
Quick Start

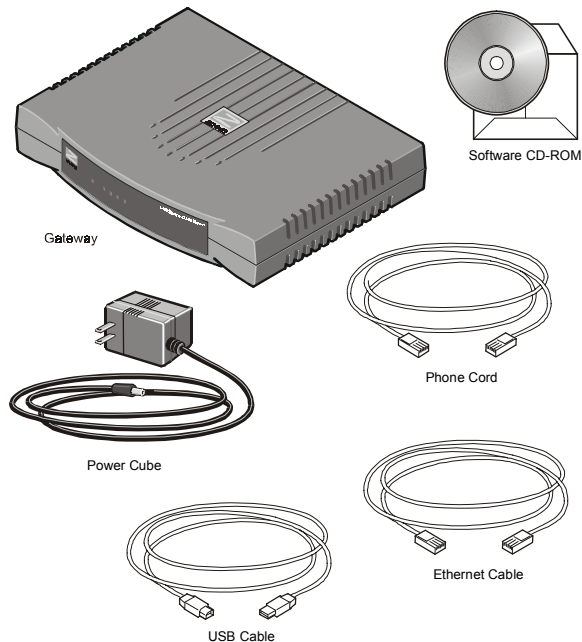
X5v ADSL VoIP Gateway

This Quick Start covers instructions for Windows PC users. Macintosh and Linux users should refer to the User's Guide on the CD, which also has additional information for Windows users. The CD also contains a Glossary of technical terms and Customer Support information.

Important! Before You Begin

Before installing your X5v, you must have DSL service enabled on your telephone line. To do this, you need to sign up with a DSL service provider.

What's in the Package



The CD contains the installation software, documentation, warranty, and Customer Support information.

If anything is missing or damaged, contact Zoom Customer Support or your provider.

In addition, you may have

- **Phone-jack adapter** to adapt the RJ-11 phone cord to a different phone jack (certain units only)
- **DSL line filter(s)** (certain units only).

What You Will Need

- **A Windows PC equipped with a Network Interface Card (NIC) or a USB port.**

Note: If you are using a Macintosh or a Linux computer, please see the User's Guide for instructions.

- **An ADSL-enabled telephone jack** to plug the X5v unit into.
- **A telephone** to plug into the X5v if you plan to use VoIP.

Installing the X5v involves five steps: **Installing the Software, Installing the Hardware, Configuring Internet Explorer, Configuring ADSL, and Setting Up VoIP Service.**

Step 1: Installing the Software

If your computer has an available Ethernet jack, we recommend that you use that instead of the USB jack to simplify installation.

If you need to use the X5v's USB jack, you must remove any previously installed USB modem drivers on your computer *before* installing this software. On the desktop, click the **Start** button, point to **Settings**, and select **Control Panel**. In **Control Panel**, double-click **Add/Remove Programs**, on the **Install/Uninstall** tab, select your old USB modem from the list, and click **Remove**. Now continue below.

You MUST install the software BEFORE installing the hardware.

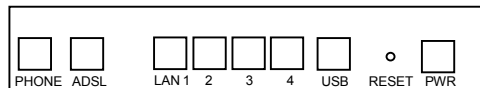
- 1** **Your computer must be on.** Insert the supplied CD into the CD-ROM drive. The CD starts automatically and the **Main Menu** opens. (If the CD does not start automatically, on the desktop, click the **Start** button, click **Run**, and then type **D:\setup.exe**, where **D** is the letter of your CD-ROM drive.)
- 2** **Select your language** and click the **Installation Wizard** button. The software installation proceeds automatically.
- 3** When the process is complete, you will be prompted to click **Finish** and then **shut down** your computer so you can connect the hardware. After shutting down, be sure to remove the CD from your PC.

Step 2: Installing the Hardware

Important! Unplug or turn off the power to your PC *before* proceeding. Remember, you must install the X5v software *before* installing the hardware (Step 1).

Note: If you are replacing an older DSL modem with an X5v, you need to remove the old hardware now.

- 1** Connect the hardware from the X5v's back panel.



- a** Plug your phone into the **PHONE** jack.
Tip: If you have a cordless phone with one or more handsets, plug the *base station* into the X5v's **PHONE** jack.
Note: If RJ-11 phone jacks are not used in your country, you will need a phone adapter. Plug the adapter into the X5v's **PHONE** jack and plug your phone into the other end.
- b** Plug one end of the X5v's phone cord into the X5v's **ADSL** jack and the other end into the wall telephone jack (the jack on the wall where you would normally plug in a standard phone). This jack must be a jack that has been connected to ADSL service.

- **If possible, connect the X5v using your computer's Ethernet port:** Plug one end of the included Ethernet cable into one of the X5v's **LAN** jacks (1, 2, 3, or 4) and plug the other end into the computer's Ethernet port.
If your computer doesn't have an available Ethernet port, you can use your computer's USB port: Plug one end of the USB cable into the X5v's **USB** jack and the other end into the computer's USB port.

- 2** Plug the included power cube into a power outlet and then into the X5v's power (**PWR**) jack.

IMPORTANT:

Use only the power cube shipped with the X5v. Other power cubes may damage your hardware.

The front panel **LINK** light should blink during this step. When this physical connection step is complete, the **LINK** light should change from blinking to solid. If it doesn't, refer to the **Connection Troubleshooting Tips** on page 12.

- 3** Turn the computer on.

If you are using the USB option, a **Found New Hardware** box should display, showing the progress of the installation. Follow the prompts.

Windows XP users: You may see **Hardware Installation** disclaimer boxes regarding Windows logo testing. You can safely disregard these messages and click **Continue Anyway**.

Windows 2000 users: You may see a **Digital Signature Not Found** dialog box. You can safely disregard this message and click **Yes**.

Windows 98/Me users: Restart your computer if you are prompted to do so.

- 4** Phone filters are not absolutely required, but we **HIGHLY RECOMMEND** that you install a filter on **EVERY** phone that is sharing the **DSL** phone line. (Do not plug a filter between the phone wall jack and the X5v.) Phone filters block the DSL frequencies so that someone making a normal phone

call won't hear noise on the line. They also keep phone conversations from interfering with DSL performance.

The X5v phone jack has a filter built-in, so there is no need for a filter on that phone.

You may have received DSL phone filters with your X5v. If you did not, or need more filters, they are available at most retail stores that carry consumer electronics.

For each additional phone, plug the phone's cord into the filter's **PHONE** end and plug the filter's **LINE** end into the wall.

Step 3: Configuring Internet Explorer

The software that you use to make an Internet connection must be set for a **network connection**, not a **dial-up connection**. The instructions below are for Internet Explorer, the most popular Web browser. If you are using Netscape Navigator or another browser, set it up now to use a **network connection** (this might be called a "Local Area Network" or "broadband" connection).

If you use Internet Explorer, you need Version 5 or later. Most people have the right version. If you don't, we suggest you get a free upgrade. If you want to check your version number, open Internet Explorer, select **Help**, then **About Internet Explorer**. Your version number is right under the Microsoft Internet Explorer logo. You can ignore all the numbers after the period following the first digit.

- 1** On the desktop, **right-click** (not left-click) the **Internet Explorer** icon, and select **Properties**.

If you cannot access Internet Explorer:

Windows XP users: From the desktop, click the **Start** button, then click **Control Panel**. In **Control Panel**, click **Network and Internet Options** and then click the **Internet Options** icon.

Windows 98/Me/2000 users: From the desktop, click the **Start** button, point to **Settings**, and then click **Control Panel**. In **Control Panel**, click the **Internet Options** icon.

2 In the **Internet Properties** dialog box, click the **Connections** tab.

3 On the **Connections** tab, click **Setup**.

4 Windows XP users: In the **Welcome to the New Connection Wizard** dialog box, click **Next**.

If you see a **Location Information** dialog box, click **Cancel** to return to the **Welcome** dialog box, and click **Next** again.

In the **Network Connection Type** dialog box, click **Connect to the Internet**.

In the **Getting Ready** dialog box, click “**Set up my connection manually,**” and then click **Next**.

In the **Internet Connection** dialog box, click “**Connect using a broadband connection that is always on,**” and click **Next**.

5 Windows 98/Me/2000 users: In the **Internet Connection Wizard** dialog box, select “**I want to set up my Internet connection manually, or I want to connect through a local area network (LAN)**”, and click **Next**.

In the **Setting up your Internet connection** dialog box, change the selection to “**I connect through a local area network (LAN)**” and click **Next**.

In the **Local area network Internet configuration** dialog box, uncheck “**Automatic discovery of proxy server**”. Click **Next**.

A dialog box asks if you want to set up an email account. Click **No** and then **Next**.

6 When the configuration process is done, you will see a **Completing the Internet Connection Wizard** dialog box.

Windows 98/Me/2000 users: Be sure to uncheck the box that says “**To connect to the Internet immediately, select this box....**”

7 Click **Finish**.

8 Windows XP users: Close **Control Panel**.

Windows 98/Me/2000 users: If Internet Explorer should open, close it before going to the next step of the installation.

Step 4: Configuring ADSL

- 1** You should have a Zoom icon on your desktop that looks like this. You must double-click this icon to open up the **Zoom Configuration Manager** (If you do not have an icon, open your Web browser, type **http://10.0.0.2** and press Enter to display the **Network Password** box.)



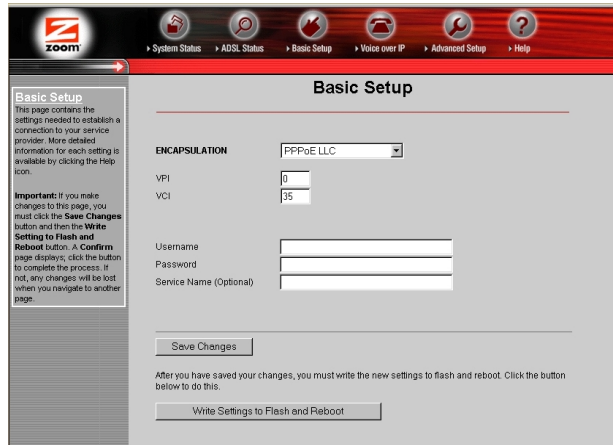
- 2** Log in by typing the following information in lower-case letters. (You will need this user name and password each time you want to open up the **Zoom Configuration Manager**.)

User Name: **admin**

Password: **zoomvoip**



- 3** The **Basic Setup** page displays.



You need to fill in at least three of these boxes: **VPI**, **VCI**, and **Encapsulation**. Your service provider may have given you these settings. If you have them, it will make installation a little faster and easier, but don't worry if you don't have them. We'll tell you how to figure them out.

If Your DSL Service Provider Gave You VPI, VCI, and Encapsulation Settings

1 If you have this information (VPI, VCI, and Encapsulation), enter it now in the appropriate boxes. The screen may change slightly, depending on the Encapsulation you select. If you are using PPP, your service provider should also have given you a **username** (usually your email address or the characters preceding the @ sign in your email address) and a **password**. These are **NOT** the username and password that you used to get into the Basic Setup menu.) If you cannot remember or cannot find your username and password, call your service provider and tell them you have misplaced your username and password. Then enter them as well.

2 Click **Save Changes**.

3 If the Encapsulation setting that you entered starts with either PPPoE or PPPoA: Click **Write Settings to Flash and Reboot** and **Confirm**. Once the process is complete, the X5v's **LINK** light should remain on steady (this should take about 15 seconds). If it doesn't, go to the **Troubleshooting Tips** on page 12.

If the Encapsulation setting that you entered starts with either 1483 Bridged or 1483 Routed: You must check now to make sure that your IP Addressing is correctly set. See **Setting IP Addressing** on page 11.

4 Go to your **Web browser** (i.e., Internet Explorer or Netscape Navigator) and **try to connect** to a familiar Web address.

5 If you connect successfully, your installation is complete and you're ready to browse the web! Continue with **Step 5: Setting Up VoIP Service** on page 13.
If you do not connect successfully, refer to the **Troubleshooting Tips** on page 12.

If You Do Not Have VPI, VCI, and Encapsulation Settings from Your DSL Service Provider

If you do not have the settings from your service provider, the tables beginning on page 30 show the settings for the most commonly encountered service providers in the USA and many other countries. If there is more than one setting for your service provider, the most common is labeled (1), the next (2), and so on.

1 Go to the **Tables** on page 30 and **find your service provider** on the list. If you are in the USA and your service provider is not on the list, follow the instructions using the settings for **Service Provider Not Shown** at the bottom of the table.

2 Now enter the corresponding **VPI, VCI, and Encapsulation settings** in the appropriate boxes in the **Basic Setup menu**. The screen may change slightly, depending on

the Encapsulation you select. If you are using PPP, your service provider should have given you a **username** (usually your email address or the characters preceding the @ sign in your email address) and a **password**. These are **NOT** the username and password that you used to get into the **Basic Setup** menu.) If you cannot remember or cannot find your username and password, call your service provider and tell them you have misplaced your username and password. Then enter them as well.

3 Click **Save Changes**.

4 **If the Encapsulation setting that you entered starts with either PPPoE or PPPoA:** Click **Write Settings to Flash and Reboot** and **Confirm**. Once the process is complete, the X5v's **LINK** light should remain on steady (this should take about 15 seconds). If it doesn't, go to the **Troubleshooting Tips** on page 12.

If the Encapsulation setting that you entered starts with either 1483 Bridged or 1483 Routed: You must check now to make sure that your IP Addressing is correctly set. Go to **Setting IP Addressing** below.

5 Go to your **Web Browser** (i.e., Internet Explorer or Netscape Navigator) and **try to connect** to a familiar Web address.

6 **If you connect successfully, your installation is complete and you're ready to browse the web!** Continue with **Step 5: Setting Up VoIP Service** on page 13.
If you do not connect successfully, continue with the next step below.

7 Go back to the tables on page 30 and enter the next most frequently used settings—those labeled (2) if you just entered (1), or (3) if you just entered (2). Click **Save Changes**, **Write Settings to Flash and Reboot**, and **Confirm**. Once the process is complete, the X5v's **LINK** light should remain on steady (this should take about 15 seconds). Remember, if you are entering either **1483 Bridged** or **1483 Routed** for your

Encapsulation setting, you must check now to make sure that your IP Addressing is correctly set if you haven't already done so. See **Setting IP Addressing** below. If there are no more settings shown for your service provider, and you cannot connect, refer to the **Troubleshooting Tips** on page 12.

8 Now jump back to Step 5.

Setting IP Addressing

If the Encapsulation setting that you entered on the **Basic Setup** menu started with either 1483 Bridged or 1483 Routed, the X5v can be set for DHCP (also known as a dynamic IP address) or for a static IP address. Most DSL service providers use DHCP. There is typically an extra charge for a static IP address, and you normally have to make a special request to get one.

1 **To set the X5v for DHCP,** on the **Basic Setup** menu, check the **DHCP client enable** box. Leave the **Host Name** field blank.

To set the X5v for Static IP Addressing, go to the X5v's **Advanced Settings** page and click **WAN Settings**. Enter the **static IP address, subnet mask, and default gateway** assigned to you by your service provider, and click **Save Changes**. Then go back to the **Advanced Settings** page and click **DNS**. Check the **User Configuration** box, enter the **DNS Server IP address** assigned to you by your service provider, and click **Add**. **Do not change any other fields!**

2 Click **Save Changes**, then **Write Settings to Flash and Reboot**, and then **Confirm**.

3 Resume where you left off (either Step 4 on page 9 or Step 5 on page 10).

Connection Troubleshooting Tips

If the X5v's **LINK** light continually blinks and does not stay solidly lit, make sure that:

- The RJ-11 phone cord is firmly plugged into the wall jack and the **ADSL** port on the back of the X5v (*not* the **PHONE** port).
- The jack that the phone cord is connected to is enabled for DSL. You cannot use a standard telephone jack for DSL service unless your service provider has activated it for DSL.
- The X5v's ADSL Handshake Protocol setting may need to be changed. The X5v uses a **MultiMode** setting to automatically connect to most types of DSL service providers' equipment. You may want to try forcing the different protocols to try to connect. In the **Advanced Setup** page, click **ADSL Configuration** to view the Handshake Protocol. One at a time, try each of the other settings, clicking **Save Changes**, then **Write Settings to Flash and Reboot**, and **Confirm**.

If the X5v's **LINK** light is solidly lit but you can't connect to the Internet, make sure that:

- You are using the correct VPI/VCI and encapsulation settings.
- You have typed your DSL Username and Password correctly.
- Your service provider's DSL connection is functioning properly by placing a call to customer support.
- Your Ethernet or USB are okay. Check that the correct X5v front panel light is lit (**LAN** or **USB**). This will confirm that the connection is good.
- Your computer's TCP/IP properties are correct.

Open the Windows **TCP/IP Properties** dialog box (double-click the **My Computer** icon on your desktop and select **Help** if you don't know how to locate the **TCP/IP Properties** box).

If you are using DHCP (most users): Make sure that "**Obtain an IP address automatically**" and "**Obtain a DNS server address automatically**" are selected. All fields should be blank.

If you are using a static IP address: Make sure that **“Use the following IP address”** and **“Use the following DNS server addresses”** are selected. Both the Default Gateway IP address and the DNS server IP address must match the X5v’s LAN IP address: 10.0.0.2.

Step 5: Setting Up VoIP Service

The X5v needs to be configured with specific information for the VoIP service that you plan to use.

If you received the X5v from your service provider, it is likely that it is preset for their VoIP service. In most cases the service provider will tell you that the unit has been preset. If you’re not sure you can check by going to the **Advanced VoIP Setup** page (Click on the **Zoom X5v** icon on your desktop, then the **Voice over IP** button on the opening page, then the **Advanced VoIP Setup** button.) If the **User ID** box is filled in, your X5v is preset; go to the **Using Voice over IP** section on page 18. If your X5v is NOT preset, continue below.

If Your Unit Is Not Preset for VoIP

There are two ways to configure the X5v for VoIP. Both require that you enter specific information provided to you by your service provider.

Some service providers use **Auto Account Configuration**. If your service provider gave you a **Server Address**, they are using Auto Account Configuration. Go to **Auto Account Configuration** on page 14.

If your service provider did not give you a Server Address but provided you with a **User ID** and a **Password**, you will configure your X5v manually. Go to **Manual Account Configuration** on page 16.

Auto Account Configuration

1 Open the **Voice Over IP** page.

Click the **Zoom X5v** icon on your desktop, then the **Voice over IP** icon at the top of the opening page to display the **Voice over IP** setup page.

Item	Status
Registration Status	0
User ID	
Auto-Configuration Status	AutoConfiginactive
World Wide Number	0

Basic Setup

Auto Account Configuration

Server:

Filename:

Encryption:

Select Ring & Tone by Country/Region

Display Name:

VoIP only Mode:

After you have saved your changes, you must write the new settings to flash and reboot. Click the button below to do this.

2 Under **Basic Setup**, in the **Server** box enter the Server address given to you by your provider.

3 If your service provider gave you a **Filename**, enter it in the Filename box. If you did not get a Filename from your service provider, leave the box as it is.

4 Go to the box labeled **Encryption**. Your service provider should have told you whether encryption should be on (box checked) or off (box unchecked). It is important that

this is right, so if you don't have this information contact your service provider before proceeding.

5 Click the **Download Configuration** button.

6 You can now use **Select Ring & Tone by Country/Region** to decide what kind of ring and ring tone you would like for your incoming VoIP calls. You can either choose to have your ring and ring tone be the same as your normal phone ring, slightly different, or completely different. We recommend that you make the ring different from your normal ring so that you can tell the difference between an incoming VoIP call and a regular call.

To make your incoming ring the same as your normal ring, choose your country from the pulldown menu.

To make your incoming ring slightly different from your normal ring, choose your country from the pulldown menu and pick the “VoIP” option. This will give you the same tone as your normal ring with a different ring pattern.

For a completely different ring tone for your VoIP calls, you can choose any ring listed for any country.

7 Click **Save Changes**, then **Write Settings to Flash and Reboot**, and then **Confirm**.

8 **Check that your settings are okay.** Look at the **User ID** box near the top of the page. If this box is now filled in, your settings are okay.

If this box is not filled in, contact your provider.

9 **Wait** until the X5v's front panel **LINK** light stops blinking and stays on solid for at least 30 seconds. Then continue with **Using Voice Over IP** on page 18.

Manual Account Configuration

1 Open the **Advanced VoIP Setup** page.

Click the **Zoom X5v** icon on your desktop, then the **Voice over IP** icon at the top of the opening page to display the **Voice over IP** setup page. Then click the **Advanced VoIP Setup** button at the bottom of the **Voice Over IP** page to display the **Advanced VoIP Setup** page.

The screenshot shows the 'Advanced VoIP Setup' page with a 'Service Configuration' section. It includes several checkboxes for enabling VoIP, SIP registration, and auto-configuration. Below these are various input fields for user and system information, such as User ID, Password, Domain/Realm, SIP Proxy Address, and ports. There are also dropdown menus for authentication methods and ring tones. At the bottom, there are buttons for 'Save Changes' and 'Write Settings to Flash and Reboot'.

Service Configuration			
<input checked="" type="checkbox"/>	Enable VoIP		
<input checked="" type="checkbox"/>	Enable SIP Registration		
<input checked="" type="checkbox"/>	Auto Account Configure		
User ID	<input type="text"/>	Authorization ID	<input type="text"/>
Password	<input type="text"/>	Display Name	Zoom X5v
Domain/Realm	<input type="text" value="0.0.0.0"/>	SIP Registrar Port	<input type="text" value="5060"/>
SIP Proxy Address	<input type="text" value="0.0.0.0"/>	SIP Proxy Port	<input type="text" value="5060"/>
Outbound Proxy Address	<input type="text" value="0.0.0.0"/>	Outbound Proxy Port	<input type="text" value="5060"/>
SIP Registration Interval	<input type="text" value="3600"/>	Authentication Method	AUTH_MD5
Local SIP Port	<input type="text" value="5060"/>	RTP Media Port	<input type="text" value="5000"/>
Caller ID Modulation	CID_BELL202	Select Ring & Tone by Country/Region	US/Canada - VoIP
Codec Preferences 1. G.711u 2. G.729 3. G.711a			
<input type="button" value="Save Changes"/>			
After you have saved your changes, you must write the new settings to flash and reboot. Click the button below to do this.			
<input type="button" value="Write Settings to Flash and Reboot"/>			

2 Under **Service Configuration**, click the **Auto Account Configure** box to remove the checkmark.

3 Enter the **User ID**, **Authorization ID**, **Password**, **Domain/Realm**, and **SIP Proxy Address** in the appropriate boxes. These five boxes **MUST** be filled in, and they must be correct. Enter them carefully and check to make sure they match the information given to you.

4 Enter any additional information required by your service provider. If your provider gave you any other information, enter it in the appropriate boxes.

5 You can now use **Select Ring & Tone by Country/Region** to decide what kind of ring and ring tone you would like for your incoming VoIP calls. You can either choose to have your ring and ring tone be the same as your normal phone ring, slightly different, or completely different. We recommend that you make the ring different from your normal ring so that you can tell the difference between an incoming VoIP call and a regular call.

To make your incoming ring the same as your normal ring, choose your country from the pulldown menu.

To make your incoming ring slightly different from your normal ring, choose your country from the pulldown menu and pick the “VoIP” option. This will give you the same tone as your normal ring with a different ring pattern.

For a completely different ring tone for your VoIP calls you can choose any ring listed for any country.

6 Click **Save Changes**, then **Write Settings to Flash and Reboot**, and then **Confirm**.

7 Wait until the X5v’s front panel **LINK** light stops blinking and stays on solid for at least 30 seconds. Then continue with **Using Voice Over IP** below.

Using Voice Over IP

Your VoIP phone number is the same as your User ID. If you don't know it, your User ID is displayed on the X5v's **Basic Setup** page. See page 14.

X5v users can use phones plugged into the X5v to:

- 1) **Make or receive a VoIP call.** Your ADSL phone line will remain open for calls, so using VoIP gives you many of the benefits of having a second phone line.
- 2) **Make or receive a “conventional” call.**

Making a VoIP call to another VoIP user who subscribes to the same VoIP service that you do: Pick up the telephone that you plugged into the X5v. Dial # and wait for the dial tone, and then dial the **VoIP phone number** you want to call. Note that this number is *not* the same as a phone number reached through the traditional public phone network. Your service provider's web site should include a directory of VoIP phone numbers.

Making a VoIP call to another VoIP user who subscribes to a different VoIP service: You must begin your call by dialing a code for that person's VoIP service. Follow the instructions supplied by your service provider.

Receiving incoming VoIP calls: When VoIP users call into your VoIP number, you have the option of hearing a distinctive ring to alert you that you are receiving a VoIP call. See page 15 for instructions.

Communicating with people who don't have VoIP: You may use VoIP to call any phone that can be called through the traditional phone network. Your service provider may offer this as an additional feature. Check with your service provider.

Making a conventional phone call: Pick up the telephone and dial as you normally would. As long as you don't dial # to indicate that you are dialing a VoIP call, your calls will be routed and billed as if you didn't have VoIP, through your regular telephone service.

Note:

In the event of a power failure, the X5v routes all calls as conventional calls.

Tips for Making VoIP Calls

Distinctive Ring and Dial Tone: By default, the X5v's ring and dial tone sound different from your normal phone. This means that you can easily tell by the ring that you are receiving a VoIP call. Perhaps more important, when you dial # to make a VoIP call, you will hear a different dial tone than you hear on the public phone network, so that you can be sure you are making a VoIP call. If you want to change your ring, see page 17.

Speed dialing: You may program your phone to speed-dial VoIP numbers. Just be sure to remember to start the VoIP numbers with #

Redial: You may redial a VoIP number just as you would redial any other number, using a redial feature on your handset.

Hook Flash: If you receive a second call while already engaged in a VoIP call, you will hear a call waiting tone. Momentarily press the hook button on your phone to talk to the second caller, and press it again to go back to your first conversation. After you have completed a VoIP call, you can press the hook button to get a fresh VoIP dial tone and make another VoIP call without dialing # Note that redial or speed dialing will not work in this case, however. You must hang up for at least one second if you need to make a conventional phone call.

VoIP-Only Mode: You can switch the X5v to VoIP-only mode if you want to make only VoIP calls from the phone plugged into the X5v. **If your DSL line also provides your ISDN service, or if you have “unbundled DSL”—that is, a DSL line without any telephone service attached to it, you must switch the X5v to VoIP-only mode.** On the X5v's **VoIP** page, check the **VoIP Only** box, then click **Save Changes**, then click **Write Settings to Flash and Reboot**, and then click **Confirm**. All calls you dial from the phone attached to the X5v will be VoIP calls, **so do not dial # first.**

To Play Online Games Using Your X5v

Setting up the X5v for online gaming depends on what you want to do:

- If you have **Xbox Live**, go to page 26.
- If you have **PlayStation 2**, go to page 27.
- If you have **another online game**, continue below.

Do I Need To Do Anything?

There are only two cases where you need to set up your X5v for online gaming.

- If you are playing a “**peer-to-peer**” or “**head-to-head**” game over the Internet, you **always** have to set up the X5v **unless** you linked up to your partner by going to a web site. A peer-to-peer game is a game where two players are competing directly against one another. Popular peer-to-peer games include Age of Empires, Command and Conquer, Dark Reign 2, and Unreal Tournament. If you are unsure whether your game is a peer-to-peer game check the game instructions.
- If you want to play a **multiplayer game** **and you want to host the game**. Popular multiplayer games include Half Life, Diablo II, Delta Force, Hexen II, Myth, Quake II, and Warcraft II, III.

In both these cases you will need to open one or more ports in the X5v's built-in firewall as described below, so that the firewall doesn't block the other players. The two ways to accomplish this are to **Set up a Virtual Server** if you only need to open a few ports, or to **Set up a DMZ**, which opens all the X5v's ports.

Important! If your computer already has firewall software installed: If you have third-party firewall software installed on your computer, such as the Windows XP firewall, you may need to deactivate it before opening ports by setting up a virtual server or a DMZ. If you don't, your computer may block the ports you are trying to open.

Setting Up the X5v for Peer-to-Peer Gaming and Multiplayer Game Hosting (Setting Up a Virtual Server)

1 Find out which ports need to be opened for your game.

Most peer-to-peer and multiplayer game manuals will tell you exactly which port or ports need to be opened. If yours didn't, you may be able to look up the information at:

www.practicallynetworked.com/sharing/app_port_list.htm

If you have found your games port settings, we recommend that you **print them out, write them down now, or keep the game manual handy.**

Different games require different numbers of ports to be open. This can be a single port, or it can be a hundred ports or more. **Each required port needs to be set individually, so the more ports that your game requires, the more time it will take to do the configuration.** Some games even use "dynamic" ports, meaning that the ports used by the game are constantly changing, so you can't set the ports.

There is a setting that opens all your ports for gaming, called a **DMZ.** If you can't find the port settings in your game manual or on the web site shown above, or if you have to open more than 20 ports (which is the maximum allowable), or if your game documentation says that the game uses dynamic ports, or if you

don't want to spend the time to open multiple ports, refer to the DMZ instructions in the manual on the CD.

WARNING:

Every time you open an additional port, it decreases the effectiveness of your firewall, so the less ports you open the better.

2 Choose an IP Address for Gaming.

Click on the **Zoom X5v icon** on your desktop (or type 10.0.02 in your Web browser just the way you would normally type a web address) to get to the X5v's **Main Page**. Click the **Advanced Setup** icon, then click **LAN Settings**. There you will see the starting and ending range of the X5v's dynamic (DHCP) LAN IP addresses. You need to choose an IP Address that is outside this range. Normally you should pick the next **higher** number. For example, if the range shown is 10.0.0.4 to 10.0.0.15, your Host IP Address should be the next IP address after 10.0.0.15, which would be 10.0.0.16. Unless you have changed the X5v's IP address settings, which is very unlikely, just use the number 10.0.0.16. Write down the number you choose for reference if you are not using 10.0.0.16. The rest of the instructions will assume that you are using 10.0.0.16.

Gaming IP Address: _____

3 Open the TCP/IP Properties dialog box in Windows.

For Windows 2000: From the desktop click the **Start** button, point to **Settings** and then **Network and Dial-up Connections**. Then right-click (NOT left-click) **Local Area Connection**, select **Properties**, highlight your NIC card's **TCP/IP** entry (it should start with **TCP/IP** and have the characters **10/100, NIC, or Ether** in it – and not have the words **AOL, Dial-up, or Adapter**). Click **Properties** to display the Windows **TCP/IP Properties** dialog box.

For Windows XP: From the desktop click the **Start** button, point to **Control Panel** and then **Network Connections**. Then right-click (NOT left-click) **Local Area Connection**, select **Properties**, highlight your NIC card's **TCP/IP** entry (it should start with

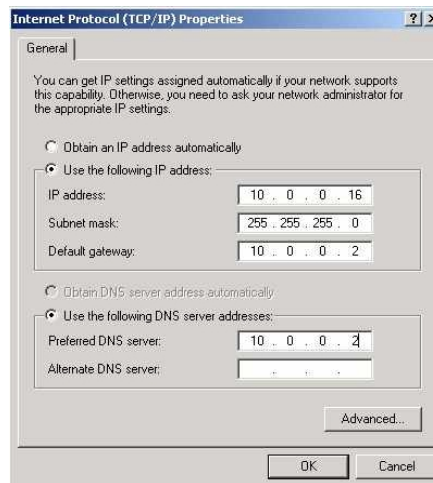
TCP/IP and have the characters **10/100**, **NIC**, or **Ether** in it – and not have the words **AOL**, **Dial-up**, or **Adapter**). Click **Properties** to display the Windows **TCP/IP Properties** dialog box.

For Windows 98 and Me: From the desktop click the **Start** button, then point to **Settings** and then **Control Panel**. Double-click the **Network** icon to display the **Network** configuration screen. Highlight your NIC card's **TCP/IP** entry (it should start with **TCP/IP** and have the characters **10/100**, **NIC**, or **Ether** in it – and not have the words **AOL**, **Dial-up**, or **Adapter**). Click **Properties** to display the Windows **TCP/IP Properties** dialog box.

4 Enter the IP Settings.

For Windows 2000 and XP Users:

Click the **Use the following IP address** and **Use the following DNS server addresses** buttons so that a black dot appears. Then enter the settings for **IP address**, **Subnet mask**, **Default gateway**, and **Preferred DNS server** as shown below.



Most users can copy the information exactly as it is shown above and in the chart below. However, **if you chose an IP address in Step 2 other than 10.0.0.16**, enter the number that you chose in place of the number shown.

IP address	10.0.0.16
Subnet mask	255.255.255.0
Default gateway (X5v's LAN IP address)	10.0.0.2
Preferred DNS server	10.0.0.2

For Windows 98 and Me Users:

Click **Specify an IP Address** and enter the settings for **IP Address** and **Subnet Mask** shown below, **unless you chose an IP address in Step 2 other than 10.0.0.16**, in which case you should enter the number that you chose instead of 10.0.0.16.

IP address	10.0.0.16
Subnet mask	255.255.255.0

Now click the **DNS Configuration** tab at the top of the menu. Then click **Enable DNS**. Enter any name (i.e., your name, the words "My Computer", a favorite word, or any other letters or numbers) in the box labeled **Host:**. A **Host:** name is required.

Fill in the **DNS Server Search Order** box with the number **10.0.0.2**, click **Add**, and then click the **Gateway** tab near the top of the page. When the Gateway screen opens, fill in the **New gateway:** box with the number **10.0.0.2** and click **Add**.

5 Click **OK**.

6 Go back to the X5v's Advanced Setup page and click the **Virtual Server** button.

If you already closed the **Zoom Configuration Manager**, click on the Zoom X5v icon on your desktop (or type 10.0.0.2 in your Web browser) and click the **Advanced Setup** icon.

7 **Configure the Virtual Server.**

This is where you'll need to enter the information that you got from your gaming manual or the www.practicallynetworked.com web site. **Unfortunately, you can only configure one port at a time.** Each time you configure

a new port, your computer will reboot when you hit **Write Settings to Flash and Reboot**.

If you have more than a few ports, it could take a long time. That's why some people choose to set up a **DMZ, which opens all your ports at once**. If you'd like to set up a DMZ, refer to the DMZ instructions in the manual on the CD. Remember, a DMZ is easy and will work with any game, but it keeps the X5v's firewall from providing any security for your system.

If you want to continue, enter the information shown below now on the Virtual Server configuration screen.

Public Port	Inbound port from the Internet that you want to open. This is the port number, or one of the port numbers, that you got from your gaming manual or the web site at www.practicallynetworked.com
Private Port	Inbound port from the X5v that you want to open to the LAN side. This is the port number, or one of the port numbers, that you got from your gaming manual or the web site at www.practicallynetworked.com This number and the public port number above should be the same for any individual port entry.
Port Type	The default is TCP. Some games use both TCP and UDP. If your game uses both, you will have to fill out this table twice for <u>each port</u> , once using TCP and once using UDP.

Host IP Address	Fixed IP address of the host computer— this is the same IP address that you chose in Step 2 and entered in Step 4 , probably 10.0.0.16.
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8 After entering the above information, click **Add This Setting**.

9 Click **Write Settings to Flash and Reboot**.

Your computer will reboot. **If you need to open additional ports, go back to Step 3** and repeat Steps 3 through 9.

IMPORTANT:

Outside game players will need to know the X5v's **WAN IP address**. To find this address, click the **System Status** icon at the top of the X5v's web page, and scroll down to the **WAN Status** section.

Using Your X5v with Xbox® Live

No special settings are required to use Xbox Live. If you are using PPP encapsulation, just be sure to enter the login DSL User Name and Password supplied by your provider on the X5v's **Basic Setup** page. Once installation is complete, follow these steps.

1 Update the Xbox Dashboard: Make sure you have your Xbox Live Starter Kit at hand. Insert the Xbox Live CD into your Xbox. Once the upgrade is complete, the main menu will include an **Xbox Live** entry.

2 Connect the X5v and the Xbox: Using an Ethernet cable, plug one end into the Xbox's jack and the other end into one of the X5v's Ethernet (**LAN**) jacks. Note: If you didn't use the Ethernet cable that came in your X5v package to connect the X5v to your computer, you can use that cable. Otherwise, you can buy one at your local electronics or computer store. Insert the Xbox Communicator module into the Xbox Controller

expansion slot (top slot) and then insert the headset plug into the Communicator module.

- 3 Activate your Xbox Live account:** The Xbox Live CD should still be in your Xbox. We recommend that you watch a video that explains the installation process: Select **Xbox Live** from the menu. Then, from the Dashboard, select **Xbox Live** and follow the prompts. **Note:** You will need your subscription code to activate your account—this number is located on the CD’s sleeve. (If you require more detailed instructions, please refer to your Xbox Live documentation.)

That’s it! You can load one of the demo games included on your Xbox Live CD or use any other Xbox Live-enabled game to begin.

Using Your X5v with PlayStation® 2

Your PlayStation 2 must be connected to your X5v: Using an Ethernet cable, plug one end into the PlayStation’s **Network** jack and the other end into one of the X5v’s Ethernet (**LAN**) jacks. Note: If you didn’t use the Ethernet cable that came in your X5v package to connect the X5v to your computer, you can use that cable. Otherwise, you can buy one at your local electronics or computer store. Then follow the steps below.

- 1** Load the PS2 **Network Adapter Start-up Disc** that was supplied with the PS2 network adapter into the PlayStation 2.
- 2** At the PlayStation 2’s main menu, select **ISP Setup**.
- 3** If you have pre-existing network settings on your PlayStation 2, you will be prompted to select **New Network Setting** before selecting **Local Area Network (LAN)**. Otherwise, simply select **Local Area Network (LAN)**.
- 4** Select **Advanced Setup** and then **Set Manual IP**.
- 5** Fill out these fields:

IP address	10.0.0.50
Netmask	255.255.255.0
Default router	10.0.0.2

Then select **Continue**.

6 Fill out these fields:

Primary DNS	10.0.0.2
Secondary DNS	10.0.0.2

Then select **Continue**.

7 Select **Test Settings**. A connection test runs. You will then see the message, **“The test for connecting to your ISP was successful! Please save your network setting.”** If you are unsuccessful, re-check the information you entered in Steps 5 and 6.

Then select **Continue**.

8 Now enter a **Network Setting Name** (anything you choose) and then select **Save**. Your Service Provider setup is now complete. Follow the prompts for online registration.

9 Now, using the computer connected to the X5v, go to the X5v’s **Advanced Setup** page and click the **DMZ** button. Then select **Enable** from the **DMZ** dropdown list, and enter the static IP address **10.0.0.50** in the **DMZ Host IP** field. Click **Save Changes**, then **Write Settings to Flash and Reboot**, and then **Confirm** to complete the process.

IMPORTANT:

Outside game players need to know the X5v’s **WAN IP address**. To find this address, click the **System Status** icon at the top of the X5v’s web page, and scroll down to the **WAN Status** section.

If You Need Help

Zoom has many Technical Support services available to its customers. Please click the **Customer Support** button on the CD. If you no longer have the CD, please go to www.zoom.com and select **Technical Support**.

The CD also has more detailed information about installing your X5v, configuring it for a number of common applications, and using it.

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 this site periodically for updates.

Front Panel Description



Light	Description
PWR	Lights when the X5v is plugged into a power source.
LINK	Blinks when the X5v is performing its startup sequence. Stays on solid when unit has synched up with its ADSL connection. Note: If the light fails to switch from blinking to steady after a minute or two, check with your DSL provider that the DSL connection is activated, or refer to the Troubleshooting Tips on page 12.
DATA	Blinks when data is being transferred.
USB	Lights when the USB port of the X5v is plugged into a powered-up computer's USB port.
LAN 1-4	Lights when a LAN port of the X5v is plugged into the Ethernet port of a powered-up device.
VoIP	Lights when a Voice over IP call is taking place.

DSL Internet Settings Tables

These tables are for customers whose service providers do not supply them with the DSL settings to connect to the Internet. Many DSL providers use different settings depending on the region in which they are operating, which is why there may be more than one setting for your service provider. We post updated tables on our web site. If your country isn't listed, please consult www.zoom.com

Note to USA customers

If your DSL service provider is not shown below, first use the settings for **Service Provider Not Shown** at the bottom of the table. If those settings don't work, use the settings for the company that provides local telephone service in your area. (Refer to page 9 for more detailed installation instructions on entering the settings.)

Table A: USA

Service Provider	VPI	VCI	Encapsulation
AllTel (1)	0	35	PPPoE LLC
AllTel (2)	0	35	1483 Bridged IP LLC
August.net (1)	0	35	1483 Bridged IP LLC
August.net (2)	8	35	1483 Bridged IP LLC
BellSouth	8	35	PPPoE LLC
CenturyTel (1)	8	35	PPPoE LLC
CenturyTel (2)	8	35	1483 Bridged IP LLC
Covad	0	35	PPPoE LLC
Earthlink (1)	0	35	PPPoE LLC
Earthlink (2)	8	35	PPPoE LLC
GWI	0	35	1483 Bridged IP LLC
Qwest (1)	0	32	PPPoA LLC
Qwest (2)	0	32	PPPoA VC-MUX
SBC (1)	0	35	PPPoE LLC
SBC (2)	0	35	1483 Bridged IP LLC
SBC (3)	8	35	1483 Bridged IP LLC
Sprint (1)	0	35	PPPoA LLC
Sprint (2)	8	35	PPPoE LLC
Verizon (1)	0	35	PPPoE LLC
Verizon (2)	0	35	1483 Bridged IP LLC
Service Provider Not Shown	0	35	PPPoE LLC

(If the settings for **Service Provider Not Shown** do not work, try the settings for the company that provides local phone service in your area.)

Table B: Other Countries

Service Providers	VPI	VCI	Encapsulation
Belgium-ADSL Office	8	35	1483 Routed IP LLC
Belgium-Turboline	8	35	PPPoA LLC
Denmark-Cybercity, Tiscali	0	35	PPPoA VC-MUX
France (1)	8	35	PPPoE LLC
France (2)	8	67	PPPoA LLC
France (3)	8	35	PPPoA VC-MUX
Germany	1	32	PPPoE LLC
Iceland-Islandssimi	0	35	PPPoA VC-MUX
Iceland-Siminn	8	48	PPPoA VC-MUX
Italy	8	35	PPPoA VC-MUX
Netherlands-MX Stream	8	48	PPPoA VC-MUX
Portugal	0	35	PPPoE LLC
Saudi Arabia (1)	0	33	PPPoE LLC
Saudi Arabia (2)	0	35	PPPoE LLC
Saudi Arabia (3)	0	33	1483 Bridged IP LLC
Saudi Arabia (4)	0	33	1483 Routed IP LLC
Saudi Arabia (5)	0	35	1483 Bridged IP LLC
Saudi Arabia (6)	0	35	1483 Routed IP LLC
Spain-Albura, Tiscali	1	32	PPPoA VC-MUX
Spain-Colt Telecom, Ola Internet	0	35	PPPoA VC-MUX
Spain-EresMas, Retevision	8	35	PPPoA VC-MUX
Spain-Telefonica (1)	8	32	PPPoE LLC
Spain-Telefonica (2), Terra	8	32	1483 Routed IP LLC
Spain-Wanadoo (1)	8	35	PPPoA VC-MUX
Spain-Wanadoo (2)	8	32	PPPoE LLC
Spain-Wanadoo (3)	8	32	1483 Routed IP LLC
Sweden-Telenordia	8	35	PPPoE
Sweden-Telia	8	35	1483 Bridged IP LLC
Switzerland	8	35	PPPoE LLC
Turkey(1)	8	35	PPPoE LLC
Turkey(2)	8	35	PPPoA VC-MUX
UK (1)	0	38	PPPoA VC-MUX
UK (2)	0	38	PPPoE LLC
Venezuela-CANTV	0	33	1483 Routed IP LLC
Vietnam	0	35	PPPoE LLC

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.

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:

Directive	Standard	Test Report
73/23/EEC-Low Voltage	EN 60950 : 2000 IEC 60950 : 3 ^e éd. 1999	electrical safety
89/336/EEC-EMC	EN 300 386 v1.3.1 EN 55022 : 1998	EMC-emissions

This product is CE Marked.

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.

Additional compliance information is located on the CD.

