
2 System Error Codes

- [Introduction](#)
- [Printer logs](#)
- [What to do if the Front Panel is blank](#)
- [Continuable and Non-Continuable Error Codes](#)
- [System Error Code Brief Descriptions](#)
- [System Error Codes—Full Descriptions](#)
- [Appendix A: How to troubleshoot SE 79:04](#)
- [Appendix B: Updating firmware in diagnostics boot mode](#)
- [Appendix C: Obtaining the printer log and the diagnostics package](#)

Introduction

Understand System Error Codes

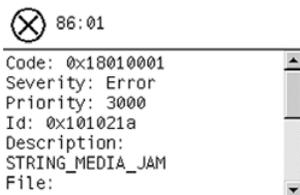
System error codes are generally used to report internal system errors. The following pages contain a list of system error codes and their respective descriptions and recommended corrective actions. Try only one recommended action at a time and check whether the error code has disappeared.

Reporting a system error to HP support

If you have an error code that you cannot resolve, then report the error to the HP Response Center or the nearest HP Support Office. When reporting the error, have the following information ready:

 **NOTE:** If you fail to provide any of the following information, HP Support cannot help you properly. Make sure you take time to gather all of this information.

- Model and Serial Number of the printer.
- The current firmware revision of the printer. Check firmware in Setup Menu / Information Menu / Show Printer Information.
- The internal error code, file, and line fields found on the Internal Error Screens available by pressing **Up** and **Cancel** at the same time when the System Error is shown on the front panel (as shown below). To get the file and line fields, you need to press the **Down** key on the front panel to scroll to the next screen.



 **NOTE:** The file and line fields are important to identify the source of the problem because the same internal Error Code can be reported in different files and line. In the File field, supply only the last part of the value (from last slash “/” to the end of the line). For example: for a file: /ae/.../elektra/hal/motors/ControlledMotor/Elektra/ControlledMotorElektra.cpp you'll only need to provide the “ControlledMotorElektra.cpp” part to HP support.

- The Service Configuration Print.
- The Current configuration sheet.
- Which software application the customer is using (name, version, etc.).

 **TIP:** When investigating a system error, you are recommended to use the diagnostic package to further understand the problem. To obtain the diagnostic package (which takes a few minutes), see [Appendix C: Obtaining the printer log and the diagnostics package on page 85](#).

Printer logs

It is possible to have the printer log all the activities it performs in a log file. To further understand a system error code, it is useful to have a log showing the activities of the printer at the time when the system error occurred.

To get printer logs, see [Appendix C: Obtaining the printer log and the diagnostics package on page 85](#).

What to do if the Front Panel is blank

The LEDs of the formatter (visible through the cover) and the power supply can help you troubleshoot a problem when the Front Panel is blank.

The following image shows the Power Supply LED, looking through the cover.



The following image shows the Formatter LEDs, which should be marked I, II and III.



Use the following table to interpret the LEDs and find the source of the problem. Remember that you should read these LEDs when you push the **Power** button.

Some combinations may require the replacement of two or more components. In this case, always replace one component at a time. Test the printer to see if the problem has disappeared (check the LEDs again). If the same LED sequence continues, replace the next component indicated in the table.

	Power supply LED	Formatter I LED	Formatter II LED	Formatter III LED	Front panel status	Part to change
1	Off	Off	Off	Off	Off	Power supply, see Electronics Module Main PCA and PSU on page 247 .
2	On	Off	Off	Off	Off	Main PCA, see Electronics Module Main PCA and PSU on page 247 .
3	On	On	Off	Off	n/a	Formatter, see Formatter on page 255 .
4	On	*Flashing*	Off	Off	n/a	Hard Disk Drive, see Formatter on page 255 .
5	On	On	*Flashing*	Off	n/a	Hard Disk Drive, see Formatter on page 255 .
6	On	On	On	Off	n/a	<ol style="list-style-type: none"> 1. Formatter, see Formatter on page 255. 2. Main PCA, see Electronics Module Main PCA and PSU on page 247.
7	On	On	On	*Flashing*	n/a	Main PCA, see Electronics Module Main PCA and PSU on page 247 .
8	On	On	On	On	Front panel light on	<ol style="list-style-type: none"> 1. Front Panel, see Front Panel on page 258. 2. Formatter, see Formatter on page 255. 3. Main PCA, see Electronics Module Main PCA and PSU on page 247. 4. Front-panel cable, see Front Panel on page 258.
9	On	On	On	On	Off	Front Panel, see Front Panel on page 258 .

Continuable and Non-Continuable Error Codes

Some of the Error Codes are continuable, which means you can press **OK** on the front-panel and continue working with the printer. Non-Continuable Error Codes do not allow you to continue working with the printer, in this case power the printer OFF and ON again and see if the System Error disappears. If the Error Code reappears, then the printer requires an on-site visit in order to resolve the problem.

System Error Code Brief Descriptions

Reading a System Error Code

System Error Codes explain which component/system is failing and what action should be taken to resolve the problem.

System Error Codes are displayed directly on the front panel (but can also be seen on the Information Page) and have been defined in the format **XX.YZ**. or **XX.n:YZ.m**.

- **XX**: Subsystem or process (2 digits).
- **n**: Subsystem or process index (if more than one used in the product) – optional.
– e.g. Identify the Ink Supply (color and number).
- **Y**: Who should perform the action (1 digit) – (0 for User or 1 for Service Engineer).
- **Z**: Action to perform (1 digit).

System Error Code Table

The following table explains the **XX** part of the System Error Code or Warning:

Code	Component/System
01.0	Main PCA/Electronics module
02.1	Carriage PCA
03	Power supply
06	Formatter
08	Formatter/Front panel
11	Trailing cable
21	Service station
22	Ink supply station
24	Tube assembly (IDS)
26.n	Ink Cartridge (color = n)
27	Printhead error
38	Output Tray
39	Roll switches
41	Paper-axis motor
42	Scan-axis motor
45	Rewinder
47	Star wheel motor
48	PPS mechanism

Code	Component/System
51	Window Sensor
52	Drop detector
55	Line sensor
56	Drive roller analog encoder sensor
59	Electrical system
60	Initialization
61	Print queue
63	Input/output through LAN card
64	Input/output through USB port
65	Input/output (not known what port)
68	Loss of engine counters tracking
71	Memory management
72	Calibration
73	Servo
74	Firmware upgrade
74.1	Media Profile Update
75	Preventive Maintenance Kits
76	Disk Full
78	Media settings
79	Firmware
81	Media advance
84	Roll Feed
86	Paper path
87	Scan axis
93	Ink Pumping

Corrective Actions Table

The following table explains the **YZ** part of the System Error Code or Warning:

Code	Recovery Action	Response
00	Replace	Possible for customer to perform action
01	Reseat/Reconnect/Clean/Adjust (manually)	
02	Calibrate/Adjust (using Automatic Process)	
03	Power off and restart the printer	
04	Upgrade System Firmware	
05	Upgrade Driver or Computer Software	
06	Add Accessory	
07	Escalate	
08	Send Plot Again	
09	Wrong Part Installed	
10	Replace	HP qualified personnel assistance required
11	Reseat/Reconnect/Clean/Adjust (manually)	
12	Calibrate/Adjust (using Automatic Process)	
13	Power off	
14	Upgrade System Firmware	
15	Upgrade Driver or Computer Software	
16	Add Accessory	
17	Escalate	
18	Send Plot Again	
19	Wrong Part Installed	

System Error Codes—Full Descriptions

This sections describes each of the system error codes and warnings that could be encountered while using the printer and provides the remedial action required to solve the problem detected.

 **NOTE:** Replace one component at a time and check whether the error has gone before replacing another component. Using this procedure you will be able to determine exactly which component failed.

System Error: 01.0:YZ

Problem Description: Communication with Main PCA failed

Corrective Action: Try the following:

1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer.
2. Remove the Formatter and reinsert it again. Ensure that it connects properly in the Main PCA connector.
 - Replace the Main PCA. See [Electronics Module Main PCA and PSU on page 247](#).
 - Replace the Formatter. See [Formatter on page 255](#).

System Error: 01.1:YZ

Problem Description: Error in the Main PCA

Corrective Action: Try the following:

1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer.
2. Replace the Main PCA. See [Electronics Module Main PCA and PSU on page 247](#).
3. Replace the Formatter. See [Formatter on page 255](#).

System Error: 01.2:YZ

Problem Description: Failure communicating with an Ink Supply

Corrective Action: Try the following:

1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer.
2. Perform the Ink Delivery System diagnostic test. See [Ink Delivery System \(IDS\) Test on page 109](#).
 - If the test finds that the ink supply is defective, replace it.
 - If the test does not find any errors, remove all the ink supplies from the ISS and reboot the printer.
3. Install the ink cartridges with the printer booted in normal mode. Use the replacement option available from the Front Panel and install the cartridges one by one. If an error appears after installing a supply, the last supply you installed is defective. Replace it.
4. Check that the cables between the Left Ink Supply Station and Main PCA are not damaged and are correctly connected.
5. Replace the Left Ink Supply Station. See [Ink Supply Station, Left on page 268](#).
6. Replace the Main PCA. See [Electronics Module Main PCA and PSU on page 247](#).

System Error: 02.1:YZ

Problem Description: Problem with the Carriage PCA

Corrective Action: Try the following:

1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer.
2. Check that the Trailing Cable is not damaged. Check that the Trailing Cable is correctly connected between the Main PCA and Carriage PCA.
3. Replace the Carriage PCA. See [Carriage PCA on page 220](#).
4. Replace the Trailing Cable and Carriage PCA Covers. See [Trailing Cable on page 356](#).
5. Replace the Main PCA. See [Electronics Module Main PCA and PSU on page 247](#).

System Error: 03:YZ

Problem Description:	Problem with Power Supply Unit
Corrective Action:	Try the following: <ol style="list-style-type: none">1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer.2. Perform the Electronics Module Test Diagnostic to troubleshoot the problem further. See Electronics Module Test on page 98.3. Replace the Power Supply Unit (PSU). See Electronics Module Main PCA and PSU on page 247.
System Error:	03.0:10
Problem Description:	Battery of Real Time Clock ran down
Corrective Action:	Replace the battery. See Real-time Clock Battery on page 318 .
System Error:	06:YZ
Problem Description:	Failure reading/writing NVM in Hard disk
Corrective Action:	Try the following: <ol style="list-style-type: none">1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer.2. Replace the Hard Disk. See Hard Disk Drive on page 264.
System Error:	11:YZ
Problem Description:	Trailing Cable does not seem to be detected
Corrective Action:	Try the following: <ol style="list-style-type: none">1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer.2. Check that the Trailing Cable is not damaged; replace it if necessary. See Trailing Cable on page 356. Check that the Trailing Cable is correctly connected between the Main PCA and Carriage PCA.3. Replace the Carriage PCA. See Carriage PCA on page 220.4. Replace the Main PCA. See Electronics Module Main PCA and PSU on page 247.
System Error:	21:YZ

Problem Description: Failure moving Service Station

Corrective Action: Try the following:

1. Switch the power off from the back of the printer and disconnect the power cord. Check the Primer Tubes. Reconnect the power cord and power on the printer.
2. Make sure that the Service Station path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement of the Service Station.
3. If the carriage has stopped over the service station, on the right side of the printer, check that the cutter is not activated. The cutter may be blocking the carriage over the service station, preventing the service station from performing the movement correctly. The cutter is on the left side of the carriage.
4. Perform the Service Station diagnostic test to troubleshoot the problem further. See [Service Station Test on page 114](#).
5. Replace the Service Station. See [Service Station on page 341](#).

System Error: 21.1:YZ

Problem Description: Failure moving the Primer Motor of the Service Station

Corrective Action: Try the following:

1. Remove the Right Cover and make sure the cables from the Main PCA to the Service Station are connected and are not damaged.
2. Perform the Primer Motor diagnostic test (listed under the service station diagnostic test) to troubleshoot the problem further. See [Primer motor on page 115](#).
3. Replace the Service Station. See [Service Station on page 341](#).

System Error: 21.2:YZ

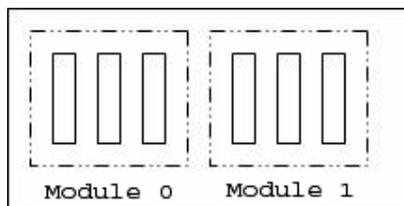
Problem Description: Failure testing the length of the Service Station path

Corrective Action: Try the following:

1. Switch the power off from the back of the printer and disconnect the power cord. Check the Primer Tubes. Reconnect the power cord and power on the printer.
2. Make sure that the Service Station path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement of the Service Station.
3. If the carriage has stopped over the service station, on the right side of the printer, check that the cutter is not activated. It may happen that the cutter is blocking the carriage over the service station, preventing the service station from performing the movement correctly. The cutter is on the left side of the carriage.
4. Perform the Service Station diagnostic test to troubleshoot the problem further. See [Service Station Test on page 114](#).
5. Replace the Service Station. See [Service Station on page 341](#).

System Error: 22.0:YZ

Problem Description: Left Ink Supply Station error, module 0.

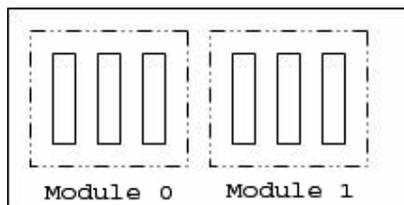


Corrective Action: Try the following:

1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer.
2. Check that the cables between the Left Ink Supply Station and Main PCA are not damaged and are correctly connected.
3. Perform the Ink Delivery System diagnostic test to troubleshoot the problem further. See [Ink Delivery System \(IDS\) Test on page 109](#).
4. Replace the Left Ink Supply Station. See [Ink Supply Station, Left on page 268](#).
5. Replace the Main PCA. See [Electronics Module Main PCA and PSU on page 247](#).

System Error: 22.1:YZ

Problem Description: Left Ink Supply Station error, module 1



Corrective Action: Try the following:

1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer.
2. Check that the cables between the Left Ink Supply Station and Main PCA are not damaged and are correctly connected.
3. Perform the Ink Delivery System diagnostic test to troubleshoot the problem further. See [Ink Delivery System \(IDS\) Test on page 109](#).
4. Replace the Left Ink Supply Station. See [Ink Supply Station, Left on page 268](#).
5. Replace the Main PCA. See [Starwheel Assembly on page 348](#).

System Error: 24:YZ

Problem Description: Ink Setup failure

Corrective Action: Try the following:

1. Switch the power off from the back of the printer and disconnect the power cord. Insert the new purgers, reconnect the power cord and power on the printer.
2. Perform the Ink Delivery System diagnostic test in order to check that the bongos (pushers) go up and down to pressurize ink in the tubes and the Out of Ink sensors work properly. See [Ink Delivery System \(IDS\) Test on page 109](#).
3. Try purging the Ink Supply Tubes again once the printer has been restarted.
4. If the diagnostic test does not find any problem, install new cartridges in the printer and try purging the Ink Supply Tubes again. It could be that one of the cartridges is defective.
5. If the problem persists, replace the Ink Supply Tubes. You must bring purgers and ink cartridges. See [Ink Supply Tubes on page 272](#).

Warning: 26:01

Problem Description: Ink supply error found during IDS diagnostic test. In the front panel message you will see letters representing the names of the colors of the faulty supplies.

Corrective Action: Try the following:

1. Reseat the faulty ink supply and repeat the Ink Delivery System diagnostic test.
2. If the problem persists, replace the faulty ink supply and repeat the Ink Delivery System diagnostic test.
3. If the problem persists, replace the Left Ink Supply Station. See [Ink Supply Station, Left on page 268](#).

Warning: 39.1:01

Problem Description: Roll 1 switch failed (standby or resume). Roll 1 has been unloaded.

Corrective Action: There is no corrective action. This system warning code only notifies the user that the roll has been unloaded because an unexpected error occurred with Roll 1 in standby or resume operation.

Warning: 39.2:01

Problem Description: Roll 2 switch failed (standby or resume). Roll 2 has been unloaded.

Corrective Action: There is no corrective action. This system warning code only notifies the user that the roll has been unloaded because an unexpected error occurred with Roll 2 in standby or resume operation.

System Error: 41:YZ

Problem Description:	Electrical fault or current limit in Media-Axis Motor
Corrective Action:	Try the following: <ol style="list-style-type: none"> 1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer. 2. Open the Window and check for any visible obstacles restricting the movement of the Media Advance Roller. If there is a wrinkled mass of media inside the paper path, lift the Pinch wheels (using Media Lever) and clear the obstruction. 3. Perform the Paper Drive diagnostic test to troubleshoot the problem further. See Paper Drive Test on page 96. 4. Perform the Rewinder diagnostic test to troubleshoot the problem further. See Rewinder Test on page 107. 5. Check that the Media Advance Drive cable is not damaged and is correctly connected to the Main PCA. 6. Replace the Media Advance Drive. See Media Advance Drive on page 286. 7. Replace the Main PCA. See Electronics Module Main PCA and PSU on page 247.

System Error: 42:YZ

Problem Description: Electrical problem (fault, current limit, overheating) in Scan-Axis Motor

Corrective Action:	Try the following: <ol style="list-style-type: none"> 1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer. 2. Open the Window and check for any visible obstacles restricting the movement of the Carriage Assembly. Remove any obstacle to let the carriage move freely along the whole scan axis. If there is a wrinkled mass of media inside the paper path, raise the pinch wheels (using the media lever) and clear the obstruction. 3. Check that the Scan-Axis Motor cable is not damaged and is correctly connected to the Main PCA. 4. Replace the Scan-Axis Motor. See Scan-axis Motor on page 337. 5. Replace the Main PCA. See Electronics Module Main PCA and PSU on page 247.
---------------------------	--

System Error: 45.1:YZ

Problem Description: An error with the Rewinder 1 System (Upper Rewinder) has been detected.

Corrective Action:	Try the following: <ol style="list-style-type: none"> 1. Switch the power off from the back of the printer and disconnect the power cord. Remove the paper from Roll 1. Reconnect the power cord and power on the printer. 2. Check that the Rewinder 1 cable is not damaged and is correctly connected to the Main PCA. 3. Check that the Upper Right Roll Support is correctly attached to and aligned with the Right Cover. 4. Perform the Rewinder diagnostic test to troubleshoot the problem further. See Rewinder Test on page 107. 5. Replace the Upper Right Roll Support. See Roll Support, Upper Right on page 336.
---------------------------	---

System Error: 45.2:YZ

Problem Description: An error with the Rewinder 2 System (Lower Rewinder) has been detected (T1200 series only).

Corrective Action: Try the following:

1. Switch the power off from the back of the printer and disconnect the power cord. Remove the paper from Roll 2. Reconnect the power cord and power on the printer.
2. Check that the Rewinder 2 cable is not damaged and is correctly connected to the Main PCA.
3. Check that the Lower Right Roll Support is correctly attached to and aligned with the Right Cover.
4. Perform the Rewinder diagnostic test to troubleshoot the problem further. See [Rewinder Test on page 107](#).
5. Replace the Lower Right Roll Support. See [Roll Support, Lower Right \(T1200 only\) on page 331](#).

System Error: 47:YZ

Problem Description: Starwheels motor error

Corrective Action: Try the following:

1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer.
2. Open the Window and check for any visible obstacles restricting the movement of the Starwheel Assembly, then clear the obstruction.
3. Check that the Starwheel Assembly cable is not damaged and is correctly connected to the Main PCA.
4. Perform the Scan Axis Starwheel diagnostic test to troubleshoot the problem further.
5. Replace the Starwheel Motor. See [Starwheel Motor on page 354](#).
6. Replace the Main PCA. See [Electronics Module Main PCA and PSU on page 247](#).

System Error: 48:YZ

Problem Description: PPS system failure

Corrective Action: Try the following:

1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer.
2. Check that the Pen to Paper Space (PPS) Solenoid cable is not damaged and is correctly connected to the Main PCA.
3. Perform the Scan Axis PRS diagnostic test to troubleshoot the problem further.
4. Replace the Pen to Paper Space (PPS) Solenoid. See [Pen to Paper Space \(PPS\) Solenoid on page 300](#).
5. Replace the Main PCA. See [Electronics Module Main PCA and PSU on page 247](#).

System Error: 51:YZ

Problem Description: Window Sensor failure

Corrective Action: Try the following:

1. Check that the Window Position Sensor cable is not damaged and is correctly connected to the Main PCA.
2. Perform the Sensors Test to troubleshoot the problem further. See [Sensors Test on page 105](#).
3. Replace the Window Position Sensor. See [Window Position Sensor on page 368](#).

System Error: 52:10

Problem Description: The printer has detected a failure in the Drop Detector.

Corrective Action: Try the following:

1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer.
2. Check that the Drop Detector cable is not damaged and is correctly connected to the Main PCA.
3. Replace the Drop Detector. See [Drop Detector on page 243](#).
4. Replace the Main PCA. See [Electronics Module Main PCA and PSU on page 247](#).

System Error: 55:YZ

Problem Description: Problem with the Line Sensor. The printer has detected a failure to access the Line Sensor EEPROM.

Corrective Action: Try the following:

1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer.
2. Perform the Carriage Test to troubleshoot the problem further. See [Carriage Assembly Test on page 102](#).
3. Check the Line Sensor connections to the Carriage PCA.
4. Replace the Line Sensor. See [Line Sensor on page 280](#).
5. Replace the Carriage PCA. See [Carriage PCA on page 220](#).

System Error: 56:YZ

Problem Description: Drive roller analog encoder homing (also known as “zero search”) failed.

Corrective Action: Try the following:

1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer.
2. Perform the Media Path Test to troubleshoot the problem further. See [Paper Drive Test on page 96](#).
3. Replace the Encoder Disk and Encoder Sensor. See [Encoder Disk and Encoder Sensor on page 250](#).
4. Replace the Main PCA. See [Electronics Module Main PCA and PSU on page 247](#).

System Error:	59.1:09
Problem Description:	Two electrical parts have been replaced at the same time.
Corrective Action:	Replace one part at a time, and restart the printer before replacing another.
System Error:	59.2:00
Problem Description:	An unsupported or reused part has been installed.
Corrective Action:	Install only new parts recommended by HP for this printer.
System Error:	60.1:YZ
Problem Description:	Initialization error
Corrective Action:	Try the following: <ol style="list-style-type: none"> 1. Switch the power off from the back of the printer and disconnect the power cord. 2. Check that the printer is properly connected in all other respects. 3. Reconnect the power cord and power on the printer. 4. If the error persists, contact HP.
System Error:	60.2:YZ
Problem Description:	Initialization error
Corrective Action:	Contact HP.
System Error:	61:YZ
Problem Description:	The file format is incorrect or not supported for the current printer configuration and the printer cannot process the job.
Corrective Action:	Try the following: <ol style="list-style-type: none"> 1. Check whether the printer supports the file format (formats such as PS, PDF, TIFF and JPEG are supported by PostScript printers only). 2. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer. 3. Check the graphic language setting of the printer (refer to the <i>User's Guide</i>). 4. Resend the file to the printer. 5. Check that the printer has the latest firmware version. If not, update the firmware to the latest version.
System Error:	61:04.1
Problem Description:	The PostScript fonts seem to be missing.
Corrective Action:	Perform a firmware upgrade to re-install the fonts.
System Error:	61:08.1

Problem Description: The file cannot be printed because it is password-protected.
Corrective Action: Resend the file without password protection.

System Error: **63:YZ**

Problem Description: Input/Output problem through the network interface of the Formatter

Corrective Action: Try the following:

1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer.
2. Check that the Network cable is correctly connected to the Formatter.
3. Check that the printer has the latest firmware version. If not, update the firmware to the latest version.
4. Replace the Formatter. See [Formatter on page 255](#).

System Error: **64:YZ**

Problem Description: Input/Output problem through the USB Port

Corrective Action: Try the following:

1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer.
2. Check that the USB cable is correctly connected to the printer.
3. Check that the printer has the latest firmware version. If not, update the firmware to the latest version.
4. Replace the Formatter. See [Formatter on page 255](#).

System Error: **64.1:YZ**

Problem Description: Printer does not recognize the USB HDD accessory connected.

Corrective Action: Try the following:

1. Switch the power off from the back of the printer. Connect the USB HDD accessory, check the USB cable is properly connected and power on the printer. If the USB HDD accessory is not available (has been lost or broken), proceed with step 2.
2. If the problem persists, power off from the back of the printer. Power on the printer again while pressing the keys **Menu**, **OK** and **Cancel** keys simultaneously until the front panel asks "Printer configured to use External Hard Disk. Do you want to revert the printer to Internal Hard Disk?". Confirm by pressing **OK** (twice). Remove the USB HDD accessory (if connected). The printer will restart.
3. After the printer reaches the Ready state, try connecting any other USB device (known to work properly) to the printer port where the hard disk accessory should be connected.
 - If a message appears on the Front Panel reacting to the USB device just connected (such as "Please remove USB device" or "Press OK to..."), press **Cancel** and remove the USB Device. This means the HDD Accessory is faulty and should be replaced. See [Formatter on page 255](#).
 - If nothing appears on the Front Panel reacting to the USB device just connected, the Formatter is faulty and should be replaced. See [Formatter on page 255](#).

System Error: **65:YZ**

Problem Description: Memory Driver Internal I/O error, I/O Socket Manager Internal I/O error

Corrective Action: Try the following:

1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer.
2. Check that the unknown port cable is correctly connected to the printer.
3. Check that the printer has the latest firmware version. If not, update the firmware to the latest version.
4. Replace the Formatter. See [Formatter on page 255](#).
5. Replace the Main PCA. See [Electronics Module Main PCA and PSU on page 247](#).

Warning: **68:YZ**

Problem Description: Loss of engine counters tracking

Corrective Action: The printer will continue to function correctly, but the life counters will not continue counting until you restart the printer.

System Error: **71:03**

Problem Description: Out of memory

Corrective Action: Restart the printer.

Warning: **71:04**

Problem Description: Out of memory.

The total memory available in the printer depends on its configuration. It is reported as HP-GL/2 memory or PS/PDF memory. If the amount of memory that the printer needs to process the file is more than the amount available, the printer will display this system warning. The amount of memory required for processing the file is known as the 'Display list memory':

- The display list memory should not be confused with the file size of the print job. The size of the display list memory depends on several variables such as the resolution, file size and file content.
- The display list memory is not visible to the user.
- There have been a few cases in which a print job with a relatively small file size has triggered an out-of-memory message. Such print jobs typically have a large number of objects in them or have complex objects such as raster images with gradients or objects with multiple layers.

Corrective Action: Try the following:

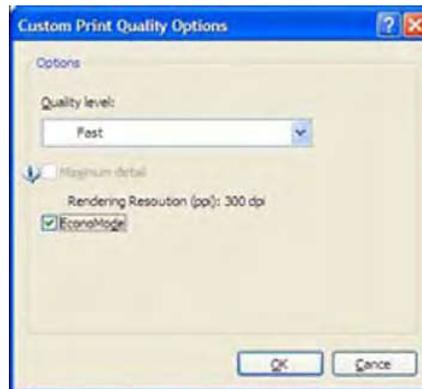
1. Upgrade the firmware to the latest version available.
2. Decrease the print resolution to 300 dpi.

NOTE: If the customer does not accept the print quality after reducing the resolution or using Econofast print mode, proceed to the workaround in step 3.

- The resolution required by the printer to process the file is set by the print mode selected (Best, Normal, Fast). There is a setting available that enables you to decrease the resolution for each print mode to 300 dpi. If this setting is used, the rendering resolution will be reduced, but the output (printing) resolution will remain the default of the selected print mode. There could be an impact on Image Quality because of the reduction in the rendering resolution; this will be especially noticeable in circles and lines with very low inclination.

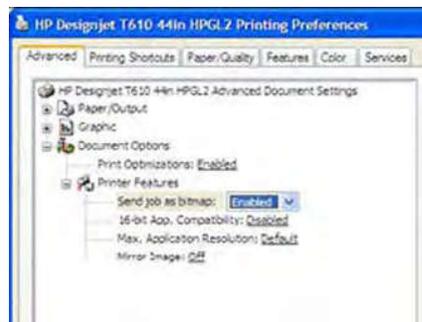


3. Use the 'Econofast' print mode. The rendering resolution will be set by default to 300 dpi. In the Paper/Quality tab of the printer properties window, select **Custom options** and press the **Settings** button. In the Custom Print Quality Options window, check the **Economode** box.



NOTE: If the Out of Memory message still persists, proceed to the next workaround.

4. Out of Memory issues can always be solved if the processing of the job can be performed before reaching the printer. This can be done by selecting 'Send Job as Bitmap'. The main processing of the print job will then be performed by the computer. This form of printing is recommended when the print job contains raster images, and mixed plots with raster images and lines, because the process of turning a print job made of raster images to vector images leads to a significant increase in the display list memory.



Warning:

72.02:YZ

Problem Description:	A service calibration should be performed.
Corrective Action:	To find out which service calibration to perform, print the calibration status. At the front panel, select the Internal Prints icon, then Service information > Print calibration status . Perform whichever calibration is needed.
Warning:	74:YZ
Problem Description:	Error uploading firmware update file
Corrective Action:	Try the following: <ol style="list-style-type: none"> 1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer. 2. Make sure the connection between the computer and the printer is functioning properly. 3. Try to update the firmware again.
Warning:	74.1:YZ
Problem Description:	Error uploading media profile update file
Corrective Action:	Try the following: <ol style="list-style-type: none"> 1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer. 2. Make sure the connection between the computer and the printer is functioning properly. 3. Try to upload the media profile update file again. 4. Make sure the version of the media profile update file is compatible with the firmware version the printer is using. You can check this on the same Web page where you downloaded the media profile update.
System Error:	75.21:YZ
Problem Description:	The spittoons (Left Spittoon, Service Station) have reached 80% capacity.
Corrective Action:	Use Preventive Maintenance Kit #2 to replace the Left Spittoon and Service Station.
System Error:	75.22:YZ
Problem Description:	The spittoons (Left Spittoon, Service Station) are full.
Corrective Action:	Use Preventive Maintenance Kit #2 to replace the Left Spittoon and Service Station.
System Error:	76:YZ
Problem Description:	Hard disk drive is full.
Corrective Action:	Remove any unnecessary files from the hard disk using the Embedded Web Server. If the problem persists, run the Hard Disk Recovery Utility (see Hard Disk Recovery Utility on page 119).
System Error:	78:08

Problem Description: The job received cannot be printed without borders on this paper.

Corrective Action: Use a paper that supports borderless printing.

NOTE: This system error code does **not** require service help. It should be resolved by the customer.

System Error: 78.1:YZ

Problem Description: Media settings area missing in media settings file

Corrective Action: Try the following:

1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer.
2. Check that the printer has the latest firmware version. If not, update the firmware to the latest version.

System Error: 79:YZ

Problem Description: Generic firmware error

Corrective Action: Try the following:

1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer.
2. Check that the printer has the latest firmware version. If not, update the firmware to the latest version.

NOTE: If you see system error 79:04, see [Appendix A: How to troubleshoot SE 79:04 on page 73](#).

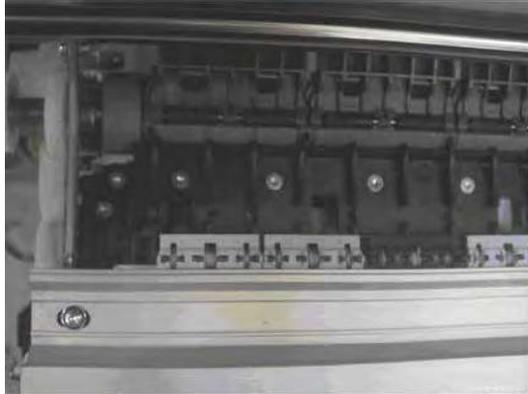
NOTE: A firmware upgrade will not always solve the problem. The best way to solve this problem is to report the error to HP correctly. Make sure that you supply all the information accessed by pressing the **Up** and **Cancel** keys together while viewing the system error screen, or preferably provide the printer log and diagnostic package to HP. See [Understand System Error Codes on page 52](#) and [Appendix C: Obtaining the printer log and the diagnostics package on page 85](#).

System Error: 81:YZ

Initial checks: This error can occur because the printer has been dropped during transportation, causing structural damage. Before continuing with the 81:YZ troubleshooting, first look for structural damage.

To identify the structural damage, look for the following three things:

- Consistent 81:YZ error codes.
- Platen fingers rubbing on the roller surface, leaving black marks on the roller.



- A gap on the platen beam. If there's any gap in Z (vertical direction) between the plastic feature of the platen and the metal side plate, then the chassis is damaged and the unit cannot be repaired.



Problem Description: Problem with paper advance. This source of error could come from an error in any of the following systems: paper motor, disk encoder, cables or main electronics.

Corrective Action: Try the following:

1. Open the Window and check for any visible obstacles restricting the movement of the Drive Roller. If there is a wrinkled mass of media inside the paper path, lift the Pinchwheels (using the Media Lever) and clear the obstruction.
2. Perform the Media Drive diagnostic test to troubleshoot the problem further. See [Paper Drive Test on page 96](#).
3. Perform the Rewinder diagnostic test to troubleshoot the problem further. See [Rewinder Test on page 107](#).
4. Check the connections on the Main PCA; the Media Advance Drive is connected to the connector labeled Paper Motor.
5. Adjust the encoder disc and motor mount configuration using the Media Advance Drive installation instructions. See [Media Advance Drive on page 286](#).
6. Replace the Media Advance Drive. See [Media Advance Drive on page 286](#).

System Error: 86:01

Problem Description:	Possible Paper Jam
Corrective Action:	Try the following: <ol style="list-style-type: none"> 1. Open the Window and check for any visible obstacles restricting the movement of the Drive Roller. Remove any such obstacles. If there is a wrinkled mass of media inside the paper path, lift the Pinch wheels (using the Media Lever) and clear the obstruction. 2. Perform the Scan Axis diagnostic test to troubleshoot the problem further. See Scan Axis Test on page 90
System Error:	86:11
Problem Description:	Scan Axis movement requires too much force or energy.
Corrective Action:	Try the following: <ol style="list-style-type: none"> 1. Check that the cutter disengages correctly. 2. Lubricate the scan axis. 3. Use Preventive Maintenance Kit 1.
System Error:	87:YZ
Problem Description:	Problem with the Carriage Encoder Sensor readings
Corrective Action:	Try the following: <ol style="list-style-type: none"> 1. Check that the encoder sensor is correctly connected to the Carriage PCA. 2. Make sure the Encoder Strip is not broken or damaged. If necessary, replace it. See Encoder Strip, spring and attachment nut on page 253. 3. Make sure that the Encoder Strip is clean. If it is dirty, clean it, paying special attention to the area near the Service Station. See Cleaning the Encoder Strip on page 371. 4. Clean the Encoder Sensor. 5. Replace the Encoder Sensor. 6. Replace the Carriage PCA. See Carriage PCA on page 220. 7. Replace the Trailing Cables. See Trailing Cable on page 356.
System Error:	87.01
Problem Description:	Problem finding the Scan-axis encoder reading
Corrective Action:	Try the following: <ol style="list-style-type: none"> 1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer. 2. Make sure that the encoder strip is clean. If the encoder strip is dirty, clean it, paying special attention to the area near the Service Station. See Cleaning the Encoder Strip on page 371. 3. Clean the encoder sensor. 4. Replace the Encoder Sensor.

System Error:	93:YZ
Problem Description:	Unable to pressurize the Ink Delivery System
Corrective Action:	Try the following: <ol style="list-style-type: none"> 1. Switch the power off from the back of the printer and disconnect the power cord. Reconnect the power cord and power on the printer. 2. Perform the Ink Delivery System diagnostic test to further troubleshoot the problem. See Ink Delivery System (IDS) Test on page 109. 3. Check that the cables between the Left Ink Supply Station and Main PCA are not damaged and are correctly connected. 4. Replace the Left Ink Supply Station, depending on the results of the diagnostic test. See Ink Supply Station, Left on page 268. 5. Replace the Main PCA. See Electronics Module Main PCA and PSU on page 247.

Appendix A: How to troubleshoot SE 79:04

Introduction

The system error 79:04 is a generic firmware error (equivalent to a blue screen in Windows). It's the system error that the printer will display when an unknown exception occurs that cannot be identified as relating to any specific subsystem of the printer.

Since this is a generic error, there can be multiple causes behind it. This document will cover the most probable causes behind a system error 79:04 and will recommend the most efficient troubleshooting steps to resolve customer issues.

It is important to mention that, although 79:04 system errors can be caused by a hardware malfunction, the vast majority of 79:04 system errors are pure software or firmware issues. Before doing anything else, you are recommended to try the following general-purpose solutions.

1. Update the printer's firmware to the very latest available firmware version, even if the printer appears to be running the latest firmware already.
2. Restore the factory settings from the front-panel's Setup menu.

If these do not solve the problem, continue reading about other possible solutions below.

Possible causes

Since the 79:04 system error is a generic error, the number of possible causes behind it is large. The majority can be grouped, however, into the following groups.

Job related SE79:04

A specific print job that is not correctly formatted for the printer or that is not correctly processed by it can trigger a 79:04 system error.

The incorrect format or processing can come from two sources:

- Incorrect commands in the job itself. For example, a PS job with some commands that do not have the correct PS format.
- Issues applying to the settings in the job

Possible symptoms

79:04 caused by a print job always have the same symptoms:

1. The job is received by the printer and starts to process.
2. In the middle of the processing, the printer stops and displays 79:04.
3. The printer will display the 79:04 system error again immediately after reboot. This is due to the fact that the printer will try to reprint the job, which is pending in the queue, after reboot.
4. After the second reboot, the printer will start up normally
5. If the same job is sent again, it will always produce a 79:04 system error

These types of 79:04 system errors are normally caused by jobs that have been generated by 3rd party applications (RIPs, 3rd party drivers, files exported by an application to PS, PDF, HP-GL/2, RTL, ... or any other format supported by the printer). Jobs generated by HP drivers will not normally generate 79:04 system errors, since the output that our drivers generate is very controlled and has been designed taking into consideration the characteristics of our printer's language interpreters.

There is an exception to this general rule: there are certain applications that can generate their own PS code (Adobe PhotoShop, Adobe Illustrator, Adobe Acrobat, Corel Draw, Freehand, QuarkXpress, ...). When used with a PS driver, these applications generate the output PS themselves, instead of using the driver's rendering capabilities. This is known as PostScript passthrough. So, when using an HP PostScript driver together with an application that has PS passthrough capabilities, the PS code that comes into the printer has not been rendered by the HP driver, and, should the source file contain any PS commands that are not correctly processed by the printer, a 79:04 system error could occur even though an HP driver is being used.

Solutions and workarounds

When a job consistently generates a 79:04 system error, it is either because of a issue in the printer's firmware or because of a defect in the job itself (when it has been generated by 3rd party SW). In order to identify the cause and find out a solution, these issues should always be immediately escalated to the GBU through the GCC.

Also, there are some workarounds and short-term solutions that can be tested in order to get the customer up and running in the shortest possible time:

1. Send the job using a variety of different settings. Many times, the issue is caused by a combination of the job contents combined with some specific setting(s).
2. If the customer is sending the file directly to the printer, try using the HP driver instead.
3. If the issue is occurring when printing through the HP PostScript driver from an application with PS passthrough, try changing the options in the application so that it prints PS as raster (the option is typically located in the "Advanced" options of the application's printing dialog).
4. In some cases, there may be an unfortunate interaction between the particular job and the I/O connection used to send that job to the printer. Try sending the same job using a print queue that uses a different type of connection. For example, use a network connection instead of USB, or use the LPD network printing protocol instead of port 9100.

Data related SE79:04

HP Designjet printers have Hard Disks and non-volatile memories that contain databases and files that can be modified with user data. Some examples include:

- The printer's queue
- The hard drive partitions that contain user jobs
- The database that stores the printer settings
- The database that stores accounting information

Some of this data is accessed by the printer at start-up, and some others are accessed as needed.

If any of this fields contains corrupt data or data with characters or values that cannot be correctly processed by the printer, a 79:04 system error may occur.

Possible symptoms

There are two different types of symptoms for data related 79:04 system errors:

1. When the corrupt data is accessed during start-up:
 - a. The printer will display a 79:04 during the start up process
 - b. Switching the printer off and on again will not solve the issue. The printer will continue displaying the 79:04 system error until the corrupt data has been cleared through a service procedure
2. When the corrupt data is accessed during normal printer operation:
 - a. The printer will start up normally
 - b. When the data is accessed (for example while printing, while navigating the queue or when changing some settings), the printer displays a 79:04 system error
 - c. The printer can reboot normally
 - d. When the data is accessed again (typically, under the same conditions as in step “b”), the 79:04 system error is displayed again

Solutions and workarounds

Many times, data-related 79:04 errors are resolved by means of hardware intervention. Since data are stored in physical components (RAM, EEROM and Hard Disk), replacing these components with new ones that are empty usually solves the problem. However, there are quicker and more effective solutions to these types of errors:

1. Clear all information that has been introduced by the user using the standard tools available in the printer.
 - a. Delete all jobs from the queue (from the Front Panel or the EWS).
 - b. Reset to factory defaults to clear the user's configurations and calibrations.
 - c. Delete any non-standard paper preset in the printer (both the ones that have been created by the user and the ones that have been installed as OMES profiles through the EWS or the HP Printer Utility).
2. If step 1 did not resolve the issue, you can use Service Tools to clear additional information that could be causing the issue.
 - a. Start the printer in Diagnostics Boot Mode.
 - b. Perform an EEROM reset.

3. If step 2 did not resolve the issue, it is possible to run a recovery of the hard disk.
 - a. Start the printer in Diagnostics Boot Mode.
 - b. Perform a Hard Disk Recovery. This will erase data from the hard disk and reinstall the current firmware. It may take up to half an hour.
4. If step 3 did not resolve the issue, you can check the hard disk's file system.
 - a. Start the printer in Diagnostics Boot Mode.
 - b. Perform a File System Check. This will fix any error in the file system structure. It may take a few minutes, or up to an hour, depending on the state of the hard disk.

Important note:

It is possible that the corrupt data came to be in the printer as a consequence of some activity in the customer's workflow. In this case, it is possible that the issue will happen again. In these cases, it is very important to understand the sequence of events in the customer's workflow that led to the error occurring. Once the error can be traced in the customer's workflow, escalate the issue to the GBU (through the GCC). This is done to implement any changes in the printer's firmware that can prevent these issues occurring again.

Network related SE79:04

Most HP Designjet printers have built-in networking capabilities. Network settings can be set manually, but in the majority of cases, they are obtained automatically from the printer. These settings include many different fields, such as IP address and subnet mask, available gateways, host and domain names, etc.

In some cases, there can be issues in the firmware that can cause a certain value in one of these fields to be interpreted incorrectly, and this can lead to a 79:04 system error.

Symptoms

There is no single set of symptoms that can absolutely pinpoint a network related 79:04 system error. However, the following guidelines can be applied:

- It can happen when the printer starts up or when accessing the Network Configuration section of the front panel or Embedded Web Server. It can also occur apparently randomly when the printer is connected to the network. It can also occur any time a particular network action is performed, for example when print jobs are sent to the printer, or when connecting to the Embedded Web Server.
- In all these cases, repeating the action after restarting the printer with the LAN cable disconnected does not cause the 79:04 error to occur.

Solutions and workarounds

In the majority of cases, these issues are due to an issue in the printer's firmware. As soon as the conditions in which the issue happens are understood, it should be escalated to the GBU through the GCC.

At the same time, the following short-term solutions and workarounds can help the customer to get up and running in the shortest possible time:

1. Disconnect the network cable in order to restart the printer and change network settings.
2. Try resetting the embedded networking settings or Jetdirect settings. See [Connectivity troubleshooting on page 46](#).
3. In the Network configuration menu in the Front Panel, disable any protocols that you are not using, including IPv6, IPSec, SNMP and WebServices.

 **NOTE:** Disabling SNMP or WebServices means that customers may not be able to see printer status information; and Windows and Mac OS print-queue installers will require the user to specify the printer's IP address and printer model manually.

4. If the above steps do not work, try using a different type of print queue. For example, if the problems occur when printing to a Port 9100 Socket print queue, try using the LDP protocol instead, or USB. To do this, create a new print queue of the type required and try printing using the new queue instead.
5. If the above steps do not work and the customer is using the printer's embedded LAN connection, try using an accessory Jetdirect card instead. Similarly, if the customer is having problems using an EIO Jetdirect card, try disconnecting the Jetdirect card and using the embedded networking.

In most cases, network problems that seem to occur randomly (when the printer is not being sent print jobs) are caused by an interaction between some other devices in the customer's network and the printer. Isolating the printer from other devices in the network as much as possible by connecting the printer to a private network or a different network subnet may help the customer continue working until the root cause of the problem is understood and solved.

User Interaction related SE79:04

In some cases the printer may not react as expected when a certain set of conditions coincide. In these cases, if the printer doesn't know how to react, it may simply display a 79:04 system error and force a reboot. Some examples (not real) that can help to illustrate this:

- An error occurs when a job is cancelled when it is at the "Finishing print" state and when the queue is disabled
- An error occurs if the Window is opened while the printer is checking the printheads

These errors will most likely only happen in very specific corner cases that have not been identified during the development or the qualification of the printer, so normally, they do not severely impact the customer, as they do not affect their regular working flows.

Symptoms

The symptoms here are as numerous as the number of possible interactions between the user and the printer. In any case, it's possible to identify the steps that caused the error to occur and avoid them as the steps will always be the same with no variance.

Important: An major element in determining the error is what the state the printer was in at the time the error was displayed. Actions the user has made when the printer is drying for example can produce an error, whereas the same action when the printer is doing something else (or is idle) may not produce any errors.

Solutions and workarounds

The recommended action plan in these cases is to identify the previous steps that caused the error and:

1. Escalate the issue to the GBU through the GCC in order to have it corrected in the firmware.
2. Recommend to the customer that they try to avoid the same steps to prevent the issue
3. If the conditions that cause the error are in the customer's regular workflow, try to identify a different way of achieving the same result out of the printer.

Random SE79:04: Concurrency issues and memory leaks

Some 79:04 errors happen randomly when the printer is being heavily used. However, it's impossible to find a single set of conditions that reproduce the problem. It just happens from time to time, without a defined pattern.

These random 79:04 can have two different types of root causes:

- **Memory leaks:** before a program is executed, it allocates the memory it will need. After the execution is complete, the allocated memory is freed to be used by other programs. If the allocation or the release of the memory are not properly programmed, every time the program is executed some memory will be incorrectly labeled (either as used or as free). This is known as a memory leak. When a program with a memory leak is executed a lot, the memory becomes progressively full (since it is not properly freed). When the leak becomes too big, the printer is left 'out of memory' to execute new processes and a 79:04 is triggered
- **Concurrency issues:** there are certain resources that can be accessed by multiple programs or by multiple executions of the same program (what is known as multiple threads). Access to these resources must be correctly controlled to prevent unexpected behavior. Issues caused by an incorrect control of these resources are concurrency issues.

In the following you have a simple example: let's imagine that there is a counter that controls the communication between the Jetdirect card and the printer's firmware. Whenever a new packet of information is sent by the Jetdirect card to the printer, the counter increases. When the printer receives the packet and processes it correctly, the counter decreases. Another process checks the counter from time to time to see its value and take conclusions from it. If the counter is near 0, it means that the printer is processing correctly, and if it grows too big, it may mean that there is a bottleneck somewhere and maybe the Jetdirect card throughput is decreased to control its speed to the printer. However, if the access to this counter is not properly controlled, undesirable effects may happen: in a real environment, a Jetdirect card processes thousands of information packets per second, so this counter is updated frequently, both by the Jetdirect and the printer. If at a certain point the Jetdirect and the printer try to access the counter at the same time and the code is not prepared to handle this, it may happen that the Jetdirect cannot increase the counter because the printer is writing to it, and what's worse, that it does not realize this fact. If this happens a few times each second, it may happen that the counter is decreasing faster than it's increasing and that at a certain point it has a negative value. And then, what will the process that is checking this counter do? Most likely, the process will not be prepared to react to a negative value and will launch an exception that will trigger a 79:04 system error.

Symptoms

This type of 79:04 always occurs in heavy load conditions, so the symptoms will always be similar to this pattern:

- A printer that is being heavily used (printing a project or in a reprographics environment) produces 79:04 errors randomly, forcing the user to reboot.
- After rebooting, the printer can be used without any issues for an extended period of time, but if the workload is consistently high, a random error will occur again.
- The error can never be associated with a specific file. The file that was being printed when the error occurred the last time can be printed without issues after reboot. And a file that has been printed without issues several times can trigger the error in the future.
- This error is very dependant of the workflow the customer has. The most common user workflows have been extensively tested both by HP and by our beta sites, so it is highly unlikely to see random 79:04 issues in these cases. These random issues tend to occur in very specific corner cases, and cannot be reproduced unless the exact conditions of the workflow are replicated. They normally happen when sending files generated by external applications (RIPs, 3rd party drivers, etc.)

Workarounds and solutions

Random 79:04 errors are, by far, the most complex ones to diagnose and to fix. The only solutions available in these cases are:

1. Run the Hard Disk Recovery utility (see [Hard Disk Recovery Utility on page 119](#)).
2. Identify the root cause (either in the files or in the firmware) and fix it in the code, which requires the intervention of the GBU.
3. Test any options available to modify the customer's workflow and see if any combination of them solves the issue.

In both cases, a profound understanding of the customer's workflow is necessary. In particular, the information that is needed is:

- Printer front panel settings
- Application that is being used; RIP or driver that is being used
- Application/RIP/Driver settings
- Type of output files this application, RIP or driver is generating
- Some sample files that are representative of what the customer is using
- Operating System
- Method of connection to the printer
- A description of the normal flow when the issue occurs and the typical frequency of occurrence (for instance, once every hour when sending several files non-stop, each of them with multiple copies)

You are recommended to use the Diagnostics Package to obtain this kind of information.

With this information, the environment can be replicated in order to try to find workarounds. This is also the information that will be needed at the GBU to investigate and fix the root cause of this issue once it is escalated.

Hardware related SE79:04

Hardware is, by far, the least likely cause of a 79:04 system error. Replacing hardware components does not normally fix the issue and increases the total turn around time in finding a workable solution.

In some cases, a failure in a component in the printer's electronics may cause a 79:04 system error, since the printer's electronics are involved in the execution of the firmware and the processing of jobs. It needs to be noted, however, that hardware failures in the electronics tend to produce specific system errors that point directly to the component that is failing.

Some HW causes that could be behind a 79:04 error are:

- Defective clusters in the Hard Disk drive. If these clusters are used to execute the firmware or to process a job, they may produce a 79:04. It needs to be noted however, that most 79:04 errors that are resolved by an HDD replacement are in fact, data related 79:04 that could have been solved more efficiently and quickly following the steps in Section 3.
- Defective memory segments. If the RAM memory has some defective segments, a 79:04 may occur when these segments are used.
- Intermittent defects in the electronic components that are involved in the processing of a job: Carriage PCA, Trailing cable, Formatter and Main PCA. This is a highly unlikely cause, since defects in these components will produce subsystem specific errors.

Symptoms

There's no single set of symptoms behind hardware related 79:04 system errors. The most usual ones, however are:

- 79:04 during start up. Rebooting the printer may or may not solve the problem
- 79:04 while processing or printing a job. Rebooting the printer and printing the same job does not always produce the error.

Solutions and workarounds

In the following procedure perform each step as it appears in the list and only move on to the next step once you are sure the 79:04 error has not been cleared:

1. Reboot the printer in Diagnostics Boot mode and execute the service tests to validate the functionality of all the electronics components
 - Execute the troubleshooting for “data related” system errors, refer to page 3, Data related SE79:04
2. Replace the memory
3. Replace the HDD
4. Escalate the issue before replacing any additional parts.

Troubleshooting based on symptoms

This section will describe which troubleshooting steps to perform for a 79:04 system error based on the symptoms of the issue. Perform each step as it appears in the list and only move on to the next step once you are sure the 79:04 error has not been cleared:

Front panel displays 79:04 at Start-up

1. Reboot the printer twice. If the System error has been caused by a job because its in an incorrect format, rebooting twice will clear the error (the first time after reboot, the printer will attempt to print the job again, and this will cause the error to re-appear). If rebooting the printer twice solves the issue, then it is an issue related to the job and you should refer to page 2, Job related SE79:04.
2. Upgrade the printer's firmware. Even if the currently installed firmware version is the latest one, re-install it. Since the printer cannot start normally, you will need to upgrade the firmware while booting the printer in Diagnostics Boot Mode. For this, a special file and a special upgrade process will be needed. For more information, see [Appendix B: Updating firmware in diagnostics boot mode on page 84](#).
3. Disconnect the network cable and restart the printer. If this solves the problem, then it is a network related 79:04 and you should follow the guidelines for this type of 79:04.
4. Remove all cartridges, printheads and printhead cleaners (if available). Unload the media. Restart the printer. If the printer can start normally, insert the consumables one by one until you isolate the one that is causing the error. Do **not** insert any of the replaced consumables in another printer
5. Restart the printer in Diagnostics Boot Mode and perform the “Electronics test”. If an electronic component is identified as faulty, replace it.
 - Restart the printer in Diagnostics Boot Mode and Reset the EEROM. If the issue is solved by this, this is a data related 79:04 system error and you should follow the guidelines, refer to page 3, Data related SE79:04.
6. If the unit has been used for some time and suddenly has started to show this behavior, replace the Hard Disk Drive (it may be included with the Formatter in some models).

7. If the issue is new and the issue happens since the first boot, do **not** replace the HDD.
8. If none of the previous steps solved the issue, escalate the issue with the following information:
 - Unit information: S/N, P/N, accessories
 - Conditions where the problem occurs and conditions prior to the first occurrence of the problem
 - The results of the previous 8 steps
 - The System Error detailed information (this can be obtained by pressing CANCEL + Down)
 - The printer logs. In order to obtain the printer logs, see [Appendix C: Obtaining the printer log and the diagnostics package on page 85](#).

Front panel displays 79:04 during printer operation – not while sending jobs

1. Reboot the printer.
2. Upgrade the printer's firmware. Even if the currently installed firmware version is the latest one, re-install it.
3. Reset the printer to factory defaults
4. In order to narrow the scope of the issue, try the following:
 - a. Disable the queue
 - b. Disable any unused network protocols
 - c. Disable SNMP and WebServices (if they are available in the printer)
 - d. Disable "Sleep mode" from the Service Utilities menu
 - e. Delete any Paper Presets that you may have uploaded or created using the printer's Spectrophotometer
5. Restart the printer in Diagnostics Boot Mode and perform the "Electronics test". If an electronic component is identified as faulty, replace it.
6. Restart the printer in Diagnostics Boot Mode and Reset the EEROM. If the issue is solved by this, this is a data related 79:04 system error and you should follow the guidelines for this type error.
7. Format the Hard Disk drive. To do so, you will need to start the printer normally, enter the Service Utilities menu and then the Secure Disk Erase option. Set the Erase method to "Fast Erase" and then perform the disk erase process. This will take 45-75 minutes and will erase all user information from the disk, resolving any issue caused by corrupt data. After the erase process, a firmware update will be required. If this solves the issue, this is a data related 79:04 system error and you should follow the guidelines for this type of error.
8. Try to identify the combination of settings or actions that led to the system error and try to reach the same result with a different combination. Escalate the issue to fix the original problem.
9. If none of the previous steps could solve the issue, escalate it with the following information:
 - Unit information: S/N, P/N, accessories
 - Conditions where the problem occurs and conditions prior to the first occurrence of the problem
 - The result of the previous 8 steps
 - The printer information pages (either printed and faxed or obtained through the Embedded Web Server)

- The System Error detailed information (it can be obtained by pressing CANCEL + Down)
- The printer logs. In order to obtain the printer logs, see [Appendix C: Obtaining the printer log and the diagnostics package on page 85](#).

Front panel displays 79:04 while printing

While printing a single job

The error happens after a single job is sent. It's easy to identify which job that has produced the error, since every time that this same job is sent, the error is replicated.

1. Reboot the printer twice (after the first reboot, the printer will show the 79:04 system error again, since the printer will attempt to reprint the last job in the queue, which is the one that caused the issue)
2. If you are using an HP driver, update the driver to the latest version
3. Upgrade the printer's firmware. Even if the currently installed firmware version is the latest one, re-install it. Send the job using different print settings. The following ones can be helpful:
 - a. Try sending the job without selecting a media profile in the driver
 - b. Try changing the Image Quality settings
 - c. If you are using the HP-GL/2 driver, try the option "Send job as bitmap"
 - d. If you are using the PS driver, try using the HP-GL/2 driver instead
 - e. If you are using the PS driver from an Adobe application (or any other application that can handle PS), try changing the application's print settings so that the PS is generated as Raster.
4. Try the following Front Panel settings:
 - a. Change the Print Language option in the Front Panel from "Automatic" (which is the default setting) to the language that is being printed (PS, HP-GL/2, ...)
 - b. Queue = OFF
 - c. Start Printing = After processing
 - d. For PS SKUs, try changing the encoding setting ("Automatic" by default) to Binary or ASCII
5. If you are using a 3rd party application that does not print through the HP driver, try modifying the printing workflow by:
 - a. Using an HP driver
 - b. Changing the settings in the application's printing dialog
6. If you are using an accessory Jetdirect card, try using the internal network connector or USB (if available).
7. Escalate the issue, providing the following information:
 - Unit information: S/N, P/N, accessories
 - Conditions where the problem occurs and conditions prior to the first occurrence of the problem.
 - The result of the previous 7 steps
 - The printer information pages (either printed and faxed or obtained through the Embedded Web Server)

- The System Error detailed information (it can be obtained by pressing CANCEL + Down)
- Information on the workflow:
 - Operating System
 - Application
 - Driver
 - Settings in the driver and the application
 - Settings in the printer
 - Connection method and settings

The original file along with the information on how to reproduce the issue

A print to file that can reproduce the issue

- The printer logs. In order to obtain the printer logs, see [Appendix C: Obtaining the printer log and the diagnostics package on page 85](#).

Random 79:04 during continuous printing

The error does not happen with a single job. It happens randomly during continuous printing, normally while the printer is managing a heavy load (printing a project or in a reprographics environment).

This type of error is caused either by memory leaks or by concurrence issues in the printer's firmware. They normally happen in non common environments where these memory leaks or concurrence issues that have not been detected during qualification have occurred. These issues cause the printer to crash at a completely random moment during printing, and are not associated to a specific job.

Because of this, troubleshooting these issues is normally quite complex.

1. Reboot the printer twice (after the first reboot, the printer will show the 79:04 system error again, since the printer will attempt to reprint the last job in the queue. If the issue continues occurring randomly, continue troubleshooting)
2. If you are using an HP driver, update the driver to the latest version
3. Upgrade the printer's firmware. Even if the currently installed firmware version is the latest one, re-install it.
4. Try restoring the factory default settings from the printer's front panel.
5. Try the following changes in the workflow:
 - a. Change the Print Language option in the Front Panel from "Automatic" (which is the default setting) to the language that is being printed (PS, HP-GL/2, ...)
 - b. Queue = OFF
 - c. Start Printing = After processing
 - d. For PS SKUs, try changing the encoding setting ("Automatic" by default) to Binary or ASCII
 - e. If you are using the HP-GL/2 driver, try sending the job as a bitmap

6. If you are using a 3rd party application that does not print through the HP driver, try modifying the printing workflow by:
 - a. Using an HP driver
 - b. Changing the settings in the application's printing dialog
7. Escalate the issue with the following information:
 - Unit information: S/N, P/N, accessories
 - The printer information pages (either printed and faxed or obtained through the Embedded Web Server)
 - The System Error detailed information (it can be obtained by pressing CANCEL + Down)
 - Information on the workflow:
 - Operating System
 - Application
 - Driver
 - Settings in the driver and the application
 - Settings in the printer
 - Connection method and settings
 - Exact information on how to replicate the environment that reproduces the issue, including some example files that can be sent to the printer to replicate a heavy load environment. These files will need to be:
 - Original application files, if the issue happens printing from an application through our driver
 - Print to files if the issue happens printing from a 3rd party application
 - Information on the approximate frequency of the occurrence of the issue
 - The printer logs. In order to obtain the printer logs, check the following appendix.

Appendix B: Updating firmware in diagnostics boot mode

If the printer is displaying a 79:04 system error during start up and will not start normally, then services like the Embedded Web Server will not work.

Since the EWS is necessary to update the printer's firmware using the FMW file which is provided in Designjet Online, when the printer does not boot, an alternative method to update the firmware will be required.

The following method can be used to upgrade the firmware of a printer that will not boot normally:

1. Start the printer in Diagnostics Boot mode. See [Using the Front Panel on page 2](#).
2. Perform the I/O information test and take note of the printer's IP address. See [I/O Information Utility on page 117](#).

3. Connect to the printer using FTP:
 - a. From a DOS console (or a Linux console in Mac), open a connection to the printer: `ftp <printer's IP address>`
 - b. Configure the connection to send the data correctly: `bin > hash`
4. Upload the firmware file (`> put <firmware.plt>`). Standard FMW files that are available in the customer Web site will not work with this method, since FMW files need to be uploaded through the EWS in order to work. You will need to use a firmware file in PL T format instead. You can obtain the PL T firmware for the latest available firmware versions in the LFP Customer Assurance Web site (<http://bcnsite.bpo.hp.com/csw/>).

Appendix C: Obtaining the printer log and the diagnostics package

The printer keeps an internal log of its own actions. When a system error occurs, the printer log may help you to find the cause and the solution. By default, whenever it restarts, the printer deletes the current log and starts a new one, to avoid using a lot of hard disk space.

You can obtain the printer log through the diagnostics package. There are two types of diagnostic package:

- Diagnostic package (reduced level)
- Extended diagnostic package (full level)

And there are two ways of retrieving the information:

- From the Front Panel with a USB flash drive (reduced level only)
- From the Embedded Web Server (reduced or full level)

 **NOTE:** If the extended diagnostic package is available, it will be the only one visible from the Embedded Web Server. In order to use the reduced diagnostic package from the Embedded Web Server, you must disable the extended diagnostic package.

When you have obtained the information, it should be attached to the customer case.

Front panel method

This method works only if you have a standard USB flash drive. If you do not have a flash drive, use the Embedded Web Server method. You are also recommended to use the Embedded Web Server if you need the extended diagnostics package to solve a particularly difficult problem.

1. If you have a standard USB flash drive (formatted as FAT32), insert it in the USB connector.
2. Hold down the UP and DOWN arrow keys simultaneously until you hear a short beep. The printer is starting to copy the diagnostic package to the flash drive.
3. Wait for one or two minutes until you hear a second beep. You may hear several short beeps for each file copied to the USB flash drive.
4. When you hear one long beep, that means the entire diagnostics package and the printer log have been copied to the USB flash drive. You can now remove the drive.
5. It will have created a folder with the name *part number_serial number_time stamp*, and in this folder you'll find one or more files with the extension **trb**. As the name of the folder contains the serial number, you can reuse the flash drive for different printers and the information will not be lost.

Embedded Web server method

1. You can access the Embedded Web Server by typing the IP address of the printer in a Web browser. In the **Support** tab, click **Service support** to display the following page.



2. If the problem persists and is difficult to debug, try the extended diagnostics package. To enable the extended diagnostics package, click **Enable the extended diagnostics package**. The printer needs to be restarted after enabling or disabling the extended diagnostics package.
3. At any time after enabling the extended diagnostics package, you can download the package and the printer logs by clicking **Download the extended diagnostics package**.
4. When you have finishing using the extended diagnostics package, remember to disable it; otherwise it could affect printer performance or even cause undesirable side-effects.

Retrieving logs without the diagnostic package

This method is recommended only if you are unable to use the diagnostic package for some reason.

1. Turn off the printer with the **Power** key on the front panel.
2. Hold down the **OK** key and the **View information** key at the same time, and turn on the printer with the **Power** key. Continue to hold down all three keys for about 20 seconds, until you see the HP logo on the Front Panel display. This turns on permanent logging: printer logs will be saved instead of being deleted at each restart.
3. After DO NOT REBOOT is displayed, retrieve at least the current printer log from the following URL: <http://<IP>/hp/device/3432/8828/tmp/>, where <IP> is the IP address of the printer. Click the file once to select it, then right-click and select **Save target as**.
4. The **printer.log** file contains a log of the printer activity since it was last restarted. Previous logs are compressed and stored in .gz files whose names contain the date and time of the printer restart. You may wish to download some of these files as well.

When you do not require permanent logging any more, remember to turn it off, to avoid filling up the hard disk and degrading printer performance. To disable permanent logging:

1. Turn off the printer with the **Power** key on the front panel.
2. Hold down the **OK** key and the **Form feed and cut** key at the same time, and turn on the printer with the **Power** key. Continue to hold down all three keys for about 20 seconds, until you see the HP logo on the Front Panel display. Permanent printer logging is now deactivated.