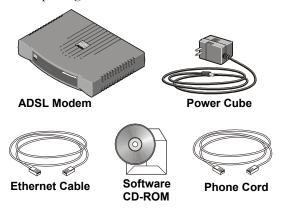
# **Quick Start**

### **ADSL Bridge Modem**

This Quick Start contains instructions for connecting this modem to one Windows computer. Macintosh and Linux users, as well as those who plan to use a router with the modem, should refer to the User's Guide on the CD.

### **Package Contents**

Your package contains the items shown below:



The CD contains the installation software, documentation, advanced features information, a glossary of technical terms, the warranty, and detailed Customer Support information.

If anything is missing or damaged, please contact Zoom Customer Support or whoever sold you the modem.

In addition, the package may include:

- Phone-jack adapter to adapt the phone cord to a particular phone jack (certain countries only)
- ADSL line filter(s) (certain units only)

### **Before You Begin**

Before you begin installing the ADSL Bridge modem using this Quick Start, you must have the following available to you:

- ADSL service enabled on your telephone line. To do this, you need to sign up with an ADSL service provider. Once this service is enabled, you should have an ADSL-enabled telephone wall jack to plug the modem into. (Your service provider may refer to "ADSL service" as "DSL service.")
- A Windows 98/Me/2000/XP computer that you want to connect to the Internet. This computer must have an Ethernet port. If it does not, you can purchase a Network Interface Card (NIC) to add one.

#### Note:

This document provides instructions for configuring Windows computers only. If you have a Macintosh or a Linux computer, or if you would like to use the modem with a router, please refer to the User's Guide on the CD.

• In the unlikely event that you plan to use a static IP address with the modem, you must have the IP Address, Subnet Mask, Gateway, and DNS values provided by your Internet service provider. Only those who have made arrangements with their Internet service provider for a static IP address need this information.

### **Installation Instructions**

Installing the ADSL Bridge modem involves three steps: Installing the Software, Installing the Hardware, and Testing Your Internet Connection.

### **Step 1: Installing the Software**

You MUST install the software BEFORE installing the hardware.

- 1 Turn on your Windows computer.
- 2 Insert the supplied CD into the CD-ROM drive of your computer. The CD should start automatically and the Language Selection screen should appear. (If the CD does not start automatically, on the desktop, click the Start button, click Run, and then type D:\setup.exe, where D is the letter of your CD-ROM drive.)
- **3** Select your language. The **Main Menu** screen opens.
- 4 Click **Installation Wizard** to start the software installation, then click **Next** when prompted.

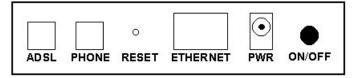
- **5** When the installation is complete, click **Finish**, then click **Exit**.
- **6** Close any applications that may be open, then remove the CD from the CD-ROM drive.
- 7 Shut down the computer.

**Congratulations!** You have installed the software. Now, continue with the next section, **Installing the Hardware**.

### **Step 2: Installing the Hardware**

- 1 Shut down your computer (if it is not shut down already).
- 2 Plug one end of the supplied phone cord into the modem's **ADSL** port and the other into the ADSL wall jack.
- **3** Connect the modem to the computer's Ethernet port. Plug one end of the Ethernet cable into the modem's **ETHERNET** port and plug the other end into your computer's Ethernet port.

The connection is made to the back panel of the modem.



4 Plug the included power cube into a power strip or wall outlet and then into the modem's power (PWR) jack.

#### **Important!**

Only use the power cube shipped with the modem. Other power cubes may damage your hardware.

**5** Turn the modem on by pushing the **ON/OFF** button.

The **PWR** light on the front panel of the modem should become steady on, and the **LINK** light should blink once. If the **PWR** light does not turn on, make sure there is power at the wall outlet or power strip where you plugged in the power cube and that you have pushed the modem's **ON/OFF** button to turn it on.

- **6** Turn the computer on.
- [Optional] If you want to plug in a phone through the modem, you can do so by plugging it into the **PHONE** port. (A filter is not required.)
- **8** We HIGHLY RECOMMEND that you install a filter on EVERY phone and fax that is sharing the ADSL phone line. Phone filters block the ADSL frequencies so that someone making a normal phone call will not hear modem noise on the line. They also keep phone conversations from interfering with ADSL performance.

The **PHONE** port of the modem has a built-in filter, so there is no need for a filter if you plug a phone into the **PHONE** port.

You may have received ADSL phone filters with your modem. If you did not, or if you need more filters, they are available at most retail stores that carry consumer electronics.

Plug each phone or fax cord into the filter's **PHONE** end and plug the filter's **LINE** end into the wall jack.

**Congratulations!** You have installed the hardware. Now, continue with the next section, **Testing Your Internet Connection**.

## Step 3: Testing Your Internet Connection

Once the software is installed and the hardware is connected, you are ready to browse the Web!

However, if either of the following situations applies to you, there is an additional task you must complete before your ADSL Bridge modem can access the Internet.

- You have a static IP address: If you arranged with your Internet service provider for a static IP address, you must specify that IP address in your computer's TCP/IP settings and configure the modem to match your provider's VPI and VCI settings. You will not be able to access the Internet until you do so. See Using Static IP Addressing on page 7.
- You have PPPoE client software: If your Internet service
  provider gave you setup software, install it now. Your service
  provider should have provided the necessary instructions to do
  this.

### To test your Internet connection

- 1 Turn on your computer.
- 2 Open your Web browser (for example, Internet Explorer or Netscape Navigator) and try to connect to a familiar Web address.
  - ➤ If you connect successfully, your installation is complete and you are ready to browse the Web!
  - ➤ If you are unable to access the Web, wait a few minutes and try again. Your modem may need more time to establish a connection with your Internet service provider. If you are still unable to connect after a few minutes, refer to **Troubleshooting Tips** on page 14.

### **Using Static IP Addressing**

Your ADSL Bridge modem works with Dynamic Host Configuration Protocol (DHCP), which is also known as "dynamic IP addressing." This is because most Internet service providers use DHCP.

However, in the unlikely event that you plan to use a static IP address with your modem, you must specify that IP address in your computer's TCP/IP settings and configure the modem to match your provider's **VPI** and **VCI** settings.

There is typically an extra charge for a static IP address, and you usually have to make a special request of your Internet service provider to get one.

#### **Important!**

If you do not know what static IP addressing is or why you would use it, you most likely do not need to change your computer's TCP/IP settings or configure the modem. Only advanced users who specifically want to use static IP addressing and/or those users whose IP provider specifically instructed them to use static IP addressing should perform the steps below.

### To configure your ADSL Bridge modem to use a static IP address

Before you can access the modem's interface, you must first change your computer's TCP/IP settings to match the values show in the table below.

For this value	Enter
IP address	Any value between <b>10.0.0.4</b> and <b>10.0.0.20</b> . For example, type <b>10.0.0.10</b> .
Subnet mask	255.255.255.0
Default gateway	10.0.0.2

#### Tip!

If do not know how to access your computer's TCP/IP settings, see **Specifying TCP/IP Settings** on page 10.

### **2** Log into the **Zoom Configuration Manager**.

a On your desktop, double-click the **Zoom** icon.

This icon should have been placed there automatically when you installed the software earlier. (If the **Zoom** icon is not there: Open your Web browser and, in its address bar, type http://10.0.0.2, then press the Enter key on your keyboard.)

#### Note:

You do not need to have an Internet connection established to be able to access the **Zoom Configuration Manager**.

When prompted, type the following user name and password in the appropriate boxes, then click **OK**. You must enter them using lowercase letters.

User Name: admin
Password: zoomadsl

If you are not prompted for a user name and password, do the following in this order: Recheck all connections; restart the modem and computer; and reset the modem by inserting a paper clip into the **Reset** pinhole in the center of the modem's back panel and holding it for five seconds.

The user name and password you enter here do not serve the same purpose as any name and password that your Internet service provider may have given you.

- 3 The Zoom Configuration Manager opens and begins to automatically configure itself. This is evident because the Basic Setup page will open and quickly change to the Autodetect page. To specify your Internet service provider's VPI and VCI settings, you must set the modem for manual configuration. Do the following:
  - **a** Click the **Stop** button to stop the modem from trying to automatically configure itself.
  - Select the **Disable** option button, then click **Save** Changes. The page changes, and the **MANUALLY** option button is selected.
  - **C** Enter the **VPI** and **VCI** settings into the appropriate boxes. These values should have been given to you by your Internet service provider.
  - d Click the Save Changes button, then click the Write Settings to Flash button.
- 4 Close **Zoom Configuration Manager** by closing your Web browser.
- 5 Change your computer's TCP/IP settings from the values you specified in step 1 to those given to you by your Internet service provider. Besides changing the IP Address, Subnet Mask, and Gateway values, you must enter an additional value: DNS. This, too, should have been provided by your Internet service provider. For more information about specifying these settings, see Specifying TCP/IP Settings on page 10.
- **6** Continue with **Testing Your Internet Connection** on page 6.

### **Specifying TCP/IP Settings**

This section explains how to access and specify the TCP/IP settings for your computer. There are several reasons why you would access these settings:

- You have a static IP address. Before you can access the Web, you must specify the IP Address, Subnet mask, Gateway, and DNS Server given to you by your Internet service provider.
- You want to access the Zoom Configuration Manager.
   Because your ADSL Bridge modem uses 1483 Bridged encapsulation as its protocol, you must change your computer's TCP/IP settings in order to access the Zoom Configuration Manager. This Web interface is used to configure the modem's VPI and VCI settings, monitor modem and ADSL status, and specify advanced options. (More information about monitoring status and advanced options is located in the user's guide, located in PDF format on the CD.)
- You are troubleshooting. If your modem's front panel LINK light is solidly lit, but you cannot connect to the Internet, you should verify that your TCP/IP settings are correct.

How you configure your computer's network settings differs, depending on your operating system. The following pages detail how to specify these settings for Windows XP, Windows 2000, Windows Me, and Windows 98.

### Windows XP

- 1 Open the **Internet Protocol (TCP/IP) Properties** dialog box.
  - From the desktop, click the Start button, point to Control Panel, and then click Network and Internet Connections.
  - **b** Click **Network Connections**.
  - Right-click the **Local Area Connection** icon, and select **Properties**.
  - **d** Select your NIC card's TCP/IP entry (it should include "TCP/IP" in it, but not "AOL," "Dial-up," or "Adapter") and click the **Properties** button.
- **2** Ensure the following is selected, depending on your situation:
  - ➤ If you are logging into the Zoom Configuration Manager: Ensure that Use the following IP address and Use the following DNS server addresses are selected and that the information in the table below appears in the appropriate fields.

For this value	Enter
IP address	Any value between <b>10.0.0.4</b> and <b>10.0.0.20</b> . For example, type <b>10.0.0.10</b> .
Subnet mask	255.255.255.0
Default gateway	10.0.0.2

- ➤ If you are using dynamic IP addressing (DHCP): Ensure that Obtain an IP address automatically is selected and that either Obtain a DNS server address automatically or Enable DNS is selected. All fields should be blank.
- ➤ If you are using a static IP address: Ensure that Use the following IP address and Use the following DNS server addresses are selected. Enter the IP address, Subnet mask, Default gateway, and Preferred DNS server values given to you by your service provider.

### Windows 2000

- 1 Open the Internet Protocol (TCP/IP) Properties dialog box.
  - From the desktop, click the Start button, point to Settings, then Network and Dial-up Connections.
  - Right-click the Local Area Connection icon, and select Properties.
  - **C** Select your NIC card's TCP/IP entry (it should include "TCP/IP" in it, but not "AOL," "Dial-up," or "Adapter") and click the **Properties** button.
- **2** Ensure the following is selected, depending on your situation:
  - ➤ If you are logging into the Zoom Configuration Manager: Ensure that Use the following IP address and Use the following DNS server addresses are selected and that the information in the table below appears in the appropriate fields.

For this value	Enter
IP address	Any value between <b>10.0.0.4</b> and <b>10.0.0.20</b> . For example, type <b>10.0.0.10</b> .
Subnet mask	255.255.255.0
Default gateway	10.0.0.2

- ➤ If you are using dynamic IP addressing (DHCP): Ensure that Obtain an IP address automatically is selected and that either Obtain a DNS server address automatically or Enable DNS is selected. All fields should be blank.
- ➤ If you are using a static IP address: Ensure that Use the following IP address and Use the following DNS server addresses are selected. Enter the IP address, Subnet mask, Default gateway, and Preferred DNS server values given to you by your service provider.

### Windows Me/98

- 1 Open the **Internet Protocol (TCP/IP) Properties** dialog box.
  - **a** From the desktop, click the **Start** button, point to **Settings**, then **Control Panel**.
  - **b** Double-click the **Network** icon to display the **Network** dialog box.
  - Select your NIC card's TCP/IP entry (it should include "TCP/IP" in it, but not "AOL," "Dial-up," or "Adapter") and click the **Properties** button and then click **OK**
- **2** Ensure the following is selected, depending on your situation:
  - ➤ If you are logging into the Zoom Configuration Manager: Ensure that Use the following IP address and Use the following DNS server addresses are selected and that the information in the table below appears in the appropriate fields.

For this value	Enter
IP address	Any value between <b>10.0.0.4</b> and <b>10.0.0.20</b> . For example, type <b>10.0.0.10</b> .
Subnet mask	255.255.255.0
New gateway	10.0.0.2

- ➤ If you are using dynamic IP addressing (DHCP): Ensure that Obtain an IP address automatically is selected and that either Obtain a DNS server address automatically or Enable DNS is selected. All fields should be blank.
- ➤ If you are using a static IP address: Ensure that Specify an IP address is selected, then enter the IP Address and Subnet Mask values given to you by your service provider. On the Gateway tab, enter the New gateway value given to you by your provider. On the DNS Configuration tab, ensure that Enable DNS is selected and that something appears in the Host box. (If not, enter any name, word, or combination of letters and numbers.) In the DNS Server Search Order box, enter the DNS value provided by your service provider.

### **Troubleshooting Tips**

The following are some problems you may experience and some possible solutions to remedy the situation.

#### **Problem**

My ADSL Bridge modem's **LINK** light is solidly lit, but I cannot connect to the Internet.

### Solution

There are several issues that could cause this problem. Check these items:

- You modem may not have connected to your Internet service provider. Turn off the modem and then turn it back on and wait a few minutes. If this does not work, try the following, depending on your situation:
  - ➤ If you are using dynamic IP addressing (DHCP), the modem may not have detected your Internet service provider when it automatically configured itself. Try entering your Internet service provider's VPI and VCI settings on the Basic Setup page of the Zoom Configuration Manager. If you do not have these values, contact your Internet service provider. For instructions on how to enter these values, perform steps 1–4 of Using Static IP Addressing on page 7. However, because you are using DHCP, you should not perform step 5. Instead, specify the following TCP/IP settings: Select Obtain an IP address automatically and Obtain a DNS server address automatically (the latter may be called Enable DNS).
  - ➤ If you are using a static IP address, ensure that you entered the correct **VPI** and **VCI** settings on the **Basic Setup** page of the **Zoom Configuration Manager**. Your Internet service provider should have given you these values. See **Using Static IP Addressing** on page 7 for more information about entering these values.

- Verify that you have specified the correct TCP/IP settings. See Specifying TCP/IP Settings for information about these settings.
- If you are using PPPoE client software, ensure that you have typed your ADSL Username and Password correctly. (Note that this is <u>NOT</u> the username and password you used to log into the **Zoom Configuration Manager** on page 8.)
- Verify that your service provider's ADSL connection is functioning properly. (Place a call to your service provider's customer support department to verify this.)

### **Problem**

I cannot log into the **Zoom Configuration Manager**. I have typed **http://10.0.0.2** in my Web browser (or I have double-clicked the **Zoom** icon on my desktop, if it appears), but I am not prompted for a User Name and Password.

### Solution

There are several issues that could cause this problem. Check these items:

Ensure that you changed your TCP/IP settings to use the
internal IP address of the modem. This must be done to access
the modem's Web interface. Once you are done using the
modem's Web interface, return the setting to what they were
before you logged in to the Zoom Configuration Manager.

### **Problem**

My ADSL Bridge modem's **LINK** light continually blinks and does not stay solidly lit.

### Solution

There are several issues that could cause this problem. Check these items:

- Ensure that the phone cord is firmly plugged into the wall jack and the ADSL port on the back of the modem (not the PHONE port on the back of the modem).
- Verify that the jack the phone cord is connected to is enabled for ADSL service. Unless your service provider has enabled it, you cannot use a standard telephone jack for ADSL service.
- Your phone cord may be defective. Replace the phone cord with a known good one.
- You have installed phone filters on all the phones and fax machines using the same ADSL line as the modem. These devices can produce noise and interfere with your ADSL connection.

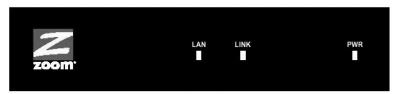
## Removing the ADSL Bridge Modem

If you want to remove your ADSL Bridge modem—for instance, if you move your Windows computer to a location without ADSL service—you should remove the software before disconnecting the hardware.

- From your Windows desktop, click the Start button, point to Programs, then point to Zoom ADSL Modem, then select Uninstall ADSL Modem.
- **2** When prompted to confirm your choice, click **Yes**.
- **3** When the process is complete, you will be prompted to click **Finish**
- 4 Unplug your ADSL Bridge modem hardware.

### **Front and Back Panels**

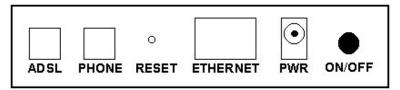
The front panel of the ADSL Bridge modem looks like this:



The following table describes each light on the front panel.

Light	Description		
LAN	Lights when the <b>ETHERNET</b> port of the modem is plugged into the Ethernet port of a powered-up device. Blinks when data is sent.		
LINK	Blinks when the modem is performing its startup sequence. Stays on solid when the unit has synched up with its ADSL connection.		
	<b>Note:</b> If the light fails to switch from blinking to steady after a minute or two, check with your ADSL provider that the ADSL connection is activated, or refer to <b>Troubleshooting Tips</b> on page 14.		
PWR	Lights when the modem is plugged into a power source.		

The back panel of the ADSL Bridge modem looks like this:



The following table describes each item on the panel.

Port	Description	
ADSL	Port to connect the modem to the ADSL telephone wall jack.	
PHONE	Port to connect a phone to the modem.	
RESET	Button to reset the modem to its system default settings (necessary if communication link is lost).	
ETHERNET	Port that can connect the unit to an access point, a network hub, or the Ethernet port of a computer.	
PWR	Port to connect the unit to the power adapter.	
ON/OFF	Button to turn the unit on or off.	

### If You Need Help

Zoom has many Technical Support services available to its customers. You can access these services in a variety of ways:

- Insert the CD, select your language, and then click the
   Customer Support link to view comprehensive support
   information, including how to reach our support experts. The
   CD also includes a User's Guide (available in many different
   languages) containing additional information about your new
   modem.
- Visit our Web site at www.zoom.com and select Technical Support. From here, you can send email to our technical support experts and/or do a smart search through our intelligent database by using SmartFacts™.

#### Tip:

From time to time, Zoom may release improved firmware. This is also available at **www.zoom.com**, along with upgrade instructions. We recommend that you check our Web site periodically for updates.

- Call our support office in the United States at (561) 241-7170 or in the United Kingdom at 44 (0)1276 704440.
- Some retailers of Zoom products provide support or can recommend a convenient support center.

### **Regulatory Information**

#### **U.S. FCC Part 68 Statement**

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. The unit bears a label on the back which contains among other information a product identifier in the format US:AAAEQ##TXXXX. If requested, this number must be provided to the telephone company.

This equipment uses the following standard jack types for network connection: RJ11C.

This equipment contains an FCC compliant modular jack. It is designed to be connected to the telephone network or premises wiring using compatible modular plugs and cabling which comply with the requirements of FCC Part 68 rules.

The Ringer Equivalence Number, or REN, is used to determine the number of devices which may be connected to the telephone line. An excessive REN may cause the equipment to not ring in response to an incoming call. In most areas, the sum of the RENs of all equipment on a line should not exceed five (5.0).

In the unlikely event that this equipment causes harm to the telephone network, the telephone company can temporarily disconnect your service. The telephone company will try to warn you in advance of any such disconnection, but if advance notice isn't practical, it may disconnect the service first and notify you as soon as possible afterwards. In the event such a disconnection is deemed necessary, you will be advised of your right to file a complaint with the FCC.

From time to time, the telephone company may make changes in its facilities, equipment, or operations which could affect the operation of this equipment. If this occurs, the telephone company is required to provide you with advance notice so you can make the modifications necessary to obtain uninterrupted service.

There are no user serviceable components within this equipment. See Warranty flyer for repair or warranty information.

It shall be unlawful for any person within the United States to use a computer or other electronic device to send any message via a telephone facsimile unless such message clearly contains, in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business, other entity, or individual sending the message and the telephone number of the sending machine or of such business, other entity, or individual. The telephone number provided may not be a 900 number or any other number for which charges exceed local or long distance transmission charges. Telephone facsimile machines manufactured on and after December 20, 1992, must clearly mark such identifying information on each transmitted message. Facsimile modem boards manufactured on and after December 13, 1995, must comply with the requirements of this section.

This equipment cannot be used on public coin phone service provided by the telephone company. Connection to Party Line Service is subject to state tariffs. Contact your state public utility commission, public service commission, or corporation commission for more information.

#### **U.S. FCC Part 15 Emissions Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### **Industry Canada Emissions Statement**

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations. Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

#### **Industry Canada CS03 Statement**

Notice: The Industry Canada label identifies certified equipment. This certification means that the equipment meets telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing the equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of concern. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas. Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate. Notice: The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

#### **European Declaration of Conformity**

The manufacturer declares under sole responsibility that this equipment is compliant to Directive 1999/5/EC (R&TTE Directive) via the following. This product is CE Marked.

Directive	Standard	Test Report
73/23/EEC-Low Voltage	EN 60950 : 2000 IEC 60950 : 3 <sup>e</sup> éd. 1999	electrical safety
89/336/EEC-EMC	EN 55024 : 1998 EN 55022 : 1998	EMC-immunity EMC-emissions

#### **Electrostatic Discharge Statement**

The unit may require resetting after a severe electrostatic discharge event.

Note: If you do not use the supplied phone cord, use an equivalent of minimum AWG 26 line cord.

CAUTION: To reduce the risk of fire, use only No. 26 AWG or larger UL Listed or CSA Certified Telecommunication Line Cord.

Additional compliance information is located on the CD.