P-2802HW(L)-Ix Series

802.11g Wireless VDSL VoIP IAD

Quick Start Guide

Version 3.70
6/2007
Edition 1

| DEFAULT LOGIN	
IP Address	**http://192.168.1.1**
Password	**1234**

ZyXEL

Overview

The P-2802HW(L)-Ix is a router which combines high-speed VDSL Internet access, a built-in switch, a firewall and high-speed wireless networking capability. You can set the first **Ethernet** port as a WAN port. See the WAN chapter in the User's Guide for more information.

It has phone ports for making calls over the Internet (Voice over IP or VoIP). The P-2802HWL can use regular phone services through regular (PSTN) phone lines.

When you make a phone call over the Internet, you use a telephone (**A**) to dial the number. The telephone is connected to your P-2802HW(L)-Ix (**C**), which provides Internet access.

When you want to use the Internet, you use your computer (**B**) which is connected to your P-2802HW(L)-Ix.

When you want to configure the ZyXEL Device, you also use your computer.
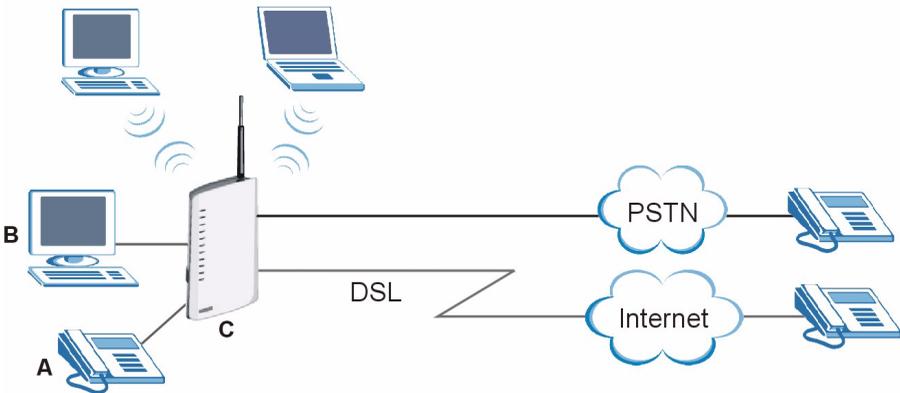
This guide includes the following sections:

- Hardware Connections - shows you how to connect the P-2802HW(L)-Ix to your network, your computer and telephone(s).
- Initial Configuration - shows you how to configure your P-2802HW(L)-Ix to access the Internet, set up a wireless network and register a SIP account on the P-2802HW(L)-Ix.
- Regular Phone Line Setup (P-2802HWL only) - explains how to set up regular phone services that do not use the Internet.
- Making Phone Calls - shows you how to make Voice over Internet (VoIP) or regular phone-calls through the P-2802HW(L)-Ix.

1 Requirements

Make sure you have the following things before you set up your P-2802HW(L)-Ix.

- Internet access - account information provided by your ISP, such as user name, password, and so on.
- VoIP account - You need the account information provided by your VoIP service provider (the company that lets you make phone calls over the Internet).
- Internet Explorer 6.0 or later or Netscape Navigator 7.0 or later, with JavaScript enabled.
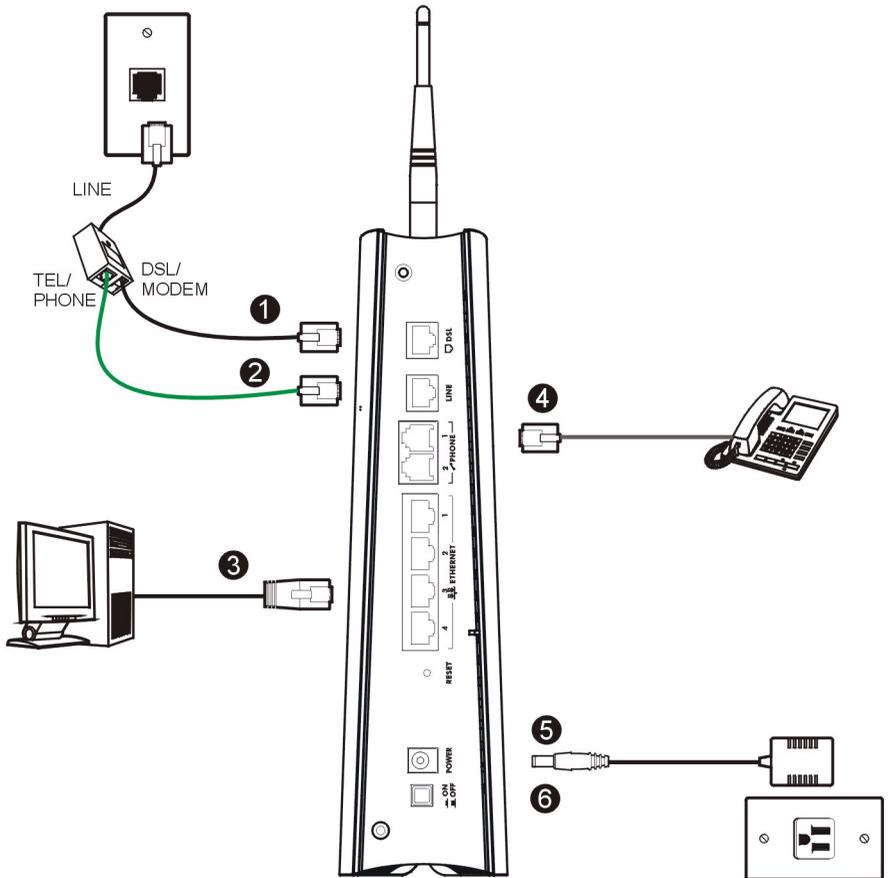
 See the User's Guide for all configuration details.

To read the User's Guide insert the CD that came in the box into your CD-ROM drive. A screen should pop up. Navigate to the User's Guide from this screen. If a screen does not pop up, open Windows Explorer (click My Computer), click on the CD-ROM drive (usually drive D:) and navigate to it from there.

2 Hardware Connections

1 DSL: Use a telephone wire to connect this port to the **DSL** or **MODEM** jack on a splitter.

2 LINE (P-2802HWL-Ix only): Use the green PSTN cable to connect the **TEL** or **PHONE** jack on the splitter to this port. Connect the splitter to a telephone jack.

✎ When the P-2802HWL-Ix does not have power, the phone(s) connected to the **PHONE** port(s) can still be used for making calls. Only one phone can be in use at a time.

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3 ETHERNET 1-4: Use an Ethernet cable to connect a computer to an **ETHERNET** port for initial configuration and/or Internet access.

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4 **PHONE 1-2**: Use telephone cables (and any telephone adaptors provided with your P-2802HW(L)-Ix) to connect your telephones to these ports. If you only have one telephone, you should use port 1.

5 Use the power adaptor provided with your P-2802HW(L)-Ix to connect an appropriate power source to this socket.

6 Push the power switch to the on position.

Look at the LEDs (lights) on the side panel of the P-2802HW(L)-Ix.

- The **POWER** light blinks during start-up and is green once the P-2802HW(L)-Ix is ready.

- Each **ETHERNET** light turns on if the corresponding **ETHERNET** port is properly connected. The lights blink when the P-2802HW(L)-Ix is sending or receiving data through the corresponding **ETHERNET** port.

- The **DSL** light stays on if a physical DSL connection exists and blinks when transmitting data. The **INTERNET** light stays on when Internet access is available.

- The **PHONE** lights stay on when your SIP account is registered and they blink if the receiver is off the hook or there is an incoming call.

- The **WLAN** light turns on when the wireless LAN is ready. It blinks when the P-2802HW(L)-Ix is sending/receiving data through the wireless LAN.

If the **PHONE 1** or **PHONE 2** light is on, skip to Section 5 to see how to make calls through the Internet.

If the **INTERNET** light comes on but the **PHONE** lights are off, go to Section 3.3 and use the **VOICE OVER INTERNET SETUP** wizard.
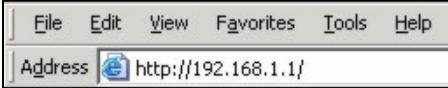
If the **INTERNET** light is off but the **DSL** light is on, go to Section 3 and use the **INTERNET/WIRELESS SETUP** wizard to configure your Internet access settings.
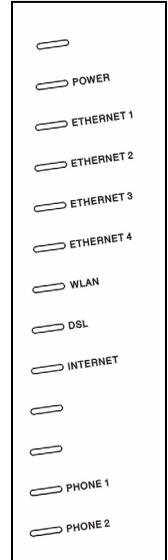
? Check your connections if an LED does not turn on. Then turn the P-2802HW(L)-Ix off, wait for a few seconds and turn it back on. See Troubleshooting. If the problem remains, contact your local vendor.

3 Initial Configuration

1 Open your browser and enter the P-2802HW(L)-Ix's IP address 192.168.1.1 (default) as the URL.

| File | Edit | View | Favorites | Tools | Help |

Address http://192.168.1.1/

2 Enter the admin password **1234** (default). Click **Login**.

P2802HWL-I1

Welcome to your router Configuration Interface

Enter your password and press enter or click "Login"

Password: ****

Login   Cancel

If your browser cannot find this screen, make sure your browser is configured correctly. See **Troubleshooting** in the User's Guide for details.

3 Follow the directions in this screen.

Use this screen to change the password.

Your router is currently using the default password. To protect your network from unauthorized users we suggest you change your password at this time. Please select a new password that will be easy to remember yet difficult for others to guess. We suggest you combine text with numbers to make it more difficult for an intruder to guess.

Enter your new password in the two fields below and click "Apply". Otherwise click "Ignore" to keep the default password

New Password:

Retype to Confirm:

Apply   Ignore

4 Click **Apply** to replace the P-2802HW(L)-Ix's default digital certificate.

Replace Factory Default Certificate

The factory default certificate is common to all ZyXEL models. Click Apply to create a certificate using your ZyXEL's MAC address that will be specific to this device.

Apply   Ignore

5 Click **Go to Wizard setup**.

Please select Wizard or Advanced mode

The Wizard setup walks you through the most common configuration settings. We suggest you use this mode if it is the first time you are setting up your router or if you need to make basic configuration changes.

Use Advanced mode if you need access to more advanced features not included in Wizard mode.

◉ Go to Wizard setup
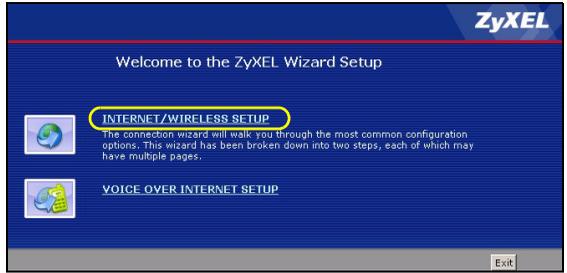○ Go to Advanced setup
☐ Click here to always start with the Advanced setup.

Apply   Exit

3.1 Connection Wizard

The connection wizard helps you set up your Internet connection as well as your wireless settings. Click **INTERNET/WIRELESS SETUP**.

✎ Enter the Internet access information exactly as given to you by your ISP in each wizard screen and then click **Next** to continue or click **Back** to return to the previous screen.

Current screen information will be lost if you click **Back**.

STEP 1: Internet Configuration

1 Select **Routing** (default) from the drop-down list box if your ISP give you one IP address only and you want multiple computers to share an Internet account. Select **Bridge** when your ISP provides you more than one IP address and you also want the connected computers to get individual IP address from ISP's DHCP server directly. If you select **Bridge**, you cannot use Firewall, QoS, DHCP server and NAT on the ZyXEL Device.

2 If you select **Bridge** in the **Mode** field, click **Next**.
If you select **Routing** in the **Mode** field, select one connection type from the drop-down list box. Check with your ISP to make sure you use the correct type:

- **Ethernet**
- **PPPoE** (**PPP over Ethernet**).

✎ Each time you change the mode and click **Next**, the P-2802HW(L)-Ix restarts automatically.

✎ If you were given Internet access settings, enter them in the following fields. Otherwise leave the default settings and just click **Next**.

Ethernet Connection

A Select **Obtain an IP Address Automatically** if your ISP did not assign you a fixed IP address. Click **Apply**.

Or

Select **Static IP Address** to give the P-2802HW(L)-Ix a fixed, unique IP address.
If you select **Static IP Address**, enter a WAN IP address, WAN IP Subnet Mask and the neighboring device's IP address given by your ISP.
If you were given DNS server settings, enter them in the fields. Otherwise leave the default settings and just click **Apply**.

**B** Wait for the P-2802HW(L)-Ix to finish testing your WAN connection.
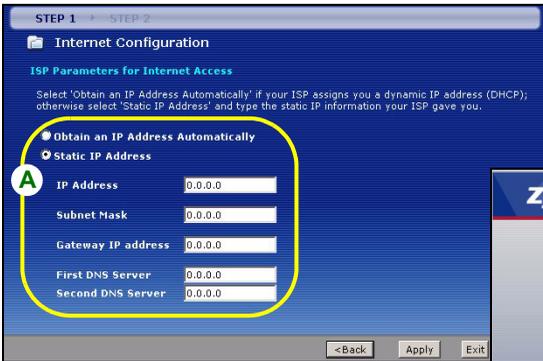
PPP over Ethernet Connection

A Type a **User Name**, **Password** and **Service Name** (Optional). Click **Apply**.

✎ When you use the connection wizard to configure the Internet access using PPPoE, the P-2802HW(L)-Ix is set to get an IP address from the ISP automatically. To set up a static WAN IP address with PPPoE, use the **Network > WAN** screen. See your User's Guide for detailed information.

**B** Wait for the P-2802HW(L)-Ix to finish testing your WAN connection.
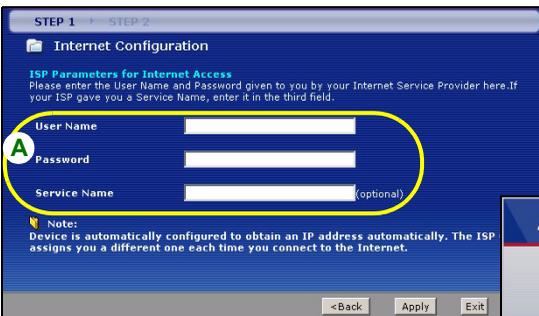
3 If the connection test fails, the screen displays as shown. Check if your account is activated and click the link in the screen to go back to the wizard welcome screen to reconfigure or verify your Internet access settings.

STEP 2: Wireless LAN

After you configure the Internet access information, select **Yes** and click **Next** to configure wireless settings.
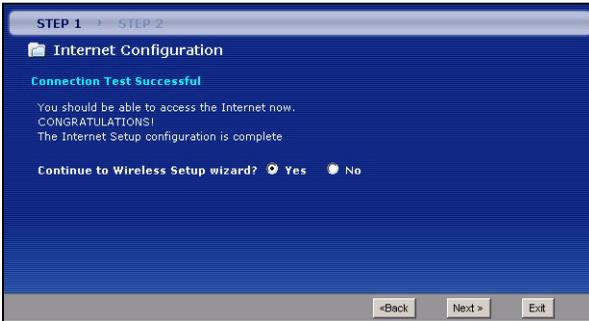
To create a wireless network the P-2802HW(L)-Ix and your wireless computer(s) must all use the same SSID (network name), channel and security settings.

If you do not set wireless security, any one within range could use your P-2802HW(L)-Ix to access your network and the Internet.

A Select the **Active** check box to enable the wireless LAN on the P-2802HW(L)-Ix.

B Leave the **Enable OTIST** check box unselected.

C Choose WPA-PSK wireless security if your wireless device support it as it is stronger than WEP.

D If you select either WEP or WPA-PSK security (recommended), follow the directions to enter the appropriate key. Click **Next** to continue.

E Click **Apply** to save your wireless LAN settings.

F Use the read-only summary table to check whether what you have configured is correct and write down your wireless LAN settings for later use. Click **Return to Wizard Main Page**.

3.2 Setting Up a Wireless Network

To set up a wireless network you need at least one wireless network card/adapter.

- If you have a desktop computer, use either a wireless USB adapter or a wireless PCI adapter.
- If you have a laptop, use either a wireless USB adapter or a wireless CardBus card. These are built into many laptops.

To add a computer to your network you need to configure your wireless-enabled computer with the same SSID, channel and security settings as the P-2802HW(L)-Ix.

Alternatively, use OTIST, ZyXEL's One-Touch Intelligent Security Technology (OTIST) feature. It allows you to automatically configure the SSID and WPA-PSK on all OTIST-equipped wireless clients within range of the P-2802HW(L)-Ix. See the wireless LAN chapter in the User's Guide for more information on OTIST.

3.3 Configure VoIP

Click **VOICE OVER INTERNET SETUP**.

✎ You should have the information provided by your VoIP service provider.
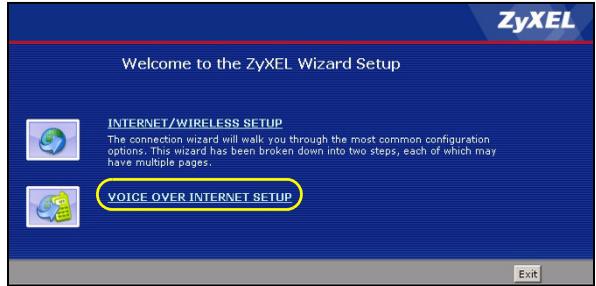
Enter the information provided by your VoIP service provider. Keep the default settings if your VoIP service provider did not provide some information. If you have a SIP account like **1234567@VoIP-provider.com**, the **SIP Number** is **1234567**, and the **SIP Service Domain** is **VoIP-provider.com**. When you are done, the **PHONE** light should be on. Close the wizard and the main screen opens.

4 Regular Phone Line Setup (P-2802HWL-Ix only)

When one of your VoIP accounts is registered, the P-2802HWL-Ix normally uses the Internet (not the regular phone line) to make phone calls. Follow the directions in this section to make sure you can also use the regular phone line while one of your VoIP accounts is registered.

✎ When the P-2802HWL-Ix does not have power, the phone(s) connected to the **PHONE** port(s) can still be used for making calls. Only one phone can be in use at a time.

In the main screen, click **VoIP > PSTN Line**.

PSTN Line Pre-fix Number: Enter a prefix (up to seven numbers) you dial before you dial the phone number, if you want to make a regular phone call while one of your SIP accounts is registered. These numbers tell the P-2802HWL-Ix that you want to make a regular phone call.

Relay to PSTN Line: Enter phone numbers for regular phone calls (that do not use the Internet) that you always want to dial without the prefix number. For example, enter emergency phone numbers here.

Click **Apply**.

5 Making Phone Calls

Follow these directions to make calls over the Internet.

- If you want to dial a SIP number that only uses numbers (for example, "12345"), dial the number on your phone's keypad. You can also set up a speed-dial entry, if you want. See the User's Guide for instructions.
- If you want to dial a SIP number that uses letters or if you want to make a peer-to-peer call, set up a speed-dial entry first. See the User's Guide for instructions. Then, dial the speed-dial number to make the call.
- If you want to call regular telephone numbers, use your VoIP service provider's dialing plan.

Follow these directions to make phone calls that do not use the Internet.

- If you set up the phone number in Section 4, just dial the phone number.
- If the **PHONE** light is off, just dial the phone number.
- Otherwise, first dial the prefix you set in Section 4, and then dial the phone number.

Follow these directions to call the phone that is connected to the P-2802HW(L)-Ix.

- Use your VoIP service provider's dialing plan, or just dial the phone number.

Troubleshooting

? If you cannot access the P-2802HW(L)-Ix, follow these steps.

1 Check the device's lights. If they are different than what is described in Section 2, make sure the connections are correct, and inspect your cables for damage. If the lights are still different, turn off the device, wait a few seconds, and turn it on again.

2 Make sure your computer is on the same subnet as the P-2802HW(L)-Ix. The P-2802HW(L)-Ix is set up by default to assign an IP address to your computer. If you have a static IP address on your computer change this setting to obtain an IP address automatically. See the User's Guide for more details.

3 Make sure you typed the address correctly. If the address has changed you can press the **RESET** button for ten seconds to restart the P-2802HW(L)-Ix and to restore factory defaults. The default IP address is "192.168.1.1" and the default password is "1234".

? If you cannot access the Internet, follow these steps.

1 Check the device's lights. If they are different than what is described in Section 2, make sure the connections are correct, and inspect your cables for damage. If the lights are still different, turn off the device, wait a few seconds, and turn it on again.

2 Follow the steps in section Section 3 again. Make sure you enter the correct information. For example, if your account has a user name and password, make sure you type it correctly. In addition, if you are not sure which encapsulation your ISP uses, contact your ISP.

3 If you are using a new Internet account, contact your ISP to make sure it is active.

4 If you still have problems, see **Troubleshooting** in the User's Guide.

? If you can access the Internet, but you cannot make calls through the Internet, follow these steps.

1 Check the **PHONE** lights. If neither of them is on, Make sure that your telephone is connected to the corresponding **PHONE** port.

2 Make sure the **VOICE OVER INTERNET SETUP** wizard screens are properly configured (see Section 3.3).

3 You can also check the VoIP status in the **Status** screen. See the User's Guide for more information about this screen.

Viewing Your Product's Certifications

1 Go to www.zyxel.com.

2 Select your product from the drop-down list box on the ZyXEL home page to go to that product's page.

3 Select the certification you wish to view from this page.