

Communications Diagnostics Test

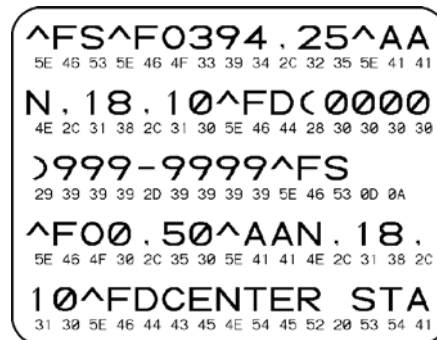
The communication diagnostics test is a troubleshooting tool for checking the interconnection between the printer and the host computer.

When the printer is in diagnostics mode, it prints all data received from the host computer as straight ASCII characters with the hex values below the ASCII text. The printer prints all characters received, including control codes such as CR (carriage return). [Figure 32](#) shows a typical test label from this test.



Note • The test label prints upside-down.

Figure 32 • Communications Diagnostics Test Label



To use communications diagnostics mode, complete these steps:

1. Set the print width equal to or less than the label width being used for the test. See [Set Print Width on page 91](#) for more information.
2. Set the printer to **DIAGNOSTICS**. For instructions, see [Set Communications Mode on page 100](#).

The printer enters diagnostics mode and prints any data received from the host computer on a test label

3. Check the test label for error codes. For any errors, check that your communication parameters are correct.

Errors show on the test label as follows:

- FE indicates a framing error.
- OE indicates an overrun error.
- PE indicates a parity error.
- NE indicates noise.

4. Turn the printer off (**O**) and then back on (**I**) to exit this self test and return to normal operation.

Table 10 • Printer Parameters (Page 4 of 19)




Parameter	Action/Explanation
<div style="border: 1px solid black; padding: 2px;"> <p style="margin: 0;">PRINT WIDTH</p> <p style="margin: 0;">- 104 0/8 MM +</p> </div>	<p>Set Print Width</p> <p>Determines the printable area across the width of the label given the resolution of the printer.</p> <p>Default: 104 0/8 MM</p> <p> Note • Setting the width too narrow can result in portions of the label not being printed on the media. Setting the width too wide wastes formatting memory and can cause printing off the label and on the platen roller. This setting can affect the horizontal position of the label format if the image was inverted using the ^POI ZPL II command.</p> <p>To change the value shown:</p> <ol style="list-style-type: none"> 1. Press MINUS (-) to move the cursor. 2. Press PLUS (+) to increase the value of the digit. <p>To change the unit of measurement:</p> <ol style="list-style-type: none"> 1. Press MINUS (-) until the unit of measurement is active. 2. Press PLUS (+) to toggle to a different unit of measure (mm, inches, or dots).

Table 10 • Printer Parameters (Page 13 of 19)

Parameter	Action/Explanation
<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center; background-color: yellow; margin: 0;">COMMUNICATIONS</p> <p style="margin: 0;">- NORMAL MODE +</p> </div>	<p>Set Communications Mode</p> <p>The communication diagnostics mode is a troubleshooting tool for checking the interconnection between the printer and the host computer. For more information, see <i>Communications Diagnostics Test</i> on page 143.</p> <p>Default: NORMAL MODE</p> <p>Selections: NORMAL MODE, DIAGNOSTICS</p> <p>To select communication diagnostics mode:</p> <ol style="list-style-type: none"> 1. Press PLUS (+) or MINUS (-) to toggle between the options.
<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center;">CONTROL PREFIX</p> <p style="margin: 0;">- < ■>7EH +</p> </div>	<p>Set Control Prefix Character</p> <p>The printer looks for this two-digit hex character to indicate the start of a ZPL/ZPL II control instruction. The “H” that is displayed indicates Hexadecimal and is not part of the value.</p> <p> Note • Do not use the same hex value for the control, format, and delimiter character. The printer must see different characters to work properly.</p> <p>Default: 7E (tilde—displayed as a black square)</p> <p>Range: 00 to FF</p> <p>To change the value shown:</p> <ol style="list-style-type: none"> 1. Press MINUS (-) to move to the next digit position. 2. Press PLUS (+) to increase the value of the digit.
<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center;">FORMAT PREFIX</p> <p style="margin: 0;">- < ^>5EH +</p> </div>	<p>Set Format Prefix Character</p> <p>The format prefix is a two-digit hex value used as a parameter place marker in ZPL/ZPL II format instructions. The “H” that is displayed indicates Hexadecimal and is not part of the value. The printer looks for this hex character to indicate the start of a ZPL/ZPL II format instruction. See the <i>ZPL II Programming Guide</i> for more information.</p> <p> Note • Do not use the same hex value for the control, format, and delimiter character. The printer must see different characters to work properly.</p> <p>Default: 5E (caret)</p> <p>Range: 00 to FF</p> <p>To change the value shown:</p> <ol style="list-style-type: none"> 1. Press MINUS (-) to move to the next digit position. 2. Press PLUS (+) to increase the value of the digit.