

# *P-320W*

*802.11g Wireless Firewall Router*

## *User's Guide*

Version 1.00

11/2005

Edition 1

The logo for ZyXEL, featuring the word "ZyXEL" in a bold, blue, sans-serif font. The "Zy" is in a slightly larger font size than "XEL".



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# Federal Communications Commission (FCC) Interference Statement

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operations.

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 commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

If this equipment does cause harmful interference to radio/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 the 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.

## Caution

- 1 To comply with FCC RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons.
- 2 This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

## Notice 1

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

## Certifications

- 1** Go to [www.zyxel.com](http://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.

# Safety Warnings

For your safety, be sure to read and follow all warning notices and instructions.

- To reduce the risk of fire, use only No. 26 AWG (American Wire Gauge) or larger telecommunication line cord.
- Do NOT open the device or unit. Opening or removing covers can expose you to dangerous high voltage points or other risks. ONLY qualified service personnel can service the device. Please contact your vendor for further information.
- Use ONLY the dedicated power supply for your device. Connect the power cord or power adaptor to the right supply voltage (110V AC in North America or 230V AC in Europe).
- Do NOT use the device if the power supply is damaged as it might cause electrocution.
- If the power supply is damaged, remove it from the power outlet.
- Do NOT attempt to repair the power supply. Contact your local vendor to order a new power supply.
- Place connecting cables carefully so that no one will step on them or stumble over them. Do NOT allow anything to rest on the power cord and do NOT locate the product where anyone can walk on the power cord.
- If you wall mount your device, make sure that no electrical, gas or water pipes will be damaged.
- Do NOT install nor use your device during a thunderstorm. There may be a remote risk of electric shock from lightning.
- Do NOT expose your device to dampness, dust or corrosive liquids.
- Do NOT use this product near water, for example, in a wet basement or near a swimming pool.
- Make sure to connect the cables to the correct ports.
- Do NOT obstruct the device ventilation slots, as insufficient airflow may harm your device.
- Do NOT store things on the device.
- Connect ONLY suitable accessories to the device.

# ZyXEL Limited Warranty

ZyXEL warrants to the original end user (purchaser) that this product is free from any defects in materials or workmanship for a period of up to two years from the date of purchase. During the warranty period, and upon proof of purchase, should the product have indications of failure due to faulty workmanship and/or materials, ZyXEL will, at its discretion, repair or replace the defective products or components without charge for either parts or labor, and to whatever extent it shall deem necessary to restore the product or components to proper operating condition. Any replacement will consist of a new or re-manufactured functionally equivalent product of equal value, and will be solely at the discretion of ZyXEL. This warranty shall not apply if the product is modified, misused, tampered with, damaged by an act of God, or subjected to abnormal working conditions.

## Note

Repair or replacement, as provided under this warranty, is the exclusive remedy of the purchaser. This warranty is in lieu of all other warranties, express or implied, including any implied warranty of merchantability or fitness for a particular use or purpose. ZyXEL shall in no event be held liable for indirect or consequential damages of any kind of character to the purchaser.

To obtain the services of this warranty, contact ZyXEL's Service Center for your Return Material Authorization number (RMA). Products must be returned Postage Prepaid. It is recommended that the unit be insured when shipped. Any returned products without proof of purchase or those with an out-dated warranty will be repaired or replaced (at the discretion of ZyXEL) and the customer will be billed for parts and labor. All repaired or replaced products will be shipped by ZyXEL to the corresponding return address, Postage Paid. This warranty gives you specific legal rights, and you may also have other rights that vary from country to country.

# Customer Support

Please have the following information ready when you contact customer support.

- Product model and serial number.
- Warranty Information.
- Date that you received your device.
- Brief description of the problem and the steps you took to solve it.

METHOD	SUPPORT E-MAIL	TELEPHONE <sup>A</sup>	WEB SITE	REGULAR MAIL
LOCATION	SALES E-MAIL	FAX	FTP SITE	
<b>CORPORATE HEADQUARTERS (WORLDWIDE)</b>	support@zyxel.com.tw	+886-3-578-3942	www.zyxel.com www.europe.zyxel.com	ZyXEL Communications Corp. 6 Innovation Road II Science Park Hsinchu 300 Taiwan
	sales@zyxel.com.tw	+886-3-578-2439	ftp.zyxel.com ftp.europe.zyxel.com	
<b>CZECH REPUBLIC</b>	info@cz.zyxel.com	+420-241-091-350	www.zyxel.cz	ZyXEL Communications Czech s.r.o. Modranská 621 143 01 Praha 4 - Modrany Ceská Republika
	info@cz.zyxel.com	+420-241-091-359		
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	sales@zyxel.dk	+45-39-55-07-07		
<b>FINLAND</b>	support@zyxel.fi	+358-9-4780-8411	www.zyxel.fi	ZyXEL Communications Oy Malminkaari 10 00700 Helsinki Finland
	sales@zyxel.fi	+358-9-4780 8448		
<b>FRANCE</b>	info@zyxel.fr	+33-4-72-52-97-97	www.zyxel.fr	ZyXEL France 1 rue des Vergers Bat. 1 / C 69760 Limonest France
		+33-4-72-52-19-20		
<b>GERMANY</b>	support@zyxel.de	+49-2405-6909-0	www.zyxel.de	ZyXEL Deutschland GmbH. Adenauerstr. 20/A2 D-52146 Wuerselen Germany
	sales@zyxel.de	+49-2405-6909-99		
<b>HUNGARY</b>	support@zyxel.hu	+36-1-3361649	www.zyxel.hu	ZyXEL Hungary 48, Zoldlomb Str. H-1025, Budapest Hungary
	info@zyxel.hu	+36-1-3259100		
<b>KAZAKHSTAN</b>	http://zyxel.kz/support	+7-3272-590-698	www.zyxel.kz	ZyXEL Kazakhstan 43, Dostyk ave., Office 414 Dostyk Business Centre 050010, Almaty Republic of Kazakhstan
	sales@zyxel.kz	+7-3272-590-689		
<b>NORTH AMERICA</b>	support@zyxel.com	1-800-255-4101 +1-714-632-0882	www.us.zyxel.com	ZyXEL Communications Inc. 1130 N. Miller St. Anaheim CA 92806-2001 U.S.A.
	sales@zyxel.com	+1-714-632-0858	ftp.us.zyxel.com	
<b>NORWAY</b>	support@zyxel.no	+47-22-80-61-80	www.zyxel.no	ZyXEL Communications A/S Niils Hansens vei 13 0667 Oslo Norway
	sales@zyxel.no	+47-22-80-61-81		



METHOD LOCATION	SUPPORT E-MAIL	TELEPHONE <sup>A</sup>	WEB SITE	REGULAR MAIL
	SALES E-MAIL	FAX	FTP SITE	
POLAND	info@pl.zyxel.com	+48-22-5286603	www.pl.zyxel.com	ZyXEL Communications ul.Emilli Plater 53 00-113 Warszawa Poland
		+48-22-5206701		
RUSSIA	http://zyxel.ru/support	+7-095-542-89-29	www.zyxel.ru	ZyXEL Russia Ostrovityanova 37a Str. Moscow, 117279 Russia
	sales@zyxel.ru	+7-095-542-89-25		
SPAIN	support@zyxel.es	+34-902-195-420	www.zyxel.es	ZyXEL Communications Alejandro Villegas 33 1º, 28043 Madrid Spain
	sales@zyxel.es	+34-913-005-345		
SWEDEN	support@zyxel.se	+46-31-744-7700	www.zyxel.se	ZyXEL Communications A/S Sjöporten 4, 41764 Göteborg Sweden
	sales@zyxel.se	+46-31-744-7701		
UKRAINE	support@ua.zyxel.com	+380-44-247-69-78	www.ua.zyxel.com	ZyXEL Ukraine 13, Pimonenko Str. Kiev, 04050 Ukraine
	sales@ua.zyxel.com	+380-44-494-49-32		
UNITED KINGDOM	support@zyxel.co.uk	+44-1344 303044 08707 555779 (UK only)	www.zyxel.co.uk	ZyXEL Communications UK Ltd., 11 The Courtyard, Eastern Road, Bracknell, Berkshire, RG12 2XB, United Kingdom (UK)
	sales@zyxel.co.uk	+44-1344 303034	ftp.zyxel.co.uk	

A. "+" is the (prefix) number you enter to make an international telephone call.



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# Preface

Congratulations on your purchase of the P-320W, 802.11g Wireless Firewall Router. This manual is designed to guide you through the configuration of your Prestige for its various applications.

This manual may refer to the P-320W, 802.11g Wireless Firewall Router as the Prestige.

**Note:** Register your product online to receive e-mail notices of firmware upgrades and information at [www.zyxel.com](http://www.zyxel.com) for global products, or at [www.us.zyxel.com](http://www.us.zyxel.com) for North American products.

## About This User's Guide

This User's Guide is designed to guide you through the configuration of your Prestige using the web configurator.

## Related Documentation

- **Supporting Disk**  
Refer to the included CD for support documents.
- **Quick Start Guide**  
The Quick Start Guide is designed to help you get up and running right away. They contain connection information and instructions on getting started.
- **Web Configurator Online Help**  
Embedded web help for descriptions of individual screens and supplementary information.
- **ZyXEL Glossary and Web Site**  
Please refer to [www.zyxel.com](http://www.zyxel.com) for an online glossary of networking terms and additional support documentation.

## User Guide Feedback










Help us help you! E-mail all User Guide-related comments, questions or suggestions for improvement to [techwriters@zyxel.com.tw](mailto:techwriters@zyxel.com.tw) or send regular mail to The Technical Writing Team, ZyXEL Communications Corp., 6 Innovation Road II, Science-Based Industrial Park, Hsinchu, 300, Taiwan. Thank you!

## Syntax Conventions

- “Enter” means for you to type one or more characters. “Select” or “Choose” means for you to use one predefined choices.
- Mouse action sequences are denoted using a comma. For example, “In Windows, click **Start**, **Settings** and then **Control Panel**” means first click the **Start** button, then point your mouse pointer to **Settings** and then click **Control Panel**.

- “e.g.,” is a shorthand for “for instance”, and “i.e.,” means “that is” or “in other words”.

### Graphics Icons Key

Prestige 	Computer 	Notebook computer 
Server 	DSLAM 	Firewall 
Modem 	Switch 	Router 

# CHAPTER 1

## Getting to Know Your Prestige

This chapter introduces the main features and applications of the Prestige.

### 1.1 Prestige Overview

The Prestige is the ideal secure wireless firewall router for all data passing between the Internet and LAN's.

The Prestige provides NAT, port forwarding, firewall, DHCP server and many other powerful features. The Prestige has an embedded mini-PCI module for 802.11g Wireless LAN connectivity.

The embedded web configurator is easy to operate.

**Note:** Only use firmware for your Prestige's specific model.

### 1.2 Prestige Features

The following sections describe Prestige features.

#### 1.2.1 Physical Features

##### **10/100 Mbps Auto-negotiating Ethernet/Fast Ethernet Interface(s)**

This auto-negotiation feature allows the Prestige to detect the speed of incoming transmissions and adjust appropriately without manual intervention. It allows data transfer of either 10 Mbps or 100 Mbps in either half-duplex or full-duplex mode depending on your Ethernet network.

Auto-negotiation allows data transfer of 100 Mbps in full-duplex mode

##### **Auto-crossover 10/100 Mbps Ethernet Interface(s)**

These interfaces automatically adjust to either a crossover or straight-through Ethernet cable.

##### **4-Port Switch**

A combination of switch and router makes your Prestige a cost-effective and viable network solution. You can add up to four computers to the Prestige without the cost of a hub. Add more than four computers to your LAN by using a hub.

## **Reset Button**

The Prestige reset button is built into the rear panel. Use this button to restore the factory default password to 1234; IP address to 192.168.1.1, subnet mask to 255.255.255.0 and DHCP server enabled with a pool of 32 IP addresses starting at 192.168.1.33.

## **1.2.2 Non-Physical Features**

### **Firewall**

The Prestige is a stateful inspection firewall with DoS (Denial of Service) protection. By default, when the firewall is activated, all incoming traffic from the WAN to the LAN is blocked unless it is initiated from the LAN. The Prestige firewall supports TCP/UDP inspection, DoS detection and prevention, real time alerts, reports and logs.

### **Packet Filtering**

The packet filtering mechanism blocks unwanted traffic from entering/leaving your network.

### **Time and Date**

The Prestige allows you to get the current time and date from an external server when you turn on your Prestige. You can also set the time manually.

### **Universal Plug and Play (UPnP)**

Using the standard TCP/IP protocol, the Prestige and other UPnP enabled devices can dynamically join a network, obtain an IP address and convey its capabilities to other devices on the network.

### **PPPoE**

PPPoE facilitates the interaction of a host with an Internet modem to achieve access to high-speed data networks via a familiar "dial-up networking" user interface.

### **PPTP Encapsulation**

Point-to-Point Tunneling Protocol (PPTP) is a network protocol that enables secure transfer of data from a remote client to a private server, creating a Virtual Private Network (VPN) using a TCP/IP-based network.

PPTP supports on-demand, multi-protocol and virtual private networking over public networks, such as the Internet. The Prestige supports one PPTP server connection at any given time.

## Dynamic DNS Support

With Dynamic DNS (Domain Name System) support, you can have a static hostname alias for a dynamic IP address, allowing the host to be more easily accessible from various locations on the Internet. You must register for this service with a Dynamic DNS service provider.

## IP Multicast

Deliver IP packets to a specific group of hosts using IP multicast. IGMP (Internet Group Management Protocol) is the protocol used to support multicast groups. The latest version is version 2 (see RFC 2236); the Prestige supports both versions 1 and 2.

## SNMP

SNMP (Simple Network Management Protocol) is a protocol used for exchanging management information between network devices. SNMP is a member of the TCP/IP protocol suite. Your Prestige supports SNMP agent functionality, which allows a manager station to manage and monitor the Prestige through the network. The Prestige supports SNMP version one (SNMPv1) and version two (SNMPv2).

## Network Address Translation (NAT)

Network Address Translation (NAT) allows the translation of an Internet protocol address used within one network (for example a private IP address used in a local network) to a different IP address known within another network (for example a public IP address used on the Internet).

## Traffic Redirect

Traffic Redirect forwards WAN traffic to a backup gateway on the LAN when the Prestige cannot connect to the Internet, thus acting as an auxiliary backup when your regular WAN connection fails.

## Port Forwarding

Use this feature to forward incoming service requests to a server on your local network. You may enter a single port number or a range of port numbers to be forwarded, and the local IP address of the desired server.

## DHCP (Dynamic Host Configuration Protocol)

DHCP (Dynamic Host Configuration Protocol) allows the individual client computers to obtain the TCP/IP configuration at start-up from a centralized DHCP server. The Prestige has built-in DHCP server capability, enabled by default, which means it can assign IP addresses, an IP default gateway and DNS servers to all systems that support the DHCP client.

## Full Network Management

The embedded web configurator is an all-platform web-based utility that allows you to easily access the Prestige's management settings and configure the firewall. Most functions of the Prestige are also software configurable via the SMT (System Management Terminal) interface. The SMT is a menu-driven interface that you can access over a telnet connection.

## RoadRunner Support

In addition to standard cable modem services, the Prestige supports Time Warner's RoadRunner Service.

## Logging and Tracing

- Built-in message logging and packet tracing.
- Firewall logs.
- Content filtering logs.

## Upgrade Prestige Firmware via LAN

The firmware of the Prestige can be upgraded via the LAN (refer to Maintenance- F/W Upload Screen).

## Embedded FTP and TFTP Servers

The Prestige's embedded FTP and TFTP Servers enable fast firmware upgrades as well as configuration file backups and restoration.

## 1.2.3 Wireless Features

### Wireless LAN

The Prestige supports the IEEE 802.11g standard, which is fully compatible with the IEEE 802.11b standard, meaning that you can have both IEEE 802.11b and IEEE 802.11g wireless clients in the same wireless network.

**Note:** The Prestige may be prone to RF (Radio Frequency) interference from other 2.4 GHz devices such as microwave ovens, wireless phones, Bluetooth enabled devices, and other wireless LANs.

### Wi-Fi Protected Access

Wi-Fi Protected Access (WPA) is a subset of the IEEE 802.11i security specification standard. Key differences between WPA and WEP are user authentication and improved data encryption.

## Antenna

The Prestige is equipped with a 2dBi fixed antenna to provide clear radio signal between the wireless stations and the access points.

## Wireless LAN MAC Address Filtering

Your Prestige can check the MAC addresses of wireless stations against a list of allowed or denied MAC addresses.

## WEP Encryption

WEP (Wired Equivalent Privacy) encrypts data frames before transmitting over the wireless network to help keep network communications private.

## OTIST (One Touch Intelligent Security Technology)

OTIST allows your Prestige to assign its ESSID and security settings (WEP or WPA-PSK) to the ZyXEL wireless adapters that support OTIST and are within transmission range. The ZyXEL wireless adapters must also have OTIST enabled.

## Association List

With the association list, you can see the list of the wireless stations that are currently using the Prestige to access your wired network.

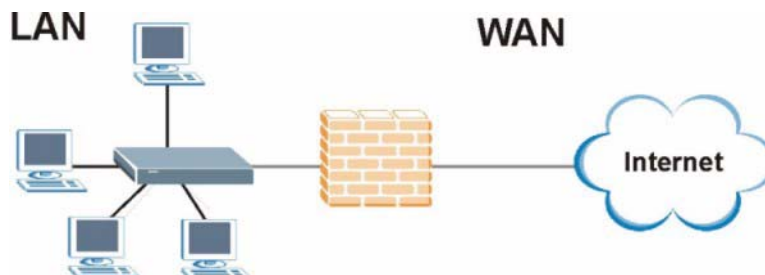
## 1.3 Applications for the Prestige

Here are some examples of what you can do with your Prestige.

### 1.3.1 Secure Broadband Internet Access via Cable or DSL Modem

You can connect a cable modem, DSL or wireless modem to the Prestige for broadband Internet access via an Ethernet or a wireless port on the modem. The Prestige guarantees not only high speed Internet access, but secure internal network protection and traffic management as well.

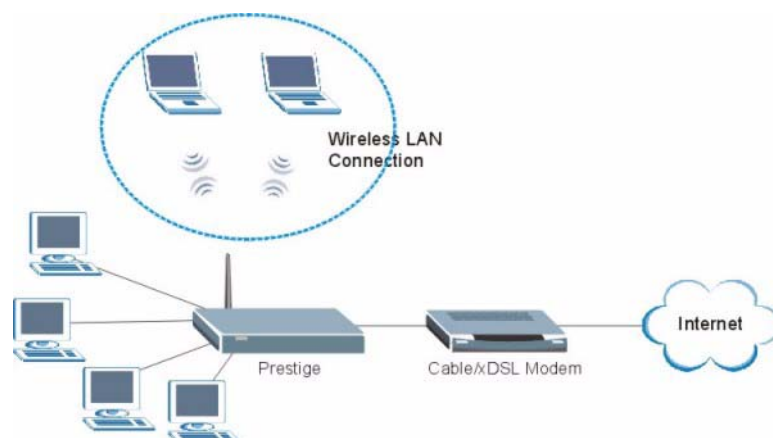
**Figure 1** Secure Internet Access via Cable, DSL or Wireless Modem



## 1.3.2 Wireless LAN Application

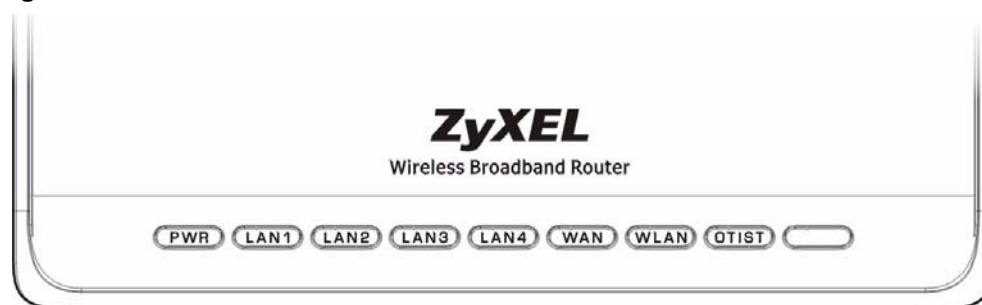
Add a wireless LAN to your existing network without expensive network cables. Wireless stations can move freely anywhere in the coverage area and use resources on the wired network.

**Figure 2** Internet Access Application Example



## 1.3.3 Front Panel LEDs

**Figure 3** Front Panel



The following table describes the LEDs.

**Table 1** Front Panel LEDs

LED	COLOR	STATUS	DESCRIPTION
PWR	Green	On	The Prestige is receiving power and functioning properly.
		Blinking	The Prestige is performing testing.
	Red	On	Power to the Prestige is too low.
	None	Off	The Prestige is not receiving power.



**Table 1** Front Panel LEDs (continued)

LED	COLOR	STATUS	DESCRIPTION
<b>LAN 1-4</b>	Green	On	The Prestige has a successful 10Mb Ethernet connection.
		Blinking	The Prestige is sending/receiving data.
	Amber	On	The Prestige has a successful 100Mb Ethernet connection.
		Blinking	The Prestige is sending/receiving data.
	None	Off	The LAN is not connected.
<b>WAN</b>	Green	On	The Prestige has a successful 10Mb WAN connection.
		Blinking	The Prestige is sending/receiving data.
	Amber	On	The Prestige has a successful 100Mb Ethernet connection.
		Blinking	The Prestige is sending/receiving data.
	None	Off	The WAN connection is not ready, or has failed.
<b>WLAN</b>	Green	On	The Prestige is ready, but is not sending/receiving data through the wireless LAN.
		Blinking	The Prestige is sending/receiving data through the wireless LAN.
	None	Off	The wireless LAN is not ready or has failed.
<b>OTIST</b>	Green	Blinking	OTIST is in progress
		On	OTIST is activated and the wireless security settings are given to a wireless client. The LED remains on unless the WLAN settings are changed.
	None	Off	OTIST is not activated or WLAN settings are manually configured after OTIST is successful.



# CHAPTER 2

## Introducing the Web Configurator

This chapter describes how to access the Prestige web configurator and provides an overview of its screens.

### 2.1 Web Configurator Overview

The web configurator is an HTML-based management interface that allows easy Prestige setup and management via Internet browser. Use Internet Explorer 6.0 and later or Netscape Navigator 7.0 and later versions. The recommended screen resolution is 1024 by 768 pixels.

In order to use the web configurator you need to allow:

- Web browser pop-up windows from your device. Web pop-up blocking is enabled by default in Windows XP SP (Service Pack) 2.
- JavaScripts (enabled by default).
- Java permissions (enabled by default).

See the Troubleshooting chapter to see how to make sure these functions are allowed in Internet Explorer.

### 2.2 Accessing the Prestige Web Configurator

- 1 Make sure your Prestige hardware is properly connected and prepare your computer/ computer network to connect to the Prestige (refer to the Quick Start Guide).
- 2 Launch your web browser.
- 3 Type "192.168.1.1" as the URL.
- 4 Type "1234" (default) as the password and click **Login**. In some versions, the default password appears automatically - if this is the case, click **Login**.

**Figure 4** Login

The screenshot shows the ZyXEL P-320W login interface. At the top is the ZyXEL logo. Below it, the text 'P-320W' is centered. The main heading is 'Welcome to your router Configuration Interface'. Below this, it says 'Enter your password and click Login'. There is a password field with a key icon and the text 'Password : ' followed by a text box containing four asterisks. Below the text box is a note in parentheses: '( max. 30 alphanumeric, printable characters and no spaces )'. At the bottom left, there is a 'Note :' section with a yellow icon and text: 'Please turn on the Javascript and ActiveX control setting on Internet Explorer when operating system is Windows XP and service pack is SP2.'. At the bottom right, there are two buttons: 'Login' and 'Reset'.

**5** Select your language. click **Apply**.

**Figure 5** Language Selection

The screenshot shows the ZyXEL Language Selection screen. At the top is the ZyXEL logo. Below it, the text 'Language Selection' is centered. The main heading is 'Please select a language and click to configure.'. Below this, there is a 'Language : ' label followed by a dropdown menu showing 'English'. At the bottom, there are two buttons: 'Apply' and 'Reset'.

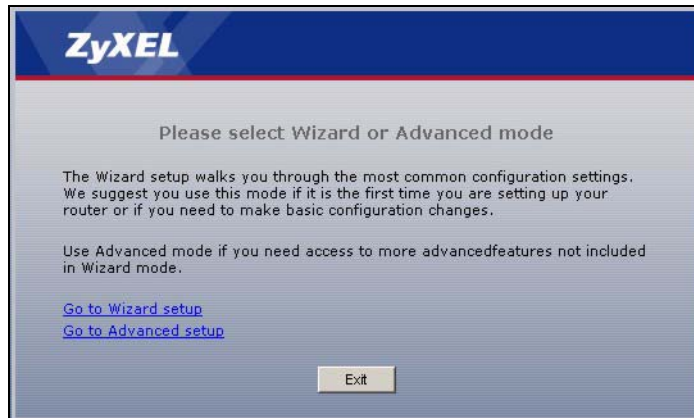
**6** You should see a screen asking you to change your password (highly recommended) as shown next. Type a new password (and retype it to confirm) and click **Apply** or click **Ignore**.

**Figure 6** Change Password Screen

The screenshot shows the ZyXEL Change Password screen. At the top is the ZyXEL logo. Below it, the text 'Please enter a new password' is centered. The main heading is '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.'. Below this, there is a note: 'The administrator password should must be between 1 - 30 characters.'. At the bottom, there are two text boxes: 'New Password : ' followed by a text box containing four asterisks, and 'Retype to Confirm : ' followed by an empty text box. At the bottom right, there are two buttons: 'Apply' and 'Ignore'.

- 7 Click **Go to Wizard setup** to do initial configuration with the wizard, click **Go to Advanced setup** to configure advanced features, or click **Exit** to log out of the web configurator.

**Figure 7** Select the Mode



**Note:** The management session automatically times out when the time period set in the **Administrator Inactivity Timer** field expires (default five minutes). Simply log back into the Prestige if this happens to you.

## 2.3 Resetting the Prestige

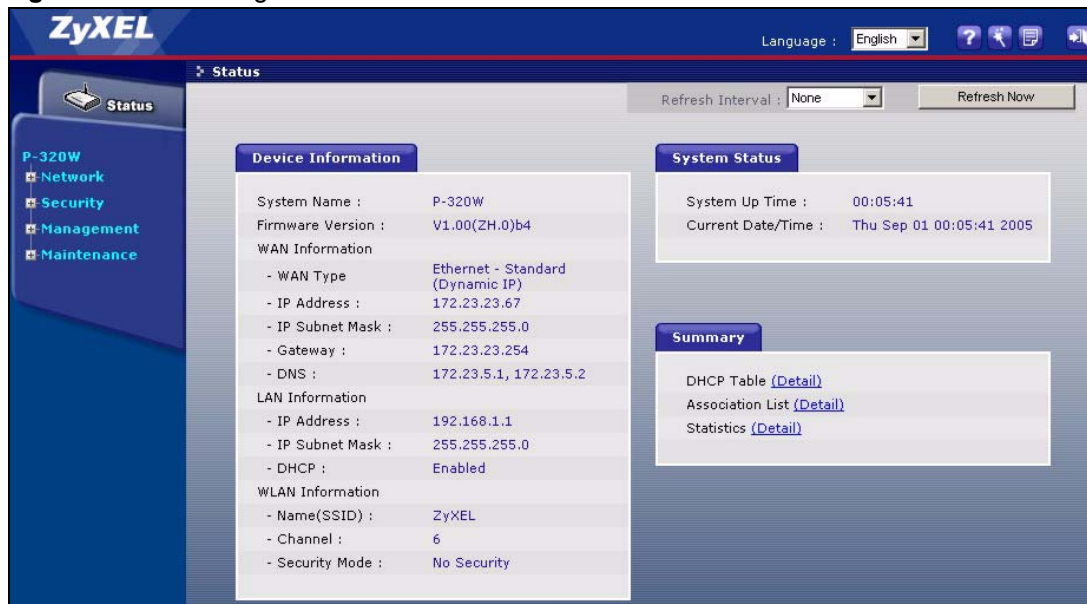
If you forget your password or cannot access the web configurator, you will need to use the **RESET** button at the back of the Prestige to reload the factory-default configuration file. This means that you will lose all configurations that you had previously and the password will be reset to “1234”.

### 2.3.1 Procedure To Use The Reset Button

- 1 Make sure the **PWR** LED is on (not blinking).
- 2 Press the **RESET** button for ten seconds or until the **PWR** LED begins to blink and then release it. When the **PWR** LED begins to blink, the defaults have been restored and the Prestige restarts.

## 2.4 Navigating the Prestige Web Configurator

The following summarizes how to navigate the web configurator from the **Status** screen.

**Figure 8** Web Configurator Status Screen

The following table describes the icons shown in the **Status** screen.

**Table 2** Status Screen Icon Key

ICON	DESCRIPTION
	Select a language from the drop-down list box to have the the web configurator display in that language.
	Click this icon to open a web help page relevent to the screen you are currently configuring.
	Click this icon to open the setup wizard. The Prestige has a connection wizard and a bandwidth management wizard.
	Click this icon to view copyright and a link for related product information.
	Click this icon at any time to exit the web configurator.
	Select a number of seconds or <b>None</b> from the drop-down list box to refresh all screen statistics automatically at the end of every time interval or to not refresh the screen statistics.
	Click this button to refresh the status screen statistics.

The following table describes the labels shown in the **Status** screen.

**Table 3** Web Configurator Status Screen

LABEL	DESCRIPTION
Device Information	
System Name	This is the <b>System Name</b> you enter in the <b>Maintenance, System, General</b> screen. It is for identification purposes.
Firmware Version	This is the firmware version and the date created.

**Table 3** Web Configurator Status Screen

LABEL	DESCRIPTION
WAN Information	
- WAN Type	This shows the encapsulation method (and service type) the Prestige is using.
- IP Address	This shows the WAN port's IP address.
- IP Subnet Mask	This shows the WAN port's subnet mask.
- Gateway	This shows the gateway IP address.
- DNS	This shows the IP address(es) of the DNS server(s).
LAN Information	
- IP Address	This shows the LAN port's IP address.
- IP Subnet Mask	This shows the LAN port's subnet mask.
- DHCP	This shows whether the Prestige acts as a DHCP server ( <b>Enabled</b> ) or not ( <b>Disabled</b> ).
WLAN Information	
- Name(SSID)	This shows a descriptive name used to identify the Prestige in the wireless LAN.
- Channel	This shows the channel number which the Prestige uses over the wireless LAN.
- Security Mode	This shows the level of wireless security the Prestige is using.
System Status	
System Uptime	This is the total time the Prestige has been on.
Current Date/Time	This field displays your Prestige's present date and time along with the difference from the Greenwich Mean Time (GMT) zone. The difference from GMT is based on the time zone. It is also adjusted for Daylight Saving Time if you set the Prestige to use it.
Summary	
DHCP Table	Use this screen to view current DHCP client information.
Association List	Use this screen to view the wireless stations that are currently associated to the Prestige.
Statistics	Use this screen to view port status and packet specific statistics.

## 2.4.1 Navigation Panel

After you enter the password, use the sub-menus on the navigation panel to configure Prestige features. The navigation

The following table describes the sub-menus.

**Table 4** Screens Summary

LINK	TAB	FUNCTION
Status		This screen shows the Prestige's general device and system status information. Use this screen to access the wizard, and summary statistics tables.
Network		

**Table 4** Screens Summary

LINK	TAB	FUNCTION
Wireless LAN	General	Use this screen to configure wireless LAN.
	OTIST	This screen allows you to assign wireless clients the Prestige's wireless security settings.
	MAC Filter	Use the MAC filter screen to configure the Prestige to block access to devices or block the devices from accessing the Prestige.
	Advanced	This screen allows you to configure other advanced WLAN properties.
WAN	Internet Connection	This screen allows you to configure ISP parameters, WAN IP address assignment and the WAN MAC address.
	Advanced	Use this screen to configure DNS servers.
	Traffic Redirect	Use this screen to configure your traffic redirect properties and parameters.
LAN	IP	Use this screen to configure LAN settings.
DHCP Server	General	Use this screen to enable the Prestige's DHCP server and to have DNS servers assigned by the DHCP server.
	Static DHCP	Use this screen to assign IP addresses on the LAN to specific individual computers based on their MAC addresses.
	Client List	Use this screen to view current DHCP client information and to always assign an IP address to a MAC address (and host name).
NAT	General	Use this screen to enable NAT.
	Port Forwarding	Use this screen to configure servers behind the Prestige.
	Trigger Port	Use this screen to change your Prestige's port triggering settings.
Security		
Firewall	General	Use this screen to activate/deactivate the firewall.
	Services	This screen shows a summary of the firewall rules, and allows you to edit/add a firewall rule.
Management		
Static Route	Static Route Rules	Use this screen to configure IP static routes.
Remote MGMT	WWW	Use this screen to configure through which interface(s) and from which IP address(es) users can use HTTP to manage the Prestige.
	SNMP	Use this screen to configure your Prestige's settings for Simple Network Management Protocol management.
	Security	Use this screen to change your anti-probing settings.
UPnP	General	Use this screen to enable UPnP on the Prestige.
Maintenance		
System	General	This screen contains administrative.
	Dynamic DNS	Use this screen to set up dynamic DNS.
	Time Setting	Use this screen to change your Prestige's time and date.
Logs	View Log	Use this screen to view the logs for the categories that you selected.
	Log Settings	Use this screen to change your Prestige's log settings.



**Table 4** Screens Summary

LINK	TAB	FUNCTION
Tools	Firmware	Use this screen to upload firmware to your Prestige.
	Configuration	Use this screen to backup and restore the configuration or reset the factory defaults to your Prestige.
	Restart	This screen allows you to reboot the Prestige without turning the power off.

## 2.4.2 Summary: DHCP Table

DHCP (Dynamic Host Configuration Protocol, RFC 2131 and RFC 2132) allows individual clients to obtain TCP/IP configuration at start-up from a server. You can configure the Prestige as a DHCP server or disable it. When configured as a server, the Prestige provides the TCP/IP configuration for the clients. If DHCP service is disabled, you must have another DHCP server on your LAN, or else the computer must be manually configured.

Click the **DHCP Table (Detail)** hyperlink in the **Status** screen. Read-only information here relates to your DHCP status. The DHCP table shows current DHCP client information (including **IP Address**, **Host Name** and **MAC Address**) of all network clients using the Prestige's DHCP server.

**Figure 9** Summary: DHCP Table

DHCP Table			
#	IP Address	Host Name	MAC Address
1	192.168.1.49	tw	00-00-E8-7C-14-80
2	192.168.1.59	x31	00-04-23-8E-4F-CF

Refresh

The following table describes the labels in this screen.

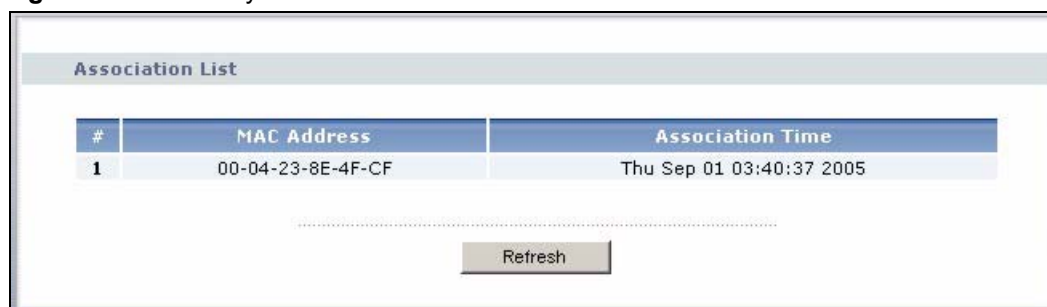
**Table 5** Summary: DHCP Table

	DESCRIPTION
#	This is the index number of the host computer.
IP Address	This field displays the IP address relative to the # field listed above.
Host Name	This field displays the computer host name.
MAC Address	This field shows the MAC address of the computer with the name in the <b>Host Name</b> field.  Every Ethernet device has a unique MAC (Media Access Control) address. The MAC address is assigned at the factory and consists of six pairs of hexadecimal characters, for example, 00:A0:C5:00:00:02.
Refresh	Click <b>Refresh</b> to renew the screen.

### 2.4.3 Summary: Association List

Click the **Association List (Detail)** hyperlink in the **Status** screen. View the wireless stations that are currently associated to the Prestige in the **Association List** screen.

**Figure 10** Summary: Association List



The screenshot shows a web interface titled "Association List". It contains a table with three columns: "#", "MAC Address", and "Association Time". The first row of the table has the values "1", "00-04-23-8E-4F-CF", and "Thu Sep 01 03:40:37 2005". Below the table is a "Refresh" button.

#	MAC Address	Association Time
1	00-04-23-8E-4F-CF	Thu Sep 01 03:40:37 2005

Refresh

The following table describes the labels in this screen.

**Table 6** Summary: Wireless Association List

LABEL	DESCRIPTION
#	This is the index number of an associated wireless station.
MAC Address	This field displays the MAC address of an associated wireless station.
Association Time	This field displays the time a wireless station first associated with the Prestige.
Refresh	Click <b>Refresh</b> to redisplay the current screen.

### 2.4.4 Summary: Packet Statistics

Click the **Statistics (Detail)** hyperlink in the **Status** screen. Read-only information here includes packet specific statistics. Also provided are "system up time" and "poll interval(s)". The **Poll Interval(s)** field is configurable.

**Figure 11** Summary: Packet Statistics

The following table describes the labels in this screen.

**Table 7** Summary: Packet Statistics

LABEL	DESCRIPTION
Port	This is the WAN, LAN or WLAN port.
TxPkts	This is the number of transmitted packets on this port.
RxPkts	This is the number of received packets on this port.
System Up Time	This is the total time the Prestige has been on.
Poll Interval(s)	Enter the time interval for refreshing statistics in this field.
Set Interval	Click this button to apply the new poll interval you entered in the <b>Poll Interval(s)</b> field.
Stop	Click <b>Stop</b> to stop refreshing statistics, click <b>Stop</b> .



# CHAPTER 3

## Connection Wizard

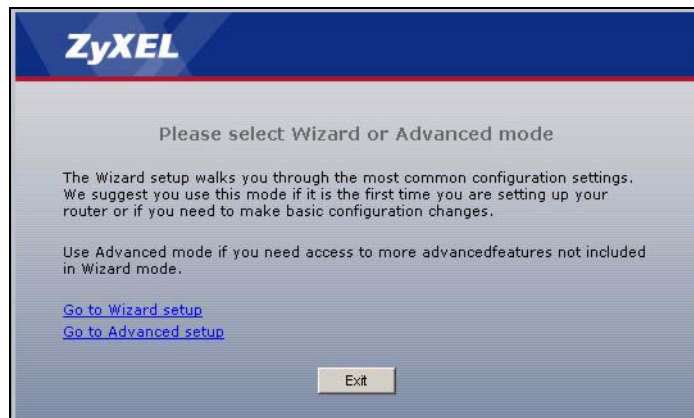
This chapter provides information on the Wizard setup screens in the web configurator.

### 3.1 Wizard Setup

The web configurator's Wizard setup helps you configure your device to access the Internet. Refer to your ISP (Internet Service Provider) checklist in the Quick Start Guide to know what to enter in each field. Leave a field blank if you don't have that information.

- 1 After you access the Prestige web configurator, click the **Go to Wizard setup** hyperlink. You can click the **Go to Advanced setup** hyperlink to skip this wizard setup and configure advanced features.

**Figure 12** Select a Mode



- 2 Read the on-screen information and click **Next**.

**Figure 13** Welcome to the Connection Wizard

## 3.2 Connection Wizard: STEP 1: System Information

**System Information** contains administrative and system-related information.

### 3.2.1 System Name

**System Name** is for identification purposes. However, because some ISPs check this name you should enter your computer's "Computer Name".

- In Windows 95/98 click **Start, Settings, Control Panel, Network**. Click the Identification tab, note the entry for the **Computer Name** field and enter it as the **System Name**.
- In Windows 2000, click **Start, Settings and Control Panel** and then double-click **System**. Click the **Network Identification** tab and then the **Properties** button. Note the entry for the **Computer name** field and enter it as the **System Name**.
- In Windows XP, click **Start, My Computer, View system information** and then click the **Computer Name** tab. Note the entry in the **Full computer name** field and enter it as the **Prestige System Name**.

### 3.2.2 Domain Name

The **Domain Name** entry is what is propagated to the DHCP clients on the LAN. If you leave this blank, the domain name obtained by DHCP from the ISP is used. While you must enter the host name (System Name) on each individual computer, the domain name can be assigned from the Prestige via DHCP.

Click **Next** to configure the Prestige for Internet access.

**Figure 14** Connection Wizard: STEP 1: System Information

**Connection Wizard** **ZyXEL**

STEP 1 ▶ STEP 2 ▶ STEP 3 ▶

**System Information**

**System Name**

Enter a name to help you identify your router on the network. This information is optional and you may safely leave this field blank.

System Name:

**Domain Name**

The ISP's domain name is often sent automatically by the ISP to the router. If you are having difficulty accessing ISP services, you may need to enter the Domain Name manually in the field below. This field is normally left blank.

Domain Name:

<Back    Next >    Exit

The following table describes the labels in this screen.

**Table 8** Connection Wizard: STEP 1: System Information

LABEL	DESCRIPTION
System Name	System Name is a unique name to identify the Prestige in an Ethernet network. Enter a descriptive name. This name can be up to 30 alphanumeric characters long. Spaces are not allowed, but dashes "-" and underscores "_" are accepted.
Domain Name	Type the domain name (if you know it) here. If you leave this field blank, the ISP may assign a domain name via DHCP. The domain name entered by you is given priority over the ISP assigned domain name.
Back	Click <b>Back</b> to display the previous screen.
Next	Click <b>Next</b> to proceed to the next screen.
Exit	Click <b>Exit</b> to close the wizard screen without saving.

### 3.3 Connection Wizard: STEP 2: Wireless LAN

Set up your wireless LAN using the following screen.

**Figure 15** Connection Wizard: STEP 2: Wireless LAN

**Connection Wizard** **ZyXEL**

STEP 1 > **STEP 2** > STEP 3 >

**WIRELESS LAN**

**WIRELESS LAN**

The SSID is the name given to your wireless network. It may be possible to see multiple wireless networks from your home or office, so choose a name that you will be able to recognize later.

Name(SSID)

Channel Selection

Security

<Back    Next >    Exit

The following table describes the labels in this screen.

**Table 9** Connection Wizard: STEP 2: Wireless LAN

LABEL	DESCRIPTION
Name(SSID)	Enter a descriptive name (up to 32 printable 7-bit ASCII characters) for the wireless LAN. If you change this field on the Prestige, make sure all wireless stations use the same SSID in order to access the network.
Channel Selection	The range of radio frequencies used by IEEE 802.11b/g wireless devices is called a channel. Select a channel ID that is not already in use by a neighboring device.
Security	Select a <b>Security</b> level from the drop-down list box. Choose <b>Auto (WPA-PSK with self-generated key)</b> to use WPA-PSK security with a default Pre-Shared Key and only if your wireless clients support WPA-PSK. If you choose this option, skip directly to <a href="#">Section 3.3.3 on page 51</a> . Choose <b>None</b> to have no wireless LAN security configured. If you do not enable any wireless security on your Prestige, your network is accessible to any wireless networking device that is within range. If you choose this option, skip directly to <a href="#">section 3.3.3</a> . Choose <b>Basic (WEP)</b> security if you want to configure WEP Encryption parameters. If you choose this option, go directly to <a href="#">Section 3.3.1 on page 49</a> . Choose <b>Extend (WPA-PSK with customized key)</b> security to configure a Pre-Shared Key. Choose this option only if your wireless clients support WPA-PSK or WPA2-PSK respectively. If you choose this option, skip directly to <a href="#">Section 3.3.2 on page 50</a> .
Back	Click <b>Back</b> to display the previous screen.
Next	Click <b>Next</b> to proceed to the next screen.
Exit	Click <b>Exit</b> to close the wizard screen without saving.



**Note:** The wireless stations and Prestige must use the same SSID, channel ID and WEP encryption key (if WEP is enabled), WPA-PSK (if WPA-PSK is enabled) for wireless communication.

### 3.3.1 Basic(WEP) Security

Choose **Basic(WEP)** to setup WEP Encryption parameters.

**Figure 16** Basic(WEP) Security

**Connection Wizard** **ZyXEL**

STEP 1 > **STEP 2** > STEP 3 >

**WIRELESS LAN**

**Passphrase**

Use Passphrase to automatically generates a WEP key.

**Passphrase**  **Generate** **Clear**

**WEP Key**

The higher the WEP Encryption, the higher the security but the slower the throughput. Select 64-bit WEP or 128-bit WEP to enable data encryption and select one of the Key radio buttons to use as the WEP key. Entering a manual key in a Key field and selecting ASCII or Hex WEP key input method.

**WEP Encryption** **64-bit WEP**

64-bit WEP: Enter 5 ASCII characters or 10 hexadecimal characters ("0-9", "A-F") for each Key (1-4).  
 128-bit WEP: Enter 13 ASCII characters or 26 hexadecimal characters ("0-9", "A-F") for each Key (1-4).  
 (Select one WEP key as an active key to encrypt wireless data transmission.)

☒ ASCII ☐ HEX

☒ Key 1   
☐ Key 2   
☐ Key 3   
☐ Key 4

<Back Next > Exit

The following table describes the labels in this screen.

**Table 10** Basic(WEP) Security

LABEL	DESCRIPTION
Passphrase	Type a Passphrase (up to 32 printable characters) and click <b>Generate</b> . The Prestige automatically generates four different WEP keys.
Generate	After you enter the passphrase, click <b>Generate</b> to have the Prestige generates four different WEP keys automatically.
Clear	Click <b>Clear</b> to discard the passphrase you configured in the <b>Passphrase</b> field and the WEP key(s) generated automatically or manually configured.
WEP Encryption	Select <b>64-bit WEP</b> or <b>128-bit WEP</b> to allow data encryption.
ASCII	Select this option in order to enter ASCII characters as the WEP keys.
HEX	Select this option to enter hexadecimal characters as the WEP keys. The preceding "0x" is entered automatically.

**Table 10** Basic(WEP) Security

LABEL	DESCRIPTION
Key 1 to Key 4	<p>The WEP keys are used to encrypt data. Both the Prestige and the wireless stations must use the same WEP key for data transmission.</p> <p>If you chose <b>64-bit WEP</b>, then enter any 5 ASCII characters or 10 hexadecimal characters ("0-9", "A-F").</p> <p>If you chose <b>128-bit WEP</b>, then enter 13 ASCII characters or 26 hexadecimal characters ("0-9", "A-F").</p> <p>You must configure at least one key, only one key can be activated at any one time. The default key is key 1.</p>
Back	Click <b>Back</b> to display the previous screen.
Next	Click <b>Next</b> to proceed to the next screen.
Exit	Click <b>Exit</b> to close the wizard screen without saving.

### 3.3.2 Extend(WPA-PSK) Security

Choose **Extend(WPA-PSK)** security in the Wireless LAN setup screen to set up a **Pre-Shared Key**.

**Figure 17** Extend(WPA-PSK) Security