnecting and reconnecting connectors. The connectors can break easily.

Avoid touching any high-voltage contact. Skin oil can affect the connection.

Note

If the problem persists after replacing the connector, remove and reseat all of the FFC cables. If the problem still persists, replace the appropriate ribbon cables.

Image-formation and print-quality troubleshooting tools

The following tools are helpful in solving image-formation and print-quality problems.

Note

When troubleshooting an MFP version, you must first determine if the print-quality issue is a print-related or copy-related issue. Print-quality issues that are related to print issues typically affect copied pages also, but copy-related issues might not always appear on printed pages. If the problem appears on both copied and printed pages, use the troubleshooting procedures in this manual. If the problem appears only on copied pages, see the troubleshooting chapter in the *HP Scanner/ADF Service Manual for the HP LaserJet 9000mfp/9000Lmfp/9040mfp/9050mfp/9500mfp* (PN C8549-90955).

Print-quality problems associated with the environment

The printer is operating in excessively humid or dry conditions. Make sure that the printing environment is within specifications. See “Environmental specifications” on page 26 in chapter 1.

Print-quality problems associated with media

Many print-quality problems and media-damage problems such as excessive curl are caused by using unsupported media, by using supported media with the incorrect media-type settings, or by using unsupported media without a media-type setting. Using supported media and selecting the appropriate type setting from the control panel alleviates many of the print-quality problems that customers encounter.

Note

Before troubleshooting print-quality problems, make sure that the customer is using supported media and that they are selecting the appropriate control panel type setting for the media they are using. Also, make sure to select the matching media-type setting in the printer driver to avoid media-type mismatch errors and prompts to load different media.

See “Media specifications” on page 37 in chapter 1 for more information about supported media and media selection.

Reseating consumables

Correct functionality of all of the consumables for the product is dependent on correct seating to provide high-voltage continuity and correct registration. Turn off the printer and reseat the consumables if you suspect high-voltage contact problems or part-registration problems.

Cleaning the post charger

Cleaning the post charger might eliminate some print-quality problems, particularly poor secondary transfer of black. See “Cleaning the post charger” on page 104 in chapter 4 for more information.

Cleaning the fuser input

Cleaning the fuser input might eliminate some print-quality problems, particularly discharge marks and other secondary transfer defects. See “Cleaning the fuser input” on page 104 in chapter 4 for more information.

Print-quality troubleshooting pages

Use the built-in print-quality troubleshooting pages to help diagnose and solve print-quality problems. The pages identify repeating defects, and isolate the repeating defects to a color plane and a consumable. Perform the following steps to print the print-quality troubleshooting pages:

- 1 Press ✓ or **MENU** (MFP version) to open the menus.
- 2 Use ▲ or ▼ to scroll to **DIAGNOSTICS**, and then press ✓ .
- 3 Use ▲ or ▼ to scroll to **PQ TROUBLESHOOTING**, and then press ✓ .
- 4 The printer returns to the **READY** state after printing the print-quality troubleshooting pages.

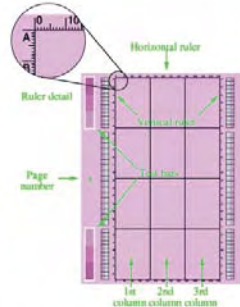
The print-quality troubleshooting pages include:

- two instruction pages
- five target pages
- one demonstration page (HP CLJ 9500 only)
- one configuration page

Diagnostic procedure

1. If the control panel displays a message recommending that you order or replace supplies, replace the indicated supply item.
2. Choose the sample below showing defects that look like the defects on your set of test pages and follow the corresponding instructions. See the User Reference Guide for detailed procedures.
3. Some print quality issues may be remedied by performing a "calibrate now" procedure
Configure Device > Print Quality > Calibrate Now from the control panel or by cleaning the Fuser Input. See the user guide for details.
4. If the print quality issue is not resolved or there is no picture similar to the Print Quality Test Pages that you printed, go to the website <http://www.hp.com/support/lj9500> for more help.

Note: Green is used on the yellow pages to make yellow streaks/marks easier to see. Both yellow and cyan streaks/marks may appear in green.



1. Narrow horizontal streak



Narrow horizontal streak appears in one color only (example streak is in magenta).

ACTION: Replace the **image drum** matching the color of the test page with the streak.

2. Wide horizontal streak

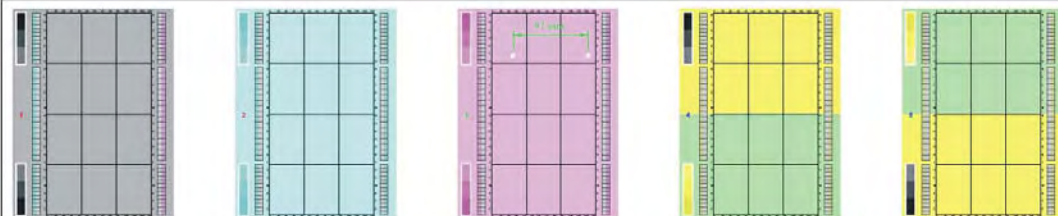


Wide horizontal streak appears in one color only (example streak is in magenta).

ACTION: Replace the **image drum** matching the color of the test page with the streak.

NOTE: If the streak appears on all or several of the test pages, open the front doors of the printer, then lower and raise the large green ITB Lever. Lower and raise the blue Transfer Cleaner located behind the Toner Collection Bottle. Also clean the Post Charger.

3. Light marks

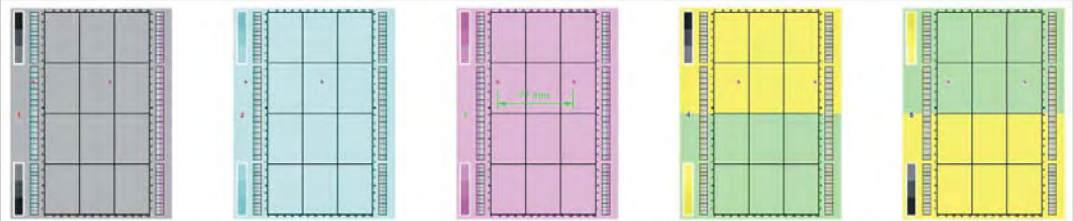


On one test page, 2 or 3 light marks repeat every 97mm at the same vertical location (example mark is in magenta).

ACTION: Replace the **image drum** matching the color of the test page with the mark.

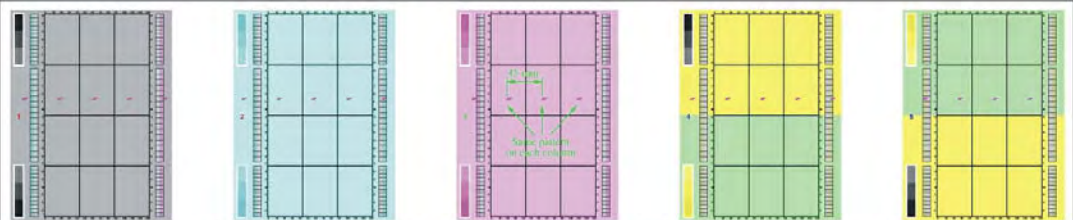
Figure 281. Print-quality assessment page (1 of 2)

4. 97mm repeating marks of one color on all test pages



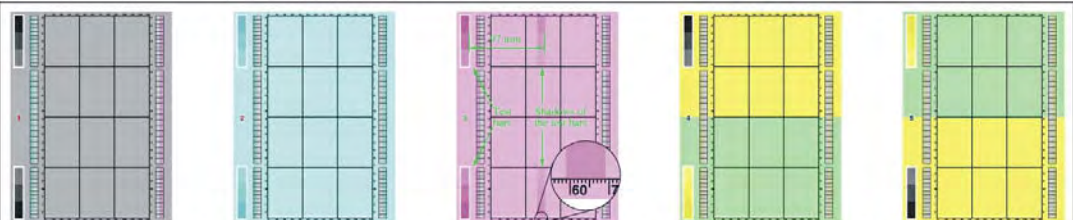
On all test pages, marks of a single color (example marks are magenta) repeat every 97mm at the same vertical location on each test page.
ACTION: Replace the **image drum** matching the color of the marks.

5. 45mm repeating marks of one color on all test pages



On all test pages, marks of a single color (example marks are magenta) repeat every 45mm at the same vertical location on each test page.
ACTION: Replace the **image drum** matching the color of the marks.

6. Shadows of the test bars in the 2nd column



On one test page, shadows of the test bars appear in the 2nd column (example test bars are in magenta).
ACTION: Replace the **image drum** matching the color of the test page with the shadows.

7. Shadows of the test bars in the 3rd column on any test page



On any test page, shadows of the test bars appear in the 3rd column.
ACTION 1: Check to see that the print mode set on the front panel and the paper type selected in the printer driver are correct for your media type.
2: Check to see that the media you are using is supported.
3: Replace the **image fuser kit**.

Figure 282. Print-quality assessment page (2 of 2)

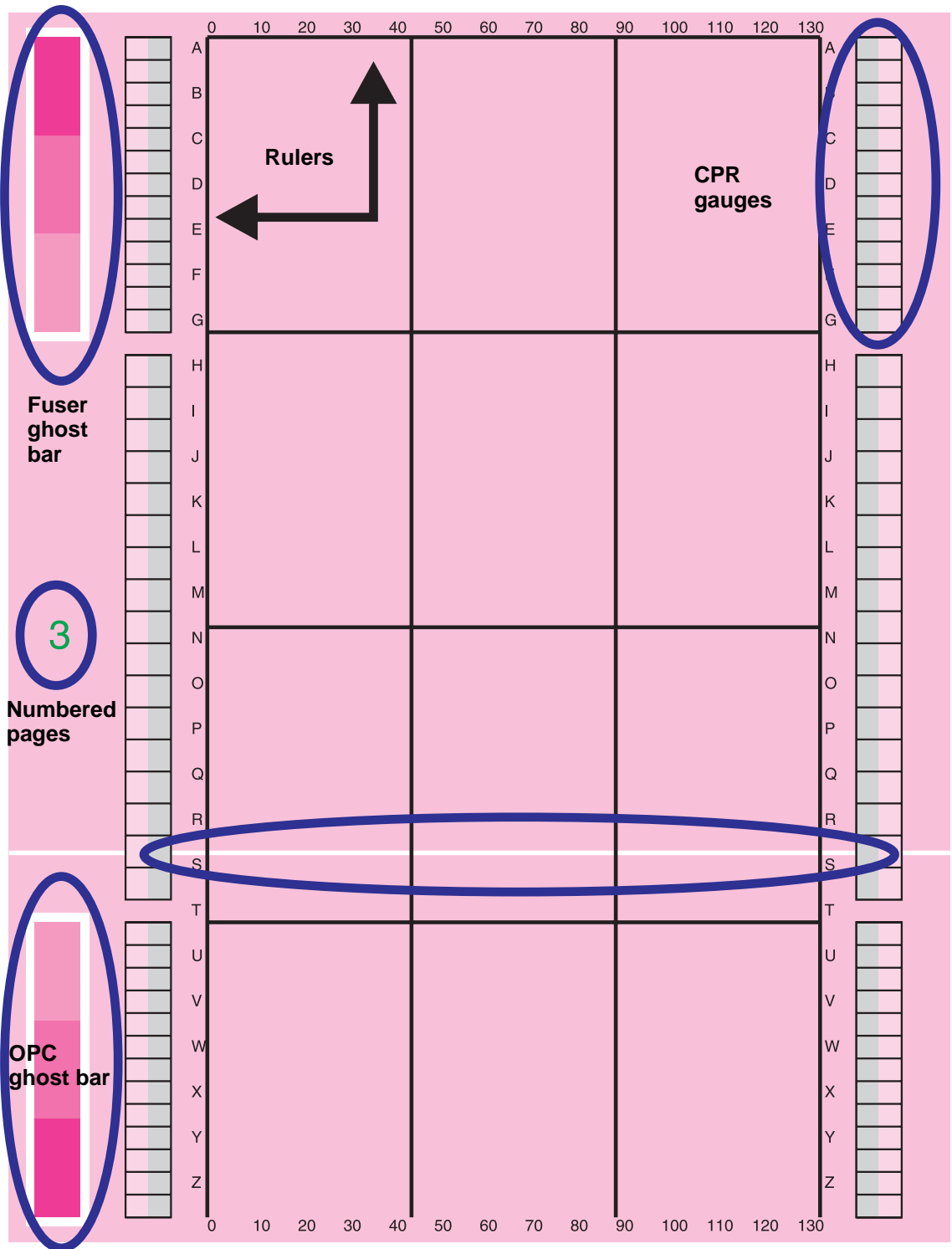


Figure 283. Print-quality assessment page attributes

Color band test

The color band test has primary colors (CMYK), secondary colors (RGB), and white arranged in 25 percent fill-stripes that are parallel to the feed direction. The test is useful when troubleshooting high-voltage arcing, as well as color plane separation, secondary color separation, and white (without toner) on the same page. Toner that is visible in the unprintable areas near the edges of the media might indicate that there is an arcing problem.

Note

If you are troubleshooting high-voltage arcing, use a half-speed setting for media types (arcs appear more often at half-speed).

Note

A color band test is useful in conjunction with a print stop test. See “Print stop test” on page 349 for more information.

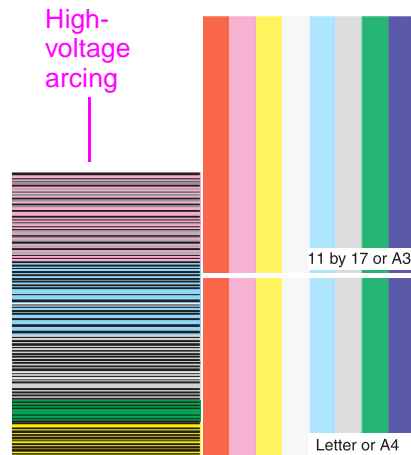


Figure 284. Color band test page

Printing a color band test

- 1 Press **✓** or **MENU** (MFP version) to open the menus.
- 2 Use **▲** or **▼** to scroll to **DIAGNOSTICS**, and then press **✓**.
- 3 Use **▲** or **▼** to scroll to **COLOR BAND TEST**, and then press **✓**.

The color band test prints on A3 or 11-by-17 media if one of those sizes is set as the default media size on the control panel.

Note

The media type must be set to **PLAIN** or **ANY** for this test to print.

Engine test print page

The engine test print page verifies that the print engine is functioning correctly, and is helpful in troubleshooting print-quality problems. The engine test print 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 from which you do *not* want to print must be open. Also, make sure that the print cartridges are installed in the printer.

Note

Make sure that the tray switch is set to standard size.

Follow these steps to perform an engine test print page if a formatter is installed:

- 1 Turn the printer on.

- 2 Use a non-metallic object to press the engine test button.

Follow these steps to perform an engine test print page if a formatter is *not* installed:

- 1 Turn the printer on, and wait until the printer finishes pressurizing the fuser and initializing the EP process.
- 2 Use a non-metallic object to press the engine test button.
- 3 When the printer is idle, press the engine test button again to print an engine test print page.

If the duplexer is installed, the test pattern is printed on both sides of the page. The page is printed from tray 3 if it is installed. If tray 3 is not installed, the page prints from tray 2.



Figure 285. Engine test print page

Laser/scanner adjustment page

See “Printing a laser/scanner adjustment page” on page 233 in chapter 6 for information on printing, reading, and interpreting the laser/scanner adjustment page. This page is helpful for assessing and correcting color plane registration problems.

Note

This procedure can only be performed using A4- or letter-size media. Using A3 or 11-by-17 media gives invalid results.

Door ruler and repeating defect frequencies

A metric ruler, located on the front left door of the printer, can be used for measuring the frequency of repetitive print-quality defects. The following table describes highlight frequencies and the associated EP process part.

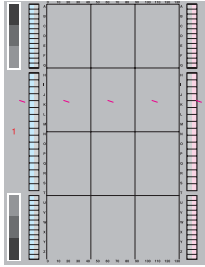
Table 54. Repeating print-quality defect dimensions

K developer (x1)	27 mm (1.06 inches)
CMY developer (x3)	30 mm (1.18 inches)
Charger roller (x4)	45 mm (1.77 inches)
T1 backing roller (x4 on ITB)	52 mm (2.04 inches)
T2 roller	71 mm (2.8 inches)
T2 backing roller (on ITB)	73 mm (2.87 inches)
OPC (x4)	98 mm (3.86 inches)
ITB driver roller	100 mm (3.93 inches)
Cleaning backing roller	100 mm (3.93 inches)
Space between T1s	100 mm (3.93 inches)
Fuser bottom	140 mm (5.51 inches)
Fuser top	148 mm (5.83 inches)

Sample defects and solutions

Note

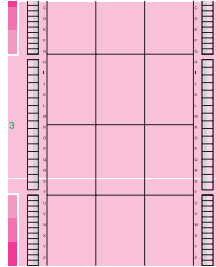
See the *HP Scanner/ADF Service Manual for the HP LaserJet 9000mfp/9000Lmfp/9040mfp/9050mfp/9500mfp* (PN C8549-90955) for sample defects and solutions for the scanner/ADF portion and copy functions of the MFP.



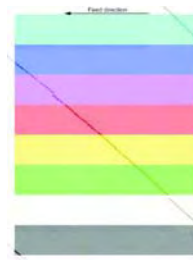
See "Repeating marks (98 mm)" on page 367 and "Repeating marks (45 mm)" on page 368.



See "Lines and bands appear perpendicular to feed direction" on page 371.



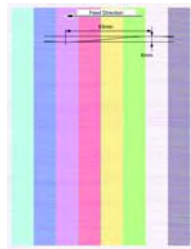
See "Lines, streaks or scratches appear parallel to feed direction" on page 374.



See "Diagonal bands or lines" on page 378.



See "Light or faint image and dropouts" on page 380.



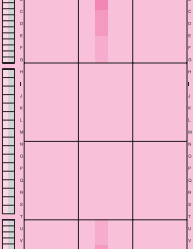
See "Wavy brush marks" on page 384



See "Color plane misregistration" on page 385.



See "Primary color covers entire page" on page 387.



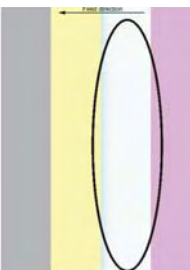
See "Ghosted image (98 mm)" on page 388.



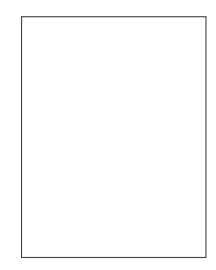
See "Distorted or misplaced image" on page 391.



See "Poorly fused image" on page 392



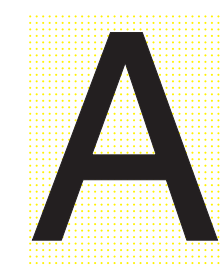
See "Missing color plane" on page 394.



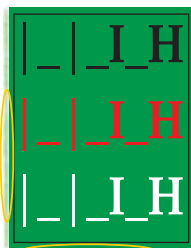
See "Blank" on page 395.



See "Hand or fingerprints" on page 395.



See "Fine, yellow dot background" on page 397.



See "Toner halos or explosions occur around solid secondary colors" on page 398.

Repeating marks (98 mm)

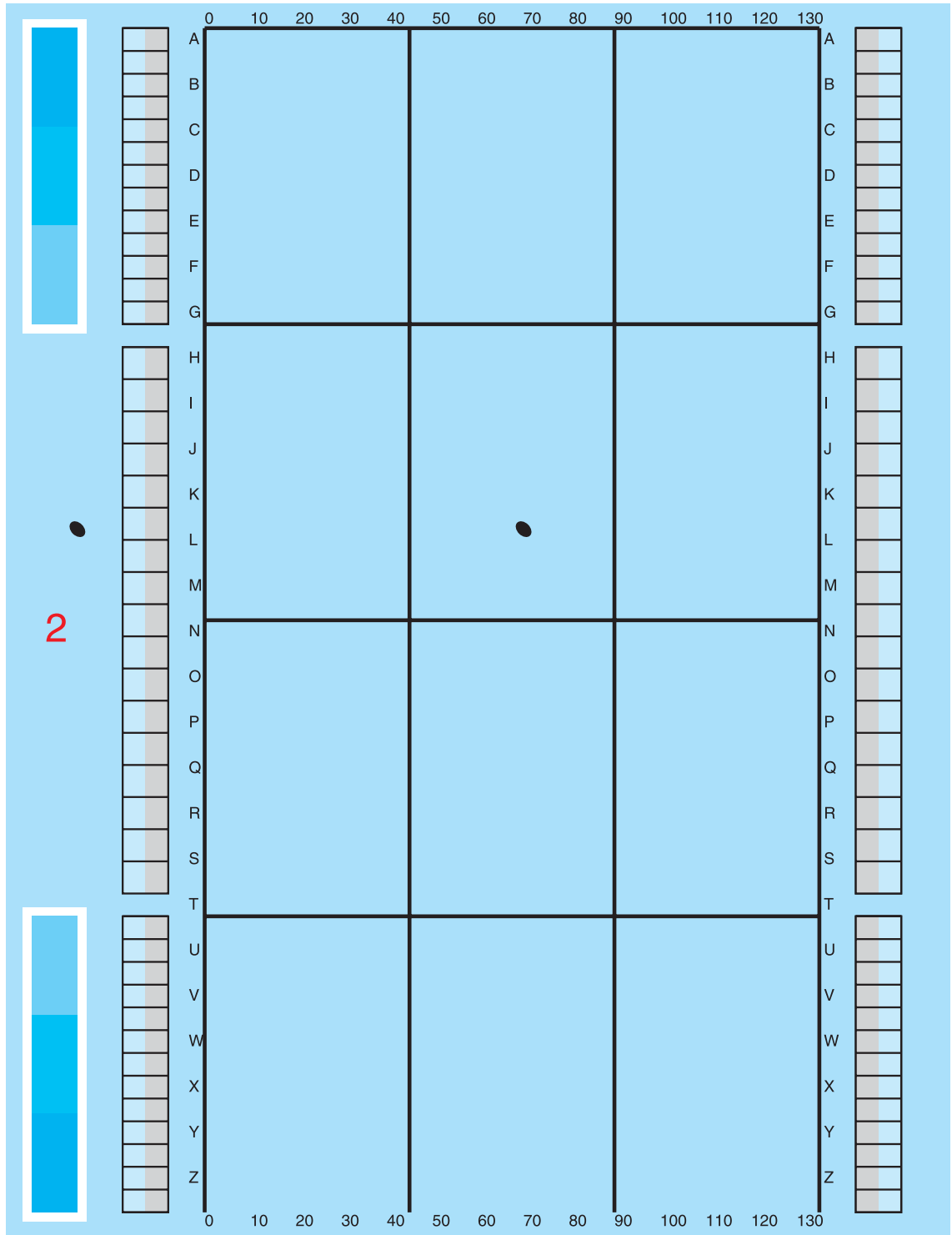


Figure 286. Repeating marks (98 mm)

Table 55. Repeating marks

Description	Possible causes	Solution
Marks repeat every 98 mm	Contaminant is stuck to the surface of the OPC or the surface of the OPC is damaged.	<ol style="list-style-type: none"> 1 Print a set of print-quality troubleshooting pages to isolate the problem to a single color plane. 2 Replace the image drum for the indicated color.
Marks repeat every 45 mm	Contaminant is stuck to the surface of the primary charging roller, or the surface of the primary charging roller is damaged.	<ol style="list-style-type: none"> 1 Print a set of print-quality troubleshooting pages to isolate the problem to a single color plane. 2 Replace the image drum for the indicated color.
Marks repeat every 52 mm	Contaminant is stuck to the surface of the primary transfer backing roller, or the primary transfer backing roller is damaged.	<ol style="list-style-type: none"> 1 Print a set of print-quality troubleshooting pages to verify that the problem is isolated to a single color plane. 2 Replace the ITB.
Marks repeat every 30 mm in cyan, magenta, or yellow, or every 27 mm in black	Contaminant is stuck to the surface of the developer sleeve, or the surface of the developer sleeve is damaged.	<ol style="list-style-type: none"> 1 Print a set of print-quality troubleshooting pages to isolate the problem to a single color plane. 2 Replace the image drum for the indicated color.
<p>Marks repeat every 3 to 4 pages for letter and A4, and every 2 to 3 pages for 11-by-17 and A3</p> <p>Marks appear in the same position, perpendicular to the feed direction</p>	Contaminant is stuck to the surface of the ITB, or the surface of the ITB is damaged.	<ol style="list-style-type: none"> 1 Print a set of print-quality troubleshooting pages to make sure that the defect appears in all colors, and that the repeat pattern is every 3 to 4, pages for letter and A4 and every 2 to 3 pages for 11-by-17 and A3. <p>Note The marks appear in the same position each time that they occur, perpendicular to the feed direction.</p> <ol style="list-style-type: none"> 2 Partially remove the ITB and check the surface for contamination or damage by rotating the flywheel on the right side of the belt. 3 If toner is fused to the belt, remove it by gently scraping it off using the edge of a non-serrated coin or similar smooth, rounded edge.
Marks repeat every 71 mm	Contaminant is stuck to the surface of the secondary transfer roller, or the surface of the secondary transfer roller is damaged.	<ol style="list-style-type: none"> 1 Remove the secondary transfer roller and check the surface for contamination or damage. 2 Clean or replace the secondary transfer roller if necessary.
Marks repeat every 149 mm	Contaminant is stuck to the surface of the upper fuser roller, or the surface of the upper fuser roller is damaged.	<ol style="list-style-type: none"> 1 Remove the fuser assembly and check the rollers for contamination or damage. 2 Contamination might be removed by gentle cleaning with a soft cloth, or by printing a few blank pages. Run a fuser cleaning page (CONFIGURE DEVICE, PRINT QUALITY, PROCESS CLEANING PAGE). 3 When surface damage exists or contamination cannot be cleaned, replace the fuser assembly. <p>Note Always troubleshoot the other components in the printer for the original cause of the contamination or roller damage before installing a new fuser assembly.</p>

Table 55. Repeating marks (continued)

<p>Marks repeat every 140 mm</p>	<p>Contaminant is stuck to the surface of the lower fuser roller, or the surface of the lower fuser roller is damaged.</p>	<p>1 Remove the fuser assembly and check the rollers for contamination or damage.</p> <p>2 Contamination might be removed by gentle cleaning with a soft cloth, or by printing a few blank pages. Run a fuser cleaning page (CONFIGURE DEVICE, PRINT QUALITY, PROCESS CLEANING PAGE).</p> <p>3 When surface damage exists or contamination cannot be cleaned, replace the fuser assembly.</p> <p>Note Always troubleshoot the other components in the printer for the original cause of the contamination or roller damage before installing a new fuser assembly.</p>
<p>Marks repeat parallel to the feed direction several times on a page, but with no regular frequency</p>	<p>Contamination exists on the post T2 static charge eliminating comb (fuser inlet).</p>	<p>1 Lower the green lever, remove the secondary transfer roller, attach the blue brush to the green tongs (both are behind the right front door), and use the brush to clean the post T2 static charge eliminating comb (fuser inlet).</p> <p>2 Check electrical connections to the secondary transfer unit, and check for a good ground.</p> <p>3 Replace the high-voltage power supply.</p>

Lines and bands appear perpendicular to feed direction



Figure 288. Lines and bands

Table 56. Lines and bands

Table 57. Description	Possible cause	Solution
Light or dark lines repeat every 98 mm	Contaminant is stuck to the surface of the OPC, or the surface of the OPC is damaged or has been exposed to light.	<ol style="list-style-type: none"> 1 Print a set of print-quality troubleshooting pages to isolate the problem to a single color plane. 2 Replace the image drum for the indicated color.
White lines repeat every 3 to 4 pages for letter and A4, and every 2 to 3 pages for 11-by-17 and A3	Contaminant is stuck to the surface of the ITB, or the surface of the ITB is damaged.	<ol style="list-style-type: none"> 1 Partially remove the ITB and check the surface for contamination or damage by rotating the flywheel on the right side of the belt. 2 If toner is fused to the belt, remove it by gently scraping it off using the edge of a non-serrated coin or similar smooth, rounded edge.
Light lines repeat every 149 mm	Contaminant is stuck to the surface of the upper fuser roller, or the surface of the upper fuser roller is damaged.	<ol style="list-style-type: none"> 1 Remove the fuser assembly, and check the rollers for contamination or damage. 2 Contamination might be removed by gentle cleaning with a soft cloth, or by printing a few blank pages. Run a fuser cleaning page (CONFIGURE DEVICE, PRINT QUALITY, and PROCESS CLEANING PAGE). 3 When surface damage exists or contamination cannot be cleaned, replace the fuser assembly. <p>Note Always troubleshoot the other components in the printer for the original cause of the contamination or roller damage before installing a new fuser assembly.</p>
Light lines repeat every 140 mm	Contaminant is stuck to the surface of the lower fuser roller, or the surface of the lower fuser roller is damaged.	<ol style="list-style-type: none"> 1 Remove the fuser assembly, and check the rollers for contamination or damage. 2 Contamination might be removed by gentle cleaning with a soft cloth, or by printing a few blank pages. Run a fuser cleaning page (CONFIGURE DEVICE, PRINT QUALITY, PROCESS CLEANING PAGE). 3 When surface damage exists or contamination cannot be cleaned, replace the fuser assembly. <p>Note Always troubleshoot the other components in the printer for the original cause of the contamination or roller damage before installing a new fuser assembly.</p>
Bands/dark lines (47 mm band on heavy stock in half-speed mode)	A T1 vibration exists.	<ol style="list-style-type: none"> 1 Make sure that the media being used is within specifications. See "Media specifications" on page 37 in chapter 1. 2 Make sure that the media type setting on the control panel is appropriate for the media being used. 3 Change the high coverage 2 setting (CONFIGURE DEVICE, OPTIMIZE MENU) to ON, which prints yellow dots in an 8-by-8 mm pattern for half- and full-speed printing (opposed to 8-by-8 mm in full speed and 10-by-10 mm in half speed). <p>Note High coverage 1 and high coverage 2 are not mutually exclusive. If both items are turned on, the yellow dots turn off.</p>

Table 56. Lines and bands (continued)

Bands/dark lines (50/100 mm bands)	A T1 vibration exists.	<ol style="list-style-type: none"> 1 Make sure that the media being used is within specifications. See “Media specifications” on page 37 in chapter 1. 2 Make sure that the media type setting on the control panel is appropriate for the media being used. 3 Change the high coverage 3 setting (CONFIGURE DEVICE, OPTIMIZE MENU) to ON, which slightly increases the OPC/ITB speed mismatch.
Bands/dark lines Cardstock band (37 mm from trailing edge of ledger, and 115 mm from trailing edge of letter, on media heavier than 120 g/m ² printed in full speed modes)	A T2 nip vibration causes band at T1.	<ol style="list-style-type: none"> 1 Make sure that the media being used is within specifications. See “Media specifications” on page 37 in chapter 1. 2 Make sure that the media type setting on the control panel is appropriate for the media used. 3 Change the high coverage 3 setting (CONFIGURE DEVICE, OPTIMIZE MENU) to ON, which slightly increases the OPC/ITB speed mismatch.
Bands of gloss or density differences repeating at fuser frequency (149 mm or 140 mm)	A flat spot on the fuser roller is caused by unplugging the printer (rather than using the power button to turn it off).	<ol style="list-style-type: none"> 1 Correct the cause of the power interruption. 2 Replace the fuser.
Band (scan direction ripple) Dark lines 3 to 5 mm apart perpendicular to the feed direction (lines are heaviest in the middle of the page)	The ITB is defective.	<ul style="list-style-type: none"> ● Replace the ITB.

Lines, streaks or scratches appear parallel to feed direction

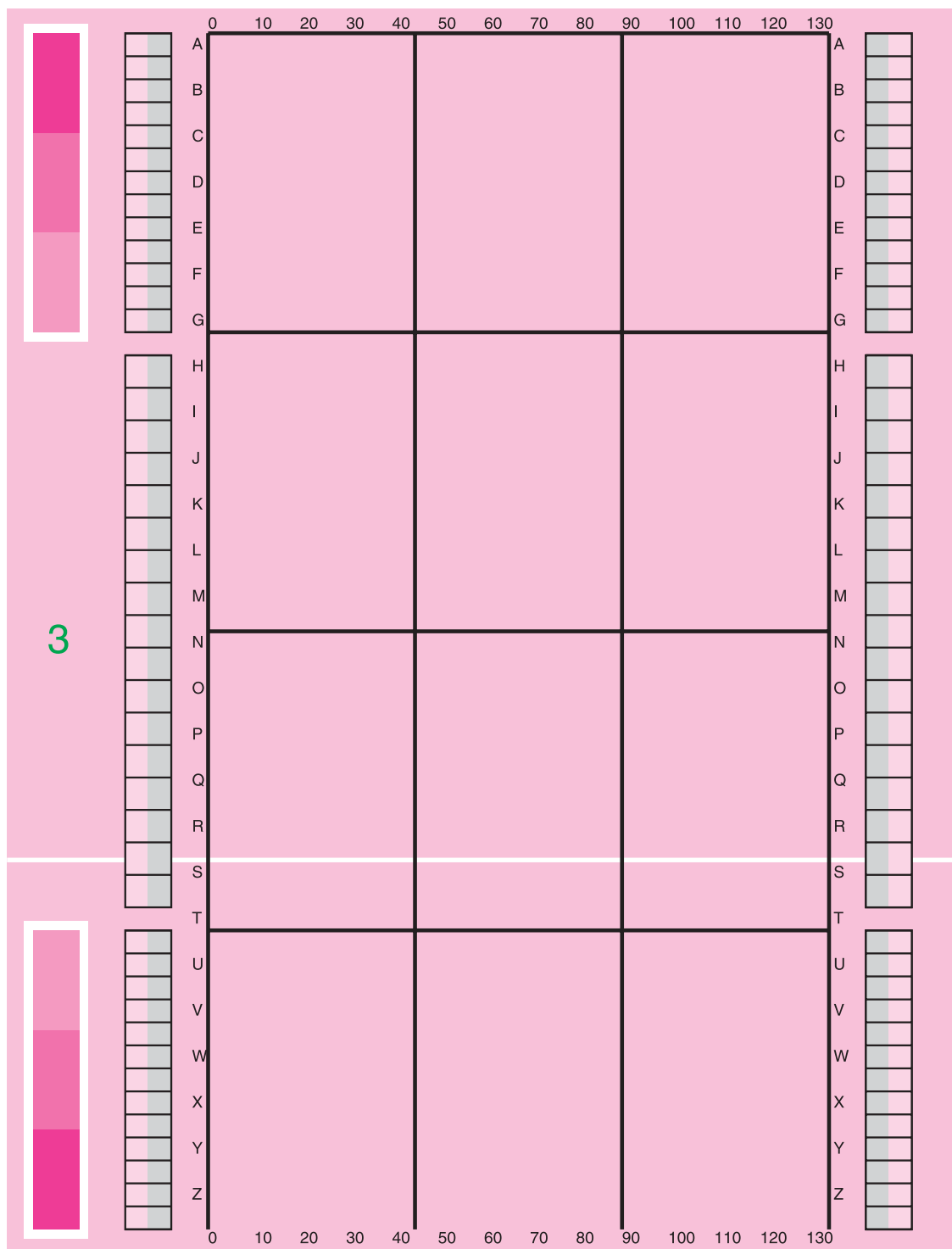


Figure 289. Lines, streaks, or scratches appear parallel to feed direction (1 of 2)



Figure 290. Lines, streaks, or scratches appear parallel to feed direction (2 of 2)

Table 58. Lines, streaks, or scratches appear parallel to feed direction

Description	Possible causes	Solution
White fine/clear	A laser beam is blocked.	<ol style="list-style-type: none"> 1 Print a set of print-quality troubleshooting pages to isolate the problem to a single color plane. 2 Remove the laser assembly and the image drum for the indicated color. 3 Use a flashlight to examine the area above the toner cartridge area. Carefully clean the area and remove any obstructions. 4 Check the laser beam path for obstructions. 5 Replace the laser scanner assembly.
	The laser scanner assembly mirror is contaminated.	<ol style="list-style-type: none"> 1 Print a set of print-quality troubleshooting pages to isolate the problem to a single color plane. 2 Replace the laser scanner assembly.
	A circumference scratch exists on the developing cylinder or on the OPC.	<ol style="list-style-type: none"> 1 Print a set of print-quality troubleshooting pages to isolate the problem to a single color plane. 2 Replace the image drum for the indicated color.
	A circumference scratch exists on the OPC.	<ol style="list-style-type: none"> 1 Print a set of print-quality troubleshooting pages to isolate the problem to a single color plane. 2 Replace the image drum for the indicated color.
Clear white (continuous)	A post T1 obstruction is moving toner on the ITB.	<ol style="list-style-type: none"> 1 Check the areas near the surface of the ITB (post primary transfer to secondary transfer) for obstructions that might move toner. 2 Correct if necessary.
	A post T2 obstruction is moving pre-fused toner on the page.	<ol style="list-style-type: none"> 1 Check the areas above the media (post secondary transfer to fuser) for obstructions that might move toner. 2 Correct if necessary.

Table 58. Lines, streaks, or scratches appear parallel to feed direction (continued)

	A circumference scratch exists, or there is contamination on the ITB.	<ol style="list-style-type: none"> Partially remove the ITB and check the surface for contamination or damage by rotating the flywheel on the right side of the belt. If toner is fused to the belt, remove it by gently scraping it off using the edge of a non-serrated coin or similar smooth, rounded edge. Replace the ITB if surface damage exists or contamination cannot be cleaned.
	A circumference scratch exists on the upper fuser roller.	<ol style="list-style-type: none"> Remove the fuser assembly and check the rollers for contamination or damage. Contamination might be removed by gentle cleaning with a soft cloth or by printing a few blank pages. Run a fuser cleaning page (CONFIGURE DEVICE, PRINT QUALITY, PROCESS CLEANING PAGE). Replace the fuser assembly if surface damage exists or contamination cannot be cleaned. <p>Note Always troubleshoot the other components in the printer for the original cause of the contamination or roller damage before installing a new fuser assembly.</p>
	The ITB drive roller is damaged or deformed.	<ul style="list-style-type: none"> Replace the ITB.
White wide/ blurred	The post charger is contaminated or damaged.	<ol style="list-style-type: none"> Clean the post charger assembly. Check the high-voltage path from the post charger power supply to the post charger assembly on the ITB assembly for continuity and good connections. Check for good grounding connections. Check power connection to the post charger power supply. Replace the ITB.
Brown wide streak (sometimes accompanied by a 59.A0 error)	A cleaning blade or seat-latch failure exists.	<ol style="list-style-type: none"> Remove and reseal the toner collection bottle and the cleaning blade, making sure that both seat and latch correctly. Replace the cleaning blade if necessary. After the cleaning blade fail is corrected, select CALIBRATE NOW on the control panel.
Roller marks (wide streaks parallel to feed direction) on heavy, glossy, or plastic media	<ul style="list-style-type: none"> This is usually caused by out-of-specification media. Post-fuser roller pressure causes different gloss-level streaks and sometimes produces waves in the media. 	<ol style="list-style-type: none"> Make sure that the media being used is within specifications. See "Media specifications" on page 37 in chapter 1. Make sure that the media type setting on the control panel is appropriate for the media being used. Use a straight-through paper path (tray 1 to the face-up bin) and manual duplex to avoid as many post-fuser rollers as possible. <p>Note Onsite visits and parts replacement (such as printer parts or consumables) will not help to alleviate roller marks.</p>

Table 58. Lines, streaks, or scratches appear parallel to feed direction (continued)

<p>Line parallel to the feed direction (feed direction ripple)</p> <p>Dotted line parallel to the feed direction (most common in cyan)</p>	<p>The ITB is defective.</p>	<ul style="list-style-type: none"> ● Replace the ITB
<p>Wide streaks of density variation parallel to the feed direction</p>	<p>The ITB is defective (belt wave).</p>	<ol style="list-style-type: none"> 1 Try a different type of media. 2 Print a darker fill or a different pattern fill. 3 Replace the ITB.
<p>Fine, straight scratches in the fused toner</p>	<p>This usually occurs on very heavy media. Warm, still toner is scratched by media guide ribs.</p>	<ol style="list-style-type: none"> 1 Make sure that the media being used is within specifications. See “Media specifications” on page 37 in chapter 1. 2 Make sure that the media-type setting on the control panel is appropriate for the media being used. <p>Note Selecting the appropriate media-type setting turns on the paper path cooling fans that cool the fused toner faster and lessen the ribbed effect.</p> <ol style="list-style-type: none"> 3 Media and/or toner dust can accumulate on the diverter and delivery feed assemblies after more than 40,000 pages are printed. Check for contamination and replace the assemblies if necessary. 4 If duplexing, consider manual duplex. 5 Try printing to the face-up bin.

Diagonal bands or lines

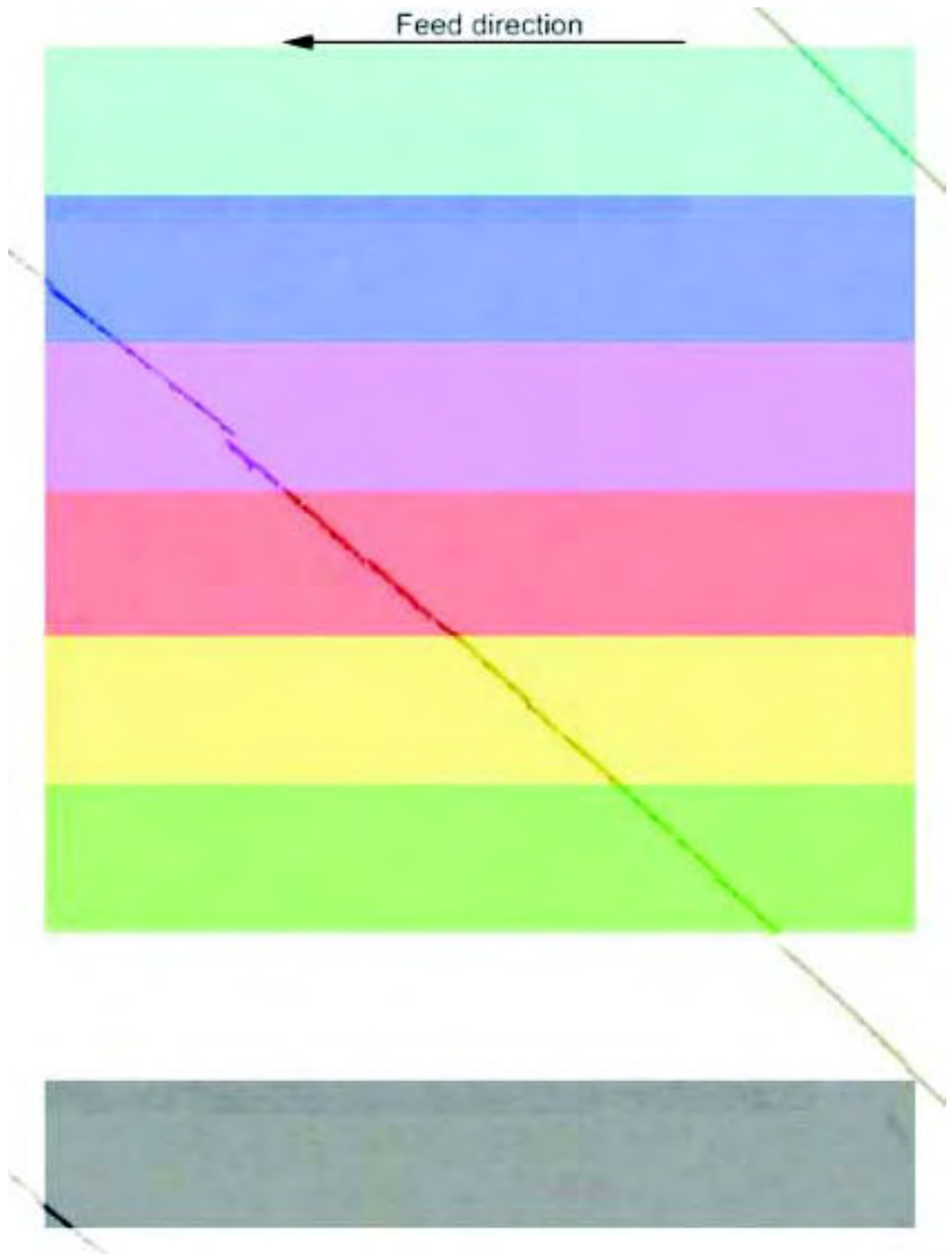


Figure 291. Diagonal bands or lines

Table 59. Diagonal bands or lines

Description	Possible causes	Solution
Diagonal banding or an angled plaid-appearing density variation (50 degree angle and are about 15 mm apart)	This might be a temporary problem that occurs in heavy or solid color fill pages printed in large quantities. It is caused by a failure to charge toner evenly.	<ol style="list-style-type: none"> 1 Print several sets of print-quality troubleshooting pages to try to fix the problem. If this does not work, it isolates the problem to a single color plane. 2 Reseat the image drum that matches the diagonal band pattern color. 3 Check the high-voltage power supply and connections to the image drum. Check for good grounding connections in the image drum door. 4 Replace the image drum matching the diagonal band pattern color.
Pages are marked with diagonal or V-shaped lines of smudged dark brown toner deposits	<ul style="list-style-type: none"> ● The cleaning blade or the ITB is past life recommendations. ● The cleaning blade is bent into a backward “J” shape as the ITB runs underneath it. This creates enough drag to possibly cause a registration roller motor or ITB motor abnormal error (see the description of error 59.A0). ● Blade tucks appear to be more common when image drums, the cleaning blade, and the ITB are new. The problem is more common in high temperature and high humidity environments. Some blade tucks cause a 59.A0 error before a page is printed. In this case, check the image on the ITB. 	<ol style="list-style-type: none"> 1 Reseat the cleaning blade assembly. 2 Replace the cleaning blade assembly. 3 Replace the ITB if necessary (it is usually not damaged).

Light or faint image and dropouts



Figure 292. Light or faint image and dropouts

Table 60. Light or faint image and dropouts

Description	Possible causes	Solution
<p>Poor primary transfer</p>	<ul style="list-style-type: none"> ● Bad density calibration exists. ● Insufficient T1 bias exists for the particular primary color. ● Poor contact exists between the high-voltage power supply and the primary transfer roller. ● The primary transfer roller is damaged. ● The high-voltage power supply is defective. 	<ol style="list-style-type: none"> 1 Print a set of print-quality troubleshooting pages to isolate the problem to a single color plane. 2 Reseat the ITB and the image drum that appears on the print-quality troubleshooting pages. 3 Check the high-voltage paths from the high-voltage power supply to the image drum that appears on the print-quality troubleshooting pages. Check and clean the contacts and the connectors. Check for good grounding connections in the image drum door. 4 Check the event log for calibration failures, and troubleshoot the calibration process if errors are found. Check the density calibration sensor window for blockage or contamination, and then select <code>CALIBRATE NOW</code> on the control panel. <p>Note Calibration errors are not reported as errors on the control panel.</p> <ol style="list-style-type: none"> 5 If the problem is severe, replace the image drum that appears on the print-quality troubleshooting pages. 6 For midtones that are too light, try changing the (color) density setting in the <code>CONFIGURE DEVICE, PRINT QUALITY, ADJUST COLOR</code> menu. Settings can be adjusted for each color plane. <ul style="list-style-type: none"> • Cyan density = 0 (default), -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5 • Magenta density = 0 (default), -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5 • Yellow density = 0 (default), -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5 • Black density = 0 (default), -5, -4, -3, -2, -1, 0, 1, 2, 3, 4, 5 <p>Note The default is zero for each color. A lower number might result in lighter or less dense midtones for the particular color plane. A positive number might result in darker or denser midtones for that color plane.</p> <p>Note These changes are universal and apply to all printed pages regardless of media type.</p> <p>Note These settings control midtones (solid color and very light color fills will not be affected) for each color plane.</p> <ol style="list-style-type: none"> 7 Replace the ITB. 8 Replace the high-voltage power supply.
	<p>The developer has deteriorated.</p>	<ol style="list-style-type: none"> 1 Print a set of print-quality troubleshooting pages to isolate the problem to a single color plane. 2 Print 20 pages of solid color in the indicated color. 3 Replace the image drum for the indicated color.

<p>Poor secondary transfer</p>	<ul style="list-style-type: none"> ● Secondary transfer bias is not sufficient for complete transfer on this type of media. ● Poor contact exists between the secondary transfer roller and the high-voltage power supply. ● Poor ITB ground contact exists. ● Bad density calibration exists. ● Poor physical contact exists between the ITB and the secondary transfer assembly. ● The secondary transfer assembly or the secondary transfer roller is damaged. ● The high-voltage power supply is defective. ● The post charger is defective. 	<ol style="list-style-type: none"> 1 Make sure that the media being used is within specifications. See “Media specifications” on page 37 in chapter 1. 2 Make sure that the media type setting on the control panel is appropriate for the media being used. <p>Note Transfer occurs better on smooth media. Exceptionally rough media will probably encounter secondary transfer problems that cannot be addressed.</p> <ol style="list-style-type: none"> 3 Remove, check, and reseal the ITB and secondary transfer roller. Replace them if necessary. 4 Check the event log for calibration failures. Check the density calibration sensor window for blockage or contamination, and select <code>CALIBRATE NOW</code> on the control panel. 5 Check the bias contacts between the secondary transfer roller and the high-voltage power supply. Clean or repair them if necessary. 6 Check the event log for calibration errors, and troubleshoot the calibration process if errors are found. <p>Note Calibration errors are not reported as errors on the control panel.</p> <ol style="list-style-type: none"> 7 Clean the post charger assembly. 8 Check the high-voltage path from the post charger power supply to the post charger assembly on the ITB assembly for continuity and good connections. Check for good grounding connections. 9 Check the power connection to the post charger power supply. 10 Change the transfer down/up setting in the <code>CONFIGURE DEVICE, OPTIMIZE</code> menu. Try decreasing the transfer setting (<code>DOWN 1</code> or <code>DOWN 2</code>). This might result in darker images on certain medias. <p>Note Some media might show an opposite reaction to settings. <code>DOWN</code> settings might result in a lighter image, and <code>UP</code> settings might result in a darker image.</p> <p>Note Try other media type settings before using this option. Optimize settings are global and apply to all media types. If this is a temporary solution, remember to reset it when the job is complete.</p> <p>Note It is possible to set <code>TRANSFER UP 1, 2</code> and <code>TRANSFER DOWN 1, 2</code> to <code>ON</code> at the same time. If multiple bits are set, the default is used (all <code>OFF</code>).</p> <ol style="list-style-type: none"> 11 Replace the secondary transfer assembly. 12 Replace the high-voltage power supply.
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<p>Poor leading edge transfer (also missing toner, and discharge marks exist on the leading edge)</p>	<p>Leading edge secondary transfer bias is not sufficient for complete transfer for this particular media.</p>	<ol style="list-style-type: none"> 1 Make sure that the media being used is within specifications. See "Media specifications" on page 37 in chapter 1. 2 Make sure that the media type setting on the control panel is appropriate for the media being used. 3 Change the LEADING EDGE setting under the CONFIGURE DEVICE, OPTIMIZE, LEADING EDGE DOWN/UP menu. First, try setting LEADING EDGE DOWN to ON. Depending on the type of media, you might get better results setting LEADING EDGE UP to ON. <p>Note It is best to try other media types first because this is a universal setting that applies to all pages printed regardless of the media type.</p>
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Wavy brush marks

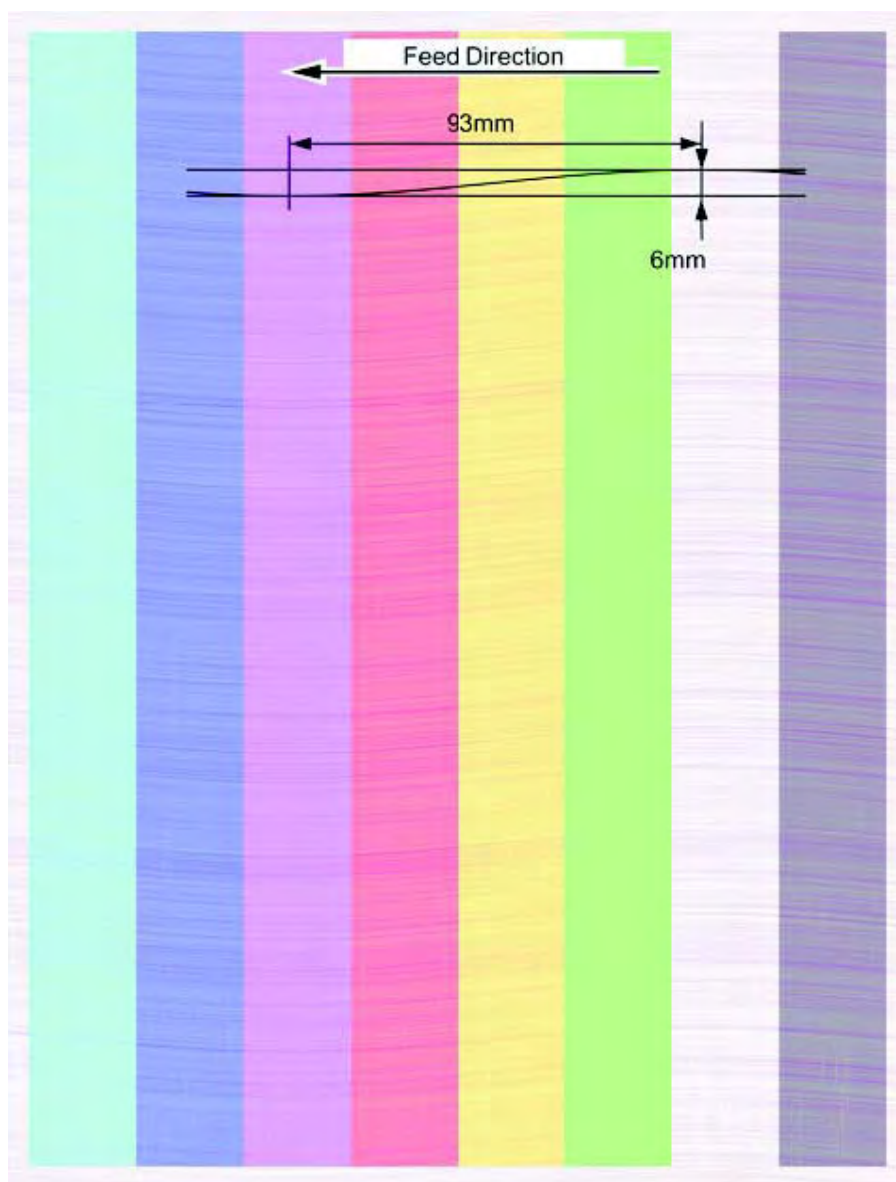


Figure 293. Wavy brush marks

Table 61. Wavy brush marks

Description	Possible causes	Solution
Primary color toner background covering the entire page, often with a sinusoidal (brush-like) wave pattern	<ul style="list-style-type: none"> ● Poor developing bias contact exists. ● An image drum cleaning brush failure exists because of bad connection or toner overload. ● The OPC or carrier has deteriorated. ● The high-voltage power supply is defective. 	<ol style="list-style-type: none"> 1 Print a set of print-quality troubleshooting pages to isolate the problem to a single color plane. 2 Reseat the image drum that matches the wavy brush-pattern color. 3 Check the high-voltage power supply and connections to the image drum. Check for good grounding connections in the image drum door. 4 Replace the image drum that matches the wavy brush-pattern color. 5 Replace the high-voltage power supply.

Color plane misregistration

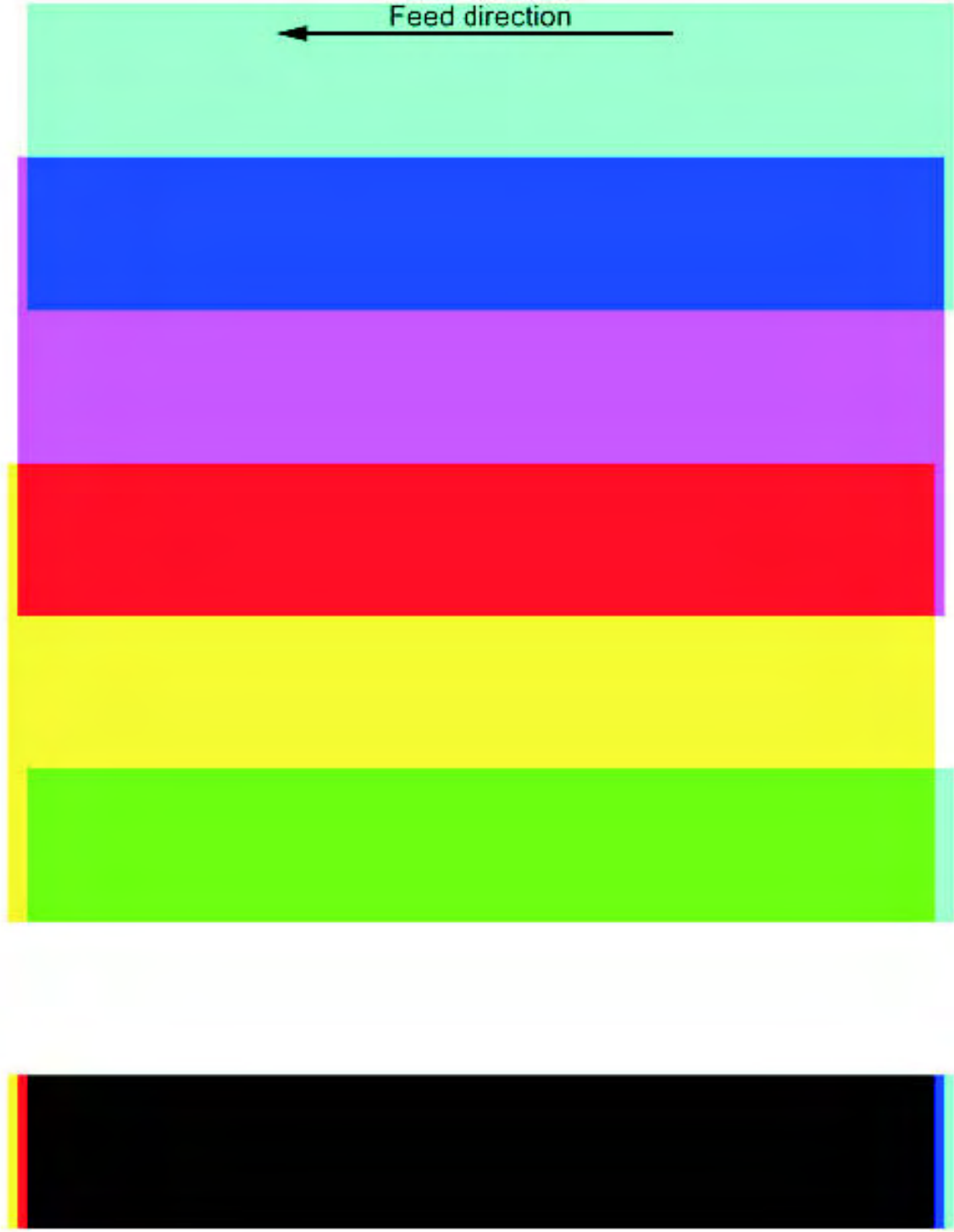


Figure 294. Color plane misregistration

Table 62. Color plane misregistration

Description	Table 63. Possible causes	Solution
One primary color plane is misregistered from the other three	<ul style="list-style-type: none"> ● A bad calibration exists. ● An image drum is not seated correctly. ● A laser scanner is misaligned. ● A process cartridge drive assembly is defective. ● A laser scanner is defective. ● A DC controller PCA is defective. 	<ol style="list-style-type: none"> 1 Print a set of print-quality troubleshooting pages to isolate the problem to a single color plane. 2 Reseat the image drum for the misregistered color. 3 Check the event log for calibration failures, and check the density calibration sensor window for blockage or contamination. 4 Make sure that the sensor window cleaning mechanism is functioning correctly. 5 Open and close the right front door a few times to actuate the sensor window cleaning mechanism, and then select CALIBRATE NOW on the control panel. 6 Print a laser alignment page to determine if a laser scanner is misaligned. Adjust the laser scanner if necessary. 7 Replace the laser scanner of the indicated color. Test the new laser with a laser alignment page and adjust it if necessary. 8 Replace the process cartridge drive assembly. 9 Replace the DC controller PCA.
All primary color planes are mis-registered from each other	<ul style="list-style-type: none"> ● A bad calibration exists. ● A sensor window is dirty or blocked. ● The ITB or the ITB drive is defective. ● The DC controller PCA is defective. 	<ol style="list-style-type: none"> 1 Check the event log for calibration failures, and check the density calibration sensor window for blockage or contamination. 2 Make sure that the sensor window cleaning mechanism is functioning correctly. 3 Open and close the right front door a few times to actuate the sensor window cleaning mechanism, and select CALIBRATE NOW on the control panel. 4 Check the ITB drive mechanism for correct movement. Replace it if necessary. 5 Check the ITB for damage. Replace it if necessary. 6 Replace the DC controller PCA.

Primary color covers entire page

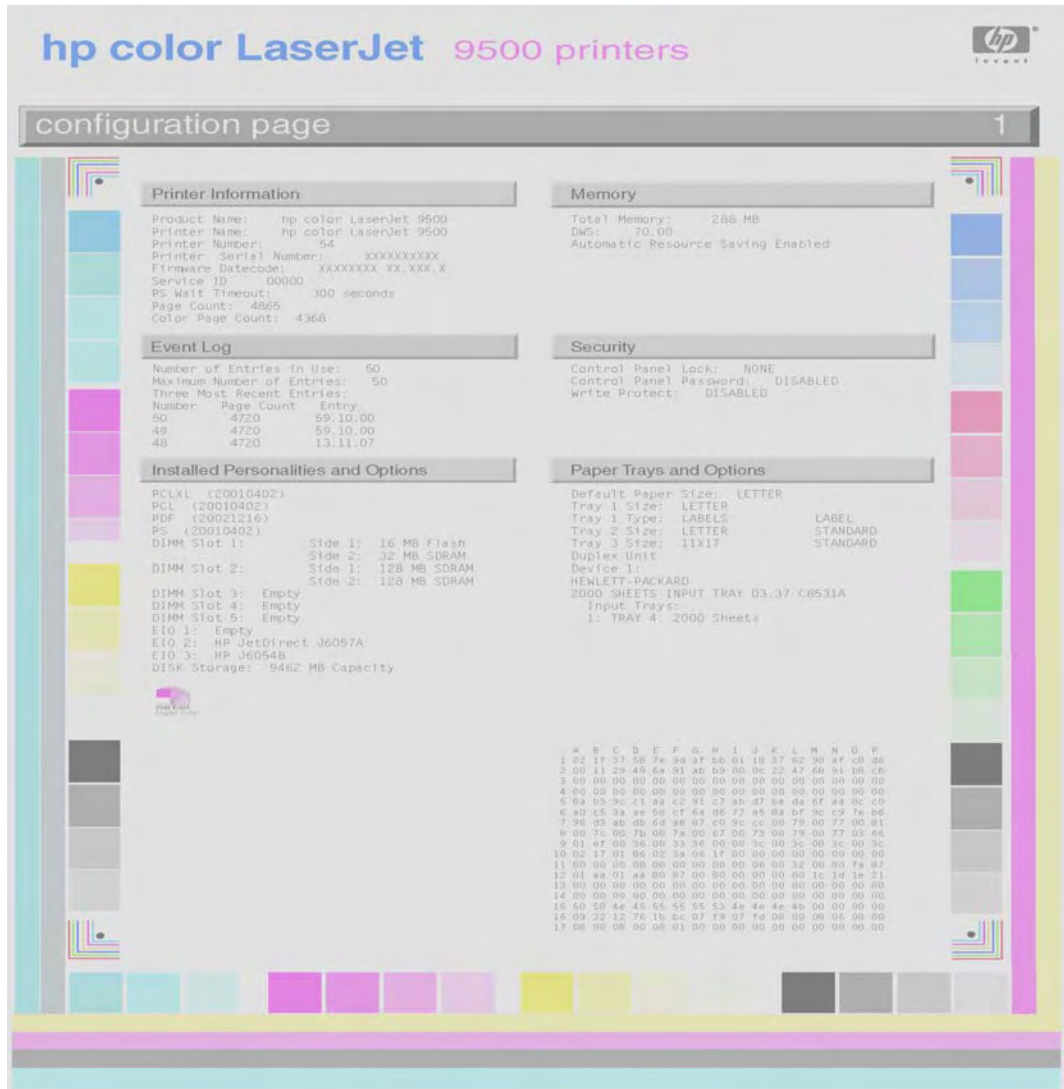


Figure 295. Primary color covers entire page

Table 64. Primary color covers entire page

Description	Possible causes	Solution
<ul style="list-style-type: none"> A primary color (such as black) covers the entire page regardless of the intended page colors The background color might have sinusoidal waves, similar to brush marks, in it 	<ul style="list-style-type: none"> Poor contact exists between the primary charging roller of the indicated color and the high-voltage power supply. A primary charging roller has deteriorated. The high-voltage power supply is defective. 	<ol style="list-style-type: none"> Reseat the image drum of the indicated color. Check the high-voltage contacts between the image drum and the print engine. Check for continuity back to the high-voltage power supply. Replace the image drum for the indicated color. Replace the high-voltage power supply.

Ghosted image (98 mm)

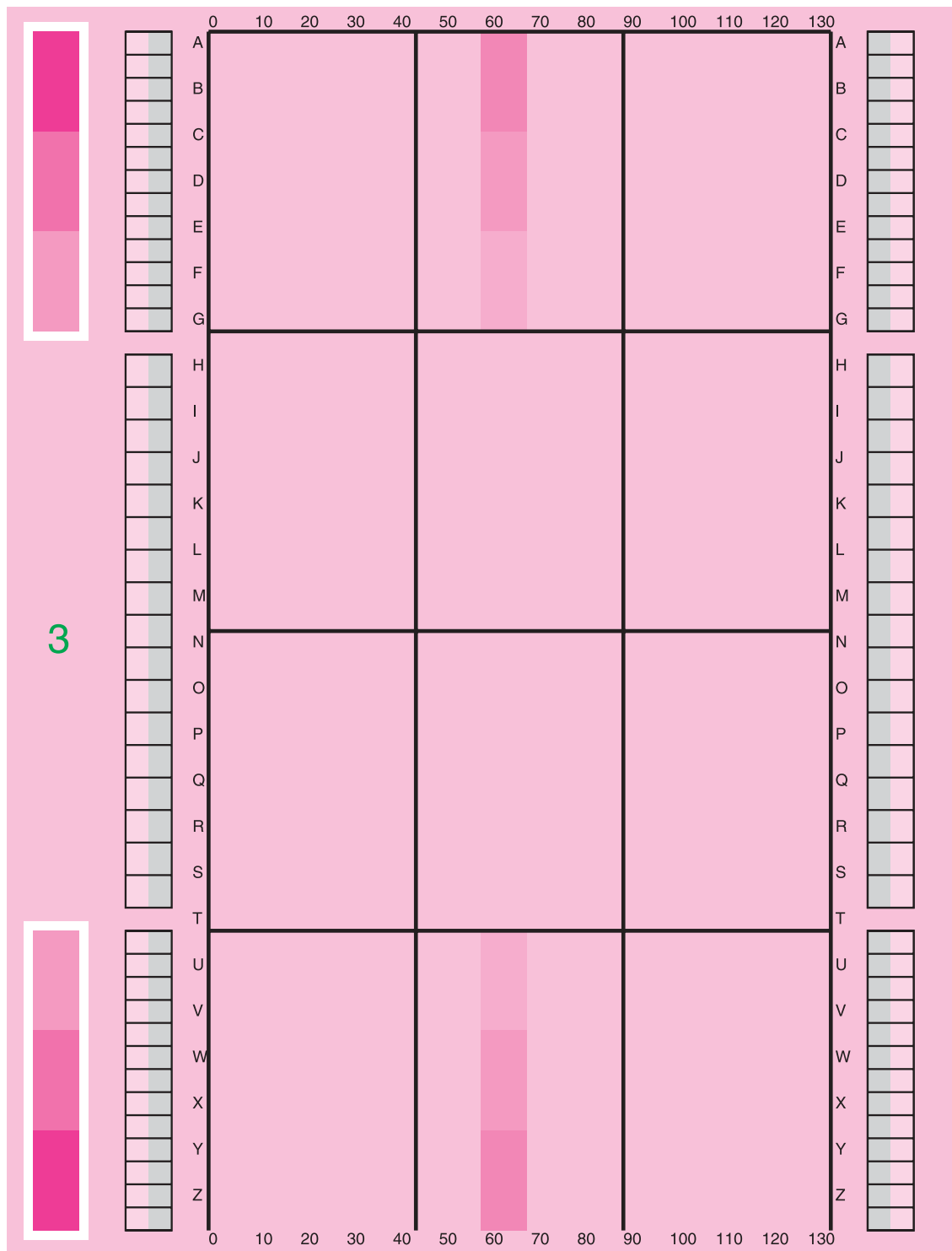


Figure 296. Ghosted image (98 mm)

Table 65. Ghosted image

Description	Possible causes	Solution
<p>OPC ghost (ghosted image at 98 mm that can be a positive or negative ghost)</p>	<ul style="list-style-type: none"> ● The OPC ground is poor. ● The primary transfer bias contact is poor. ● The high-voltage power supply is defective. 	<ol style="list-style-type: none"> 1 Print a set of print-quality troubleshooting pages to isolate the problem to a single color plane, and to isolate fuser ghosts (148 mm repeat) from OPC ghosts (98 mm repeat). Fuser ghosts will ghost into the third column of the print-quality troubleshooting page, and OPC ghosts will ghost into the second column of the print-quality troubleshooting page. 2 For an OPC ghost, remove and reseal the image drum for the indicated color. 3 Check the high-voltage contacts between the image drum and the print engine back to the high-voltage power supply. 4 Replace the image drum for the indicated color. 5 Replace the high-voltage power supply. <p>Note Some ghosting cannot be eliminated. In that situation, the customer can change the page layout to avoid the ghosted image.</p>
<p>OPC ghost (ghosted image at 140 mm that can be a positive or negative ghost)</p>		<ol style="list-style-type: none"> 1 Print a set of print-quality troubleshooting pages to isolate the problem to a single color plane, and to isolate fuser ghosts (140 mm repeat) from OPC ghosts (98 mm repeat). Fuser ghosts will ghost into the third column of the print-quality troubleshooting page, and OPC ghosts will ghost into the second column of the print-quality troubleshooting page. 2 Make sure that media being used is within specifications. See "Media specifications" on page 37 in chapter 1. 3 Make sure that the media type setting on the control panel is appropriate for the media being used. 4 Remove the fuser assembly and check the rollers for contamination or damage. 5 Contamination might be removed by gentle cleaning with a soft cloth, or by printing a few blank pages. Run a fuser cleaning page (CONFIGURE DEVICE, PRINT QUALITY, PROCESS CLEANING PAGE). 6 Replace the fuser assembly if surface damage exists or contamination cannot be cleaned. <p>Note Always troubleshoot the other components in the printer for the original cause of the contamination or roller damage before installing a new fuser assembly.</p> <p>Note Some ghosting cannot be eliminated. In that situation, the customer can change the page layout to avoid the ghosted image.</p>

Distorted or misplaced image



Figure 298. Distorted or misplaced image

Table 66. Distorted or misplaced image

Description	Possible causes	Solution
Entire image is misplaced, distorted, or skewed on the page	<ul style="list-style-type: none"> ● The media is out of specification. ● Paper-path or feed problems exist. ● A tray is damaged or needs an adjustment. ● The laser scanner is faulty. ● The DC controller PCA is faulty. 	<ol style="list-style-type: none"> 1 Print a set of print-quality troubleshooting pages to isolate the problem to a single color plane. 2 If a media-feed problem is suspected, make sure that the media being used is within specifications. See “Media specifications” on page 37 in chapter 1. 3 Check the paper path for obstructions, and check the feed rollers for damage. 4 Feed media from different trays to isolate the problem. 5 If the problem can be isolated to a single color plane with the print-quality troubleshooting pages, reseal the image drum for the indicated color. 6 Replace the indicated laser scanner if necessary. 7 Replace the DC controller PCA.

Poorly fused image



Figure 299. Poorly fused image (1 of 2)



Figure 300. Poorly fused image (2 of 2)

Table 67. Poorly fused image

Description	Possible causes	Solution
Image is poorly fused to the page (toner falls or rubs off in places)	<ul style="list-style-type: none"> ● The media is out of specification. ● The PAPER TYPE setting is incorrect for the media being used. ● The fuser is faulty or damaged. ● The low-voltage power supply is faulty. 	<ol style="list-style-type: none"> 1 Make sure that the media being used is within specifications. See "Media specifications" on page 37 in chapter 1. 2 Make sure that the media type setting on the control panel is appropriate for the media being used. 3 Replace the fuser. 4 Replace the low-voltage power supply.

Missing color plane

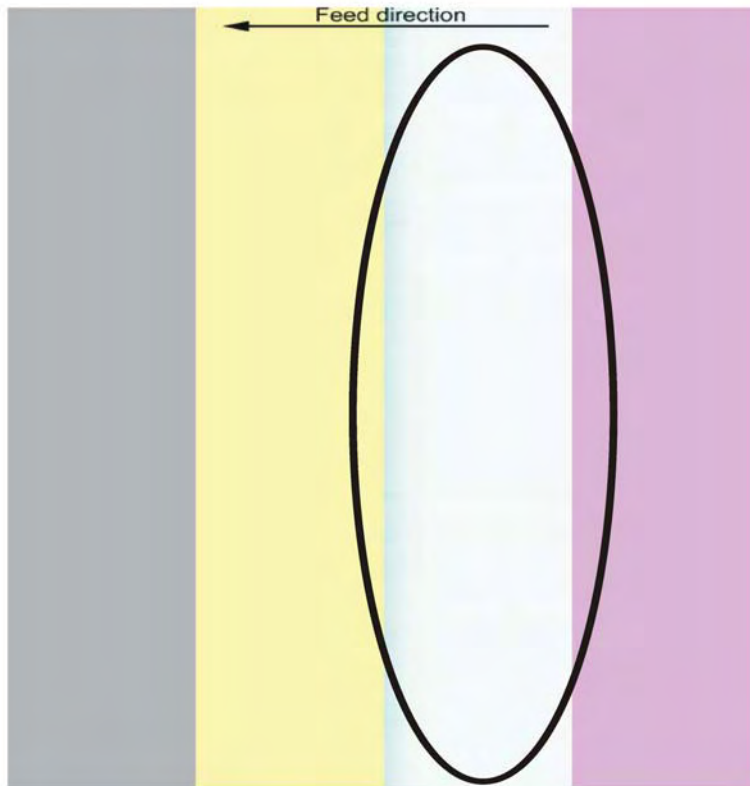


Figure 301. Missing color plane

Table 68. Missing color plane

Description	Possible causes	Solution
Image prints with one primary color plane missing	<p>Primary transfer (OPC to belt) of a particular color fails because:</p> <ul style="list-style-type: none"> • Primary transfer bias is missing. • Image drum, primary charging, or developing biases are missing. • A laser scanner is faulty or a laser path is blocked. • The high-voltage power supply is faulty. • The DC controller PCA is faulty. 	<ol style="list-style-type: none"> 1 Print a set of print-quality troubleshooting pages to isolate the problem to a single color plane. 2 Remove and reseal the image drum for the indicated color. 3 Check the high-voltage contacts between the indicated image drum and the print engine back to the high-voltage power supply. 4 Replace the image drum for the indicated color. 5 Remove and reseal the ITB. Check the primary transfer bias contacts for damage or corrosion. Check the ITB ground. Check the T1 roller of the indicated color for correct positioning and spring tension. 6 Replace the ITB if necessary. 7 Check the laser path between the laser scanner assembly and the image drum for blockage. 8 Check the connectors between the DC controller PCA and the indicated laser scanner assembly. Reconnect them if necessary. 9 Replace the laser scanner for the indicated color. Test the new laser with a laser alignment page, and adjust it if necessary. 10 Replace the high-voltage power supply. 11 Replace the DC controller PCA.

Blank

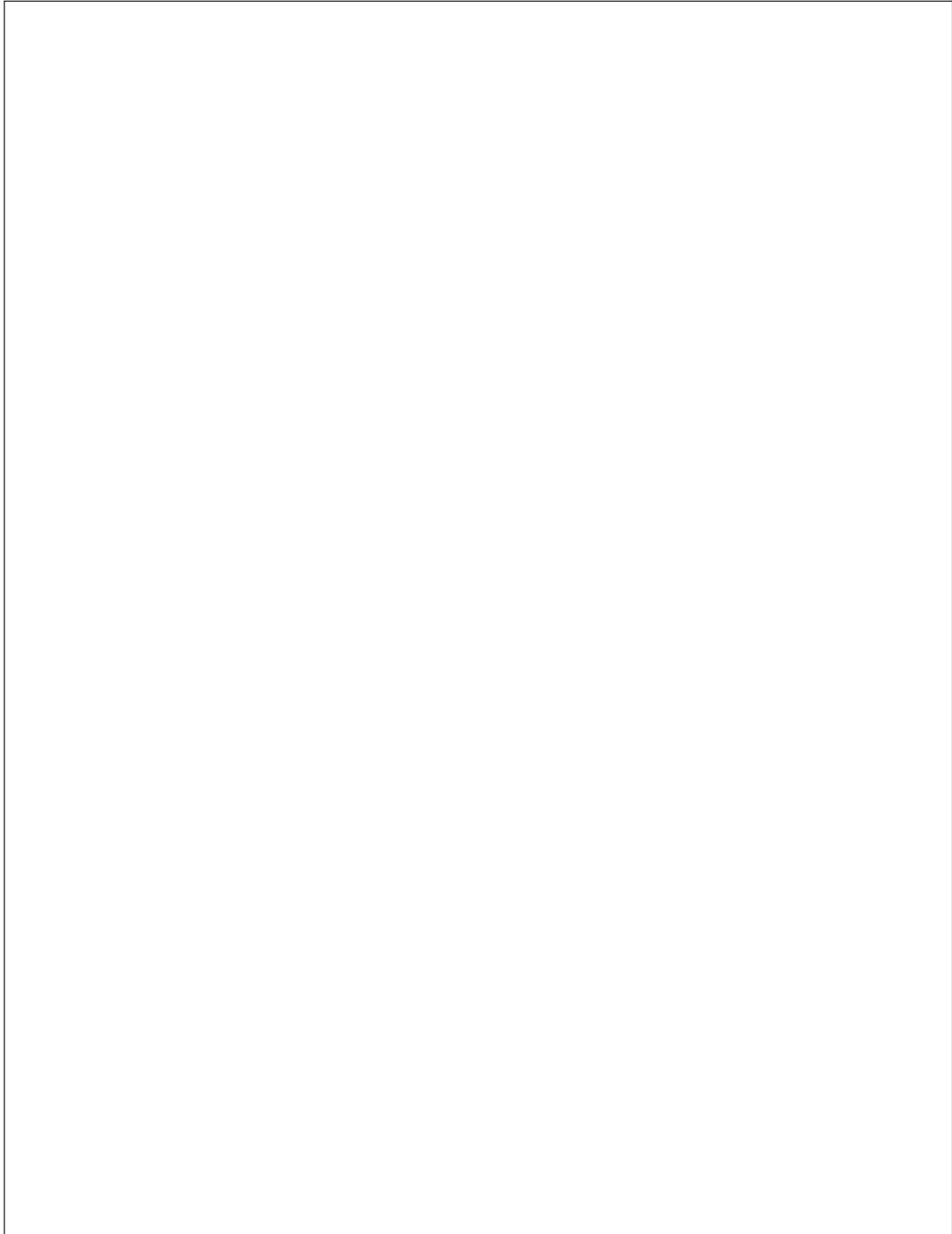


Figure 302. Blank

Table 69. Blank

Description	Possible causes	Solution
All pages are blank	<ul style="list-style-type: none"><li data-bbox="504 1770 770 1850">● The high-voltage power supply is defective.<li data-bbox="504 1860 770 1919">● The DC controller PCA is defective.	<ol style="list-style-type: none"><li data-bbox="786 1770 1495 1850">1 Print a set of print-quality troubleshooting pages to eliminate the possibility of a communication, driver, or software program problem.<li data-bbox="786 1860 1495 1919">2 If the blank pages persist, replace the high-voltage power supply.<li data-bbox="786 1929 1495 1965">3 Replace the DC controller PCA.

Hand or fingerprints



Figure 303. Hand or fingerprints

Table 70. Hand or fingerprints

Description	Possible causes	Solution
Clear finger and handprints appear on the printed page	Handprints or fingerprints exist on the ITB (possibly from installation or jam clearing).	<ul style="list-style-type: none">• This defect usually clears up by printing a few pages. Tell the customer to print 10 to 15 pages on lower-cost media, and to not touch the ITB.

Fine, yellow dot background

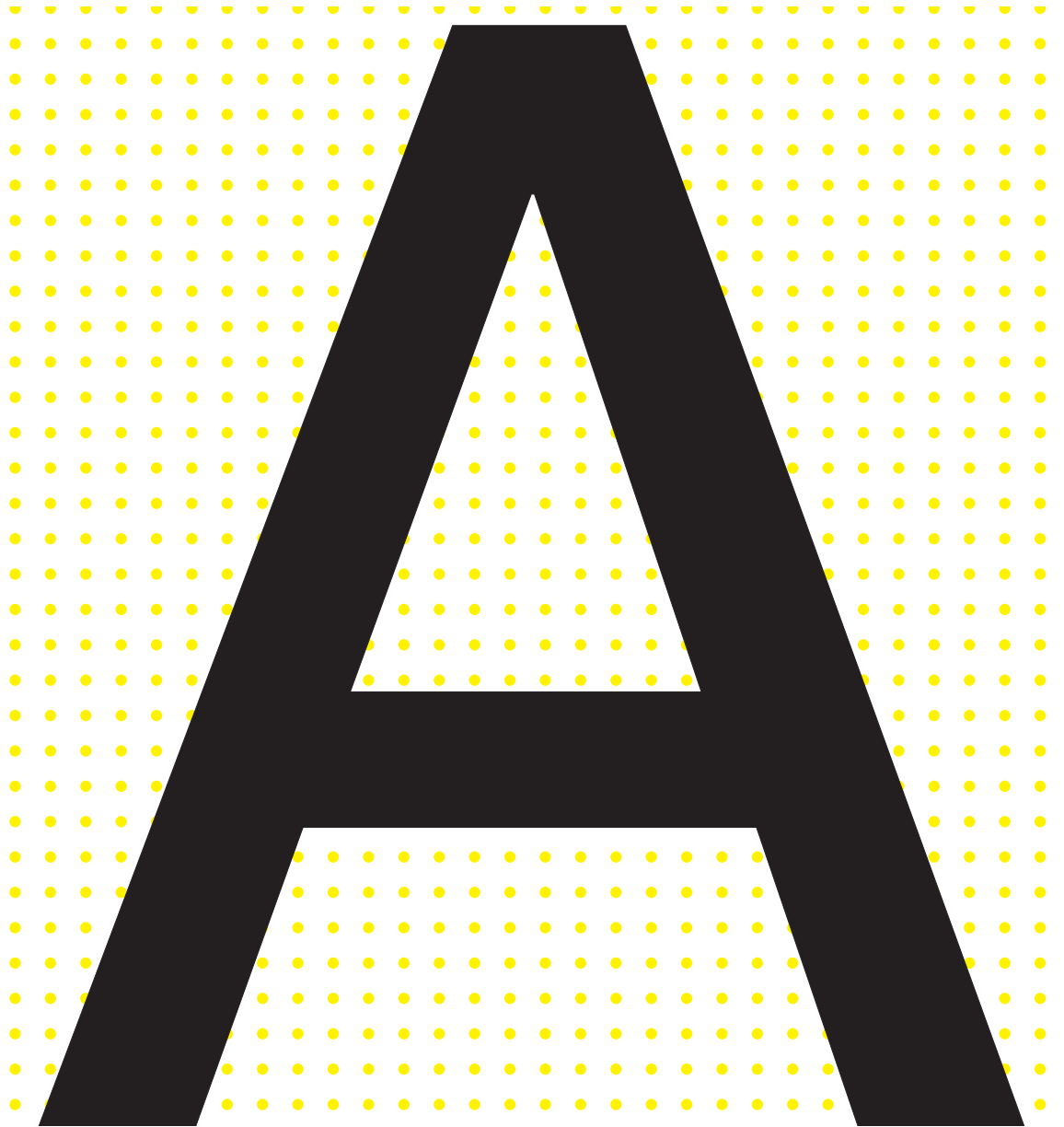


Figure 304. Fine, yellow dot background

Table 71. Fine, yellow dot background

Description	Possible causes	Solution
A fine, yellow dot pattern background on all printed pages	<ul style="list-style-type: none"> ● The HP color LaserJet 9500 uses a yellow dot background for counterfeit tracking. ● It takes advantage of a less-noticeable yellow dot pattern to reduce banding (particularly at 47 mm from start of solid or heavy halftone fill). 	<p>If the 47 mm band countermeasure is undesirable, it can be turned off by using the control panel (CONFIGURE DEVICE, PRINT QUALITY, OPTIMIZE, HIGH COVERAGE 1, set to ON). The user might notice an increase in banding. See “High coverage 1” on page 401.</p> <p>Note The anti-counterfeiting pattern cannot be turned off.</p> <p>Note The yellow print cartridge has an extra measure of yellow toner so that the use of yellow dot patterns does <i>not</i> negatively affect the life of the yellow print cartridge.</p>

Toner halos or explosions occur around solid secondary colors

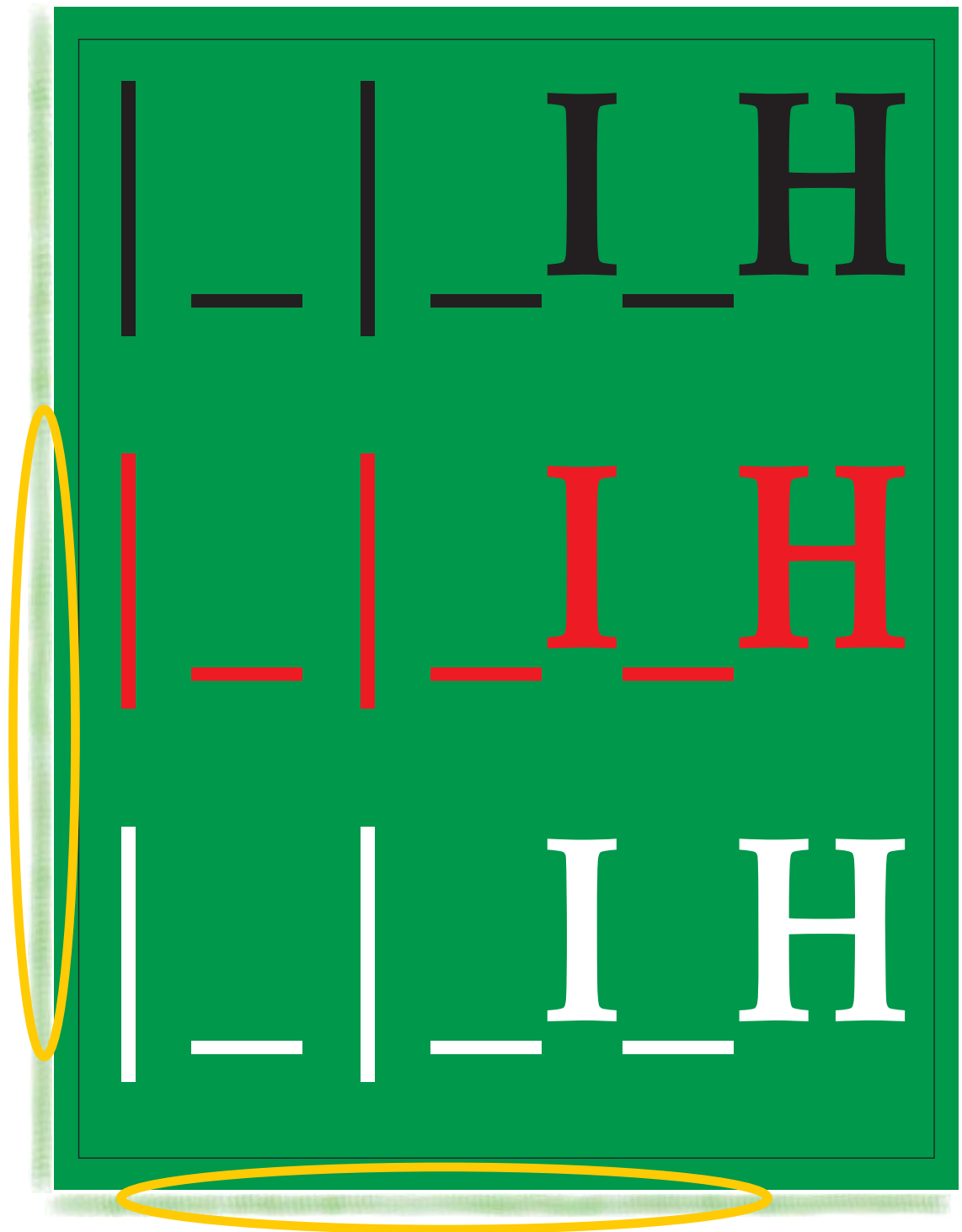


Figure 305. Toner halos or explosions

Table 72. Toner halos or explosions

Description	Possible causes	Solution
<ul style="list-style-type: none"> ● Toner halos or explosions form in the white areas around solid, heavy coverage ● Toner halos or explosions might appear on the second side (page 1) of a duplexed page (usually in cases of low humidity) 	<p>Toner moves away from the solid fill at the time of secondary transfer.</p>	<ol style="list-style-type: none"> 1 Make sure that the media being used is within specifications. See "Media specifications" on page 37 in chapter 1. 2 Make sure that the media type setting on the control panel is appropriate for the media being used. 3 Keep media wrapped until it is used. 4 Select colors that are lower coverage (lighter and closer to primary). 5 The customer might try different settings under PRINT QUALITY, OPTIMIZE, TRANSFER (DOWN or UP, depending on the media). Some testing might be necessary to find the optimal setting. <p>Note Onsite visits and parts replacement (such as printer parts and consumables) will not alleviate toner explosions.</p>

Control panel print-quality adjustments

There are several control panel options that might help address some print-quality problems. These settings should be used with discretion and only after making sure that the media being used is supported, and that the appropriate media type is specified from the control panel.

T1 adjustment

The HP color LaserJet 9500 features automatic color calibration to provide high-quality color output. In some situations, you can manually adjust the density balance of the four primary toner colors. The available range for each color is from -5 to +5. The default value is 0.

CAUTION

Performing this procedure changes the color balance of the printer by altering primary transfer biases and affects *all* print jobs.

Note

This procedure only has an affect on midtone colors. Solid or very light fills are not affected.

- 1 Press **✓** or **MENU** (MFP version) to open the menus.
- 2 Use **▲** or **▼** to scroll to **CONFIGURE DEVICE**, and then press **✓**.
- 3 Use **▲** or **▼** to scroll to **PRINT QUALITY**, and then press **✓**.
- 4 Use **▲** or **▼** to highlight **ADJUST COLOR**.
- 5 Use **▲** or **▼** to highlight the desired color.
- 6 Use **▲** or **▼** to highlight the correct density setting.
- 7 Press **✓** to select the density setting.
- 8 Press **↶** to set the density for the next color.
- 9 After setting the density for each color, press **PAUSE/RESUME** (LJ 9500) or **EXIT** (LJ 9500mfp).

The default values is 0 for each color, a greater negative number might result in lighter or less dense mid-tones for a particular color plane, and a greater positive number might result in darker or more dense mid-tones for a particular color plane.

T2 adjustment

These settings control T2 current to correct for media types with poor secondary transfer with the predefined media types.

When poor secondary transfer (light images) occurs, make sure that the media being used is supported and that the appropriate media-type setting is selected in the control panel. If these are correct, decrease the transfer setting (down 1 or down 2). This might result in a darker image, depending on the type of media. Some medias might experience better secondary transfer using the up 1 or up 2 setting.

- 1 Press **✓** or **MENU** (MFP version) to open the menus.
- 2 Use **▲** or **▼** to scroll to **CONFIGURE DEVICE**, and then press **✓**.
- 3 Use **▲** or **▼** to scroll to **OPTIMIZE**, and then press **✓**.
- 4 Use **▲** or **▼** to scroll to **TRANSFER DOWN/UP**, and then press **✓**.

The T2 settings include:

- **TRANSFER DOWN 1=OFF/ON**
- **TRANSFER DOWN 2=OFF/ON**
- **TRANSFER UP 1=OFF/ON**
- **TRANSFER DOWN 2=OFF/ON**

Note

It is possible to set **TRANSFER UP 1, 2, and TRANSFER DOWN 1, 2** to **ON** at the same time. The default is used (all **OFF**) in this situation.

Leading edge

The leading edge settings are used to compensate for poor transfer, missing toner, discharge marks, and mottled appearance on the leading edge. Try setting the printer to LEADING EDGE DOWN first. Depending on the type of media, you might get better results setting LEADING EDGE UP to ON. Switching LEADING EDGE DOWN and LEADING EDGE UP to ON decreases the T2 leading edge bias one step from nominal.

The settings include LEADING EDGE DOWN=OFF/ON (default value is OFF) and LEADING EDGE UP=OFF/ON (default value is OFF).

- 1 Press ✓ or MENU (MFP version) to open the menus.
- 2 Use ▲ or ▼ to scroll to CONFIGURE DEVICE, and then press ✓ .
- 3 Use ▲ or ▼ to scroll to OPTIMIZE, and then press ✓ .
- 4 Use ▲ or ▼ to scroll to LEADING EDGE DOWN/UP, and then press ✓ .

High coverage 1

The HP color LaserJet 9500 implements a very fine yellow dot pattern that eliminates most banding associated with a dry EP process. The dot patterns are controlled by the high coverage 1 and high coverage 2 settings. The default value is OFF for high coverage 1, high coverage 2, and high coverage 3.

Note

High coverage 1 and high coverage 2 are not mutually exclusive. If both items are turned on, the yellow dots turn off.

High coverage 1 is designed for customers to turn off the yellow dot pattern. Perform the following steps to set high coverage 1:

- 1 Press ✓ or MENU (MFP version) to open the menus.
- 2 Use ▲ or ▼ to scroll to CONFIGURE DEVICE, and then press ✓ .
- 3 Use ▲ or ▼ to scroll to OPTIMIZE, and then press ✓ .
- 4 Use ▲ or ▼ to scroll to HIGH COVERAGE 1, and then press ✓ .

The settings include:

- OFF: The yellow dots are in a 10-by-10 mm pattern for half-speed printing, and an 8-by-8 mm pattern for full-speed printing.
- ON: The yellow dots are off.

High coverage 2

High coverage 2 is designed to reduce 47 mm bands in half-speed printing modes. If a line reoccurs every 47 mm from the start of a strip of color in half-speed printing modes, turn the item to ON. Otherwise, leave the item OFF. Perform the following steps to set high coverage 2:

- 1 Press ✓ or MENU (MFP version) to open the menus.
- 2 Use ▲ or ▼ to scroll to CONFIGURE DEVICE, and then press ✓ .
- 3 Use ▲ or ▼ to scroll to OPTIMIZE, and then press ✓ .
- 4 Use ▲ or ▼ to scroll to HIGH COVERAGE 2, and then press ✓ .











The settings include:

- OFF: The yellow dots are in a 10-by-10 mm pattern for half-speed printing, and an 8-by-8 mm pattern for full-speed printing.
- ON: The yellow dots are in an 8-by-8 mm pattern for half-speed printing and full-speed printing.

High coverage 3

High coverage 3 is designed to reduce 50 mm or 100 mm bands in full-speed print modes. The high coverage 3 setting eliminates 50 mm or 100 mm bands and the cardstock band (37 mm from the trailing edge of ledger and 115 mm from the trailing edge of letter for media heavier than 120 g/m²).

The bands are reduced by adjusting the OPC/ITB speed mismatch. If a line or band recurs at 50 mm or 100 mm intervals or 37 mm from the trailing edge of ledger and 115 mm from the trailing edge of letter on media larger than 120 g/m², turn this item ON.

- 1 Press  or **MENU** (MFP version) to open the menus.
- 2 Use  or  to scroll to `CONFIGURE DEVICE`, and then press .
- 3 Use  or  to scroll to `OPTIMIZE`, and then press .
- 4 Use  or  to scroll to `HIGH COVERAGE 3`, and then press .

The settings include:

- OFF: speed mismatch of 101.5 percent (default)
- ON: speed mismatch of 102 percent

CAUTION

Do *not* change this setting to ON unless the bands are very objectionable because as a result, 47 mm banding might increase.

Print-quality problems associated with jams

- Make sure that all media is cleared from the paper path.
- The media does not pass through the fuser, which causes image defects to appear on subsequent documents. Print two or three pages to clean the printer. If the problem persists, see the next section.
- Print a fuser cleaning page. Press `CONFIGURE DEVICE`, then press `PRINT QUALITY`, and then press `PROCESS CLEANING PAGE`.

Media and paper-path troubleshooting tools

Note

Before beginning media and paper-path troubleshooting, check that the media meets the specifications listed in chapter 1. Also, on the control panel make sure that the appropriate media type is set to support the media being used. Out-of-specification, poor quality, and incorrect media handling can cause jams and image defects.

Problems with print media are sometimes difficult to detect. Follow a standard troubleshooting procedure to help isolate media-related problems. Follow these steps:

- Determine the problem source: print media or printer (page 408)
- Isolate the source of the jam (page 409)
- Isolate a media brand (page 410)
- Isolate a media type (page 410)
- Space requirements (page 32) in chapter 1
- Engine-test button (page 350)
- Stored and loaded correctly (page 37) in chapter 1
- Media specifications (page 37) in chapter 1

Paper-path jam sensors

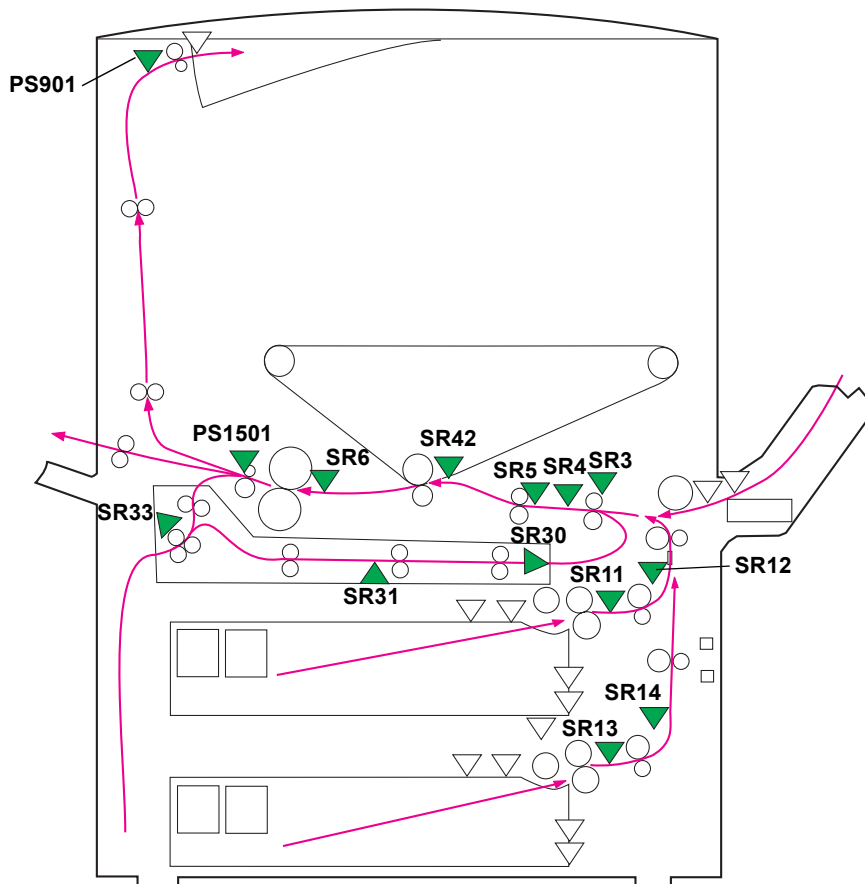


Figure 306. Paper-path jam sensors

Table 73. Paper-path jam sensors

Sensor	Sensor name	Sensor	Sensor name
SR3	Registration sensor	SR14	Tray 3 sensor B
SR4	Transparency motor	SR30	Duplexer media re-feed sensor
SR5	Multifeed sensor	SR31	Duplexer media path sensor
SR6	Fuser input sensor	SR33	Duplexer reverse sensor
SR11	Tray 2 sensor A	SR42	T2 input sensor
SR12	Tray 2 sensor B	PS901	Face-down output sensor
SR13	Tray 3 sensor A	PS1501	Fuser output sensor

Note

Action for all media jams includes removing the media, checking the flags, testing the sensor with diagnostics, and checking the connectors from the sensor to the DC controller using the wiring diagram.

Note

The printer reports jams as 13 errors. These are described in detail in the numerical error message section of this chapter. See “Numerical error messages for the HP LaserJet 9500 Series printer” on page 431.

Table 74. Media jams by location

Jam location	Description	Name	Message	Action
All doors	A door open jam is reported if the following sensors detect media when a door is opened or closed: <ul style="list-style-type: none"> ● Tray 2 sensor A (SR11) ● Tray 2 sensor B (SR12) ● Tray 3 sensor A (SR13) ● Tray 3 sensor B (SR14) ● Registration sensor (SR3) ● Fuser output sensor (PS1501) ● Face-down output sensor (PS901) 	Door open jam	13.05.00 JAM INSIDE PAPER PATH	<ol style="list-style-type: none"> 1 Close all of the doors. 2 Clear the jam. 3 Check the front door interlock switches and all of the connections.
Input accessory or lower right door	Late media from input accessory.	Late media from input accessory	13.20.JJ JAM INSIDE PAPER PATH	<ol style="list-style-type: none"> 1 Open tray 4 and the right side door to check for jammed media. 2 Check the paper path between tray 4 and the printer. 3 Check the tray-size guides. 4 Replace the pickup, separation, or feed rollers.
Input unit or lower right door	The media is detected by tray 2 sensor A and tray 2 sensor B after recovering from sleep mode or when the printer is turned on.	Residual media jam in media path 2	13.32.00 JAM INSIDE PAPER PATH or 13.32.00 JAM INSIDE LOWER RIGHT DOOR	<ol style="list-style-type: none"> 1 Check the indicated tray. 2 Check the tray-size guides. 3 Open the lower right door and remove the jammed media.

Table 74. Media jams by location (continued)

Jam location	Description	Name	Message	Action
Lower right door or pickup unit	<ul style="list-style-type: none"> ● The media did not reach the tray 2 sensor B within a specified amount of time. ● The media did not reach the tray 3 sensor B within a specified amount of time. 	Media delay jam at media feed area 1	13.01.00 JAM INSIDE LOWER RIGHT DOOR or 13.01.00 JAM IN TRAY X	<ol style="list-style-type: none"> 1 Check the indicated tray or open the lower right door. 2 Remove the jammed or loose media. 3 Check the tray-size guides. 4 Replace the pick, separation, or feed rollers.
Upper right door	The media from any input source did not reach the registration sensor within a specified amount of time.	Media delay jam at media feed area 2	13.03.00 JAM INSIDE UPPER RIGHT DOOR or 13.03.00 JAM INSIDE LOWER RIGHT DOOR	<ol style="list-style-type: none"> 1 Open the tray 1 door (ITB access) and remove the jammed media. 2 Make sure that the tray 1 door is completely closed. 3 Check the paper path and tray 1 for damage. 4 Check for media in the lower right door area.
Upper right door	The multifeed sensor detects a stack height of more than 0.5 mm (0.019 inch)	Multifeed jam	13.15.00 JAM INSIDE UPPER RIGHT DOOR	<ol style="list-style-type: none"> 1 Check the registration area for jammed media. 2 If the job is multifeed, check for supported media, and check the pick, separation, and feed rollers in the source tray. 3 If the media is fed from tray 1, check the separation pad. 4 Check the registration rollers for correct functionality.
Upper right door	The registration sensor (SR3) indicates that media fed from tray 1 is longer than what is specified by the formatter.	Too long media jam	13.06.00 JAM INSIDE UPPER RIGHT DOOR	<ol style="list-style-type: none"> 1 Remove the media from tray 1. 2 Open the ITB access door and remove the jammed media. 3 Check for supported media and correct-size specification on the control panel.
Upper right door, lower left door, or front doors	The T2 upstream sensor, fuser upstream sensor, or fuser output sensor detect media when the door is closed.	Residual media in media path 1	13.20.00 JAM INSIDE PAPER PATH	<ol style="list-style-type: none"> 1 Remove any residual media near T1 and the fuser. 2 Check the three sensors for correct movement and functionality. 3 Make sure that the fuser, ITB, and T2 roller are seated correctly.

Table 74. Media jams by location (continued)

Jam location	Description	Name	Message	Action
Upper right door or front doors	A page did not reach the fuser upstream sensor within a specified amount of time.	ITB wrap jam	13.1D.00 JAM INSIDE PAPER PATH	<ol style="list-style-type: none"> 1 Remove the ITB and check for residual media. Make sure that the ITB is seated correctly and the green lever is moved to the correct position. 2 Check the fuser upstream sensor for missing flag or poor movement. 3 Check for supported media. 4 Check the discharge comb area for damage or contamination.
Lower left door	The fuser output sensor detects media after a specified amount of time.	Media stay jam at the fuser unit	13.06.00 JAM INSIDE LOWER LEFT DOOR or 13.06.00 JAM INSIDE PAPER PATH	<ol style="list-style-type: none"> 1 Check for residual media inside and near the fuser. 2 Remove the fuser and check the exit sensor for correct movement and functionality. 3 Check the fuser rollers for damage or contamination. 4 Check the post fuser paper path for jams. 5 Reseat the fuser.
Upper right door or front doors	The media did not reach the fuser output sensor within a specified amount of time.	Media delay jam at the fuser unit	13.05.00 FUSER JAM LOWER LEFT DOOR or 13.05.00 JAM INSIDE FRONT DOOR	<ol style="list-style-type: none"> 1 Remove the duplexer. 2 Remove the fuser. 3 Check the post secondary transfer area and the fuser inlet area.
Upper right door or lower left door	The printer detects media wrapping around the fuser roller.	Fuser wrap jam	13.1C.00 FUSER JAM LOWER LEFT DOOR	<ol style="list-style-type: none"> 1 Check for supported media and media-type settings on the control panel. 2 Check for residual media inside and near the fuser. 3 Remove the fuser and check the exit sensor for correct movement and functionality. 4 Check the fuser rollers for damage and contamination. 5 Check the post fuser paper path for any obstruction. 6 Reseat the fuser.

Table 74. Media jams by location (continued)

Jam location	Description	Name	Message	Action
Lower left door	The media did not reach the switchback sensor within a specified amount of time.	Media delay jam at the reversing area	13.11.00 JAM INSIDE LOWER LEFT DOOR or 13.10.00 JAM INSIDE DUPLEXER	<ol style="list-style-type: none"> 1 Check the seating of the duplexer, fuser, and fuser access door. 2 Check the face-down and duplexer diverters for correct functionality. 3 Check the fuser and duplexer area feed roller driver trains.
Lower left door	The switchback sensor detects media after a specified amount of time.	Media stay jam at the media reversing area	13.11.00 JAM INSIDE LOWER LEFT DOOR or 13.11.00 JAM INSIDE DUPLEXER	<ol style="list-style-type: none"> 1 Remove the duplexer and check for residual media. 2 Check the seating of the duplexer, fuser, and fuser access door. 3 Check the face-down and duplexer diverters for correct functionality. 4 Check the fuser and duplexer area feed roller driver trains.
Lower left door or duplexer	The media did not reach the duplex delivery sensor within a specified amount of time.	Media delay jam at the media path to the duplexer	13.12.00 JAM INSIDE DUPLEXER	<ol style="list-style-type: none"> 1 Remove the duplexer. 2 Check the inside of the duplexer and the duplexer cavity for residual media. 3 Check the duplex delivery sensor for correct movement and functionality. 4 Check the registration guides for correct movement. 5 Check the feed rollers and drive gear trains for damage.
Lower left door or duplexer	The duplex delivery sensor detects media after a specified amount of time.	Media stay jam at the media path to the duplexer	13.13.00 JAM INSIDE DUPLEXER	<ol style="list-style-type: none"> 1 Remove the duplexer. 2 Check the inside of the duplexer and the duplexer cavity for residual media. 3 Check the duplex delivery sensor for correct movement and functionality. 4 Check the registration guides for correct movement. 5 Check the feed rollers and drive gear trains for damage.

Table 74. Media jams by location (continued)

Jam location	Description	Name	Message	Action
Lower left door or duplexer	The duplex stay sensor detects media when the doors are closed.	Duplexing stay jam (re-feed)	13.29.00	<ol style="list-style-type: none"> 1 Remove the duplexer. 2 Check the inside of the duplexer and the duplexer cavity for residual media. 3 Check the duplex delivery sensor for correct movement and functionality.
Lower left door	The media did not reach the face-down output sensor within a specified amount of time.	Media delay jam at the face-down tray	13.09.00 JAM INSIDE LOWER LEFT DOOR or 13.09.00 JAM INSIDE UPPER LEFT DOOR	<ol style="list-style-type: none"> 1 Check the face-down output sensor for correct movement and functionality. 2 Check the face-down and duplex diverters for correct functionality. 3 Check for deformed or misaligned delivery rollers. 4 Check the delivery feed assembly drive gear train. 5 Make sure that the upper and lower left doors are completely closed.
Lower left door or output unit	The face-down output sensor detects media after a specified amount of time.	Media stay jam at face-down tray	13.0A.00 JAM INSIDE TOP OUTPUT BIN or 13.0A.00 JAM INSIDE UPPER LEFT DOOR	<ol style="list-style-type: none"> 1 Check for residual media near the face-down output sensor. 2 Check for obstructions in the paper path. 3 Check the feed rollers and drive gear trains for damage.
Upper left door or output unit	The face-down output sensor detects media after performing an auto-flush.	Residual media in media path 3 jam	13.3E.00 JAM INSIDE TOP OUTPUT BIN or 13.3E.00 JAM INSIDE UPPER LEFT DOOR	<ol style="list-style-type: none"> 1 Check for residual media near the face-down output sensor. 2 Check for obstructions in the paper path. 3 Check the feed rollers and drive gear trains for damage.

Determine the problem source: print media or printer

When determining the cause of a printer failure, make a distinction between problems that relate to the printer and problems that involve print media. Often a problem that seems to be related to the printer is actually a matter of poor print-media selection or handling. To determine whether a problem is caused by the printer or by the media, try a few simple steps to remedy the situation:

- Turn the media over in the tray to print on the reverse side.
- Rotate the sheets 180 degrees (end to end) to feed with a different leading edge.

If the symptoms cease or change, assume that the problems are caused by the print media.

Using the straightest paper path

Some problems can be avoided by using the straightest available paper path. Usually this means media feeds from tray 1, and exits into the face-up bin. This path is recommended for envelopes and labels.

Determine if problem is caused by the duplexing process

Media that has just made a pass through the printer can show increased media curl. Media curl increases image dropout, and creates pickup and stacking problems. When the second pass is made, print media might not meet the specifications for moisture and curl. Dry media can hold static charges that affect print quality and stacking of the duplexed page. Media shrinkage resulting from a second pass through the printer can cause image misalignment on the duplexed page.

Isolate the source of the jam

Define the source of the media that jams.

Determine where media jams occur

Check where the leading edge of the media stops when a jam occurs.

Determine whether the printer is experiencing misfeeds or multifeed jams

The following are some possible causes of misfeeds or multifeed jams:

- The media might be too heavy or too light. Check basis weight and measure caliper. See “Basis weight field test” in chapter 1.
- The media might be too smooth. Check the finish.
- The customer might be attempting to print embossed media, pre-printed forms, or perforated media that does not meet HP specifications. See “Media specifications” in chapter 1.
- The media might be loaded incorrectly. Turn over the sheets in the tray to determine if in-ream curl is causing misfeeds.
- The customer might be fanning media before loading it into the tray.
- The customer might be adding media in small amounts. Do not add small amounts of media or mix types of media in the tray.
- The printer or media storage environment might be too humid or too dry. See “Media specifications” in chapter 1.

Print-quality problems associated with media

Use media that meets HP specifications. See “Media specifications” on page 37 in chapter 1.

- The media that you are using is too heavy or too light for the printer.
- The driver/printer is set incorrectly. Change the media-type setting to match the media the customer is using.
- The media is excessively rough. Use a smoother, xerographic media.
- The moisture content of the media is uneven, too high, or too low. Use media from a different source or from an unopened ream of media.
- The media is designed for inkjet, offset press, or another program. Make sure that the media is for laser or xerographic programs.
- The transparencies that you are using are not designed for the HP color LaserJet 9500. Use only transparencies that are designed for HP color LaserJet printers.

Isolate a media brand

If the printer jams with only one brand of media, try to remedy the situation:

- Try switching media brands.
- If the media ream in use appears to be old, open a fresh ream of the same media and load it correctly into the printer. If the problem disappears, investigate storage and handling conditions.

Isolate a media type

When jams and other problems occur frequently, it is often because the customer is using a special media. Customers must only use print media that conforms to all Hewlett-Packard specifications, and should always test media before purchasing large quantities. Media should be tested before storage to verify quality printing results. Then, if problems arise, storage or handling conditions can isolate the most likely cause. Some types of media that might cause problems include the following:

- adhesive labels
- envelopes
- transparencies
- preprinted forms and letterhead
- embossed media
- perforated media
- chemically treated media
- synthetic media
- coated media
- other special media

Note

See “Media specifications” on page 37 in chapter 1 for more information about these types of media.

Media will not feed from tray x when printing from a software program; the paper-path test works fine

Make sure that the correct media size is set:

- all trays: from the control panel
- tray 2, tray 3, or tray 4: reset the media guides in the correct position in the failing tray
- make sure that the custom-size switch setting is correct

Wrinkling envelopes

- make sure that the input tray is tray 1
- make sure that the output destination is the face-up bin
- place the fuser levers in the up position and retry the envelopes
- try new media (make sure that the envelopes are within specifications; see “Media specifications” on page 37 in chapter 1)

Poor fusing

- make sure that the fuser levers are in the down position for cut sheet media
- make sure that all packing spacers are removed from inside the printer
- try new media (make sure that the media is within specifications; see “Media specifications” on page 37 chapter 1)
- make sure that the proper fusing mode for the media is set in the control panel
- make sure that the ac power does not fluctuate out of range during the print cycle

Overhead transparency defects

Overhead transparencies can experience any of the image-quality problems that other type of media can, in addition to defects that are specific to transparencies. In addition, because transparencies are pliable as they pass through the paper path, they can be marked by the media-handling components.

Note

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

- In the printer driver **Paper** tab, select **Transparency** as the media type. Also, make sure that the tray is correctly configured for transparencies.
- Check that the transparencies meet the specifications for this printer. See “Media specifications” in chapter 1. For more information, see the *HP LaserJet Printer Family Print Media Guide*.
- Handle transparencies by the edges. Skin oil on the surface of transparencies can cause spots and smudges.
- Small, random dark areas on the trailing edge of solid fill pages might be caused when transparencies stick together in the output bin. Try printing the job in smaller batches.
- If the selected colors are not what you expected when printed, select different colors in the software program or printer driver.
- If you are using a reflective overhead projector and the images are too dark when projected, use a standard overhead projector instead.

Jams occur when media either does not reach or move past a sensor along the paper path in a specific amount of time. If a jam occurs, a 13.XX PAPER JAM message appears on the control panel.

Media jam

Jams occur most often when the following conditions exist:

- media trays are not loaded correctly
- the print media does not meet the specifications listed in the *HP LaserJet Printer Family Print Media Guide*
- the media is in poor condition
- the printer needs to be cleaned

If a jam occurs, a 13.XX PAPER JAM message appears on the control panel. For detailed descriptions of the 13.XX messages and the actions recommended to resolve the errors, see “Numerical error messages for the HP LaserJet 9500 Series printer” on page 431.

The following table provides some basic information about general jam troubleshooting.

Table 75. General jam troubleshooting

Check	What to do
What is the frequency of the jams (for example, continuous, one jam per 100 pages, one jam per 1,000 pages)?	● Verify the frequency of the jam with the customer. Print or display the event log to determine jam history. See “Event log page” on page 416.
Do jams only occur when the media is fed from a particular media input source (for example, tray 1, tray 2, tray 3, or tray 4)?	● See “Engine-test button” on page 350 and “Sensor test (interactive)” on page 339 to isolate the problem.
Do jams only occur when media is output to a specific output bin (for example, the face-down bin, the face-up bin, the duplexer, the stapler)?	● See “Engine-test button” on page 350 and “Sensor test (interactive)” on page 339 to isolate the problem.

Table 75. General jam troubleshooting

Check	What to do
Do jams occur with a specific type of media?	<ul style="list-style-type: none"> ● Make sure that the media-type setting matches the media being used. ● Try known good media. See the <i>HP LaserJet Printer Family Print Media Guide</i>.
Where does the leading edge of the first sheet of media in the paper path stop when a jam occurs? Are any sheets of media damaged or torn?	<ul style="list-style-type: none"> ● Attempt to duplicate the jam. See “Engine-test button” on page 350. Inspect the paper path and all paper-path mechanical assemblies that are in advance of the leading jam.
Is the customer loading the trays correctly?	<ul style="list-style-type: none"> ● Observe the customer while he or she loads the media. See proper media-handling procedures in the <i>HP LaserJet Printer Family Print Media Guide</i>.
Is the customer overfilling the trays?	<ul style="list-style-type: none"> ● Make sure that the media level is <i>not</i> above the maximum fill marks in the media trays. Observe the customer while he or she loads media in the trays.
Are the media tray guides set correctly?	<ul style="list-style-type: none"> ● Make sure that the tray 2 and the tray 3 media guides are set correctly on all sides. For tray 4, make sure that all adjustments are set correctly (front, back, and side at the top and bottom of the tray).
Does the printer need cleaning?	<ul style="list-style-type: none"> ● Check the paper path and paper-path rollers.
When was the user maintenance performed on the printer?	<ul style="list-style-type: none"> ● Were the pick and separation rollers replaced with the transfer kit?
Is the custom-size switch set correctly?	<ul style="list-style-type: none"> ● Make sure that the switch is set correctly for the media selected.

Customer print job

Ask the customer to send a print job from the problem source(s) to the problem destination(s). Try to recreate the jam errors by having the customer perform a paper-path test. See “Engine-test button” on page 350.

When verifying print jobs, make sure that all of the settings are selected to reflect the customer’s preferences. Keep in mind that the software program settings take priority over driver settings, which take priority over the control panel settings. If a single setting is not present in the software program, but is set in the driver, the driver setting overrides the control panel settings.

Note

HP Web Jetadmin can override media types and sizes in certain conditions. See the *HP LaserJet 9500 Series Printer User Reference Guide* for more information.

Clearing jams

Note

Open and close all of the printer covers to clear control panel message. After removing a sheet of media, you might need to check other areas for the presence of other media.

All portions of a jammed piece of media must be removed or you might experience repeated jams.

If the jam persists, make sure that you have located and removed all scraps of media from inside the printer.

Clearing repeated jams

- 1 Make sure that the media is loaded correctly in trays and that all width guides are set correctly (not skewed).
- 2 Try turning over the stack of media in the tray. If you are using letterhead media, try printing from a different tray.
- 3 Do *not* use previously printed media or torn, worn, or irregular media.
- 4 Check the media specifications. If it is outside of the recommended specifications, problems might occur. See the *HP LaserJet Printer Family Print Media Guide*.
- 5 The printer might be dirty. See “Cleaning the printer and accessories” on page 102.

Tests for troubleshooting paper-path problems

The following tests are useful in troubleshooting paper-path and media-related problems.

Print stop test

See “Print stop test” on page 349 for more information.

Paper-path test











See “Paper-path test (and automatic sensors test)” on page 338 for more information.

Sensor test

See “Sensor test (interactive)” on page 339 for more information.

Tray alignment adjustment

Use this menu item to adjust the front-to-back (duplex) alignment of the four margins.

- 1 Press  or **MENU** (MFP version) to open the menus.
- 2 Use  or  to scroll to `CONFIGURE DEVICE`, and then press  .
- 3 Use  or  to scroll to `PRINT QUALITY`, and then press  .
- 4 Use  or  to scroll to `SET REGISTRATION`, and then press  .
- 5 Follow the printed instructions.

Noise-troubleshooting tools

Try to isolate the origin of the noise by using the various hardware diagnostics and component tests on page 337. Each component test (such as motors, solenoids, and clutches) can be run individually to see if the noise is associated with a particular component part.

Try to determine when the noise occurs by printing from different input sources, changing the duplex option, and selecting a different tray. This might isolate the noise to a particular part or stage in the printing process.

Note

It is normal for the fuser to make a cracking or popping noise when the printer is turned on and off. This sound results from the fuser rollers separating when the printer is turned off and pressurizing when the printer is turned on. The sound might also occur after a media jam. The fuser rollers separate when the printer is turned off and after a jam to avoid flat spots on the fuser rollers and to facilitate clearing a jam.

Control panel messages for the HP LaserJet 9500 Series printer

Note

See your *HP Scanner/ADF Service Manual for the HP LaserJet 9000mfp/9000Lmfp/9040mfp/9050mfp/9500mfp* (PN C8549-90955) for copy and ADF control-panel messages that are specific to the MFP version. Print-engine messages are the same for the printer and the MFP version.

Make sure to read the exact text of the control panel message, including the error message number and the text, in order to locate the error message in the error tables. This control panel stores enhanced information.

Messages that appear on the control panel provide six categories of information. Each message category is assigned a priority. If more than one condition occurs at the same time, the highest priority message appears. When it is cleared, the next priority message appears, and so on. The following are messages and their priorities:

- **Status messages**—Status messages communicate the current state of the printer. Whenever the printer is ready and online, the printer status message `READY` appears unless warning messages are pending. When the printer is performing a task, such as a reset or a test, the associated printer status message appears. When the task is complete, the message returns to `READY` or `PAUSED`, depending on the current state of the printer.
- **Warning messages**—Warning messages are messages that are important enough that the user must acknowledge them, but not serious enough to cause the printer to stop the printing process. They are usually transient in nature but they can affect the output, and so a record of their occurrence is important. Warnings generally alternate with the `READY` (or `PAUSED`) status message and remain on the control panel until the user presses `✓`. Warnings appear in most-recent order (FIFO) with duplicates removed.
- **Error messages**—Error messages communicate to the customer that some action must be performed, such as adding media or clearing a jam. Some errors are considered auto-continuable, because the error message appears on the control panel for 10 seconds, and then the printer clears the message and continues normal operation. Pressing a control panel key during the 10-second period cancels the auto-continue feature and initiates the function of the key that was pressed. Error messages are limited to 19 seven-bit characters (or 9 two-byte characters) per line up, and to two lines. Unlike status and warning messages, error messages stop the printing process. The customer has to either fix the problem or give the printer a different command. If the customer can continue past the error conditions without actually fixing the problem, then the customer should be able to perform the task by pressing `✓`. If only one option is available when the customer presses `✓`, printing should continue by applying the option shown. If more than one option is available when the customer presses `✓`, the options are listed with the most logical option listed first and highlighted.
- **Critical error messages**—Critical error messages communicate printer failures to the customer. Generally, turning power off and then on is required for the printer to resume normal operation. If the critical error persists, the printer might require service and the customer must request a service call. Critical errors are not auto-continuable.
- **Output device warning messages**—These messages are similar to the warning messages described previously, except that they relate to the output device. By default, the message is all that appears if the output device does not provide any additional help. The prompt at the bottom of the control panel does not appear.
- **Output device error messages**—These messages are similar to the error messages that are described above, except that they relate to the output device. By default, the message is all that appears if the output device does not provide any additional help. The prompt at the bottom of the control panel does not appear.

Control panel and event log message format

The control panel messages have the following format:

- 13.XY.ZZ JAM INSIDE DUPLEXER
- 40 EIO X BAD TRANSMISSION

The equivalent event log messages have the following format:

- 3 0 13.xy.zz JAM INSIDE DUPLEXER
- 1 0 40.00.00 0 EIO X BAD TRANSMISSION

Note

Print a configuration page to identify the input or output device that is configured. Notice that the error format only identifies the Jet-Link device number and the device type; it does not identify the input or output device.

Event log page

Use the event log to diagnose and troubleshoot printer errors and intermittent failures. You can print or show the event log from the control panel (select `PRINT EVENT LOG` or `SHOW EVENT LOG`).

The event log is a first in, first out (FIFO) ordered listing of the last 50 events. The printed event log is printed in four columns that show event number, page count, error code, and description or personality. The description or personality gives detail to the error messages. This information is more useful for troubleshooting.

The following items are tracked and shown on the event log:

- critical errors (some errors that do not appear on the control panel)
- jams
- sensors sensing out of range
- unexpected media size
- complex pages
- buffer overflow

Print an event log

The printer internal event log stores the 50 most recent events, and can be printed at any time. To print the event log:

- 1 Press `✓` or `MENU` (MFP version) to open the menus.
- 2 Use `▲` or `▼` to scroll to `DIAGNOSTICS`, and then press `✓`.
- 3 Use `▲` or `▼` to scroll to `PRINT EVENT LOG`, and then press `✓`.
- 4 The event log prints. The message `PRINTING EVENT LOG` appears on the control panel.

Show an event log

Using the event log that appears on the control panel, the customer can scroll through the contents of the event log from the control panel. Select this to show the 50 most recent events, with the most recent listed first. Use ▲ or ▼ to scroll through the event log contents. If the event log is empty, the message EVENT LOG EMPTY appears on the control panel.

Follow these steps to show the event log:

- 1 Press ✓ or MENU (MFP version) to open the menus.
- 2 Use ▲ or ▼ to scroll to DIAGNOSTICS, and then press ✓.
- 3 Use ▲ or ▼ to scroll to SHOW EVENT LOG, and then press ✓.
- 4 The event log appears on the control panel.

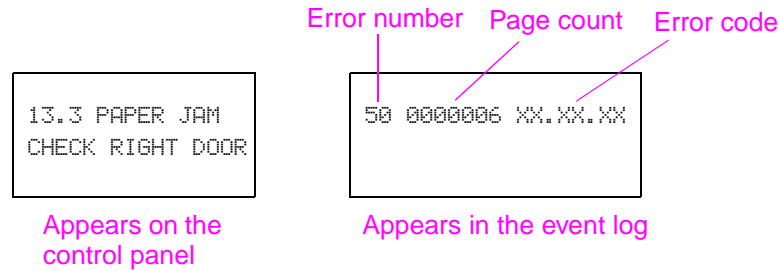


Figure 307. Example of events on the event log

Hint

Whenever a 13.XX message appears on the control panel, a good practice is to clear the jammed media from the printer, press PAUSE/RESUME to stop printing, and print the event log. Even if you cannot print the event log, you can read it on the control panel by using the above steps to display an event log.


Interpret an event log

Each individual entry in the log is called an “event,” while all errors occurring at the same page count are called an event.

Use the numerical error message table to associate errors in the event log with the control panel error message. For each error or event, follow the recommended action that is listed in the numerical error message table starting on page 431.

- 1 Check the event log for specific error trends in the last 10,000 printed pages.
- 2 Ask the customer for any observed error trends. (For example, do jams tend to occur in a specific area of the printer?)
- 3 Record any specific error trends.

Sample event log page

hp color LaserJet 9500 printers

event log page1

Current Page Count: 110 Serial Number: 0060251114

Number	Page Count	Event	Description or Personality
50	4720	13.11.07	EXTERNAL INPUT DEVICE PAPER JAM
49	4720	59.10.00	Printer Error
48	4720	13.11.07	EXTERNAL INPUT DEVICE PAPER JAM
47	4720	59.10.00	Printer Error
46	4722	59.10.00	Printer Error
45	4720	59.10.00	Printer Error
44	4720	59.10.00	Printer Error
43	4720	13.11.07	EXTERNAL INPUT DEVICE PAPER JAM
42	4720	59.10.00	Printer Error
41	4720	13.11.07	EXTERNAL INPUT DEVICE PAPER JAM
40	0	59.10.00	Printer Error
39	4720	13.11.07	EXTERNAL INPUT DEVICE PAPER JAM
38	4720	59.10.00	Printer Error
37	4720	13.11.07	EXTERNAL INPUT DEVICE PAPER JAM
36	4720	59.10.00	Printer Error
35	4720	13.11.07	EXTERNAL INPUT DEVICE PAPER JAM
34	4720	59.10.00	Printer Error
33	4720	59.10.00	Printer Error
32	4720	13.11.07	EXTERNAL INPUT DEVICE PAPER JAM
31	4720	59.10.00	Printer Error
30	4720	13.11.07	EXTERNAL INPUT DEVICE PAPER JAM
29	4720	59.10.00	Printer Error
28	4720	59.10.00	Printer Error
27	4720	13.32.00	PRINTER COULD NOT AUTOMATICALLY EJECT PAPER
26	4721	59.10.00	Printer Error
25	4720	59.10.00	Printer Error
24	4720	59.10.00	Printer Error
23	4720	59.10.00	Printer Error
22	0	59.10.00	Printer Error
21	4539	59.10.00	Printer Error
20	4350	59.10.00	Printer Error
19	4353	59.10.00	Printer Error
18	4330	13.20.00	PRINTER COULD NOT AUTOMATICALLY EJECT PAPER
17	4332	59.10.00	Printer Error
16	4160	59.10.00	Printer Error
15	4160	59.10.00	Printer Error
14	4160	59.10.00	Printer Error
13	4160	59.10.00	Printer Error
12	4160	59.10.00	Printer Error
11	4160	59.10.00	Printer Error
10	4160	59.10.00	Printer Error
9	4160	59.10.00	Printer Error
8	4160	59.10.00	Printer Error
7	4160	59.10.00	Printer Error
6	4160	59.10.00	Printer Error
5	4167	49 210A	Image Drum HV
4	4167	59.10.00	Printer Error
3	3630	54.30.00	Printer Error
2	3630	59.10.00	Printer Error
1	3611	13.20.00	PRINTER COULD NOT AUTOMATICALLY EJECT PAPER

Figure 308. Sample event log page

Error message interpretation

Note

For copy, scan, and ADF-related error message that appear on the control-panel display of an MFP, see chapter 7 in the *HP Scanner/ADF Service Manual for the HP LaserJet 9000mfp/9000Lmfp/9040mfp/9050mfp/9500mfp* (PN C8549-90955). Print-engine error messages are the same for the printer and the MFP version.

Messages appear on the control panel to indicate printer operation errors. Within the groupings listed below, the alphabetical error messages are listed first, followed by the numerical error messages.

Note

Make sure to check all of the connections and the connectors if an error message appears soon after repairing the printer.

Perform the following steps if a message appears that is not listed in this section:

- turn the printer off, and then turn the printer on again
- make sure that the newest DC controller, formatter, and paper-handling firmware are loaded in the printer
- perform an engine test (page 350) without the formatter installed to isolate the problem to the engine or the formatter

Alphabetical error messages for the HP LaserJet 9500 Series printer

Note

For copy, scan, and ADF-related error message that appear on the control-panel display of an MFP, see chapter 7 in the *HP Scanner/ADF Service Manual for the HP LaserJet 9000mfp/9000Lmfp/9040mfp/9050mfp/9500mfp* (PN C8549-90955). Print-engine error messages are the same for the printer and the MFP version.

Table 76. Alphabetical error messages

Message	Description or explanation	Recommended action
ACCESS DENIED MENUS LOCKED	● The printer control panel function that you are trying to gain access to is locked to prevent unauthorized access.	● See the network administrator for the correct password.

Table 76. Alphabetical error messages (continued)

Message	Description or explanation	Recommended action
BAD DUPLEXER CONNECTION	<ul style="list-style-type: none"> ● The duplexer is not connected correctly to the printer. 	<ol style="list-style-type: none"> 1 Turn the printer off and remove the duplexer. 2 Make sure that the duplexer is for the HP color LaserJet 9500 (there should <i>not</i> be a fan installed in the duplexer). 3 Turn the printer on and check for other error messages. 4 Check the electrical contacts on the duplexer and on the printer for damage or obstructions. 5 Turn the printer off. 6 Reinstall the duplexer and then turn the printer on again. 7 If the error persists, check connector J124 on the DC controller PCA. 8 Check connector J1 on the low-voltage power supply, J201 and J202 on the high-voltage power supply, J608 and J612 on the P driver PCA, and J806 on the T driver PCA. 9 Replace the duplexer.
<BINNAME> FULL	<ul style="list-style-type: none"> ● The specified bin is full and must be emptied for printing to continue. This should be considered a warning if a job is not pending for output to the full bin. When a job is sent to the full bin, it becomes an error. 	<ol style="list-style-type: none"> 1 Empty the bin to continue printing. 2 If the bin is empty, inspect the tray-full sensor flag for damage. Also, make sure that the flag moves smoothly. 3 Check connector J901 on the face-down delivery PCA, and connector J821 on the DC controller PCA.
CHECKING PAPER PATH	<ul style="list-style-type: none"> ● The engine is rotating its rollers to check for possible jams and to clear them automatically. 	<ul style="list-style-type: none"> ● No action is necessary.

Table 76. Alphabetical error messages (continued)

Message	Description or explanation	Recommended action
CHECKING PRINTER	<ul style="list-style-type: none"> The engine is performing an internal test. 	<ol style="list-style-type: none"> No action is usually necessary. If the printer stops when the message CHECKING PRINTER appears, turn the printer off and then turn the printer on again. Also, perform the following: <ul style="list-style-type: none"> Check the entire paper path for residual media, and remove any media that is found. Check the paper-path sensors for correct movement and functionality. Turn the printer off, remove all optional devices (such as EIOs, extra memory, finishing devices, and high-capacity inputs), and then turn the printer on again. Perform an engine test (see “Engine-test-print page” on page 350) without the formatter installed to isolate the problem to the engine or to the formatter.
CHOSEN PERSONALITY NOT AVAILABLE alternates with READY	<ul style="list-style-type: none"> A print job requested a printer language (personality) that is not available with this printer. The job is not printed and is cleared from memory. 	<ul style="list-style-type: none"> Print the job by using a printer driver for a different printer language, or add the requested language to the printer (if available).
CLEAN POST CHARGER	<ul style="list-style-type: none"> The post charger requires cleaning. This warning message is prompted when the REPLACE BLACK CARTRIDGE message is cleared and the black cartridge count is reset. Printing should continue when this message appears. When the user opens the upper right door or cycles power when this message appears, the control panel should pop to the menu item CHARGER CLEANED in the RESETS submenu. 	<ol style="list-style-type: none"> Clean the post charger. See “Cleaning the post charger” on page 104 in chapter 4. Select YES when prompted about having cleaned the post charger.
CLEARING PAPER PATH	<ul style="list-style-type: none"> The printer jammed, or the printer is turned on and media is detected in the printer path. The printer is automatically attempting to eject the pages. 	<ul style="list-style-type: none"> No action is necessary.

Table 76. Alphabetical error messages (continued)

Message	Description or explanation	Recommended action
CLOSE FRONT OR LOWER LEFT DOOR	<ul style="list-style-type: none"> ● The front left or left side lower doors are open. 	<ol style="list-style-type: none"> 1 Close the front left or the left side lower doors to continue printing. 2 If the door was open when the printer was turned on, close the door, turn the printer off, and then turn the printer on again. 3 Make sure that the interlock switch and the sensor flag are functioning correctly. Replace them if necessary. 4 Check connector J1701L on the left door switch, intermediate connector J3018, and connector 821 on the T driver PCA.
CLOSE FRONT OR UPPER RIGHT DOOR	<ul style="list-style-type: none"> ● The front or upper right doors are open. 	<ol style="list-style-type: none"> 1 Close the right front or the right side upper door to continue printing. 2 If the door was open when the printer was turned on, close the door, turn the printer off, and then turn the printer on again. 3 Make sure that the interlock switch and the sensor flag are functioning correctly. Replace them if necessary. See "Right door switch (front and right side doors)" on page 312. 4 Check connector J1701R on the right door switch, intermediate connector J3085, and connector 809 on the T driver PCA.
CLOSE LOWER RIGHT DOOR	<ul style="list-style-type: none"> ● The right side lower door is open. 	<ol style="list-style-type: none"> 1 Close the right side lower door to continue printing. 2 If the door was open when the printer was turned on, close the door, turn the printer off, and then turn the printer on again. 3 Make sure that the interlock switch and the sensor flag are functioning correctly. Replace them if necessary. See "Right door switch (front and right side doors)" on page 312. 4 Check connector J1041 on the pickup PCA, intermediate connector J3000, and connector J118 on the DC controller PCA.

Table 76. Alphabetical error messages (continued)

Message	Description or explanation	Recommended action
CLOSE UPPER LEFT DOOR	<ul style="list-style-type: none"> The left side upper door is open. 	<ol style="list-style-type: none"> Close the left side upper door to continue printing. If the door was open when the printer was turned on, close the door, turn the printer off, and then turn the printer on again. Make sure that the interlock switch and the sensor flag are functioning correctly. Replace them if necessary. Check connector J3017 on the upper left door switch, intermediate connector J3016, and connector J821 on the T driver PCA.
DETECTABLE SIZE IN TRAY X RECOMMEND MOVE SWITCH TO STANDARD	<ul style="list-style-type: none"> A tray is loaded with standard-size media, and the switch in the tray is set to custom. 	<ol style="list-style-type: none"> Move the switch to the standard position. Make sure that the media guides are against the media.
DISK DEVICE FAILURE alternates with READY	<ul style="list-style-type: none"> The EIO hard disk had a critical failure and can no longer be used. 	<ol style="list-style-type: none"> Turn off the printer. Remove and reinstall EIO hard disk. Turn the printer on again. If the error persists, replace the EIO hard disk.
DISK FILE OPERATION FAILED alternates with READY	<ul style="list-style-type: none"> The requested operation could not be performed. You might have attempted an illegal operation, such as trying to download a file to a nonexistent directory. 	<ol style="list-style-type: none"> Check the file name and try again. Check the driver settings to see if any job retention features are selected.
DISK FILE SYSTEM IS FULL alternates with READY	<ul style="list-style-type: none"> The disk file system has reached its maximum capacity. 	<ul style="list-style-type: none"> Delete files from the EIO hard disk and then try again. Using the control panel, delete stored jobs that are not needed. <p>Note HP Web Jetadmin can also be used to delete files and fonts.</p>
DISK IS WRITE PROTECTED alternates with READY	<ul style="list-style-type: none"> The disk device is protected and no new files can be written to it. 	<ul style="list-style-type: none"> Fonts and forms cannot be stored on the disk when the disk is write-protected. Use the Windows-based HP Web Jetadmin or the Macintosh-based HP LaserJet Utility to remove the write protections from the disk.
EIO DISK X SPINNING UP	<ul style="list-style-type: none"> The EIO hard disk in slot X is spinning up its platter. 	<ul style="list-style-type: none"> No action is necessary.
EVENT LOG EMPTY	<ul style="list-style-type: none"> The user is attempting to view an empty event log by selecting SHOW EVENT LOG from the control panel. 	<ul style="list-style-type: none"> No action is necessary.
FLASH DEVICE FAILURE alternates with READY	<ul style="list-style-type: none"> The flash DIMM had a critical failure and can no longer be used. 	<ul style="list-style-type: none"> Remove the flash DIMM and replace it with a new one.

Table 76. Alphabetical error messages (continued)

Message	Description or explanation	Recommended action
FLASH FILE OPERATION FAILED alternates with READY	<ul style="list-style-type: none"> The requested operation could not be performed. You might have attempted an illegal operation, such as trying to download a file to a nonexistent directory. 	<ul style="list-style-type: none"> Check the file name and try again.
FLASH FILE SYSTEM IS FULL alternates with READY	<ul style="list-style-type: none"> The flash disk or file system has reached maximum capacity. 	<ol style="list-style-type: none"> Delete files from the flash DIMM or the EIO hard disk, and then try again. Use HP Web Jetadmin to download or delete files and fonts (see the download utility help for more information). Using the control panel, delete stored jobs that are not needed.
FLASH IS WRITE PROTECTED alternates with READY	<ul style="list-style-type: none"> The flash file is protected, and no new files can be written to it. 	<ul style="list-style-type: none"> Use an unprotected file.
INCORRECT PIN	<ul style="list-style-type: none"> The wrong PIN is used. 	<ul style="list-style-type: none"> Return to the previous screen and retype the PIN.
INSERT OR CLOSE TRAY X	<ul style="list-style-type: none"> The specified tray is missing or open. 	<ol style="list-style-type: none"> Close or insert the specified tray to continue printing. If the error appears when the tray is installed correctly, check connector J52 for tray 2, connector J54 for tray 3, intermediate connector J3001, and connector J120 on the DC controller PCA.
INSTALL CLEANER	<ul style="list-style-type: none"> The cleaner is not installed or is not installed correctly. 	<ol style="list-style-type: none"> Make sure that the transfer cleaner is installed correctly and that the cleaning kit is within life specifications. Remove and reseal the cleaner and the toner collection bottle. Open the front doors and lightly tap on the waste toner bottle. Close the front doors and check to see if the error goes away. Make sure that the front doors are completely closed. If the error persists, check the sensor flag mechanism in the toner collection bottle to make sure that it moves correctly. Replace the cleaning kit. Check connectors J1403, J1402, and J1401 on the waste sensor assembly; intermediate connector J3081; and connector J821 on the T driver PCA. Replace the waste sensor assembly.

Table 76. Alphabetical error messages (continued)

Message	Description or explanation	Recommended action
INSTALL TRANSFER BELT	<ul style="list-style-type: none"> ● The ITB is not installed or cannot be detected. 	<ol style="list-style-type: none"> 1 Open the front doors, lower the green lever, and then remove and reseal the ITB. 2 Check the connector on the right side of the ITB for damage. Replace the ITB if necessary. 3 Check the harness and the connectors that support the ITB fan and the thermistor (J3022), and check connector J131 on the DC controller.
INSTALL TRANSFER ROLLER	<ul style="list-style-type: none"> ● The secondary transfer roller is not installed, or there is a problem when it is lifted into position. 	<ol style="list-style-type: none"> 1 Make sure that the secondary transfer roller is installed correctly. Reseat the secondary transfer roller if necessary. 2 Defeat the front door interlocks and check the secondary transfer roller for correct up and down movement. 3 Check for continuity from the secondary transfer assembly high-voltage contacts to the high-voltage power supply. 4 Check connector J3036 on the registration motor (M11) and connector J117 on the DC controller. 5 Check FFC J107 on the DC controller to J204 on the HVPS. 6 Check the four lift arms on the secondary transfer assembly for bonds or damage that might inhibit correct movement up. Repair or replace the lift arms if necessary. 7 Check the secondary transfer clutch (CL3) for correct functionality, and check connectors J3030, J3026, and J121 on the DC controller. 8 Replace the secondary transfer assembly.

Table 76. Alphabetical error messages (continued)

Message	Description or explanation	Recommended action
<p>LOAD TRAY X [TYPE] [SIZE] alternates with TO USE ANOTHER TRAY PRESS ✓</p>	<ul style="list-style-type: none"> ● A job is sent that requires a specific type and size of media that is not available, or the tray-size detection mechanism failed. 	<ol style="list-style-type: none"> 1 Make sure that the requested size and type of media is loaded correctly into the specified tray. 2 Press ✓ to use a type and size of media that is available in another tray. 3 For tray 2, check connectors J52 and J3023 on the tray 2 media detection switch. 4 For tray 3, check connectors J54 and J3024 on the tray 3 media detection switch. 5 Check intermediate connectors J3001, J3076, and J3077; and connectors J120 and J122 on the DC controller PCA. 6 Check the upper and lower cassette paper-width and length-detection switches for correct operation. Replace the switches if necessary. 7 Replace the DC controller PCA. See "DC controller" on page 300.
<p>MANUALLY FEED [TYPE] [SIZE] alternates with TO CONTINUE PRESS ✓</p>	<ul style="list-style-type: none"> ● The printer is waiting for media to be loaded in tray 1 for a manual feed. 	<ol style="list-style-type: none"> 1 Load the requested media into tray 1. Make sure that the media is loaded all the way into the tray. 2 To override the error, press ✓ if the media you want is available in another tray. 3 Press ✓ to use a type and size that is available in another tray. 4 If the media is loaded in tray 1 but is not detected, check the tray 1 sensor flag for correct operation. 5 Check connector J3005 on the tray sensor, intermediate connectors J3004 and J3002, and connector J119 on the DC controller PCA. 6 Replace the DC controller PCA. See "DC controller" on page 300.
<p>NO JOB TO CANCEL</p>	<ul style="list-style-type: none"> ● The CANCEL JOB button (STOP) was pressed, but there is no active job or buffered data to cancel. ● The message appears for approximately two seconds before the printer returns to the READY state. 	<ul style="list-style-type: none"> ● No action is necessary.

Table 76. Alphabetical error messages (continued)

Message	Description or explanation	Recommended action
NON-HP CARTRIDGE DETECTED	<ul style="list-style-type: none"> This message appears when a new print cartridge is installed and it is not a HP print cartridge. It is either a refilled cartridge or a cartridge made by another manufacturer. This message appears until the user installs a genuine HP print cartridge or presses the override key (CANCEL JOB or STOP). The NON-HP CARTRIDGE IN USE message appears for approximately 30 seconds. 	<ol style="list-style-type: none"> Remove and replace the indicated print cartridge, and make sure that genuine HP print cartridges are installed. If the print cartridges are not HP print cartridges, replace them with genuine HP print cartridges. Press CANCEL JOB (STOP) to continue printing. <p>Note Moving a print cartridge that is reporting a low or out condition to another printer might cause the print cartridge to report as a non-HP print cartridge.</p> <ol style="list-style-type: none"> Check connectors J16, J17, J18, and J19 on the print cartridge antenna units, and connectors J1006, J1007, J1008, and J1009 on the T driver PCA. Check the e-label on the print cartridge, and check the antenna unit. Replace the print cartridge if you suspect a faulty e-label. Replace the T driver PCA. See “T-crg (print cartridge) drive assembly” on page 296. Replace the DC controller PCA. See “DC controller” on page 300.
RAM DISK DEVICE FAILURE alternates with READY	<ul style="list-style-type: none"> The RAM disk had a critical failure and can no longer be used. 	<ul style="list-style-type: none"> Turn the printer off, and then turn the printer on again to clear the error.
RAM DISK FILE OPERATION FAILED alternates with READY	<ul style="list-style-type: none"> The requested operation could not be performed. You might have attempted an illegal operation, such as trying to download a file to a nonexistent directory. 	<ol style="list-style-type: none"> Try again with a different file or directory. Check the driver settings to see if any job retention features are selected.
RAM DISK FILE SYSTEM IS FULL alternates with READY	<ul style="list-style-type: none"> The RAM disk has reached maximum capacity. 	<ol style="list-style-type: none"> Delete files and then try again, or turn the printer off and then turn the printer on again to delete all of the files on the device. (Delete files using HP Web Jetadmin, another software utility, or from the control panel. See the Help for more information.) If the error persists, increase the size of the RAM disk and change the RAM disk size from the CONFIGURE DEVICE menu at the control panel.

Table 76. Alphabetical error messages (continued)

Message	Description or explanation	Recommended action
RAM DISK IS WRITE PROTECTED alternates with READY	<ul style="list-style-type: none"> The RAM disk is protected, and no new files can be written to it. 	<ul style="list-style-type: none"> No action is necessary.
REINSTALL TRANSFER ROLLER	<ul style="list-style-type: none"> The secondary transfer roller is not installed, or there is a problem when it lifts into position. 	<ul style="list-style-type: none"> See See “Transfer roller” on page 207.
REMOVE AND SHAKE <COLOR> CARTRIDGE	<ul style="list-style-type: none"> The T-crg (print cartridge) motor cannot turn the indicated print cartridge. 	<ol style="list-style-type: none"> Remove and check the indicated print cartridge and the printer side for damaged drive linkages. Shake the print cartridge a few times, reseal the print cartridge, turn the printer off, and then turn the printer on again. Replace the print cartridge or the drive linkages if necessary. <p>Note Make sure that the print cartridges, when stored, were not exposed to high temperatures.</p> <ol style="list-style-type: none"> Check connector 814 on the T driver PCA. Check color-appropriate connections near the motor: <ul style="list-style-type: none"> K: J3046 C: J3047 M: J3048 Y: J3049 Replace the T driver PCA. See “T-crg (print cartridge) drive assembly” on page 296. Replace the DC controller PCA. See “DC controller” on page 300.
RESEND UPGRADE	<ul style="list-style-type: none"> An error exists in the printer firmware upgrade. 	<ul style="list-style-type: none"> Resend a valid firmware image.
ROM DISK DEVICE FAILURE alternates with READY	<ul style="list-style-type: none"> The ROM disk had a critical failure and cannot be used. 	<ul style="list-style-type: none"> Turn the printer off, and then turn the printer on again to clear the error.
ROM DISK FILE OPERATION FAILED alternates with READY	<ul style="list-style-type: none"> The requested operation could not be performed. You might have attempted an illegal operation, such as trying to download a file to a non-existent directory. 	<ul style="list-style-type: none"> No action is necessary.
ROM DISK FILE SYSTEM IS FULL alternates with READY	<ul style="list-style-type: none"> The ROM disk reached its maximum capacity. 	<ul style="list-style-type: none"> Delete files and then try again, or turn the printer off and then turn the printer on again to delete all of the files on the device. (Delete files by using HP Web Jetadmin, another software utility, or the control panel. See the Help for more information.)
ROM DISK IS WRITE PROTECTED	<ul style="list-style-type: none"> The ROM disk is protected, and no new files can be written to it. 	<ul style="list-style-type: none"> Try using a new disk that is not write protected.

Table 76. Alphabetical error messages (continued)

Message	Description or explanation	Recommended action
<p>ROTATE PAPER IN TRAY X alternates with READY</p>	<ul style="list-style-type: none"> ● Tray X is loaded with letter or A4 media in the portrait orientation, but the job that used the tray did not specify booklet-making. ● The media in tray X needs to be rotated. 	<ol style="list-style-type: none"> 1 Rotate the media or change the booklet-making option for the job. (The printer will not print until this step is followed.) 2 If the media is landscape, the printer continues printing, but a message appears on the control panel that the print job prints faster if the media is rotated. 3 For tray 2, check connectors J52 and J3023 on the tray 2 media-detection switch. 4 For tray 3, check connectors J54 and J3024 on the tray 3 media-detection switch. 5 Check intermediate connectors J3001, J3076, J3077, and connectors J120 and J122 on the DC controller PCA. 6 Check the tray 2 and tray 3 media-width and length-detection switches for correct operation. Replace the switches if necessary. 7 Replace the DC controller PCA. See "DC controller" on page 300.
<p>SIZE MISMATCH TRAY=[SIZE]</p>	<ul style="list-style-type: none"> ● Tray X is loaded with media that is longer or shorter in the feed direction than the size configured for the tray. 	<ul style="list-style-type: none"> ● Reconfigure the tray or move the media to a tray configured for that size.
<p>TRAY X EMPTY [TYPE] [SIZE]</p>	<ul style="list-style-type: none"> ● Tray X is detected as empty. 	<ol style="list-style-type: none"> 1 Load media into tray X. 2 Reseat the media in tray X. 3 Check the lifter gear of the paper pickup unit for damage. Replace the lifter gear or paper pickup unit if necessary. 4 Check connector J11 and J13 on the lifter motor, intermediate connector J3001, and connector J120 on the DC controller PCA. 5 Check the media detection flag for damage or obstructed movement. 6 Adjust or replace the paper pickup unit if necessary. 7 Replace the DC controller PCA. See "DC controller" on page 300.
<p>TRAY X OPEN alternates with READY</p>	<ul style="list-style-type: none"> ● The specified tray is open or is not closed completely. 	<ol style="list-style-type: none"> 1 Close the specified tray. 2 If this error appears with the tray installed correctly, check connector J52 for tray 2, connector J54 for tray 3, intermediate connector J3001, and connector J120 on the DC controller PCA.

Table 76. Alphabetical error messages (continued)

Message	Description or explanation	Recommended action
TRAY X SIZE=*SELECTED SIZE alternates with TO CHANGE; MOVE SWITCH IN TRAY X	<ul style="list-style-type: none"> ● The custom switch is in the standard position, and a custom value from the menu is selected. 	<ul style="list-style-type: none"> ● Move the switch to the custom position or reset the menu value to a standard size.
TYPE MISMATCH TRAY X=[TYPE]	<ul style="list-style-type: none"> ● The printer detected a different type of media in the paper path coming from the tray (X) than the type of media that is specified for the tray. 	<ol style="list-style-type: none"> 1 Make sure that the correct media is loaded in the tray. 2 Check the driver settings to make sure that the expected media type is selected. This setting must match the setting in step 3. 3 Check the media-type settings at the control panel to make sure that the printer is set for the media type that is in the tray. 4 See the printer software online help for more information.
UNABLE TO MOPY JOB	<ul style="list-style-type: none"> ● A job cannot be moped because of a memory, disk, or configuration problem. Only one copy is produced. 	<ol style="list-style-type: none"> 1 The disk might be full. Try removing unneeded files from the disk. 2 Uncheck the hard disk in the driver.
UNABLE TO STORE JOB	<ul style="list-style-type: none"> ● A job cannot be stored on the printer because of a memory, disk, or configuration problem. 	<ol style="list-style-type: none"> 1 The disk might be full. Try removing unneeded files from the disk. 2 Uncheck the hard disk in the driver.

Numerical error messages for the HP LaserJet 9500 Series printer

Note

For copy, scan, and ADF-related error message that appear on the control-panel display of an MFP, see chapter 7 in the *HP Scanner/ADF Service Manual for the HP LaserJet 9000mfp/9000Lmfp/9040mfp/9050mfp/9500mfp* (PN C8549-90955). Print-engine error messages are the same for the printer and the MFP version.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer

Message	Explanation	Recommended action
<p>10.XX.YY SUPPLIES ERROR</p> <p>Note Replacing the image drum might correct the problem temporarily because the drum contains toner for about 50 pages. If the problem reoccurs after the image drum is replaced, check the print cartridge or the toner delivery system.</p> <p>Note The consumables gas gauge and supplies status menu are always updated to indicate all supplies with a supplies memory error, even though the message refers to a single supply.</p> <p>Note If a drum or cartridge reached a “low” or “out” condition and was moved to a different printer, it might be reported as a NON HP SUPPLY.</p>	<ul style="list-style-type: none"> ● The printer cannot read or write to at least one print cartridge or image drum memory tag, or at least one memory tag is missing. <p>XX description 00 = e-label memory data error 10 = e-label memory is missing 20 = refilled, non-HP supply (only appears in the event log) 30 = cloned cartridge/supply (only appears in the event log) 90 = toner replenishment malfunction reported by the image drum</p> <p>YY description 00 = black print cartridge 01 = cyan print cartridge 02 = magenta print cartridge 03 = yellow print cartridge 05 = black image drum 06 = cyan image drum 07 = magenta image drum 08 = yellow image drum</p> <p>When a 10.20.YY or 10.30.YY error occurs, a question mark is placed on the gas gauge of the supply or supplies with the error. These errors are noted in the event log and NON HP SUPPLY IN USE appears on the control panel.</p> <p>If multiple supplies have this error, a 10.XX.YY error is displayed for the first supply detected with the error. When the error corresponding to the first supply is resolved, another 10.XX.YY error is displayed for the next supply. (Continues for all supplies errors)</p> <p>Note 00 = memory data error might be caused when using non-HP supplies.</p>	<ol style="list-style-type: none"> 1 In the instance of 10.00, 10.20 and 10.30 errors, check if refilled cartridges or drums are used. Replace them with HP consumables. 2 Turn the printer off, and then turn the printer on. 3 Replace the indicated supply. 4 Check the print cartridge or image drum e-label indicator for damage. Replace the print cartridge or the image drum if necessary. 5 For print cartridges, check: <ul style="list-style-type: none"> • connectors J16, J17, J18, and J19 on the antenna PCAs. • connectors J1001, J1006, J1007, J1008, and J1009 on the memory controller PCA. • connector J802 on the T driver PCA. 6 For image drums, check: <ul style="list-style-type: none"> • connectors J12, J13, J14, and J15 on the antenna PCAs. • connectors J1001, J1002, J1003, J1004, and J1005 on the memory controller PCA. • connector J802 on the T driver PCA. 7 Replace the antenna PCA for the indicated cartridge or drum. 8 Replace the T driver PCA. See chapter 6. 9 Replace the DC controller PCA. See “DC controller” on page 300. <ul style="list-style-type: none"> ● In the instance of a 10.90.YY error, the image drum is reporting toner concentration-to-carrier is very low. This error might occur when non-HP supplies are used. Make sure that the toner delivery system and shutters are functioning correctly.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
<p>13.01.00 JAM INSIDE LOWER RIGHT DOOR or 13.01.00 JAM IN TRAY X</p>	<ul style="list-style-type: none"> ● A media delay jam occurred in the paper pickup area. ● The media did not reach the tray 2 delivery sensor B (SR12) or the tray 3 delivery sensor B (SR14) within the specified time. ● If this error reoccurs, it is a 13.01.00 JAM IN TRAY X error. 	<ol style="list-style-type: none"> 1 Remove the media from the lower right door, tray 2 and tray 3, and the upper right door (ITB access) if necessary. 2 Check the tray-size guides for correct settings. 3 Check the tray 2 delivery sensor B and the tray 3 delivery sensor B (SR12 and SR14; see "Paper-path jam sensors" on page 403) for correct functionality, and check the supporting connectors to the DC controller PCA. 4 Replace the pick and feed rollers if necessary. 5 Replace the PIU.
<p>13.03.00 JAM INSIDE UPPER RIGHT DOOR or 13.03.00 JAM INSIDE LOWER RIGHT DOOR</p>	<ul style="list-style-type: none"> ● A media delay jam occurred in the registration area. ● The media from any input source did not reach the registration sensor (SR3) within the specified time. ● If this error reoccurs, it is a 13.03.00 JAM INSIDE LOWER RIGHT DOOR error. 	<ol style="list-style-type: none"> 1 Remove the media from the tray 1/registration area. 2 Check that the tray 1 assembly is aligned and closes correctly. 3 Check the registration sensor (SR3; see "Paper-path jam sensors" on page 403) for correct functionality, and check the supporting connectors to the DC controller PCA.
<p>13.05.00 FUSER JAM LOWER LEFT DOOR or 13.05.00 JAM INSIDE FRONT DOOR</p>	<ul style="list-style-type: none"> ● A media delay jam occurred before the fuser. The media did not reach the fuser output sensor (PS1501) within the specified time. ● If this error reoccurs, it is a 13.05.00 JAM INSIDE FRONT DOOR error. 	<ol style="list-style-type: none"> 1 Remove the jammed media from the ITB and the fuser area through the lower/left door or the front doors. Removing the fuser and ITB might be helpful. 2 Check the fuser output sensor (PS1501; see "Paper-path jam sensors" on page 403) and its flag for correct functionality, and check the supporting connectors to the DC controller PCA.
<p>13.06.00 JAM INSIDE LOWER LEFT DOOR or 13.06.00 JAM INSIDE PAPER PATH</p>	<ul style="list-style-type: none"> ● A media stay jam occurred in the fuser. The media is detected at the fuser output sensor (PS1501) longer than the specified time. ● If this error reoccurs, it is a 13.06.00 JAM INSIDE PAPER PATH error. 	<ol style="list-style-type: none"> 1 Remove the jammed media from the fuser area through the lower/left door or the front doors. Removing the fuser might be helpful. 2 Check the fuser output sensor (PS1501; see "Paper-path jam sensors" on page 403) and its flag for correct functionality, and check the supporting connectors to the DC controller PCA.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
<p>13.07.00 JAM INSIDE UPPER RIGHT DOOR</p>	<ul style="list-style-type: none"> ● A multifeed jam occurred. ● Multiple pages, with a stack height of more than 0.5 mm, arrived at the multifeed sensor (SR5) on the registration assembly. 	<ol style="list-style-type: none"> 1 Remove the media from the registration area. 2 Make sure that the media being used is within specifications, and that the correct media type settings for the media being used are set on the control panel. 3 Check the tray pickup and feed rollers. Replace the rollers if necessary. 4 Check the separation pad if the media is fed from tray 1. 5 Check the multifeed sensor (SR5; see "Paper-path jam sensors" on page 403) flag on the registration assembly for damage or binding. 6 Check the multifeed sensor (SR5; see "Paper-path jam sensors" on page 403) for correct functionality, and check the supporting connectors to the DC controller PCA. 7 Check connector J3101 near the multifeed sensor, intermediate connectors J3100 and J3037, and connector J121 on the DC controller PCA. 8 Replace the registration assembly. See "Registration assembly" on page 283. 9 Replace the DC controller PCA. See "DC controller" on page 300.
<p>13.09.00 JAM INSIDE LOWER LEFT DOOR or 13.09.00 JAM INSIDE UPPER LEFT DOOR</p>	<ul style="list-style-type: none"> ● A media delay jam occurred. ● The media did not reach the face-down output sensor (PS901) within the specified time. ● If this error reoccurs, it is a 13.09.00 INSIDE UPPER LEFT DOOR error. 	<ol style="list-style-type: none"> 1 Remove the media from the fuser access area, the duplex diverter, or the face-down delivery area through the lower left or upper left doors. 2 Check the face-down and duplex diverters for correct functionality. 3 Check for deformed rollers. 4 Make sure that the upper and lower left doors are completely closed. 5 Check the face-down output sensor (PS901; see "Paper-path jam sensors" on page 403) for correct functionality, and check the supporting connectors to the DC controller PCA.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
13.0A.00 JAM INSIDE TOP OUTPUT BIN or 13.0A.00 JAM INSIDE UPPER LEFT DOOR	<ul style="list-style-type: none"> ● A media stay jam occurred in the face-down tray. The printer detected that media is at the face-down output sensor longer than the specified time. ● If this error reoccurs, it is a 13.0A.00 JAM INSIDE UPPER LEFT DOOR error. 	<ol style="list-style-type: none"> 1 Remove the media from the fuser access area, the duplex diverter, or the face-down delivery area through the left lower door and the left upper door. 2 Check the face-down sensor (PS901; see "Paper-path jam sensors" on page 403) for correct functionality, and check the supporting connectors to the DC controller PCA.
13.10.00 JAM INSIDE LOWER LEFT DOOR or 13.10.00 JAM INSIDE DUPLXER	<ul style="list-style-type: none"> ● A media stay jam occurred in the reversing area. ● The media did not reach the duplex media reverse sensor (SR33) within the specified time. ● If this error reoccurs, it is a 13.10.00 JAM INSIDE DUPLXER error. 	<ol style="list-style-type: none"> 1 Check for obstructions and residual media in the paper path in the post fuser and duplex diverter area. 2 Make sure that the lower left door closes correctly. 3 Check the duplex diverter mechanism and the duplex diverter solenoid for correct functionality. 4 Check the duplex media reverse sensor (SR33; see "Paper-path jam sensors" on page 403) for correct functionality. 5 Check the supporting connectors to the DC controller PCA.
13.11.XY JAM IN INPUT ACCESSORY	<ul style="list-style-type: none"> ● Media is late from tray 4. <p>Note XY can be 05, 06, 07, 08, 09, or 10.</p>	<ol style="list-style-type: none"> 1 Check for jammed media by opening tray 4 and opening the lower right door. 2 Check the paper-path transition between tray 4 and the print engine. 3 Check the tray-size guides for correct settings. 4 Replace the pickup rollers and the feed rollers if they are worn.
13.11.00 JAM INSIDE LOWER LEFT DOOR or 13.11.00 JAM INSIDE DUPLXER	<ul style="list-style-type: none"> ● A media stay jam occurred in the reversing area. ● The duplex reverse sensor (SR33) detects residual media beyond the specified time. ● If this error reoccurs, it is a 13.11.00 JAM INSIDE DUPLXER error. 	<ol style="list-style-type: none"> 1 Check for obstructions and residual media in the paper path in the post fuser and duplex diverter area. 2 Make sure that the lower left door closes correctly. 3 Check the duplex diverter mechanism and the duplex diverter solenoid for correct functionality. 4 Check the duplex reverse sensor (SR33; see "Paper-path jam sensors" on page 403) for correct functionality. 5 Check the supporting connectors to the DC controller PCA.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
13.11.05 JAM IN INPUT ACCESSORY	<ul style="list-style-type: none"> ● A page is jammed in the paper path at the registration area. ● A pickup delay jam occurred. 	<ol style="list-style-type: none"> 1 Clear the jam in the indicated area. 2 Close the door so the printer attempts to clear the paper path. 3 Perform a paper-path test. 4 If the error persists, replace the paper pickup assembly.
13.11.06 PICKUP STATIONARY JAM	<ul style="list-style-type: none"> ● A page is jammed in the pickup area of the input accessory. 	<ol style="list-style-type: none"> 1 Clear the jam in the indicated area of the input device. 2 Remove the media from the right door of the printer engine.
13.11.07 JAM IN INPUT ACCESSORY	<ul style="list-style-type: none"> ● A page is jammed in the right door area. ● A page stopped in the registration area. 	<ol style="list-style-type: none"> 1 Clear the jam in the indicated area. 2 Close the door so the printer attempts to clear the paper path. 3 If the error persists, replace the vertical transfer unit.
13.11.08 JAM IN INPUT ACCESSORY	<ul style="list-style-type: none"> ● A page is jammed in the paper path at the vertical transfer unit registration area. ● A paper delivery delay jam occurred. 	<ol style="list-style-type: none"> 1 Clear the jam in the indicated area. 2 Close the door so the printer attempts to clear the paper path. 3 Make sure that the vertical transfer sensor is functional. 4 If the error persists, replace the vertical transfer sensor. 5 Replace the vertical transfer unit.
13.11.09 JAM IN INPUT ACCESSORY	<ul style="list-style-type: none"> ● A page is jammed in the paper path at the right door area. ● A paper delivery stationary jam occurred. 	<ol style="list-style-type: none"> 1 Clear the jam in the indicated area. 2 Close the door so the printer attempts to clear the paper path. 3 Replace the paper path connection unit. 4 Replace the vertical registration assembly. 5 If the error persists, replace the diverter.
13.11.10 RESIDUAL JAM IN DELIVERY AREA	<ul style="list-style-type: none"> ● A page is jammed in the delivery area when the power is turned on or when the front door is closed. 	<ol style="list-style-type: none"> 1 Clear the jam. 2 Turn the printer off, and then turn the printer on again. 3 Replace the paper path connection unit. 4 Replace the vertical registration assembly.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
13.12.00 JAM INSIDE DUPLExER	<ul style="list-style-type: none"> ● A media delay jam occurred in the duplexer. ● The media did not reach the duplexer media path sensor (SR31) within the specified time. 	<ol style="list-style-type: none"> 1 Remove the duplexer and check for correct seating, residual media, or obstructions. 2 Check the inside of the duplexer and the duplex cavity for residual media or obstructions. 3 Check the duplexer side registration guides for free movement. Replace the duplexer if necessary. See “Duplexer” on page 258. 4 Check the feed rollers and the drive gear trains for damage. Replace them if necessary. 5 Check the duplexer media path sensor (SR31; see “Paper-path jam sensors” on page 403) for correct functionality, and check the supporting connectors to the DC controller PCA.
13.12.11 JAM IN LEFT ACCESSORY	<ul style="list-style-type: none"> ● A staple jam exists in the stapling unit. 	<ol style="list-style-type: none"> 1 Clear the jam. 2 Turn the printer off, and then turn the printer on again. 3 Test the staple sliding motor (M8). 4 Make sure that the stapler unit slides to the home position at power on. 5 Make sure that the staple cartridge is installed correctly. 6 Make sure that no damaged staples exist in the staple cartridge or in the stapler unit. 7 Test another staple cartridge. 8 Check all of the cable connections at the module and at the controller PCA. 9 Replace the stapler unit. 10 Replace the controller PCA.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
13.12.21 JAM IN LEFT ACCESSORY	<ul style="list-style-type: none"> ● A jam (initial jam) exists in the flipper assembly. 	<ol style="list-style-type: none"> 1 Clear the jam. 2 Turn the printer off, and then turn the printer on again. 3 Clean the optical entry sensor. 4 Make sure that the entry sensor moves freely, and run the sensor check mode to test the entry sensor. 5 Calibrate the flipping sensor D/A clear. 6 Activate the reverse motor (M9) to make sure that the motor activates the assembly. 7 Make sure that the paper guide wire is positioned correctly. 8 Replace the flipper assembly. 9 Replace the controller PCA.
13.12.22 JAM IN LEFT ACCESSORY	<ul style="list-style-type: none"> ● A jam (stay jam) exists in the flipper assembly. 	<ul style="list-style-type: none"> ● Perform the steps for a 13.12.21 error.
13.12.23 JAM IN LEFT ACCESSORY	<ul style="list-style-type: none"> ● A jam (delay jam) exists in the flipper assembly. 	<ul style="list-style-type: none"> ● Perform the steps for a 13.12.21 error.
13.12.31 JAM IN LEFT ACCESSORY	<ul style="list-style-type: none"> ● A jam (initial jam) exists in the paper-path area. 	<ol style="list-style-type: none"> 1 Make sure that the printer and the finishing device are installed on a flat, solid surface. 2 Make sure that the printer is processing media correctly. 3 Clear the jam. 4 Turn the printer off, and then turn the printer on again. 5 Replace the controller PCA. 6 Make sure that the media in use meets specifications. See "Media specifications" on page 37. 7 Replace the whole unit. 8 Replace the flipper assembly.
13.12.32 JAM IN LEFT ACCESSORY	<ul style="list-style-type: none"> ● A jam (stay jam) exists in the paper-path area. 	<ul style="list-style-type: none"> ● Perform the steps for a 13.12.31 error.
13.12.33 JAM IN LEFT ACCESSORY	<ul style="list-style-type: none"> ● A jam (delay jam) exists in the paper-path area. 	<ul style="list-style-type: none"> ● Perform the steps for a 13.12.31 error.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
13.12.34 JAM IN LEFT ACCESSORY	<ul style="list-style-type: none"> ● A jam (ejectors jam) exists in the paper-path area. 	<ol style="list-style-type: none"> 1 Clear the jam. 2 Turn the printer off, and then turn the printer on again. 3 Make sure that the stapled jobs meet the required specifications. 4 Make sure that the number of sheets per document are within specifications. See “Media specifications” on page 37. 5 Make sure that the media in use meets specifications. See “Media specifications” on page 37. 6 Make sure that the stapler is the home position. 7 Replace the whole unit.
13.12.41 JAM IN LEFT ACCESSORY	<ul style="list-style-type: none"> ● A jam (initial jam) exists in the folding/booklet area. 	<ol style="list-style-type: none"> 1 Make sure that there is no media inside the output device at power on. 2 Make sure that the booklet meets specifications. See “Supported media and capacity for input and output” on page 38. 3 Clear the jam. 4 Turn the printer off, and then turn the printer on again. 5 Activate the staple-fold motor (M7) to make sure that the assembly works. 6 Perform the booklet adjustments as needed. 7 Check all cable connections at the module and at the controller PCA. 8 Replace the folding mechanism. 9 Replace the controller PCA.
13.12.42 JAM IN LEFT ACCESSORY	<ul style="list-style-type: none"> ● A jam (stay jam) exists in the folding/booklet area. 	<ul style="list-style-type: none"> ● Perform the steps for a 13.12.41 error.
13.12.43 JAM IN LEFT ACCESSORY	<ul style="list-style-type: none"> ● A jam (delay jam) exists in the folding/booklet area. 	<ul style="list-style-type: none"> ● Perform the steps for a 13.12.41 error.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
13.12.51 JAM IN LEFT ACCESSORY	<ul style="list-style-type: none"> • A jam (initial jam) exists in the booklet bin area. 	<ol style="list-style-type: none"> 1 Clear the jam. 2 Make sure that the booklet meets specifications. See "Supported media and capacity for input and output" on page 38. 3 Turn the printer off, and then turn the printer on again. 4 Activate the booklet bin sliding motor (M10) to make sure that the assembly works. 5 At power on, make sure that the booklet stopper moves completely in and out. 6 Check all cable connections at the module and at the controller PCA. 7 Replace the booklet bin. 8 Replace the controller PCA.
13.12.52 JAM IN LEFT ACCESSORY	<ul style="list-style-type: none"> • A jam (stay jam) exists in the booklet bin area. 	<ul style="list-style-type: none"> • Perform the steps for a 13.12.51 error.
13.12.53 JAM IN LEFT ACCESSORY	<ul style="list-style-type: none"> • A jam (delay jam) exists in the booklet bin area. 	<ul style="list-style-type: none"> • Perform the steps for a 13.12.51 error.
13.13.00 JAM INSIDE DUPLEXER	<ul style="list-style-type: none"> • A media stay jam occurred in the duplexer. • The media did not reach the duplexer media path sensor (SR31) within the specified time. 	<ol style="list-style-type: none"> 1 Remove the duplexer and check for correct seating, residual media, or obstructions. 2 Check the inside of the duplexer and the duplex cavity for residual media or obstructions. 3 Check the duplexer side registration guides for free movement. Replace the duplexer if necessary. 4 Check the feed rollers and the drive gear trains for damage. Replace them if necessary. 5 Check the duplex media path sensor (SR31; see "Paper-path jam sensors" on page 403) for correct functionality, and check the supporting connectors to the DC controller PCA. 6 If the error persists, replace the duplexer. See "Duplexer" on page 258.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
<p>13.1C.00 FUSER JAM LOWER LEFT DOOR</p>	<ul style="list-style-type: none"> ● A fuser wrap jam occurred. The printer detected that media is wrapped around the fuser roller. 	<ol style="list-style-type: none"> 1 Make sure that the media being used is within specifications, and that the correct media type settings for the media being used are set on the control panel. 2 Remove the media from the fuser through the lower left door. Removing the fuser assembly might be helpful. 3 Check the fuser output sensor (PS1501; see "Paper-path jam sensors" on page 403) and its flag for correct functionality, and check the supporting connectors to the DC controller PCA. 4 Check the fuser rollers for damage or contamination. Verify fuser integrity by printing a demo or configuration page. 5 Replace the fuser assembly if necessary. See "Fuser" on page 259.
<p>13.1D.00 JAM INSIDE PAPER PATH</p>	<ul style="list-style-type: none"> ● An ITB wrap jam occurred. ● The media did not reach the fuser input sensor (SR6) within the specified time. 	<ol style="list-style-type: none"> 1 Make sure that the media being used is within specifications, and that the correct media type settings for the media being used are set on the control panel. 2 Remove and check the ITB for residual media. 3 Check the T2 area for residual media. 4 Check the ITB for media-caused damage. Replace the ITB if necessary. 5 Check the fuser input sensor (SR6; see "Paper-path jam sensors" on page 403) for correct functionality, and check the supporting connectors to the DC controller PCA.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
13.20.00 JAM INSIDE PAPER PATH	<ul style="list-style-type: none"> • A residual media jam occurred in the paper path. • The T2 input sensor (SR42), the fuser input sensor (SR6), and/or the fuser output sensor (PS1501) detect media when the printer doors are closed. 	<ol style="list-style-type: none"> 1 Check the paper path from the registration area to the T2 area and through the fuser. If there is jammed media, remove the ITB and fuser. Remove the jammed media. 2 Check the right side lower door area for residual media or jammed sensor flags. 3 Check the T2 input sensor (SR42), the fuser upstream sensor (SR6), and the fuser output sensor (PS1501) for correct flag movement and functionality (see "Paper-path jam sensors" on page 403). 4 Check connectors J3207 and J121 on the DC controller. 5 Check the supporting connectors to the DC controller PCA.
13.25.00 JAM INSIDE UPPER RIGHT DOOR	<ul style="list-style-type: none"> • The media is detected as longer than what is configured on the control panel, as reported by the registration sensor (SR3). 	<ol style="list-style-type: none"> 1 Check for supported media, and that the media size for the tray is correctly set on the control panel. 2 Make sure that the software program or the driver settings are requesting the size of media that is in the tray. (This is particularly important if the tray size is set to ANY SIZE because the printer registers that the media is the size requested from the job.)
13.29.00 JAM INSIDE DUPLXER	<ul style="list-style-type: none"> • A re-feeding jam occurred in the duplexer. • The duplexer media re-feed sensor (SR30) detects media when the printer doors are closed. 	<ol style="list-style-type: none"> 1 Remove the duplexer, and check the inside of the duplexer and the duplex cavity for residual media. 2 Check the duplexer media re-feed sensor (SR30; see "Paper-path jam sensors" on page 403) for correct functionality, and check the supporting connectors to the DC controller PCA. 3 If the error persists, replace the duplexer. See "Duplexer" on page 258.
13.3E.00 JAM INSIDE TOP OUTPUT BIN or 13.3E.00 JAM INSIDE UPPER LEFT DOOR	<ul style="list-style-type: none"> • Residual media is detected under the face-down output sensor (PS901). • If this error reoccurs, it is a 13.3E.00 JAM INSIDE UPPER LEFT DOOR error. 	<ol style="list-style-type: none"> 1 Remove the media from the face-down delivery area. 2 Check the face-down output sensor (PS901; see "Paper-path jam sensors" on page 403) for correct functionality, and check the supporting connectors to the DC controller PCA.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
13.32.00 JAM IN TRAY X or 13.32.00 JAM INSIDE LOWER RIGHT DOOR	<ul style="list-style-type: none"> Residual media is detected in or near tray 2 or tray 3 as indicated at power on, or when the printer is coming out of PowerSave mode. If this error reoccurs, it is a 13.32.00 JAM INSIDE LOWER RIGHT DOOR error. 	<ol style="list-style-type: none"> Remove the media from the pickup area of tray 2 or tray 3 through the tray or the lower right door. Check the tray-size guides for correct settings. Check the tray 2 media path sensor A (SR11) and the tray 2 media path sensor B (SR12) for correct functionality (see "Paper-path jam sensors" on page 403). Check the supporting connectors to the DC controller PCA. Check the tray 3 media path sensor A (SR13) and the tray 3 media path sensor B (SR14) for correct functionality (see "Paper-path jam sensors" on page 403). Check the supporting connectors to the DC controller PCA.
20 INSUFFICIENT MEMORY alternates with TO CONTINUE PRESS ✓	<ul style="list-style-type: none"> This message indicates that more data has been received from the computer than fits in the printer internal memory. Press ✓ (6) to continue printing. Only the amount of data that fits in the printer internal memory is printed. The remainder of the job is cancelled. 	<ul style="list-style-type: none"> Press ✓ (6) to print the transferred data (some data might be lost), and then simplify the print job or install additional memory.
21 PAGE TOO COMPLEX alternates with TO CONTINUE PRESS ✓	<ul style="list-style-type: none"> The page-formatting process was not fast enough for the printer. There might be some data lost on the page that was being formatted when the error occurred. 	<ol style="list-style-type: none"> Press ✓ (6) to print the transferred data (some data might be lost). The page protection item appears in the CONFIGURE DEVICE - DEFAULTS - EVENTS - menu, and should be set to ON to print the page. When the page is successfully printed, PAGE PROTECT=ON, should be set back to AUTO. If this error appears often, simplify the print job.
22 EIO X BUFFER OVERFLOW	<ul style="list-style-type: none"> Too much data was sent to the EIO card in the specified slot (X). An improper communications protocol might be in use. 	<ol style="list-style-type: none"> Press ✓ (6) to print the transferred data (some data might be lost). Check the host configuration.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
22 PARALLEL I/O BUFFER OVERFLOW alternates with TO CONTINUE PRESS ✓	<ul style="list-style-type: none"> Too much data was sent to the parallel port. 	<ol style="list-style-type: none"> Check for a loose cable connection, and be sure to use a high-quality cable. (Some non-HP parallel cables might be missing pin connections or might otherwise not conform to the IEEE-1284 specification.) This error can occur if the print driver in use is not IEEE-1284 compliant. For best results, use the HP print driver that came with the printer or download the latest HP driver for this printer at http://www.hp.com/support/lj9500. Press ✓ (6) to clear the error (data will be lost).
22 SERIAL I/O BUFFER OVERFLOW	<ul style="list-style-type: none"> The printer serial buffer overflowed during a busy state. 	<ul style="list-style-type: none"> Press ✓ (6) to print the transferred data (some data might be lost)
40 BAD SERIAL TRANSMISSION	<ul style="list-style-type: none"> A serial data error (parity, framing, or line overrun) occurred during the reception of data from the computer. 	<ul style="list-style-type: none"> Press ✓ (6) to clear the error and continue printing.
40 EIO X BAD TRANSMISSION	<ul style="list-style-type: none"> The connection between the printer and the EIO card in the specified slot has been abnormally broken. 	<ul style="list-style-type: none"> Press ✓ (6) to clear the error and continue printing.
41.X PRINTER ERROR alternates with TO CONTINUE PRESS ✓	<ul style="list-style-type: none"> A temporary printing error occurred. <p>X description</p> <ul style="list-style-type: none"> 1 = unknown misprint error 2 = beam detect misprint 3 = media feed error (size) 5 = media feed error (type) 6 = ITB detection error 	<ol style="list-style-type: none"> Press ✓ (6) to clear the error and continue printing. Turn the printer off, and then turn the printer on again to clear the error. If the error persists, troubleshoot the laser system (41.2), the media feed mechanisms, the media size/type settings, and the ITB seating.
41.3 UNEXPECTED SIZE TRAY X alternates with TO CHANGE SIZE PRESS ✓	<ul style="list-style-type: none"> Tray (X) is loaded with media that is longer or shorter in the feed direction than the size configured for the tray. 	<ol style="list-style-type: none"> Check the media size definition for the specified tray. If necessary, reconfigure the media size defined for the tray. Press ✓ (6) to get to TRAY X SIZE=. Reconfigure the size in a tray so that the printer uses a tray with the size that is required for the print job. If the error does not clear, turn the printer off, and then turn the printer on again. If the error persists, check the tray size sensor mechanisms, the registration sensor for correct functionality, and the supporting connectors to the DC controller PCA.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
<p>41.5 UNEXPECTED TYPE TRAY X alternates with TO CHANGE TYPE PRESS ✓</p>	<ul style="list-style-type: none"> ● Tray (X) is loaded with media that is not of the same type configured for the tray. <p>Note The printer only detects media or OHTs.</p>	<ol style="list-style-type: none"> 1 Check the media type definition for the specified tray. 2 If necessary, reconfigure the media type for the tray. 3 If the error does not clear, turn the printer off, and then turn the printer on again. 4 If the error persists, check the transparency sensor for correct functionality. Check connector J3032 on the transparency sensor, intermediate connector J3027, and connector J121 on the DC controller PCA.
<p>49.XXYY PRINTER ERROR</p>	<ul style="list-style-type: none"> ● A critical formatter firmware error occurred which caused the processor on the formatter to cease operation. <p>Note Unique subcodes are constructed by creating a unique error of an 8-bit component ID (XX) and an 8-bit component specific error (YY). The component ID and component specific error are useful in determining which part of the firmware failed.</p>	<p>Note The printer 49 errors are usually <i>not</i> fixed by replacing the formatter.</p> <ol style="list-style-type: none"> 1 Turn the printer off, and then turn the printer on again to clear the error. 2 Make sure that the customer is using a known good software program, good driver, good cabling, and good connections. 3 Print a configuration page to make sure that the printer has the most recent release of formatter firmware. If necessary, flash the printer with new firmware. 4 Check all of the accessory hardware, such as memory DIMMs and EIO devices, on the formatter by removing them. (Removing the hardware eliminates them as possible causes of the error.) 5 If the error persists, the formatter might need to be replaced. See "Formatter PCB" on page 302.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
59.X	<ul style="list-style-type: none"> ● A fuser error occurred. Power cycle the printer to continue. <p>X description</p> <ul style="list-style-type: none"> 1 = low fuser temperature 2 = fuser detected not coming to operating temperature after a jam or open door 3 = high fuser temperature 6 = open fuser heating circuit between the fuser and low-voltage power supply 7 = fuser pressure release mechanism failure 	<ol style="list-style-type: none"> 1 Remove the fuser and check it for damage or jammed media. 2 Make sure that the printer is plugged into appropriate ac voltage. 3 Turn the printer off, let it cool for 10 minutes, and then turn the printer on again to possibly clear the error. 4 Replace the fuser. 5 Check the fuser/print engine electrical connectors J3019 for damage. 6 Check connector J1501 on the fusing sensor PCA and connector J115 on the DC controller PCA. 7 Check for a fuser drive or fuser motor failure. Replace if necessary. See "Fuser motor" on page 298 or "Fuser drive assembly" on page 299. 8 Replace the power supply unit. See "Low-voltage power supply" on page 282. 9 Replace the DC controller PCA. See "DC controller" on page 300.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
<p>51.XY PRINTING ERROR alternates with TO CONTINUE CYCLE POWER</p>	<ul style="list-style-type: none"> ● A laser scanner assembly laser error occurred. <p>X description 1 = beam detect error 2 = laser error</p> <p>Y description 0 = no color K = black C = cyan M = magenta Y = yellow</p>	<p>CAUTION When servicing the printer with the top cover off, cover the top of the printer to prevent light leaks which might blind the laser/scanner beam detect sensors.</p> <ol style="list-style-type: none"> 1 Check the FFCs for damage, and make sure that they are correctly centered and seated in the connectors. Replace the FFCs if necessary. 2 The following are color-specific steps: <ul style="list-style-type: none"> ● K laser Check connector J3012 on the laser driver PCA, connector J3056 on the scanner motor, connector J3061 on the beam detect PCA, connectors J812 and J815 on the T driver PCA, and connector J110 on the DC controller PCA. ● C laser Check connector J3011 on the laser driver PCA, connector J3059 on the scanner motor, connector J3062 on the beam detect PCA, connectors J812 and J815 on the T driver PCA, and connector J110 on the DC controller PCA. ● M laser Check connector J3010 on the laser driver PCA, connector J3053 on the scanner motor, connector J3063 on the beam detect PCA, connectors J812 and J815 on the T driver PCA, and connector J110 on the DC controller PCA. ● Y laser Check connector J3009 on the laser driver PCA, connector J3050 on the scanner motor, connector J3064 on the beam detect PCA, connectors J812 and J817 on the T driver PCA, and connector J108 on the DC controller PCA. 3 Check FFC connectors J103 and J106 on the DC controller PCA, J9002 on the formatter cage, and J801 on the T driver PCA. 4 Replace the necessary laser scanner unit. See "Laser/scanner assembly" on page 231. 5 Replace the T driver PCA. See "T-crg (print cartridge) drive assembly" on page 296. 6 Replace the DC controller PCA. See "DC controller" on page 300.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
<p>52.X PRINTER ERROR alternates with TO CONTINUE CYCLE POWER</p>	<ul style="list-style-type: none"> ● A laser scanner assembly error occurred. <p>X description 1 = scanner error 2 = scanner startup error 3 = scanner rotation error</p> <p>Y description 0 = no color K = black C = cyan M = magenta Y = yellow</p>	<p>CAUTION When servicing the printer with the top cover off, cover the top of the printer to prevent light leaks which might blind the laser/scanner beam detect sensors.</p> <p>1 The following are color-specific steps:</p> <ul style="list-style-type: none"> ● K laser Check connector J3012 on the laser driver PCA, connector J3056 on the scanner motor, connector J3061 on the beam detect PCA, connectors J812 and J815 on the T driver PCA, and connector J110 on the DC controller PCA. ● C laser Check connector J3011 on the laser driver PCA, connector J3059 on the scanner motor, connector J3062 on the beam detect PCA, connectors J812 and J815 on the T driver PCA, and connector J110 on the DC controller PCA. ● M laser Check connector J3010 on the laser driver PCA, connector J3053 on the scanner motor, connector J3063 on the beam detect PCA, connectors J812 and J815 on the T driver PCA, and connector J110 on the DC controller PCA. ● Y laser Check connector J3009 on the laser driver PCA, connector J3050 on the scanner motor, connector J3064 on the beam detect PCA, connectors J812 and J817 on the T driver PCA, and connector J108 on the DC controller PCA. <p>2 Check FFC connectors J103 and J106 on the DC controller PCA, J9002 on the formatter cage, and J801 on the T driver PCA.</p> <p>3 Check the FFCs for damage, and make sure that they are correctly centered and seated in the connectors. Replace the FFCs if necessary.</p> <p>4 Replace the necessary laser scanner unit. See "Laser/scanner assembly" on page 231.</p> <p>5 Replace the T driver PCA. See "T-crg (print cartridge) drive assembly" on page 296.</p> <p>6 Replace the DC controller PCA. See "DC controller" on page 300.</p>

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
53.10.05 PRINTER ERROR alternates with TO CONTINUE CYCLE POWER	<ul style="list-style-type: none"> ● A DIMM is installed in both the 168-pin DIMM slot 4 and in the 100-pin DIMM slot 5. 	<ul style="list-style-type: none"> ● This is an invalid configuration. DIMMs cannot be installed in both slots at the same time. Remove one of the DIMMs, or move one of the DIMMs to a different slot.
53.XY.ZZ PRINTER ERROR alternates with TO CONTINUE CYCLE POWER	<ul style="list-style-type: none"> ● A problem exists with the printer memory. <p style="margin-left: 20px;">X DIMM type 1 = RAM</p> <p style="margin-left: 20px;">Y device location 1 = DIMM slot 1 2 = DIMM slot 2 3 = DIMM slot 3 4 = DIMM slot 4</p> <p style="margin-left: 20px;">ZZ error number 0 = unsupported memory 1 = unrecognized memory 2 = unsupported memory 3 = failed RAM test 4 = exceeded maximum RAM size 5 = invalid DIMM speed</p>	<ul style="list-style-type: none"> ● Turn the printer off, and then replace the DIMM that caused the error.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
54.XX PRINTER ERROR	<ul style="list-style-type: none"> ● The printer 54 errors indicate sensor abnormalities. Sensor abnormalities are caused by failed or blocked sensors, or sensors reporting results outside an expected range. <p>Note Some 54 errors do not stop the printing process, and are only noted in the event log but <i>not</i> on the control panel.</p> <p>XX description 00 = ITB misalignment (check the event log for a 54.27 error and cycle power to recover) 01 = environmental temperature sensor output is abnormal (appears only in the event log) 05 = OHT sensor failure (appears only in the event log) 06 = density sensor failure</p> <p>Note For errors 11 through 14, the density is set to the highest or lowest possible value. This usually occurs because the calibration patches are not on the ITB correctly. These errors appear only in the event log.</p> <p>11 = yellow density sensor (the engine detects abnormality in the yellow density control and the engine default is used) 12 = magenta density sensor (the engine detects abnormality in the magenta density control and the engine default is used) 13 = cyan density sensor (the engine detects abnormality in the cyan density control and the engine default is used) 14 = black density sensor (the engine detects abnormality in the black density control and the engine default is used)</p> <p>Note Errors 15 through 18 only appear in the event log and printing continues.</p> <p>15 = yellow CPR sensor (the engine cannot detect the yellow CPR pattern on the ITB) 16 = magenta CPR sensor (the engine cannot detect the magenta CPR pattern on the ITB)</p>	<ul style="list-style-type: none"> ● 54.01 procedure: <ol style="list-style-type: none"> 1 Check that all of the environmental requirements are met. 2 Turn the printer off, and then turn the printer on again. 3 Check connector K3013 on the temperature/humidity sensor, intermediate connector J3085, and connector J807 on the T driver PCA. 4 Replace the temperature/humidity sensor. See "Temperature and humidity sensor" on page 280. 5 Replace the T driver PCA. See "T-crg (print cartridge) drive assembly" on page 296. 6 Replace the DC controller PCA. See "DC controller" on page 300. ● 54.06, 54.11, 54.12, 54.13, 54.14, and 54.30 procedure: <ol style="list-style-type: none"> 1 Check the cleaning blade and ITB for evidence of a cleaning blade failure (which might cause the density calibration to fail). 2 Check the right door actuated cleaning mechanism for correct functionality. 3 Select CALIBRATE NOW and PRINT STOP TEST on the control panel to check correct formations of the calibration swatches on the ITB. If the swatches are light or missing a color, check the T1 components, image drum, and print cartridge for the missing or light color. Also, check for malformed or too light swatches, stray toner from cleaning failures, and ITB damage. 4 Check connector J3014 at the density sensor, intermediate connector J3072 and J3080, and connector J808 on the T driver PCA. 5 Replace the density/color registration sensor assembly. See "Density and registration sensor assembly" on page 262. 6 Replace the T driver PCA. See "T-crg (print cartridge) drive assembly" on page 296. 7 Replace the DC controller PCA. See "DC controller" on page 300.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
<p>54.XX PRINTER ERROR (continued)</p>	<ul style="list-style-type: none"> ● 17 = cyan CPR sensor (the engine cannot detect the cyan CPR pattern on the ITB) 18 = black CPR sensor (the engine cannot detect the black CPR pattern on the ITB) 20 = CPR sensor (output is abnormal or the engine cannot detect any of the CPR patterns on the ITB) <p>Note Errors 21 through 24 indicate a toner concentration sensor failure.</p> <ul style="list-style-type: none"> 21 = yellow image drum t/d ratio sensor 22 = magenta image drum t/d ratio sensor 23 = cyan image drum t/d ratio sensor 24 = black image drum t/d ratio sensor 27 = ITB misalignment sensor <p>Note 27 = ITB misalignment sensor appears in the event log, but it might appear as a 54.00 error on the control panel.</p> <ul style="list-style-type: none"> 28 = clean density/CPR sensor warning (only appears in the event log) <p>Note For error 28, the <code>CLEAN SENSORS 54.28.01</code> (density sensor is dirty) or <code>CLEAN SENSORS 54.28.02</code> (CPR sensor is dirty) appears on the event log.</p> <ul style="list-style-type: none"> 29 = clean density/CPR sensor failed (only appears in the event log and <code>CLEAN SENSORS</code> appears on the control panel) 30 = halftone calibration error 	<ul style="list-style-type: none"> ● 54.05 procedure: <ol style="list-style-type: none"> 1 Clean the OHT sensor. 2 Check the transparency sensor for correct functionality. 3 Check connectors J3032 on the transparency sensor, intermediate connector J3027, and connector J121 on the DC controller PCA. <ul style="list-style-type: none"> ● 54.15, 54.16, 54.17, 54.18, and 54.20 procedure <ol style="list-style-type: none"> 1 Check the color and the tray 1 dependent items for the specified color. 2 Defeat the right side upper door (ITB access) interlocks and check during a calibration that the density patches are formed correctly on the ITB. 3 Print a laser alignment page to check for adjustable CPR problems. 4 Check the cleaning blade and ITB for evidence of a cleaning blade failure (which might cause the density calibration to fail), and check the ITB for damage. 5 Check the right door actuated cleaning mechanism for correct functionality. 6 Select <code>CALIBRATE NOW</code> and <code>PRINT STOP TEST</code> on the control panel to check correct formations of the calibration switches on the ITB (set to 7,000 milliseconds for a CPR pattern check). If the switches are light or missing a color, check the T1 components, image drum, and print cartridge for the missing or light color. Also, check for malformed or too light switches, stray toner from cleaning failures, and ITB damage. 7 Check the ITB for smooth belt rotation and belt travel. Replace the ITB if movement problems or damage exists. 8 Check connector J3073 and J3074 at the CPR sensors, intermediate connector J3080, and connector J808 on the T driver PCA. 9 Replace the DC controller PCA. See "DC controller" on page 300.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
<p>54.XX PRINTER ERROR (continued)</p>		<p>10 Replace the density/color registration sensor assembly. See “Density and registration sensor assembly” on page 262.</p> <p>11 Replace the T driver PCA. See “T-crg (print cartridge) drive assembly” on page 296.</p> <ul style="list-style-type: none"> ● 54.21, 54.22, 54.23, and 54.24 procedure <p>1 Turn the printer off, and then turn the printer on again to clear the error.</p> <p>2 Check the indicated image drum for damaged high-voltage contacts, and check the contacts for continuity to the high-voltage power supply.</p> <p>3 Check the image drum high-voltage pins on the print engine.</p> <p>4 Check the following connectors:</p> <ul style="list-style-type: none"> a Yellow: J3040 and J804 on the T driver PCA. b Magenta: J3038 and J804 on the T driver PCA. c Cyan: J3044 and J805 on the T driver PCA. d Black: J3042 and J805 on the T driver PCA. <p>5 Replace the indicated image drum. (Make sure that the printer is turned off, and then turned on again after the image drum is replaced.) See “Process cartridges (image drums)” on page 203.</p> <p>6 Replace the T driver PCA. See “T-crg (print cartridge) drive assembly” on page 296.</p> <p>7 Replace the DC controller PCA. See “DC controller” on page 300.</p> <ul style="list-style-type: none"> ● 54.27 and 54.00 procedure <p>1 Remove the ITB and check the belt for correct alignment and movement.</p> <p>2 Replace the ITB and seat it correctly.</p> <p>3 Check connector J3075 and J618 on the P driver PCA.</p> <p>4 Replace the ITB. See “Intermediate transfer belt (ITB)” on page 260.</p>

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
<p>54.XX PRINTER ERROR (continued)</p>		<p>5 Replace the P driver PCA. See "P-crg (image drum) drive assembly" on page 292.</p> <p>6 Replace the DC controller PCA. See "DC controller" on page 300.</p> <p>● 54.28 procedure</p> <p>1 Make sure that the density/color sensor shutter is in the open position when the front right door is closed.</p> <p>2 Open and close the front right door to clean the sensor assembly.</p> <p>3 Adjust or replace the sensor cleaning assembly that is actuated by the front right door.</p> <p>4 Replace the density/color registration sensor assembly. See "Density and registration sensor assembly" on page 262.</p> <p>● 54.29 procedure</p> <p>1 Check the right door actuated cleaning mechanism for correct functionality.</p> <p>2 Adjust or replace the sensor cleaning assembly that is actuated by the front right door.</p> <p>3 Replace the density/color registration sensor assembly. See "Density and registration sensor assembly" on page 262.</p>
<p>55.XX PRINTER ERROR alternates with TO CONTINUE CYCLE POWER</p>	<ul style="list-style-type: none"> ● The engine is not communicating with the formatter. ● The communication link between the formatter and the DC controller PCA is lost. 	<p>1 Turn the printer off, and then turn the printer on again to clear the error.</p> <p>2 Turn the printer off and reset the formatter.</p> <p>3 Print a configuration page to make sure that the formatter has the latest firmware image. If it does not, perform a flash upgrade.</p> <p>4 Check the connectors on the FFC between the formatter cage and the DC controller PCA.</p> <p>5 Replace the DC controller PCA. See "DC controller" on page 300.</p> <p>6 Replace the formatter. See "Formatter PCB" on page 302.</p>

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
<p>56.X PRINTER ERROR alternates with TO CONTINUE CYCLE POWER</p>	<ul style="list-style-type: none"> ● A temporary printer error occurred. 	<ol style="list-style-type: none"> 1 Turn the printer off, and then turn the printer on again to clear the error. 2 Turn the printer off and reseal the formatter. 3 Print a configuration page to make sure that the formatter has the latest firmware image. If it does not, perform a flash upgrade. 4 Check the connectors on the FFC between the formatter cage and the DC controller PCA. 5 Replace the DC controller PCA. See "DC controller" on page 300. 6 Replace the formatter. See "Formatter PCB" on page 302.
<p>57.X0 PRINTER ERROR</p>	<ul style="list-style-type: none"> ● The printer detects that a fan motor has failed. <p>X description 1 = cartridge fan (FM 3) 3 = low-voltage power supply fan (FM5) 5 = face-up delivery paper path fans (FM1 or FM6) 6 = paper-path fan (FM2) 7 = fuser fan (FM4) 9 = ozone/exhaust fan (FM7)</p>	<ol style="list-style-type: none"> 1 Turn the printer off, and then turn the printer on again to clear the error. 2 Check the indicated fan, and check for correct movement of the blades and motor. 3 Check the connectors that apply to the X error: <ul style="list-style-type: none"> 1: J3078 and J820 on the T driver PCA. 3: J3 on the low-voltage power supply, and J102 on the DC controller PCA. 5: J3079 and J3087 at the fans, intermediate connector J086, and J811 on the T driver PCA. 6: J818 on the T driver PCA. 7: J819 on the T driver PCA. 9: J3089 at the fan, and J823 on the T driver PCA. 4 Check connector J1 on the low-voltage power supply, J210 and J202 on the high-voltage power supply, J608 and J612 on the P driver PCA, and J806 on the T driver PCA. 5 Replace the fan if voltage is supplied to it at power on and it fails. See chapter 6. 6 Replace the T driver PCA. See "T-crg (print cartridge) drive assembly" on page 296. 7 Replace the DC controller PCA if X = 3 (FM5). See "DC controller" on page 300.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
<p>58.X0 PRINTER ERROR alternates with TO CONTINUE CYCLE POWER</p>	<ul style="list-style-type: none"> ● A printer error occurred where a memory tag CPU error was detected ● Cycle power to continue. <p>X description: 1 = N/A 2 = air temperature sensor 3 = CPU 4 = power supply</p>	<ol style="list-style-type: none"> 1 Turn the printer off, and then turn the printer on again to clear the error. 2 If the error persists, reseal the print cartridges and the image drums. 3 Check the memory tag on the consumables for damage. Replace the consumable if it is damaged. See "Consumables" on page 201. 4 Check the antenna assemblies for each consumable, and the connections to the memory board. 5 Replace the memory board. 6 Replace the DC controller PCA. See "DC controller" on page 300.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
<p>59.XY PRINTER ERROR alternates with TO CONTINUE CYCLE POWER</p>	<ul style="list-style-type: none"> ● The printer detects a motor that fails to turn or fails to turn at speed. <p>X description 0 = motor error (<i>not</i> possible for the HP color LaserJet 9500) 1 = motor startup error 2 = motor rotation error 3 = fuser motor startup error 4 = fuser motor rotation error 5 = image drum motor startup error 6 = image drum motor rotation error 8 = developer motor failure 9 = ITB motor startup error A = ITB motor rotation error D = registration motor starting error E = registration motor rotation error</p> <p>Note 59.XY errors with X = A, D, or E noted in the log appear as 59.10.00, 59.13.00, and 59.14.00 respectively (59.XX.YY), where XX is a decimal conversion of the hexadecimal control panel display error.</p> <p>Note Print cartridge motor errors are indicated as REMOVE AND SHAKE <COLOR> CARTRIDGE.</p> <p>Y description 0 = no color K = black C = cyan M = magenta Y = yellow</p>	<p>Note If turning the printer off and on again does not resolve the 59.00 or 59.A0 error, remove and reinstall the image transfer cleaner.</p> <ul style="list-style-type: none"> ● Print cartridge motor errors (remove and shake) <p>There are no 59 errors associated with the print cartridge motor errors. When the engine reports a fail to rotate for these motors, the error REMOVE AND SHAKE <COLOR> CARTRIDGE appears.</p> <ol style="list-style-type: none"> 1 Remove and check the indicated print cartridge. Check the engine for damaged drive linkages. 2 Gently shake the print cartridge, reseal it, and turn the printer on. 3 Turn the printer off, and then turn the printer on again to clear the error. 4 Use the hardware diagnostic tools from the control panel to test each motor for correct functionality. 5 Check connector J1 on the low-voltage power supply, J210 and J202 on the high-voltage power supply, J608 and J612 on the P driver PCA, and J806 on the T driver PCA. 6 Replace the print cartridge and the drive linkages if necessary. <p>Note Make sure that the print cartridges, when stored, were not exposed to high temperatures.</p> <ol style="list-style-type: none"> 7 Check connector 814 on the T driver PCA. 8 Check the color-appropriate connectors: <ul style="list-style-type: none"> • K: J3046 near the motor • C: J3047 near the motor • M: J3048 near the motor • Y: J3049 near the motor 9 Replace the T driver PCA. See "T-crg (print cartridge) drive assembly" on page 296. 10 Replace the DC controller PCA. See "DC controller" on page 300.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
<p>59.XY PRINTER ERROR alternates with TO CONTINUE CYCLE POWER (continued)</p>		<ul style="list-style-type: none"> ● Fuser motor errors 1 Turn the printer off, and then turn the printer on again to clear the error. 2 Remove and check the fuser for jammed media and damaged drive gears. 3 Perform a motor diagnostics test. 4 Check connector J3035 at the fuser motor and connector J116 on the DC controller PCA. 5 Check the fuser drive train for correct movement. Replace the fuser drive train if necessary. 6 Replace the fuser motor. See “Fuser motor” on page 298. 7 Replace the DC controller PCA. See “DC controller” on page 300. ● Image drum motor errors 1 Gently shake the print cartridge, reseal it, and turn the printer on. 2 Turn the printer off, and then turn the printer on again to clear the error. 3 Remove and check the indicated image drum, and check the engine for damaged drive linkages. 4 Reseat the image drum. 5 Replace the image drum and the drive linkages if necessary. 6 Check connector J1 on the low-voltage power supply, J210 and J202 on the high-voltage power supply, J608 and J612 on the P driver PCA, and J806 on the T driver PCA. <p>Note Make sure that the print cartridges, when stored, were not exposed to high temperatures.</p> <ul style="list-style-type: none"> 7 Check FFC connectors J104 and J105 on the DC controller PCA, and connectors J601 and J616 on the P driver PCA (especially if the printer has been serviced recently). 8 Make sure that the FFC is centered and that it is completely inserted into the connector. Replace the FFC if it is damaged.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
<p>59.XY PRINTER ERROR alternates with TO CONTINUE CYCLE POWER (continued)</p>		<p>9 Check the color-appropriate connectors:</p> <ul style="list-style-type: none"> • K: J610 and J613 on the P driver PCA, J701K for the encoder, and J3097 on the motor. • C: J607 and J614 on the P driver PCA, J701C for the encoder, and J3095 on the motor. • M: J605 and J615 on the P driver PCA, J701M for the encoder, and J3093 on the motor. • Y: J603 and J617 on the P driver PCA, J701Y for the encoder, and J3091 on the motor. <p>10 Check the process cartridge drive assembly encoders and motors for correct functionality. Replace the encoders and motors if necessary.</p> <p>11 Replace the process cartridge drive assembly. See "T-crg (print cartridge) drive assembly" on page 296.</p> <p>12 Replace the DC controller PCA. See "DC controller" on page 300.</p>

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
<p>59.XY PRINTER ERROR alternates with TO CONTINUE CYCLE POWER (continued)</p>		<p>● Developer motor errors</p> <ol style="list-style-type: none"> 1 Turn the printer off, and then turn the printer on again to clear the error. 2 Remove and check the indicated image drum, and check the engine for damaged drive linkages. 3 Reseat the image drum and turn the printer on. 4 Use the hardware diagnostic tools from the control panel to test each motor for correct functionality. 5 Replace the image drum and the drive linkages if necessary. 6 Check connector J1 on the low-voltage power supply, J210 and J202 on the high-voltage power supply, J608 and J612 on the P driver PCA, and J806 on the T driver PCA. 7 Check FFC connectors J104 and J105 on the DC controller PCA, and connectors J601 and J616 on the P driver PCA (especially if the printer has been serviced recently). 8 Make sure that the FFC is centered and that it is completely inserted into the connector. Replace the FFC if it is damaged. 9 Check the color-appropriate connectors: <ul style="list-style-type: none"> • K: J609 on the P driver PCA, and J3096 on the motor. • C: J606 on the P driver PCA, and J3094 on the motor. • M: J604 on the P driver PCA, and J3092 on the motor. • Y: J602 on the P driver PCA, and J3090 on the motor. 10 Check the process cartridge drive assembly encoders and motors for correct functionality. 11 Replace the process cartridge drive assembly. See “T-crg (print cartridge) drive assembly” on page 296. 12 Replace the DC controller PCA. See “DC controller” on page 300.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
<p>59.XY PRINTER ERROR alternates with TO CONTINUE CYCLE POWER (continued)</p>		<ul style="list-style-type: none"> ● Registration motor error 1 Turn the printer off, and then turn the printer on again to clear the error. 2 Check the registration assembly for damage or jammed media. 3 Check the gear train on the registration drive assembly for correct functionality. 4 Use the hardware diagnostic tools from the control panel to test each motor for correct functionality. 5 Check connector J3036 on the registration motor, and connector J117 on the DC controller PCA. 6 Use the event log to determine if a 41.19 (high-voltage T2 error) is also occurring with the 59.XY error. If both errors exist, check the rear spring on the T2 roller. Replace the spring if necessary. If the errors persist, replace the T2 assembly. 7 Replace the registration motor. See "Registration assembly" on page 283. (steps 1,2,and 3) 8 Replace the DC controller PCA. See "DC controller" on page 300. ● ITB motor error 1 Turn the printer off, and then turn the printer on again to clear the error. 2 Partially remove the ITB. Turn the fly wheel on the right side to check the ITB for damage and correct movement. Check the drive linkages from the ITB motor for damage. Replace any damaged hardware. Reseat the ITB and raise the green lever. 3 Use the hardware diagnostic tools from the control panel to test the ITB motor for correct functionality. 4 Remove and reseat the secondary transfer roller and the cleaning blade/toner collection bottle. 5 Check connector J1 on the low-voltage power supply, J210 and J202 on the high-voltage power supply, J608 and J612 on the P driver PCA, and J806 on the T driver PCA. 6 PCA (especially if the printer was recently serviced).

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
<p>59.XY PRINTER ERROR alternates with TO CONTINUE CYCLE POWER (continued)</p>		<p>7 Make sure that the FFC is centered and that it is completely inserted into the connector. Replace the FFC if it is damaged.</p> <p>8 Check connector J3098 at the motor, and connector J611 on the P driver PCA.</p> <p>9 Check FFC connector J104 on the DC controller PCA, and FFC connector J601 on the P driver</p> <p>T2 clutch error</p> <p>1 Turn the printer off, and then turn the printer on again to clear the error.</p> <p>2 Use the hardware diagnostic tools from the control panel to test each motor for correct functionality.</p> <p>3 Remove and reseal the secondary transfer roller and the cleaning blade/toner collection bottle.</p> <p>4 Check the secondary transfer assembly for damage or jammed media.</p> <p>5 Check connector J3030 on the secondary transfer assembly, intermediate connector J3026, and connector J121 on the DC controller PCA.</p> <p>6 Replace the secondary transfer assembly. See “Secondary transfer assembly (T2)” on page 267.</p> <p>7 Replace the DC controller PCA. See “DC controller” on page 300.</p>

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
60.X PRINTER ERROR	<ul style="list-style-type: none"> ● The tray number specified by X is lifting media to the top of the tray for proper feeding but an obstruction is preventing the tray from lifting correctly. <p>X description 2: tray 2 cassette lifter 3: tray 3 cassette lifter 4: tray 4 cassette tray 8: tray 2 pickup roller lifter 9: tray 3 pickup roller lifter</p>	<ol style="list-style-type: none"> 1 Check the indicated media tray for correct functionality of all of the parts. Replace the media tray if necessary. 2 Check connector J11 near the pickup motor, connector J12 near the pickup roller up/down motor, and connector J13 near the lifter motor. 3 Check intermediate connector J3001, and connector J120 on the DC controller PCA. 4 Check the connectors for the media-size detection switches J52, J54, J3076, and J3077. 5 Replace the paper pickup assembly. See "Pickup unit" on page 272. 6 Replace the DC controller PCA. See "DC controller" on page 300.
64.X PRINTER ERROR alternates with TO CONTINUE CYCLE POWER	<ul style="list-style-type: none"> ● A scan buffer (video DMA) error occurred. 	<ol style="list-style-type: none"> 1 Turn the printer off, and then turn the printer on again to clear the error. 2 Perform a cold reset. See "Cold reset" on page 97 in chapter 3. 3 Turn the printer off, remove all of the extra memory and EIO devices, and turn the printer on again. 4 Replace the formatter or the firmware DIMM. See "Formatter PCB" on page 302.
66.11.00 OUTPUT DEVICE FAILURE	<ul style="list-style-type: none"> ● A stapler carriage motor failure (M8) occurred. 	<ol style="list-style-type: none"> 1 Make sure that the stapler cartridge is seated in the stapler unit correctly. 2 Activate the staple sliding motor (M8) by performing a mechanical test. 3 Make sure that the stapler unit slides to the home position. 4 Replace the stapler unit. 5 Replace the controller PCA. 6 Replace the whole unit.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
66.12.31 OUTPUT DEVICE FAILURE	<ul style="list-style-type: none"> ● A home position timeout (M1) occurred. 	<ol style="list-style-type: none"> 1 Check all of the cable connections at the controller PCA. 2 Turn the printer off, and then turn the printer on again to clear the error. 3 Activate the delivery motor (M1) by performing a mechanical test. 4 Replace the controller PCA. 5 Replace the whole unit.
66.12.32 OUTPUT DEVICE FAILURE	<ul style="list-style-type: none"> ● A home position timeout for aligning paddles occurred. 	<ul style="list-style-type: none"> ● Perform the steps for a 66.12.31 error.
66.12.33 OUTPUT DEVICE FAILURE	<ul style="list-style-type: none"> ● A delivery motor (M6) failure occurred. 	<ul style="list-style-type: none"> ● Perform the steps for a 66.12.31 error.
66.12.34 OUTPUT DEVICE FAILURE	<ul style="list-style-type: none"> ● A front aligning plate motor (M4) failure occurred. 	<ol style="list-style-type: none"> 1 Check all of the cable connections at the controller PCA. 2 Turn the printer off, and then turn the printer on again to clear the error. 3 Activate the front and back aligning plate motors (M4 and M5) by performing a mechanical test. 4 Adjust the front jogger by performing a calibration procedure. 5 Replace the controller PCA. 6 Replace the whole unit.
66.12.35 OUTPUT DEVICE FAILURE	<ul style="list-style-type: none"> ● A back aligning plate motor (M5) failure occurred. 	<ul style="list-style-type: none"> ● Perform the steps for a 66.12.34 error.
66.12.36 OUTPUT DEVICE FAILURE	<ul style="list-style-type: none"> ● A stacker bin fluctuation motor (M6) failure occurred. 	<ol style="list-style-type: none"> 1 Check all of the cable connections at the controller PCA. 2 Turn the printer off, and then turn the printer on again to clear the error. 3 Activate the stacker bin fluctuation motor (M6) by performing a mechanical test. 4 Make sure that the stacker bin moves up and down at the power-on sequence. 5 Send two pages through as a test. 6 Replace the controller PCA. 7 Replace the whole unit.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
<p>66.12.41 OUTPUT DEVICE FAILURE</p>	<ul style="list-style-type: none"> ● A staple-fold motor (M7) failure occurred. 	<ol style="list-style-type: none"> 1 Check all of the cable connections at the controller PCA. 2 Turn the printer off, and then turn the printer on again to clear the error. 3 Activate the staple-fold motor (M7) by performing a mechanical test. 4 Perform a booklet adjustment as needed. 5 Replace the folding mechanism. 6 Replace the controller PCA.
<p>66.12.51 OUTPUT DEVICE FAILURE</p>	<ul style="list-style-type: none"> ● A booklet bin slide motor (M10) failure occurred. 	<ol style="list-style-type: none"> 1 Check all of the cable connections at the controller PCA. 2 Turn the printer off, and then turn the printer on again to clear the error. 3 Activate the booklet bin slide motor (M10) by performing a mechanical test. 4 At power on, make sure that the booklet stopper moves completely in and out. 5 Replace the booklet bin. 6 Replace the controller PCA.
<p>68.X PERMANENT STORAGE ERROR alternates with TO CONTINUE PRESS ✓</p>	<ul style="list-style-type: none"> ● An error occurred in the printer nonvolatile memory (NVRAM), and one or more printer settings is reset to its factory default. Printing can continue, but there might be some unexpected functions because an error occurred in permanent storage. <p>X description 0 = onboard NVRAM 1 = removable disk (flash or hard)</p>	<ol style="list-style-type: none"> 1 Pressing ✓ (6) should clear the error. 2 Perform a cold reset. See "Cold reset" on page 97. 3 Turn the printer off, remove all of the extra memory and EIO devices, and then turn the printer on again. 4 For 68.1 errors, remove files from the hard disk by using the control panel or Web Jetadmin. 5 Reinitialize the hard disk drive. See "Hard disk reinitialization" on page 94 in chapter 3. 6 Perform a NVRAM initialization.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
68.X PERMANENT STORAGE FULL alternates with TO CONTINUE PRESS ✓	<ul style="list-style-type: none"> The printer NVRAM is full. Some saved settings in the NVRAM might reset to the factory defaults. Printing can continue, but there might be some unexpected functions because an error occurred in permanent storage. <p>X description 0 = onboard NVRAM 1 = removable disk (flash or hard)</p>	<ol style="list-style-type: none"> Pressing ✓ (6) should clear the error. Perform a cold reset. See “Cold reset” on page 97. Turn the printer off, remove all of the extra memory and EIO devices, and then turn the printer on again. For 68.1 errors, remove files from the hard disk by using the control panel or Web Jetadmin. Reinitialize the hard disk drive. See “Hard disk reinitialization” on page 94. Perform a NVRAM initialization.
68.X PERMANENT STORAGE WRITE FAIL	<ul style="list-style-type: none"> The printer NVRAM is failing to write. Printing can continue, but there might be some unexpected functions because an error occurred in permanent storage. <p>X = description 0 = onboard NVRAM 1 = removable (flash or hard)</p>	<ol style="list-style-type: none"> Pressing ✓ (6) should clear the error. Perform a cold reset. See “Cold reset” on page 97. Turn the printer off, remove all of the extra memory and EIO devices, and then turn the printer on again. For 68.1 errors, remove files from the hard disk by using the control panel or Web Jetadmin. Reinitialize the hard disk drive. See “Hard disk reinitialization” on page 94. Perform a NVRAM initialization.
69.X PRINTER ERROR	<ul style="list-style-type: none"> A temporary printer error occurred. <p>00 (duplex D-roller is not detected at the home position) 01 (duplex slide adjustment failure)</p>	<ol style="list-style-type: none"> Turn the printer off, reseal the duplexer, and then turn the printer on again to clear the error. Remove the duplexer and check for proper seating, residual media, or obstructions. Check the inside of the duplexer and the duplex capacity for residual media or obstructions. Check the duplexer-side registration guides for correct functionality. Replace the duplexer if necessary. See “Duplexer” on page 258. Check the feed rollers and drive gear trains for damage. Replace them if necessary.
79.XXXX PRINTER ERROR	<ul style="list-style-type: none"> A critical hardware error occurred. 	<ul style="list-style-type: none"> Turn the printer off, and then turn the printer on again to clear the error.

Table 77. Numerical error messages for the HP LaserJet 9500 Series printer (continued)

Message	Explanation	Recommended action
8X.YYYY	<ul style="list-style-type: none">• The EIO accessory card in slot X has encountered a critical error as specified by YYYY.	<ol style="list-style-type: none">1 Turn the printer off.2 Remove the EIO accessory card. Reseat the card securely into the specified slot.3 Turn the printer on again.4 Insert the card into a different slot.5 If the error persists, the EIO accessory card might need to be replaced.

Data and communication troubleshooting tools

Note

Communication problems are normally the customer's responsibility. Time spent attempting to resolve these problems might not be covered by the HP warranty. Refer the customer to the network administrator for assistance in troubleshooting network problems.

If you think that the problem is because of a customer error, data, communication, application, or driver problem, verify that the print engine is functioning correctly. To do this, print any of the built-in pages from the control panel. The demonstration page, configuration pages, and print-quality pages are useful for this check. If the internal pages print correctly, the printer is probably not the problem. Make sure you check the communication, driver, application, or customer error.

One method to check communication and data connections is to change the method of data transfer. For example, if the printer is connected through a network, try using a parallel connection. The problem might be solved quickly through the process of elimination.

Checking program and driver problems is similar. If the customer indicates that there are failures when using a single program, try printing from a different program. Also, if the customer indicates that there are failures while using the PostScript driver, try printing from the PCL driver.

Test message

After the printer is installed, verify communications between the printer and the IBM-compatible computer. Type the following information at the MS-DOS prompt:

```
C:\>DIR>LPT1 ENTER (for printing to parallel port #1)
```

The printer should print a directory listing of the C:\ directory.

EIO troubleshooting

The Jetdirect configuration page shown in figure 309 contains valuable information about the current status of the EIO accessories. Before attempting to troubleshoot a network problem or notifying your network consultant of a problem, always print a configuration page. If an EIO accessory is installed, the Jetdirect configuration page also prints.

See the *HP Jetdirect Network Interface Configuration Guide* for detailed explanations of network issues.

Software/network troubleshooting

The following scenarios are intended to identify specific conditions that cause 49 errors, or provide adjustments that might eliminate the error message.

Error occurs when printing from a specific environment or software program

- print from a different software program
- print different documents within the same software program
- change the graphics mode in the printer properties
- change the resolution setting in the printer properties
- select a PostScript driver rather than PCL (Windows only)
- use a different font, if possible (font selections might not be accessible in some environments or software programs)
- adjust the margin settings, if possible

Error occurs when printing a specific document

- change the graphics mode in the printer properties
- change the resolution setting in the printer properties
- select a PostScript driver rather than a PCL (Windows only)
- use a different font, if possible, or utilize fewer font changes
- adjust the margin settings, if possible
- if graphics are used, try using fewer graphics on each page or rearrange the graphics on the page
- recreate the document

Jetdirect configuration

- If the EIO Jetdirect print server successfully turns on and completes its internal diagnostics, the `I/O CARD READY` message appears. If communication is lost, an `I/O NOT READY` message appears followed by a two-digit error code. Consult the *HP Jetdirect Network Interface Configuration Guide* for further details and recommended action.
- The “Network Statistics” column indicates the status of network activity. Bad packets, framing errors, unsendable packets, and collisions should be minimal. If a high percentage (greater than 1 percent) of these occur, contact the network administrator. All of the statistics are set to zero when the printer is turned off.
- A “Novell Status” block should state the Novell printer server name to which the printer is connected. If the Node Name reads “NPIxxxxxx” (xxxxxx = last six digits of the EIO LAN address), the EIO card is not configured for a Novell server. This could indicate that the card is operating under an IPX protocol other than Novell. Consult with the network administrator if the Node Name is not present.
- In the TCP/IP protocol block, the default IP address is “192.0.0.192.” It is acceptable to operate the printer with this default address. The error message `ARP DUPLICATE IP ADDRESS` might appear in this block. This is also an acceptable error code if the TCP/IP protocol is not being used. Please check with the network administrator to determine the correct IP address for the printer.

Verify network and server operation

- try to print the job to the printer parallel port
- try to print from the host system through the network to another printer (contact the network administrator for assistance)

Jetdirect page

Use the Jetdirect page to view current network settings, to help troubleshoot printer problems, or to verify network statistics or protocol information. The Jetdirect page prints with the configuration page.

Jetdirect page elements

- A. HP Jetdirect configuration
- B. Network statistics
- C. Protocol information

hp color LaserJet 9500 printers

EIO 2 - JetDirect Page 1

A -----HP JetDirect Configuration-----
Status: I/O Card Ready
Model Number: XXXXXX
Hardware Address: XXXXXXXXXXXX
Firmware Address: XXXXX
LAs: XXXXXXXXXXXX
Port Config.: XXXX XXXX
Auto Negotiation: XX
Manufacturing ID: XXXXXXXXXXXX
Date Manufactured: XX/XXXX

-----IPX/SPX-----
Status: UNABLE TO SENSE NET NUMBER
Primary Frame Type: Auto Select

Network	Frame Type	Rcvd
Unknown	EN-II	10
Unknown	EN_802.2	21484
Unknown	EN-SNAP	10
Unknown	EN_802.3	10

B -----Security Settings-----
Admin. Password: NOT CONFIGURED
Secure web: XXXXXXXX
Cert. Expires: XXXXXXXX
SNMP Versions: Netware Mode: Queue Server
SNMP Set Cmty Name: NDS Tree Name:
Access List: NDS Context:

-----Novell/Netware-----
Status: 16

C -----Network Statistics-----
Total Packets Received: 755281
Unicast Packets Received: 392900
Bad Packets Received: 0
Framing Errors Received: 0
Total Packets Transmitted: 97518
Unsendable Packets: 0
Transmit Collisions: 0
Transmit Late Collisions: 0

-----TCP/IP-----
Status: Ready
Host Name: XXXXXXXX
IP Address: XX.XXX.XXX.XX
Subnet Mask: XXX.XXX.XXX.X
Default Gateway: XX.XXX.XXX.X
Config By: Manual
BOOTP/DHCP Server: Not Specified
TFTP Server: Not Specified
Config File: Not Specified
Domain Name: Not Specified
DNS Server: XXX.XXX.XXX.X
WINS Server: XX.XXX.XXX.XX
Idle Timeout: 207 sec
Web JetAdmin URL: Not Specified
mDNS Service Name:
hp color LaserJet 9500 (XXXXXXXXXXXX)

-----AppleTalk-----
Status: Ready
Name: hp color LaserJet 95001
Zone:
Type 1: HP LaserJet
Type 2: LaserWriter
Network Number: 65281
Node Number: 24

-----DLC/LLC-----
Status: Ready

Figure 309. Sample Jetdirect page

Troubleshooting tools for the HP LaserJet 9500hdn printer tray 4

Note

The following troubleshooting tools for tray 4 are similar to, but do not apply to tray 4 for the MFP version. To troubleshoot an MFP tray 4, see your *2,000-sheet Side-input Tray Service Manual* (PN Q1891-90901).

On the HP LaserJet 9500hdn printer tray 4 can run standalone diagnostics to test the device motors, functionality, and sensors. You need one power cord, one #2 Phillips screwdriver, and a small, flat-blade screwdriver for the DIP switches.

Tray 4 diagnostics label (LJ 9500)

The tray 4 diagnostics label is located on the inside of the tray 4 back cover.

Table 78. DIP switch settings

DIP switch	Normal	Motor test	Standalone running test	Sensor test
1	Off	On	On	Off
2	Off	On	Off	Off
3	Off	Off	Off	On
4	Off	On	On	On

Note

Make sure that you turn the power supply off and set all of the DIP switches to the OFF position (normal settings) when you finish the diagnostics, or the unit will *not* work correctly. Then, replace the back cover of the HP LaserJet 9500hdn printer.

Tray 4 motor test (LJ 9500)

This test verifies that the three motors on tray 4 are functioning correctly.

- 1 Identify the back cover (opposite from the tray door). Remove the four screws in the back cover, and then remove the back cover.
- 2 Open tray 4.
- 3 Set the DIP switches on the controller PCA to motor test mode.
- 4 Pull out on the blue handle to turn the power supply switch to diagnostic mode.
 - if the motors are working correctly, you hear them as they rotate continuously
 - if the motors do not rotate, replace the corresponding FRU (either the paper pickup assembly or the paper-deck drive assembly)
- 5 To stop the test, set the power switch to the operational mode (push in), and reset the DIP switches on the controller PCA to the OFF position.

Tray 4 standalone running test (LJ 9500)

This test verifies that tray 4 is functioning correctly. For this test, use the LED that is located on the controller PCA on tray 4.

Note

If tray 4 is mounted underneath the printer, jams might occur because the printer will *not* pick up the media. To prevent excessive jams during this test, feed only six to eight pages.

- 1 Make sure that media is loaded in tray 4.
- 2 Set the DIP switches on the tray 4 controller PCA for standalone running mode.

- 3 Pull the blue power supply switch outward to set the power supply switch to the diagnostic mode. The motors start and media should lift from the tray.
 - if the unit does not work correctly, the lower service LED on the controller PCA flashes in a pattern that indicates the problem (see table 79 for an interpretation of the LED patterns)
- 4 To stop the test, set the power supply switch to the operational mode, and set the DIP switches on the controller PCA to the OFF position (see table 78). Open tray 4 and remove any media from the paper path.

Tray 4 sensor test (LJ 9500)

This test manually activates the sensors on tray 4 to test if they are working correctly.

- 1 Set the DIP switches on the controller PCA for sensor test mode.
- 2 For each paper sensor:
 - open tray 4
 - remove the metal spring that holds the sensor unit in place (secured by 1 screw)
 - pull out the sensor unit
- 3 To set the power supply switch to the diagnostic mode, pull the blue power supply switch outward.
- 4 To manually activate each sensor, press it in with your finger.
 - When you activate the sensor, the bottom service LED on the controller PCA illuminates. When you release the sensor, the LED goes dark.
 - If the LED does not illuminate, a problem exists with the sensor. Replace the corresponding FRU.
- 5 To stop the test, set the power supply switch to the operational mode, and set the DIP switches on the controller PCA to the OFF position (see table 78).

Tray 4 light pattern interpretation (LJ 9500)

If tray 4 is working correctly, it picks up media from the tray and feeds it to the printer, and the bottom service light flashes regularly every 0.5 second.

Table 79. Tray 4 light pattern interpretation

Long (1 second)	Short (0.03 second)	Error number/meaning	Recommended action
3	1	66.11.01 Lifter malfunction	Lift the tray by hand to make sure that it lifts freely. Make sure that the paper size plates are installed correctly (in the same corresponding slots) and are not bent. If neither of these is the problem, replace tray 4.
2	1	13.11.11 Registration sensor delay jam	The media does not reach the sensor. Open the door, and remove the media. Replace the paper pickup assembly.
2	2	13.11.3B Registration sensor station jam/initial jam	Open the door, and remove the media. Check the sensors, and replace the corresponding FRU.
2	3	13.11.31 Jam sensor delay jam	The media did not reach the sensor. Open the door, and remove the media. Replace the paper pickup assembly.
2	4	13.11.21 13.11.2B Jam sensor stationary jam/initial jam	Open the door and remove the media.
1	1	Paper path door is open	Close the door.
1	2	Media tray is open Wrong-size media is loaded	Close the tray. Load the correct size of media, or check the sensors.
1	3	No media in the tray	Load media, or check the sensors.

Note

If the LED does not come on, replace the paper-deck PCA or the universal power-supply assembly.

Tray 4 does not print media (LJ 9500)

- make sure that power is supplied to tray 4
- print a configuration page and make sure that tray 4 is listed in the paper-handling options section
- run a paper-path test from tray 4 (if the test is successful, the paper-size detection switches might have failed or an incorrect size might be specified in the software program)
- make sure that the custom-size switch setting is correct