






Table 8 • Printer Parameters (Sheet 13 of 22)

Language/Parameter	Action/Explanation
 HOST HANDSHAKE -XON/XOFF +	<p><b>Set Host Handshake</b></p> <p>This setting applies only when the serial port is used. The handshake protocol of the printer must match the handshake protocol of the host computer for communication to take place. Select the handshake protocol that matches the one being used by the host computer.</p> <p><i>Default Value:</i> XON/XOFF  <i>Selections:</i> XON/XOFF, DSR/DTR, RTS/CTS</p> <p><b>To change the value shown:</b></p> <ol style="list-style-type: none"> <li>1. Press PLUS (+) or MINUS (-) to scroll through the options.</li> </ol>
 PROTOCOL -NONE +	<p><b>Set Protocol</b></p> <p>Protocol is a type of error checking system. Depending on the selection, an indicator may be sent from the printer to the host computer signifying that data has been received. Select the protocol that is requested by the host computer. Further details on protocol can be found in the <i>Programming Guide for ZPL, ZBI, Set-Get-Do, Mirror, and WML</i>.</p> <p><i>Default Value:</i> NONE  <i>Selections:</i> NONE, ZEBRA, ACK_NAK</p> <p> <b>Note • ZEBRA</b> is the same as <b>ACK_NAK</b>, except that <b>ZEBRA</b> response messages are sequenced. If <b>ZEBRA</b> is selected, the printer must use <b>DSR/DTR</b> for host handshake protocol.</p> <p><b>To change the value shown:</b></p> <ol style="list-style-type: none"> <li>1. Press PLUS (+) or MINUS (-) to scroll through the options.</li> </ol>
 NETWORK ID - 000 +	<p><b>Set Network ID</b></p> <p>This parameter assigns a unique number to the printer when the printer is operating in an RS422/485 multi-drop network environment (an external RS422/485 adapter is required). This gives the host computer the means to address a specific printer. This does not affect TCP/IP or IPX networks.</p> <p><i>Default Value:</i> 000  <i>Range:</i> 000 to 999</p> <p><b>To change the value shown:</b></p> <ol style="list-style-type: none"> <li>1. Press MINUS (-) to move to the next digit position.</li> <li>2. Press PLUS (+) to increase the value of the digit.</li> </ol>
 COMMUNICATIONS -NORMAL MODE +	<p><b>Set Communications Mode</b></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 on page 160</i>.</p> <p><i>Default Value:</i> NORMAL MODE  <i>Selections:</i> NORMAL MODE, <b>DIAGNOSTICS</b></p> <p><b>To select communication diagnostics mode:</b></p> <ol style="list-style-type: none"> <li>1. Press PLUS (+) or MINUS (-) to toggle between the options.</li> </ol>

## 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 27](#) shows a typical test label from this test.



**Note** • The test label prints upside-down.

**Figure 27 • 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 94](#) for more information.
2. **Set the printer to DIAGNOSTICS.** For instructions, see [Set Communications Mode on page 103](#).
3. Set the print width equal to or less than the label width being used for the test. See [Set Print Width on page 94](#) for more information.

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



4. 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.

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

Table 8 • Printer Parameters (Sheet 4 of 22)

Language/Parameter	Action/Explanation														
	<p><b>Set Print Width</b></p> <p>This parameter specifies the printable area across the width of the label. Table 9 shows the ranges and default values for print width, which are based on the printer model and the printhead resolution.</p> <p style="text-align: center;"><b>Table 9 • Print Width Ranges and Maximum Values</b></p> <table border="1" data-bbox="581 531 1422 915"> <thead> <tr> <th data-bbox="581 531 760 642" rowspan="2">Printhead Resolution</th> <th colspan="2" data-bbox="764 531 1422 583">Printer</th> </tr> <tr> <th data-bbox="764 583 1089 642">110Xi4/R110Xi4</th> <th data-bbox="1094 583 1422 642">140Xi4, 170Xi4, 220Xi4</th> </tr> </thead> <tbody> <tr> <td data-bbox="581 642 760 737"><b>200 dpi</b></td> <td data-bbox="764 642 1089 737"><i>Default Value:</i> 832 <i>Range:</i> 2 to 832 dots</td> <td data-bbox="1094 642 1422 737"><i>Default Value:</i> 1344 <i>Range:</i> 2 to 1344 dots</td> </tr> <tr> <td data-bbox="581 737 760 831"><b>300 dpi</b></td> <td data-bbox="764 737 1089 831"><i>Default Value:</i> 1248 <i>Range:</i> 2 to 1248 dots</td> <td data-bbox="1094 737 1422 831"><i>Default Value:</i> 1984 <i>Range:</i> 2 to 1984 dots</td> </tr> <tr> <td data-bbox="581 831 760 915"><b>600 dpi</b></td> <td data-bbox="764 831 1089 915"><i>Default Value:</i> 2496 <i>Range:</i> 2 to 2496 dots</td> <td data-bbox="1094 831 1422 915">N/A</td> </tr> </tbody> </table> <p> <b>Note</b> • Setting the width too narrow can result in portions of a label format not being printed on the media. Setting the width too wide wastes formatting memory and can cause printing off of 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><b>To change the value shown:</b></p> <ol style="list-style-type: none"> <li>1. Press PLUS (+) or MINUS (-) to change the value shown.</li> </ol>	Printhead Resolution	Printer		110Xi4/R110Xi4	140Xi4, 170Xi4, 220Xi4	<b>200 dpi</b>	<i>Default Value:</i> 832 <i>Range:</i> 2 to 832 dots	<i>Default Value:</i> 1344 <i>Range:</i> 2 to 1344 dots	<b>300 dpi</b>	<i>Default Value:</i> 1248 <i>Range:</i> 2 to 1248 dots	<i>Default Value:</i> 1984 <i>Range:</i> 2 to 1984 dots	<b>600 dpi</b>	<i>Default Value:</i> 2496 <i>Range:</i> 2 to 2496 dots	N/A
Printhead Resolution	Printer														
	110Xi4/R110Xi4	140Xi4, 170Xi4, 220Xi4													
<b>200 dpi</b>	<i>Default Value:</i> 832 <i>Range:</i> 2 to 832 dots	<i>Default Value:</i> 1344 <i>Range:</i> 2 to 1344 dots													
<b>300 dpi</b>	<i>Default Value:</i> 1248 <i>Range:</i> 2 to 1248 dots	<i>Default Value:</i> 1984 <i>Range:</i> 2 to 1984 dots													
<b>600 dpi</b>	<i>Default Value:</i> 2496 <i>Range:</i> 2 to 2496 dots	N/A													