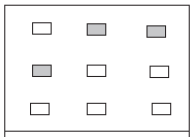
Fehlerbeschreibung



Steady 234

Load Media + Error + Film: Servo error in the Y-axis (carriage axis). Try one or more of the following:

- Clear any binding due to a media jam.
- Turn the plotter off. Manually move the carriage along the carriage axis. Check for any areas where the carriage may be binding.
- Ensure that the belt and belt pulley are in correct working order. Remove dirt from the pulley that could cause the belt to slip.
- Perform the carriage-axis test and the servo/encoder test to check for problems with the carriage motor, encoder strip, and electronics module.
- Remove dirt from the slider rod and chassis beam. Apply oil (Anderol 4068, HP part number: 6040-0858) to the carriage bushings.
- At high temperatures, and if the fan is not working correctly, the internal resistance of the motor driver may increase, causing a decrease in the voltage between the motor contacts, and a shutdown of the motor. • Ensure that the encoder strip is not inverted, damaged or absent. • Reconnect or replace the trailing cable. • Replace the carriage.

For more precise troubleshooting ➧ page 8-23, § System Errors.

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System Errors for the DesignJet 330 and 350C Plotters

The DesignJet 330 and 350C plotters have many failure modes that cause system errors. Many are due to electrical problems, others electronic, and some mechanical.

To more precisely troubleshoot the system error, you may be able to find out what line of the firmware code the error appeared, and interpret this line;

1. If possible, print the service configuration plot (see ➧ page 8-50). The last system error, and the line number of the system error are printed on this plot.
2. See if the line number also appears in the following table. (Make sure that you also know which firmware revision the plotter is using, since a given line number corresponds to different lines in different revisions.)

Filename	**Line Number** Firmware A.01.00	**Failure** (and most frequent causes)
testmode.c	–	Y-axis servo error during bench run.
testmode.c	2499	X/Y-axis servo error during bench run.
testmode.c	3614	Cartridge continuity: • Cartridges badly seated. • Faulty or badly connected trailing cable. • Dirty carriage flex circuit. • Faulty carriage. • Faulty electronics module.
testmode.c	3559	Secondary *Fibis* test failed: • Faulty electronics module.
testmode.c	3574	Error in swath-RAM test: • Faulty electronics module
testmode.c	3592	Error in cartridge-voltage regulation: • Faulty or badly connected trailing cable. • Faulty carriage. • Faulty electronics module.
testmode.c	3601	Error in A/D convertor test: • Faulty trailing cable. • Faulty carriage.

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Service Configuration Plot for the DesignJet 330 and 350C

The service configuration plot contains the following information:

DesignJet 330/350C Service Configuration Plot
Firmware Release: X.XX.XX
SPROC release: X.X *(Servo-Processor Code revision number.)*

EEROM Contents

EEROM CONTENTS
(This is for the plotter design engineers to interpret.)

NOTE: All EEPROM Parameters are since last EEROM Reset.

Number of Power Cycles: *(Number of times plotter has been switched on.)*
Number of Color Plots:
Number of Black Plots:
Number of Pens: *(Number of times each cartridge has been replaced. Cyan, Magenta, Yellow, Black.)*
Factory Spittoon: *(The estimated level of ink in the spittoon. Incorrect if you have cleared the EEROM.)*
Number of Bail Errors:

Number of System Errors:
Last System Error: *(To correctly interpret this information, refer to page 8-23.)*
Last System Error Data: *(To correctly interpret this information, refer to page 8-23.)*

Bench Run: *(Whether the bench run has been performed.)*
Bench Run Maximum Y-Axis (Carriage-Axis) PWM: *(This should be less than 102. Typical value = 75.)*
Bench Run Maximum X-Axis (Media-Axis) PWM: *(This should be less than 65. Typical value = 52.)*

Encoder-Tests Maximum Y-Axis (Carriage-Axis) PWM: *(This should be less than 102. Typical value = 75.)*
Encoder-Tests Maximum X-Axis (Media-Axis) PWM: *(This should be less than 65. Typical value = 52.)*

X-axis Calibration:

Printing the Service Configuration Plot

1 To print the service configuration plot:

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In service mode **2**, load a sheet in portrait orientation.

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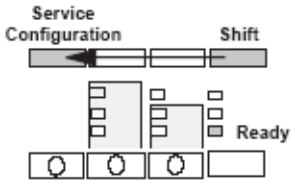
In normal mode, load a sheet in portrait orientation.

The service configuration plot can be plotted without the need to enter the service mode. This is because the customer will be requested to plot the service configuration plot and he will be given the following instructions to plot it without entering the service mode.

2 When the **Ready** LED lights up:

230 250C

Hold down the **SHIFT** key and press **Service Configuration**.



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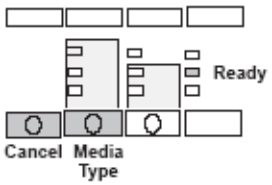
Press the **Cancel** and **Media Type** keys together.



*The **Ready** light begins to flash and then remains on (steady).*
The plotter plots the service configuration plot and ejects the media.

3 Unload the media.

Service Monitor (Data Display)

The service monitor is useful to find out why the plotter is not plotting what you expect it to plot. It enables you to read the graphics-language instructions that the plotter is receiving from the computer. Instead of plotting the drawing that you send, the plotter prints the beginning and end of the code that would otherwise have been used to plot the drawing.

You need a basic knowledge of the graphics-language instructions to be able to pick out the important information from the printed code. (Basic training is included in the course referenced on page ii.)

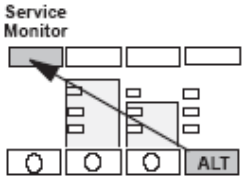
1 In service mode **2**, load a sheet of media (A3 size or B size minimum) in portrait orientation.

2 To enter service monitor:

230 250C

Hold down the **ALT** key and press **Service Monitor**

(The front-panel LEDs do not change.)



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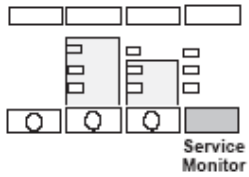
Press **Service Monitor**

(The front-panel LEDs do not change.)



3 Send the file from the computer through the serial or parallel ports.

*The **Ready** LED begins to flash.*

4 Wait until the computer has indicated that it has sent the file.

*The **Ready** LED continues to flash.*

5 While the **Ready** LED is flashing, hold down the **ALT** key and press **Service Monitor** again.

*The **Ready** LED continues to flash. After a minute, the fan turns on, and the carriage moves to the right side of the plotter.*

Instead of plotting the drawings that you sent, the plotter plots the first and last Kbytes of the code for those drawings. The code is printed in hexadecimal and ASCII format. (If the total size of the file(s) sent is not bigger than one Kbyte, only the first buffer is printed.) The plotter exits the service monitor mode if the file(s) sent contain PJL universal exit language.

230 250C Servo/Encoder Test

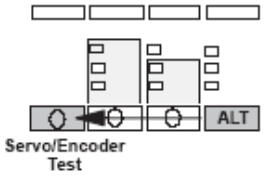
The servo/encoder test performs the following:

- Media-axis encoder test: Verifies the operation of the servo loop (media-axis feedback).
- Carriage-axis encoder test: Verifies the operation of the servo loop (carriage-axis feedback).
- Records the maximum pulse-width modulations used. You can view this information on the service configuration plot.

1 In service mode **2**:

230 250C

Hold down the **ALT** key and press **Servo/Encoder Test**.



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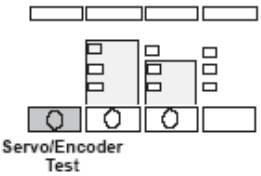
Press **Servo/Encoder Test**.



*The **Load Media** LED (or the **Ready** LED, if you have already loaded media) turns off, and the carriage moves over the left end of the roller. The roller rotates slightly.*

The carriage moves to the center of the plotter. Both the carriage and the roller then move backwards and forwards in cycles of six short steps, changing direction between cycles.

2 Press any front-panel key to stop the test.

Status. *If the test does not find an error, the **Load Media** LED (or the **Ready** LED, if you have already loaded media) turns on again. If the test finds an error, it is indicated by an error code on the front panel.*

Stored in EEROM (and printed on the service configuration plot ➧ page NO TAG)	
Encoder Tests, Maximum Y-Axis PWM	(Y-Axis = Carriage Axis.) This should be less than 102. Typical value = 75.
Encoder Tests, Maximum X-Axis PWM	(X-Axis = Media Axis.) This should be less than 65. Typical value = 52.

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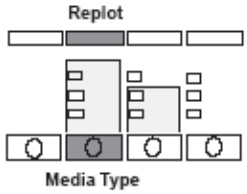
350C

Clearing the EEROM for the DesignJet 330 and 350C

CAUTION

If you clear the calibration parameters, you will then need to perform the plotter calibrations. (Details ➧ chapter 7.) Clearing the EEROM also resets the factory spittoon value to 0% used. Keep in mind that the value printed on the service configuration plot may greatly underestimate the amount of ink in the spittoon.

Clearing Just the Benchrun and Calibration Parameters

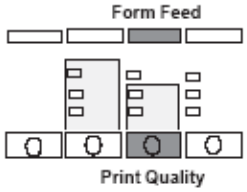


1 Switch the plotter off.

2 While holding both the Replot and Media Type keys down, switch the plotter on.

3 Once the the LEDs begin to light up one by one, release the Replot and Media Type keys.

Clearing Just the User-Defined Setup Parameters

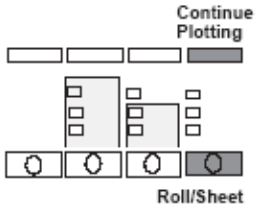


1 Switch the plotter off.

2 While holding both the Form Feed and Print Quality keys down, switch the plotter on.

3 Once the the LEDs begin to light up one by one, release the Form Feed and Print Quality keys.

Clearing All Parameters



1 Switch the plotter off.

2 While holding both the Roll/Sheet and Continue Plotting keys down, switch the plotter on.

3 Once the the LEDs begin to light up one by one, release the Roll/Sheet and Continue Plotting keys.