

## Select a Data Communication Interface

Table 5 provides basic information about data communication interfaces that you can use to connect your printer to a computer. You may send label formats to the printer through any data communication interface that is available. Select an interface that is supported by both your printer and your computer or your Local Area Network (LAN).

**Table 5 • Characteristics of the Data Communication Interfaces**

Interface	Standard or Optional on Printer	Characteristics
RS-232 Serial	Standard	<ul style="list-style-type: none"> <li>Maximum cable length of 50 ft (15.24 m).</li> <li>You may need to change printer parameters to match the host computer.</li> <li>You need to use a null-modem adaptor to connect to the printer if using a standard modem cable.</li> </ul>
IEEE 1284 Bidirectional Parallel	Standard	<ul style="list-style-type: none"> <li>Maximum cable length of 10 ft (3 m).</li> <li>Recommended cable length of 6 ft (1.83 m).</li> <li>An Ethernet print server (if installed) takes up or covers this port on the printer.</li> <li>No printer parameter changes required to match the host computer.</li> </ul>
USB	Standard	<ul style="list-style-type: none"> <li>Maximum cable length of 16.4 ft (5 m).</li> <li>No printer parameter changes required to match the host computer.</li> </ul>
Internal wired Ethernet print server	Optional	<ul style="list-style-type: none"> <li>Can print to the printer from any computer on your LAN.</li> <li>Can communicate with the printer through the printer's web pages when in ZPL mode.</li> <li>Computer must be equipped with an Ethernet board.</li> <li>The printer must be configured to use your LAN.</li> </ul>
Wireless Ethernet print server	Optional	<ul style="list-style-type: none"> <li>Can print to the printer from any computer on your Wireless Local Area Network (WLAN).</li> <li>Can communicate with the printer through the printer's web pages when in ZPL mode.</li> <li>The printer must be configured to use your WLAN.</li> </ul>

## Data Cables and Wireless Cards

You must supply all data cables or wireless cards for your application.

**Data Cables** Ethernet cables do not require shielding, but all other data cables must be fully shielded and fitted with metal or metallized connector shells. Unshielded data cables may increase radiated emissions above the regulated limits.

To minimize electrical noise pickup in the cable:

- Keep data cables as short as possible.
- Do not bundle the data cables tightly with the power cords.
- Do not tie the data cables to power wire conduits.

**Wireless Cards** For supported wireless cards, refer to the *ZebraNet Wireless User Guide*. A copy of the manual is available at <http://www.zebra.com/manuals> or on the user CD that came with your printer.

## Connect the Printer to the Computer or Network

Table 6 shows how to connect the different types of data cables to your printer and computer. The connectors on the back of your computer may be in different locations than on the sample computer shown in this section.

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**Caution** • Ensure that the printer power is off (O) before connecting data communications cables. Connecting a data communications cable while the power is on (I) may damage the printer.

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**Table 6 • Connecting the Printer to a Computer or Network**

Interface	Connection and Configuration
RS-232 Serial	The baud rate, number of data and stop bits, the parity, and the XON/XOFF or DTR control must match those of the host computer. See <i>Control Panel Parameters</i> on page 72 to view or change these parameters.
IEEE 1284 Bidirectional Parallel	No additional configuration is necessary. An Ethernet print server (if installed) takes up or covers this port on the printer.
USB	No additional configuration is necessary. <b>Caution</b> • Be careful not to plug the USB cable into the wired Ethernet print server connector on the printer because doing so will damage the connector.

## Password Level 3 Parameters

Table 15 shows parameters in the order in which they appear when you press the right arrow after entering the Level 3 password (1234). Throughout this process, press the right arrow to continue to the next parameter or the left arrow to return to the previous parameter in the cycle.

Table 15 • Printer Parameters, Password Level 3 (Page 1 of 10)

Parameter	Explanation
PRINT OUT	<p><b>Print Selected Labels</b></p> <p>This parameter allows you to print certain types of labels with information about the printer.</p> <p><i>Selections:</i></p> <ul style="list-style-type: none"> <li>• <b>SETTINGS</b>—Prints a printer configuration label. See <a href="#">Printing Configuration Labels on page 68</a>.</li> <li>• <b>FORMATS</b> (ZPL, EPL, APL-D)—Prints a label that lists the available fonts in the printer, including standard printer fonts plus any optional fonts. Fonts may be stored in RAM, Flash memory, optional memory cards, or font cards.</li> <li>• <b>FORMATS</b> (ZPL, EPL, APL-D)—Prints a label that lists the available formats stored in the printer's RAM, Flash memory, or optional memory card.</li> <li>• <b>BARCODES</b> (ZPL only)—Prints a label that lists the available bar codes in the printer.</li> <li>• <b>ALL</b> (ZPL, EPL)—Prints labels that list the available fonts, bar codes, images, formats, and the current printer and network configurations.</li> <li>• <b>IMAGES</b> (ZPL, EPL, APL-D)—Prints a label that lists the images currently stored in the printer's RAM, Flash memory, or optional memory cards.</li> <li>• <b>NETWORK</b>—Prints a network configuration label. See <a href="#">Printing Configuration Labels on page 68</a>.</li> <li>• <b>APLI SW SETUP</b> (APL-I only)</li> <li>• <b>APLI HW SETUP</b> (APL-I only)</li> <li>• <b>APLI PRT QUAL</b> (APL-I only)</li> <li>• <b>APLI PITCH</b> (APL-I only)</li> </ul> <p><b>To print labels:</b></p> <ol style="list-style-type: none"> <li>1. Press the up or down arrow to display label choices.</li> <li>2. Press ENTER to print the desired label.</li> </ol>

Table 15 • Printer Parameters, Password Level 3 (Page 3 of 10)





Parameter	Explanation
<b>BAUD</b>	<p><b>Set Baud</b></p> <p>The baud setting of the printer must match the baud setting of the host computer for accurate communications to take place. Select the value that matches the one being used by the host computer.</p> <p><i>Selections (ZPL, APL-I, APL-D):</i> 300, 600, 1200, 2400, 4800, 9600, 14400, 19200, 28800, 38400, 57600, 115200</p> <p><i>Selections (EPL):</i> 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200</p> <p><i>Default Value:</i> 9600</p> <p><b>To modify this parameter:</b></p> <ul style="list-style-type: none"> <li>Press the up or down arrow to scroll through the selections.</li> </ul>
<b>DATA BITS</b>	<p><b>Set Data Bits</b></p> <p>The data bits of the printer must match the data bits of the host computer for accurate communications to take place. Set the data bits to match the setting being used by the host computer.</p> <p> <b>Note</b> • Code Page 850 requires the data bits to be set to 8 bits.</p> <p><i>Selections:</i> 7 BITS, 8 BITS</p> <p><i>Default Value:</i> 8 BITS</p> <p><b>To modify this parameter:</b></p> <ul style="list-style-type: none"> <li>Press the up or down arrow to scroll through the selections.</li> </ul>
<b>STATUS RESPONSE (APL-I mode only)</b>	<p><b>Send APL-I Status Response</b></p> <p>Determines if a response is sent after inquiry commands.</p> <p><i>Selections:</i> ON, OFF</p> <p><i>Default Value:</i> ON</p> <p><b>To modify this parameter:</b></p> <ul style="list-style-type: none"> <li>Press the up or down arrow to scroll through the selections.</li> </ul>
<b>PARITY</b>	<p><b>Set Parity</b></p> <p>The parity of the printer must match the parity of the host computer for accurate communications to take place. Select the parity that matches the one being used by the host computer.</p> <p><i>Selections:</i> NONE, ODD, EVEN</p> <p><i>Default Value:</i> NONE</p> <p><b>To modify this parameter:</b></p> <ul style="list-style-type: none"> <li>Press the up or down arrow to scroll through the selections.</li> </ul>

Table 15 • Printer Parameters, Password Level 3 (Page 4 of 10)

Parameter	Explanation
<b>HOST HANDSHAKE</b>	<p><b>Set Host Handshake</b></p> <p>The handshake protocol of the printer must match the handshake protocol of the host computer for proper communications to take place. Select the handshake protocol that matches the one being used by the host computer.</p> <p><i>Selections (ZPL, APL-D):</i> XON/XOFF, DSR/DTR, RTS/CTS</p> <p><i>Selections (APL-I):</i> XON/XOFF, DSR/DTR, RTS/CTS, APL-I</p> <p><i>Default Value (ZPL, APL-D, APL-I):</i> XON/XOFF</p> <p><i>Selections (EPL):</i> DTR &amp; XON/XOF, DTR</p> <p><i>Default Value (EPL):</i> DTR &amp; XON/XOF</p> <p> <b>Note</b> • XOFF is abbreviated as XOF on the EPL display.</p> <p><b>To modify this parameter:</b></p> <ul style="list-style-type: none"> <li>Press the up or down arrow to scroll through the selections.</li> </ul>
<b>CONTROL CHAR (ZPL mode only)</b>	<p><b>Set Control Character</b></p> <p>The printer looks for this two-digit hexadecimal character to indicate the start of a ZPL/ZPL II control instruction.</p> <p> <b>Note</b> • Do not use the same hexadecimal value for the control, command, and delimiter character. The printer must see different characters to work properly.</p> <p><i>Range:</i> 00 to FF</p> <p><i>Default Value:</i> 7E (tilde—displayed as an arrow)</p> <p><b>To modify this parameter:</b></p> <ul style="list-style-type: none"> <li>To increase the value, press the up arrow.</li> <li>To decrease the value, press the down arrow.</li> </ul>
<b>COMMAND CHAR (ZPL mode only)</b>	<p><b>Set Command Character</b></p> <p>The command prefix is a two-digit hexadecimal value used as a parameter place marker in ZPL/ZPL II format instructions. The printer looks for this two-digit hexadecimal 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> <b>Note</b> • Do not use the same hexadecimal value for the control, command, and delimiter character. The printer must see different characters to work properly.</p> <p><i>Range:</i> 00 to FF</p> <p><i>Default Value:</i> 5E (caret)</p> <p><b>To modify this parameter:</b></p> <ul style="list-style-type: none"> <li>To increase the value, press the up arrow.</li> <li>To decrease the value, press the down arrow.</li> </ul>