

# ISDN DEFINITY Extender Quick Installation Guide

Lucent Technologies  
Bell Labs Innovations



## Verify Site Requirements



*Installation cannot proceed until these requirements are met.*

*This procedure assumes you will set up both the switch and remote modules. If you are configuring only the remote module, complete sections 1 and 2 as applicable, then step 5 using the remote ISDN number and then step 6.*

**\*** *Service Provider Identifier-NPA.NXX-xxxx & 4 (or 2) digit ID code.*

*The directory number is the SPID without an ID code.*


<b>1</b>	<b>a</b>	<p>The customer must furnish the following:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> ISDN line installed at the switch site (one ISDN line is required for each switch module)</li> <li><input type="checkbox"/> ISDN line installed for each remote module.</li> <li><input type="checkbox"/> One extra ISDN line available at the switch site for acceptance testing purposes.</li> <li><input type="checkbox"/> All switch translations complete for the station(s) being connected.</li> <li><input type="checkbox"/> A two-wire port available (TN-2181 or TN-2224) for connection of each switch module. Extension number: _____</li> <li><input type="checkbox"/> AC power outlet for the switch module (UPS backup recommended)</li> <li><input type="checkbox"/> DEFINITY digital display telephone (supported sets are: 6408, 6416, 6424, 8410, 8434, Callmaster III, IV, V, and VI).</li> <li><input type="checkbox"/> Password for 1<sup>st</sup> remote user [add 6-8 digits to ] <b>01</b> _____                      Password for 2nd remote user [add 6-8 digits to ] <b>02</b> _____</li> </ul>																				
	<b>b</b>	<p>The ISDN service provider must furnish the following information for each ISDN line:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Switch ISDN</th> <th style="width: 20%; text-align: center;">Remote ISDN</th> <th style="width: 30%; text-align: center;">Test ISDN</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/> SPID1: *</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td><input type="checkbox"/> SPID2: *</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td><input type="checkbox"/> Directory Number 1:</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td><input type="checkbox"/> Directory Number 2:</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> <td style="text-align: center;">_____</td> </tr> </tbody> </table> <p>ISDN type: _____ TEI type: _____</p>		Switch ISDN	Remote ISDN	Test ISDN	<input type="checkbox"/> SPID1: *	_____	_____	_____	<input type="checkbox"/> SPID2: *	_____	_____	_____	<input type="checkbox"/> Directory Number 1:	_____	_____	_____	<input type="checkbox"/> Directory Number 2:	_____	_____	_____
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**Verify Installation Materials**

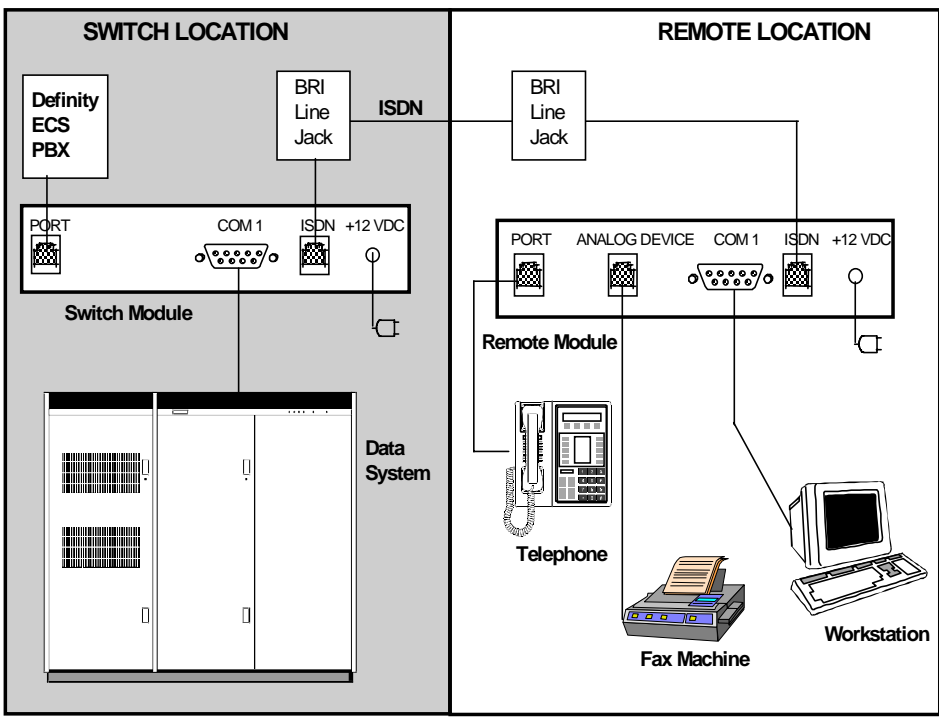
<b>c</b>	<p>Inspect the installation package(s) for missing or damaged material:</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> switch module</td> <td><input type="checkbox"/> remote module</td> </tr> <tr> <td><input type="checkbox"/> AC adapter</td> <td><input type="checkbox"/> AC adapter</td> </tr> <tr> <td><input type="checkbox"/> D8W cord</td> <td><input type="checkbox"/> mounting cord with RJ45 connector</td> </tr> <tr> <td><input type="checkbox"/> mounting cord with RJ45 connector</td> <td></td> </tr> </table>	<input type="checkbox"/> switch module	<input type="checkbox"/> remote module	<input type="checkbox"/> AC adapter	<input type="checkbox"/> AC adapter	<input type="checkbox"/> D8W cord	<input type="checkbox"/> mounting cord with RJ45 connector	<input type="checkbox"/> mounting cord with RJ45 connector	
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<b>d</b>	<p>To configure the unit on site, you will also need:</p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> PC/Notebook with a communications package such as HyperTerminal</td> </tr> <tr> <td><input type="checkbox"/> Straight cable-9-pin male connector (25-pin adapter may be needed) on one end and a female on the other</td> </tr> </table>	<input type="checkbox"/> PC/Notebook with a communications package such as HyperTerminal	<input type="checkbox"/> Straight cable-9-pin male connector (25-pin adapter may be needed) on one end and a female on the other						
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**Connect the modules**

**2** Refer to Figure 1 below to connect the DEFINITY Extender units. **DO NOT** connect the transformers to electrical outlets at this time.



*Installation does NOT include connections to data equipment. This is a customer responsibility.*




**Set Up PC Connection for administration**

<b>3</b>	<p>You will need to use a communications package — for example, HyperTerminal — to configure and test the ISDN DEFINITY Extender. Attach one end of the RS-232 cable to your PC's COM1 port and the other end to the RS-232 connector on the switch module.</p> <p>The steps below describe a first time setup for HyperTerminal.</p>
<b>a</b>	<p>Access: <b>Start</b> button &gt; <b>Programs</b> &gt; <b>Accessories</b> &gt; <b>HyperTerminal</b> folder &gt; <b>HyperTerminal</b> icon.</p>
<b>b</b>	<p>Type <b>2100</b> for the new modem connection and click <b>OK</b>.</p>

<b>c</b>	At the Phone Number dialog, select Connect using = <b>Direct to COM1</b> (ignore other settings) and click <b>OK</b> .
<b>d</b>	At the COM1 Properties dialog, set the parameters to <b>57600, 8, none, 1</b> and <b>hardware flow control</b> and click <b>OK</b> .
<b>e</b>	When the HyperTerminal window appears, it will be blank — that is, there is no logon prompt.
<b>f</b>	Click on <b>File</b> , then <b>Properties</b> . Select <b>Settings</b> tab and go to <b>Emulation</b> window. Select <b>VT100</b> and then click <b>OK</b> .
<b>g</b>	Plug the switch module power cord into the wall outlet.
<b>h</b>	Watch the LED light on the top of the switch module. After you see 3 sets of 8 yellow flashes type <b>at@menu</b> .

### Administer the Switch Module

<b>4</b>	The switch module will be administered using your PC. You will need to refer to the information obtained in section 1.
<b>a</b>	Select 1 for “Configure ISDN” from the Main Menu. From the configuration menu, press 1 for “Set Switch Type”. Press the number for the ISDN Network Switch Type.
<b>b</b>	Select 2 for “Set SPID1”. Enter the number for the first SPID number for the switch module. Press <b>Enter</b> to accept the information.
<b>c</b>	Select 3 for “Set SPID2”. Enter the second SPID number for the switch module. Press <b>Enter</b> to accept the information.
<b>d</b>	Select 4 for “Set DN1”. Enter the first DN number for the Switch module. Press <b>Enter</b> to accept the information.
<b>e</b>	Select 5 for “Set DN2”. Enter the second DN number for the Switch module. Press <b>Enter</b> to accept the information.
<b>f</b>	Verify the “TEI” (Terminal Endpoint Identifier) is set to <b>AUTO</b> unless the LEC has specified <b>FIXED</b> TEI.
	 Exit from the “Configure ISDN Menu” and type a “Y” at the prompt to save your input.
<b>g</b>	Select 2 “Configure System” from the Main Menu. Type 1 for “Passwords”. Enter the system administrator password.
<b>h</b>	Select 2 for “Change Password”. Enter the password for the remote user and press <b>Enter</b> .
<b>i</b>	Exit from the menu by highlighting “exit” and pressing <b>Enter</b> . Repeat until you completely exit the DEFINITY Extender menu.

**Administer the Remote Module for testing at the switch site**

*Use the DROP button for 8400 and Callmaster sets. Use REDIAL for 6400 series set.*

<b>5</b>	You will administer the remote module using the display on the telephone.
<b>a</b>	Plug the remote module power cord into the wall outlet. (You will need a second electrical outlet for this purpose.)
<b>b</b>	<p>The following display appears on the telephone:</p> <p style="text-align: center;"><b>2: OK 3: Next</b></p> <p style="text-align: center;"><b>Go Online?</b></p> <p>Press <b>3</b> on the touch-tone pad for <b>Next</b>. Then select <b>Set ISDN Parameters?</b> by entering <b>2</b>.</p>
<b>c</b>	Press <b>2</b> to select <b>Set Switch Type</b> . Press <b>3</b> until you see the network switch type from page 1. Press <b>2</b> for <b>OK</b> , then <b>3</b> for <b>NEXT</b> .
<b>d</b>	Press <b>2</b> to <b>Set SPID 1</b> . Enter the SPID1 number for the <b>test ISDN</b> . Press <b>DROP</b> or <b>REDIAL</b> to accept. Press <b>3</b> for <b>Next</b> .
<b>e</b>	Press <b>2</b> to <b>Set SPID 2</b> . Enter the SPID2 number for the <b>test ISDN</b> . Press <b>DROP</b> or <b>REDIAL</b> to accept. Press <b>3</b> for <b>Next</b> .
<b>f</b>	Press <b>2</b> to <b>Set DN1</b> . Enter the first directory number for the <b>test ISDN</b> . Press <b>DROP</b> or <b>REDIAL</b> to accept. Press <b>3</b> for <b>Next</b> .
<b>g</b>	Press <b>2</b> to <b>Set DN2</b> . Enter the second directory number for the <b>test ISDN</b> . Press <b>DROP</b> or <b>REDIAL</b> to accept. Press <b>3</b> for <b>Next</b> .
<b>h</b>	Press <b>2</b> to <b>Set TEI</b> . If <b>TEI SET TO Auto</b> appears select <b>2</b> for <b>OK</b> . Otherwise press <b>3</b> until <b>TEI set for Auto</b> appears, then press <b>2</b> to accept.
<b>i</b>	Select <b>1</b> for <b>Prev</b> until <b>Save Changes?</b> Appears. Press <b>2</b> to <b>OK</b> .
<b>j</b>	From <b>Set ISDN Parameters?</b> Press <b>3</b> for <b>Next</b> until <b>Set Dial Numbers</b> appears. Press <b>2</b> to select this option. Press <b>2</b> again to select <b>Set PBX Phone Number?</b> Enter the first directory number for the switch module ISDN. Include a 9 or any other digits necessary to make the call. Press the <b>DROP</b> or <b>REDIAL</b> key to accept.
<b>k</b>	Press <b>3</b> for <b>Next</b> then <b>2</b> for <b>Set Rem Phone Number?</b> Enter the first directory number from the test ISDN. Press <b>Drop</b> or <b>Reset</b> to accept.
<b>l</b>	Press <b>1</b> until <b>Set Dial Numbers?</b> appears, then press <b>3</b> until <b>Set COD Parameters?</b> appears. Press <b>2</b> to accept.
<b>m</b>	<b>Set COD Mode?</b> will appear. Press <b>2</b> .
<b>n</b>	You must set the COD mode to match the set used. Press <b>3</b> until the correct mode appears. For sets in a forced ACD, press <b>2</b> for <b>Voice Mode</b> . For Callmaster sets, press <b>2</b> for <b>Lamp Mode</b> . For all other situations, press <b>2</b> for <b>Ring Mode</b> .
<b>o</b>	Press <b>1</b> until you reach <b>Go Online?</b>
	This concludes the basic setup for the ISDN DEFINITY Extender. <b>You must now test the units.</b>

**Acceptance Testing**


<b>6</b>	To test connectivity, press <b>2</b> from the <b>Go Online?</b> Menu.	
	<b>a</b>	At this point, the ISDN Remote Module dials the ISDN Switch Module.  The <b>Enter Password</b> screen appears.  Enter the password. Press the <b>DROP or REDIAL</b> button on the telephone connected to the Remote Module.
	<b>b</b>	If a valid password has been entered, the ISDN Remote Module completes the connect sequence and the telephone is operational.
	<b>c</b>	If you are unable to connect, do the following: <ul style="list-style-type: none"> <li>◆ verify the password you entered</li> <li>◆ verify all connectivity</li> <li>◆ verify all programming-both the switch and remote modules</li> <li>◆ call Lucent Technologies or your local authorized dealer for assistance</li> </ul>

**Reprogram the remote module for use at the remote site**

<b>7</b>	<b>a</b>	From the <b>GO ONLINE?</b> Press <b>3</b> . Press <b>2</b> to select <b>Set ISDN Parameters?</b> Press <b>3</b> for <b>Next</b> .
	<b>b</b>	Press <b>2</b> to <b>Set SPID1</b> . Enter SPID1 for the <b>remote ISDN</b> . Press <b>DROP or REDIAL</b> to accept. Press <b>3</b> for <b>Next</b> .
	<b>c</b>	Press <b>2</b> to <b>Set SPID2</b> . Enter SPID2 for the <b>remote ISDN</b> . Press <b>DROP or REDIAL</b> to accept. Press <b>3</b> for <b>Next</b> .
	<b>d</b>	Press <b>2</b> to <b>Set DN1</b> . Enter the first directory number for the remote <b>ISDN</b> . Press <b>DROP or REDIAL</b> to accept. Press <b>3</b> for <b>Next</b> .
	<b>e</b>	Press <b>2</b> to <b>Set DN2</b> . Enter the second directory number for the remote <b>ISDN</b> . Press <b>DROP or REDIAL</b> to accept. Press <b>1</b> for <b>Prev</b> until <b>Set ISDN Parameters?</b> appears.
	<b>f</b>	Press <b>3</b> for <b>Next</b> then <b>2</b> for <b>Set Dialed Numbers?</b> Press <b>2</b> for <b>Set PBX Phone Number?</b> Enter the first directory number from the <b>switch ISDN</b> . Enter the number as you would dial it from the <b>remote</b> location. Press <b>Drop or Reset</b> to accept. Select <b>1</b> for <b>Prev</b> until <b>Save Changes?</b> Appears. Press <b>2</b> to <b>OK</b> .
	<b>g</b>	Press <b>3</b> for <b>Next</b> . Press <b>2</b> for <b>Set REM Phone Number?</b> Enter the first directory number for the <b>remote ISDN</b> . Press <b>DROP or REDIAL</b> to accept. Press <b>1</b> until <b>Go Online?</b> appears.

**Wrap Up Site Visit**

<b>8</b>	<b>a</b>	Exit HyperTerminal by closing its window and confirming ( <b>Yes</b> ) that you want to disconnect now. Select <b>Yes</b> when prompted to save the session — this will result in a new icon "2100.ht" in the HyperTerminal folder (you can use it for future connections to any other ISDN Definity Extenders).
	<b>b</b>	Disconnect your PC from the switch module.
	<b>c</b>	Repackage the remote module. The customer will be responsible for delivery to the remote site.

 Leave these instructions with the customer contact at the switch site.