

# User's Guide

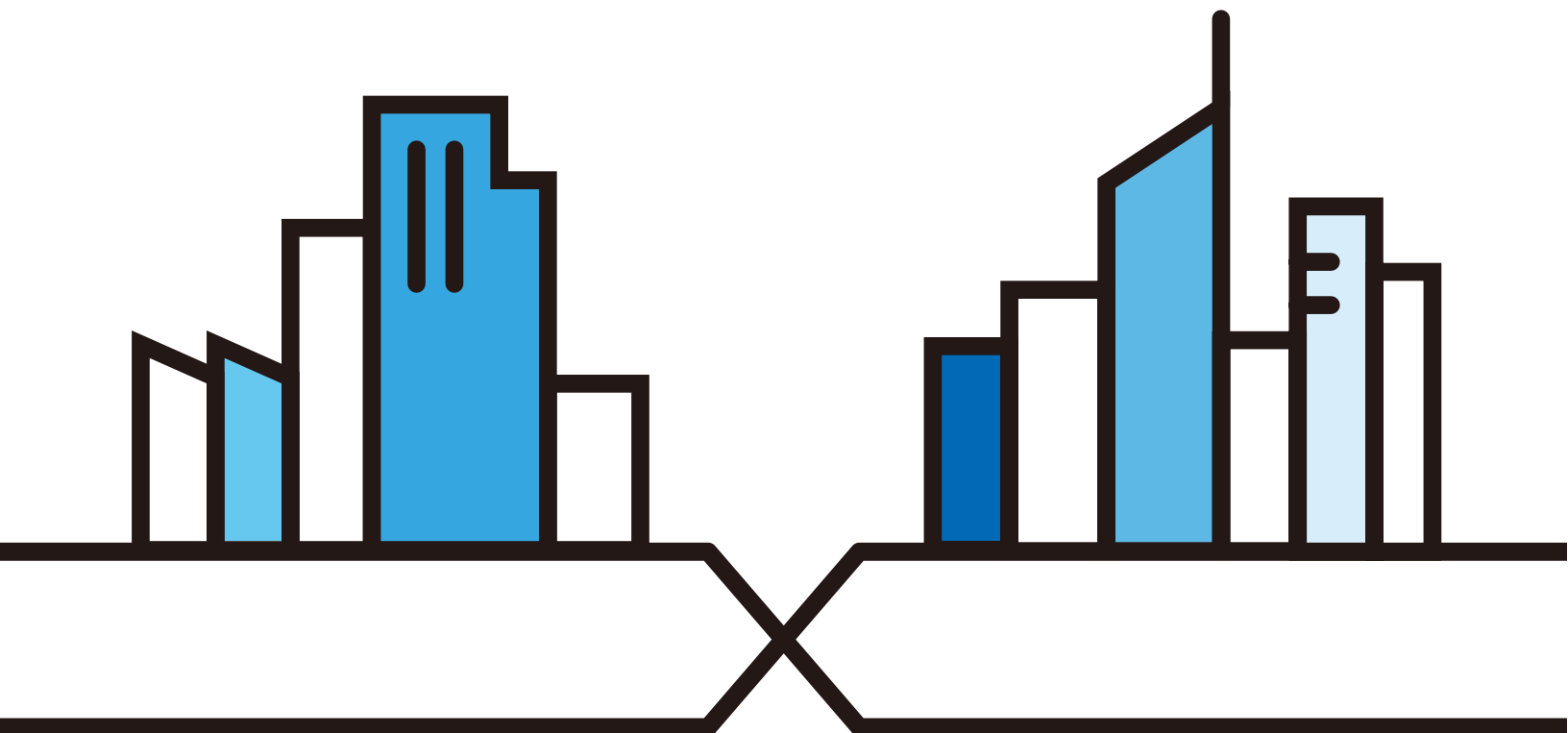
## WRE6602

AC1200 Dual Band WiFi Extender

### Default Login Details

LAN IP Address	http://192.168.1.2
Password	Press Smart Push Button for two seconds

Version 1.0 Edition 1, 04/2018



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**IMPORTANT!**

**READ CAREFULLY BEFORE USE.**

**KEEP THIS GUIDE FOR FUTURE REFERENCE.**

Screenshots and graphics in this book may differ slightly from what you see due to differences in release versions or your computer operating system. Every effort has been made to ensure that the information in this manual is accurate.

## **Related Documentation**

- Quick Start Guide

The Quick Start Guide shows how to connect the managed device.

- Easy Link App

The Easy Link app helps you install the WRE6602, configure its settings and check signal strength.

- More Information

Go to **[support.zyxel.com](http://support.zyxel.com)** to find other information on the WRE6602.



# Document Conventions

## Warnings and Notes

These are how warnings and notes are shown in this guide.

**Warnings tell you about things that could harm you or your device.**




Note: Notes tell you other important information (for example, other things you may need to configure or helpful tips) or recommendations.

## Syntax Conventions

- This device may be referred to as the "WRE6602" in this guide.
- Product labels, screen names, field labels and field choices are all in **bold** font.

## Icons Used in Figures

Figures in this user guide may use the following generic icons. The WRE6602 icon is not an exact representation of your device.

WRE6602 / Generic AP 	Generic Router 	Generic Switch 
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# PART I

## User's Guide

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# CHAPTER 1

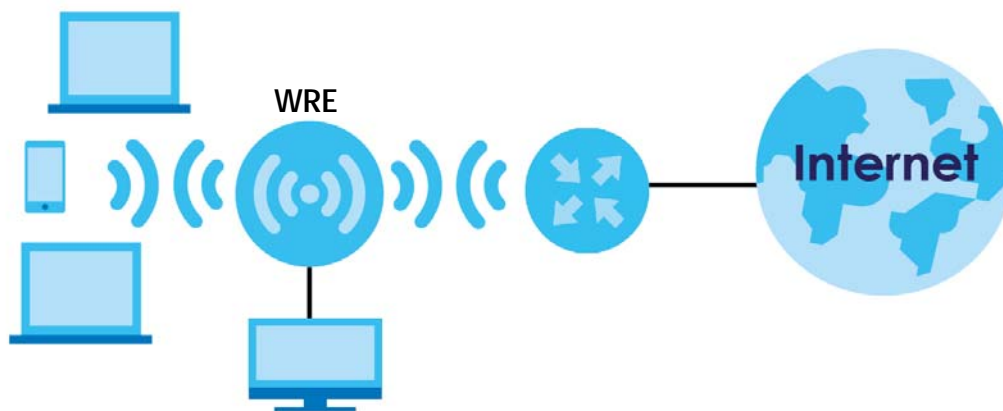
## Introduction

### 1.1 Overview

The WRE6602 allows you to easily extend existing 2.4GHz, 5GHz, or dual band wireless networks fast and easily. Simply plug the WRE6602 directly into a power outlet and the LED signal strength indicator allows you to determine the ideal installation location. The one-click Smart Push Button ([Smart Push Button on page 11](#)) lets you set up secure, simultaneous 2.4GHz or 5GHz uplink connections to your wireless router or AP and once this is completed, set up secure simultaneous 2.4GHz or 5GHz downlink connections to your wireless clients. You could use the 2.4GHz band for regular Internet surfing and downloading while using the 5GHz band for time sensitive traffic, such as high-definition video streaming, and big size file transfers.

As shown in the figure below you can set up your WRE6602 to work as a repeater or an access point.

**Figure 1** Repeater Application



You can create the following connections using the WRE6602:

- **LAN.** You can connect network devices via the Ethernet port of the WRE6602 so that they can communicate with each other and access the Internet.
- **WLAN.** Wireless clients can connect to the WRE6602 to access network resources and the Internet.

Use a (supported) web browser to manage the WRE6602.

### 1.2 Ways to Manage the WRE6602

Use any of the following methods to manage the WRE6602.

- **Smart Push Button.** You can use the Smart Push Button to set up a connection between your wireless router or AP and your WRE6602, and between the WRE6602 and your wireless clients.



- **Easy Link App.** Use Easy Link to learn how to install your WRE6602 in AP mode and/or Repeater mode, check your signal strength and modify wireless settings. You can download the Easy Link app from the Google Play Store or Apple store. Use this method when you are connecting the WRE6602 (in repeater mode) to a wireless router or AP that doesn't support WPS. Scan the QR code below to download the Easy Link app.

**Figure 2** Easy Link QR Code



- **Web Configurator.** Use a supported web browser to manage the WRE6602. You can also use this method when you are connecting the WRE6602 (in repeater mode) to a wireless router or AP that doesn't support WPS.

## 1.3 Securing the WRE6602

Do the following things regularly to make the WRE6602 more secure and to manage the WRE6602 more effectively.

- **Change the password.** Use a password that's not easy to guess and that consists of different types of characters, such as numbers and letters.
- **Write down the password and put it in a safe place.**

## 1.4 Resetting the WRE6602

If you forget your password or IP address, or you cannot access the Web Configurator, you will need to use the Smart Push Button at the bottom of the WRE6602 to reload the factory-default configuration file. This means that you will lose all configurations that you had previously saved, the password will be reset, and the IP address will be reset to "192.168.1.2". Follow these steps to reset the WRE6602:

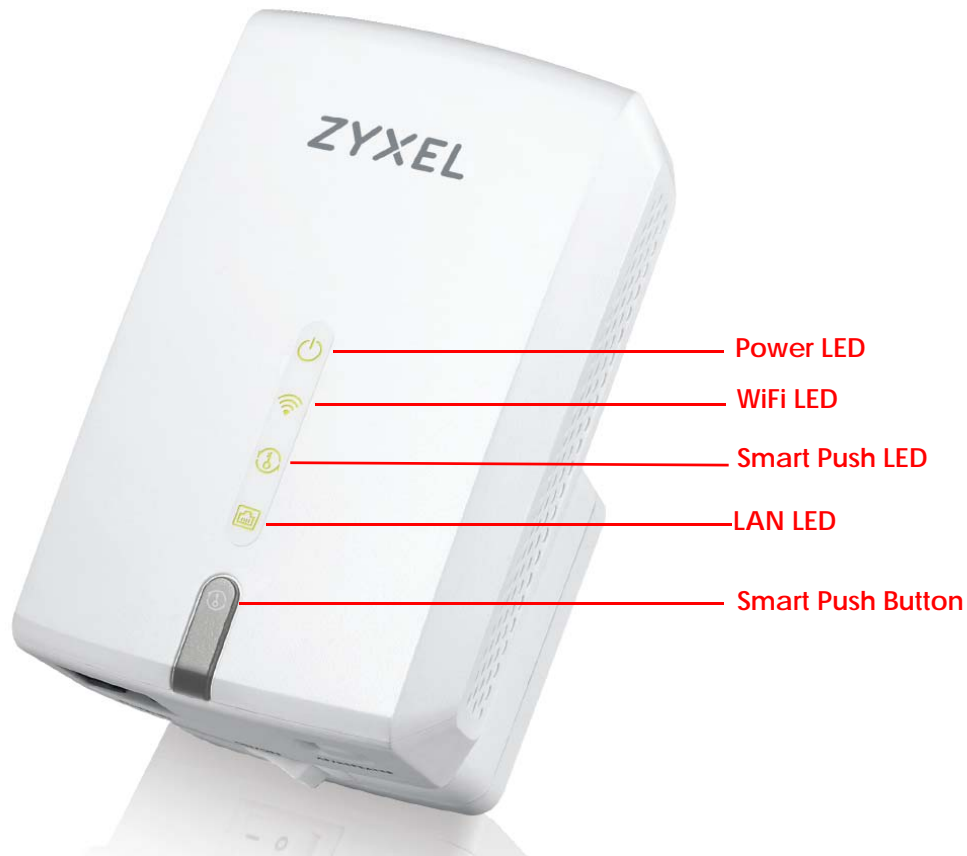
- **Make sure the power LED is on.**
- **Press and hold the Smart Push Button for more than 10 seconds.**
- **Release the Smart Push Button, the power LED begins flashing. The WRE6602 reloads factory-default settings and begins to reboot.**

## 1.5 Hardware

### 1.5.1 Front Panel

The LED indicators are located on the front panel. Look at the LED lights on the front panel to determine the status of the WRE6602.

**Figure 3** Front Panel



The following table describes the LEDs.

**Table 1** Front Panel LEDs

LED	COLOR	STATUS	DESCRIPTION
Power	Green	On	The WRE6602 is receiving power and functioning properly.
		Fast Blinking	The WRE6602 is turning on.
		Slow Blinking	The WRE is authenticating your LAN device via the Web Configurator or Easy Link app.
		Off	The WRE6602 is not receiving power, or there is no WPS connection established.

Table 1 Front Panel LEDs (continued)

LED	COLOR	STATUS	DESCRIPTION
WiFi	Green/ Red	On	The WRE6602 linked successfully to a wireless network.  Different LED colors indicate the WiFi signal strength. <ul style="list-style-type: none"> <li>Green: signifies a good connection between the WRE6602 and the wireless router or AP.</li> <li>Red: signifies the WRE6602 is too far from the wireless router or AP.</li> </ul>
		Blinking	In AP mode and Repeater mode, it signifies data is transmitting.  Different LED colors indicate the WiFi signal strength. <ul style="list-style-type: none"> <li>Green: signifies a signal strength of 30% ~ 100%</li> <li>Red: signifies a signal strength under 29%</li> </ul>
		Off	The WRE6602 wireless LAN is off by default. There is no signal detected or the WRE6602 is not connected to a wireless router/AP.
Smart Push	Green	Slow Blinking	The WRE6602 connection via Smart Push Button is ready to start,
		Fast Blinking	The WRE6602 connection to a wireless router/wireless client is in process.
		Off	The WRE6602 linked successfully to a wireless network.
LAN	Green	On	LAN connection is successful.
		Off	LAN connection is off.

## 1.5.2 Smart Push Button

The Smart Push Button is an easy way to set up a secure wireless network, reboot the WRE6602 while keeping its configuration or reset the WRE6602 to factory default configuration.

The Smart Push Button allows you to quickly set up a wireless network with strong security, without having to configure security settings manually. Each connection using the Smart Push Button works only between two devices at a time. The peer device must support WPS (WiFi Protected Security). Check each device's documentation to make sure if it supports WPS. When WPS is activated on a device, it has two minutes to find another device that also has WPS activated. Then, the two devices connect and set up a secure network by themselves.

Table 2 Smart Push Button Functions

ACTION	RESULT
Hold for 2 seconds	When using the Web Configurator, the WRE6602 uses the Smart Push Button to authenticate the computer connected to the LAN port. This allows you to log into the Web Configurator without inputting the password.  Alternatively, when using the Easy Link app, the WRE6602 uses the Smart Push Button to link the WRE6602 with your mobile phone.
Hold for more than 10 seconds	The WRE6602 resets its configuration to factory defaults and reboots.
Repeater Mode	
Hold for two seconds	In the initial configuration, the WRE6602 begins connecting to a wireless router or AP (uplink).
Hold for two seconds	After the WRE6602 has successfully linked to the wireless router or AP. The WRE6602 begins connecting to a wireless client via WPS (downlink). See <a href="#">Section 1.5.2 on page 11</a> .

Table 2 Smart Push Button Functions

ACTION	RESULT
Hold for more than 10 seconds	The WRE6602 resets its configuration to factory defaults and reboots. Also, the power LED will be blinking. See <a href="#">Section 1.4 on page 9</a> .
AP Mode	
Hold for two seconds	The WRE6602 begins connecting to a wireless client via WPS. See <a href="#">Section 1.5.2 on page 11</a> .
Hold for more than 10 seconds	The WRE6602 resets its configuration to factory defaults and reboots.

### 1.5.3 Bottom Panel

The connection port, power button, and operation mode switch are located on the bottom panel.

Figure 4 Bottom Panel



The following table describes the items on the rear panel.

Table 3 Bottom Panel

LABEL	DESCRIPTION
ETHERNET	Connect computers or other Ethernet devices to Ethernet ports for Internet access.
AP/REPEATER	Use this slide button to select the system operation mode of the WRE6602. For more information, see <a href="#">Chapter 3 on page 23</a> .
ON/OFF	Use this switch to turn the WRE6602 power on or off.

# CHAPTER 2

## The Web Configurator

### 2.1 Overview

This chapter describes how to access the WRE6602 Web Configurator and provides an overview of its screens.

The Web Configurator is an HTML-based management interface that allows easy setup and management of the WRE6602 via Internet browser. Use Internet Explorer 6.0 and later versions, Mozilla Firefox 3 and later versions, or Safari 2.0 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.
- JavaScript (enabled by default).
- Java permissions (enabled by default).

Refer to [Chapter 6 Troubleshooting](#) to see how to make sure these functions are allowed in Internet Explorer.

### 2.2 Accessing the Web Configurator

- 1 Make sure your WRE6602 hardware is properly connected and prepare your computer or computer network to connect to the WRE6602. Your computer needs to be in the same subnet as the WRE6602. Set a static IP address between 192.168.1.3~192.168.1.254.
- 2 Launch your web browser.
- 3 Open a web browser such as Internet Explorer and type "http://192.168.1.2" as the web address in your web browser.

Note: To log in to the WRE6602's Web Configurator after the installation is completed use FindMe to obtain the WRE6602's new IP address. See [Section 2.4.2 on page 20](#).

## 2.2.1 Web Configurator Languages

The Web Configurator displays in the same language as your browser language. The Web Configurator is available in 6 different languages:

Table 4 Web Configurator Languages

LANGUAGES
English
German
Spanish
French
Italian
Traditional Chinese

[Section 2.4.3 on page 21](#) explains how you can change your browser's language.

## 2.2.2 Login Screen

The Web Configurator initially displays the following login screen.

Figure 5 Login Screen



The first time you access the Web Configurator you are required to authenticate your connection with the WRE6602 using the Smart Push Button. Press the button for 2 seconds.

## 2.2.3 Password Screen

You should see a screen asking you to change your password (highly recommended) as shown next.

**Figure 6** Change Password Screen

**ZYXEL**

**WRE6602**

Change Password

New Password  Password

Confirm New Password  Password

**CHANGE PASSWORD**

The following table describes the labels in this screen.

**Table 5** Change Password Screen

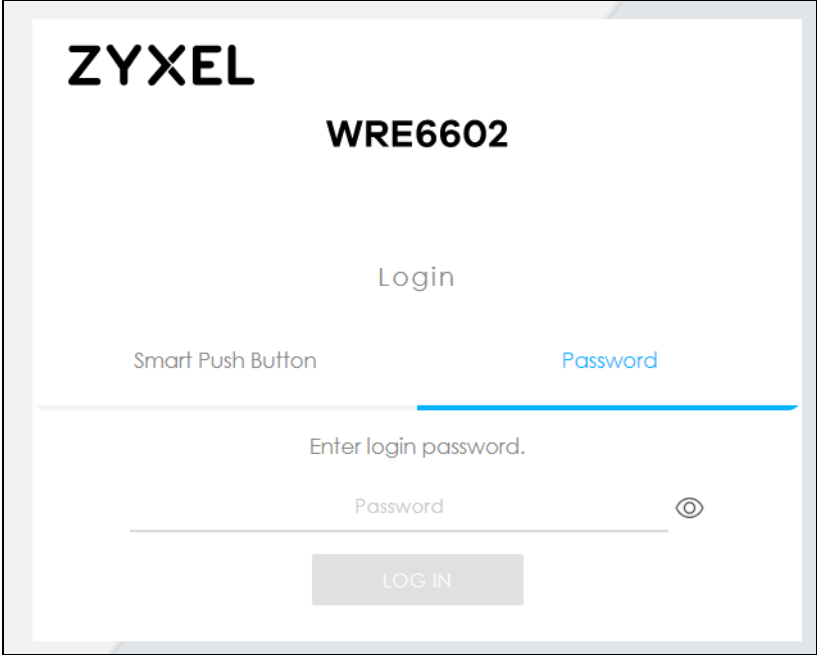
<b>LABEL</b>	<b>DESCRIPTION</b>
New Password	Type a new password.
Confirm New Password	Retype the password for confirmation.
CHANGE PASSWORD	Click <b>CHANGE PASSWORD</b> to save your changes back to the WRE6602.

**Note:** Once you have changed the password you cannot change it again, unless you reset the WRE6602 back to its factory default settings. You will need to reset the WRE6602 to the factory default settings and reconfigure the WRE6602 again.

After you have changed your password the main screen appears (see [Section 2.2.4 on page 16](#)).

Next time you log into the Web Configurator the Login screen will be different. You can choose whether to log in with the Smart Push Button or the new password.

**Figure 7** Login Screen After First Time

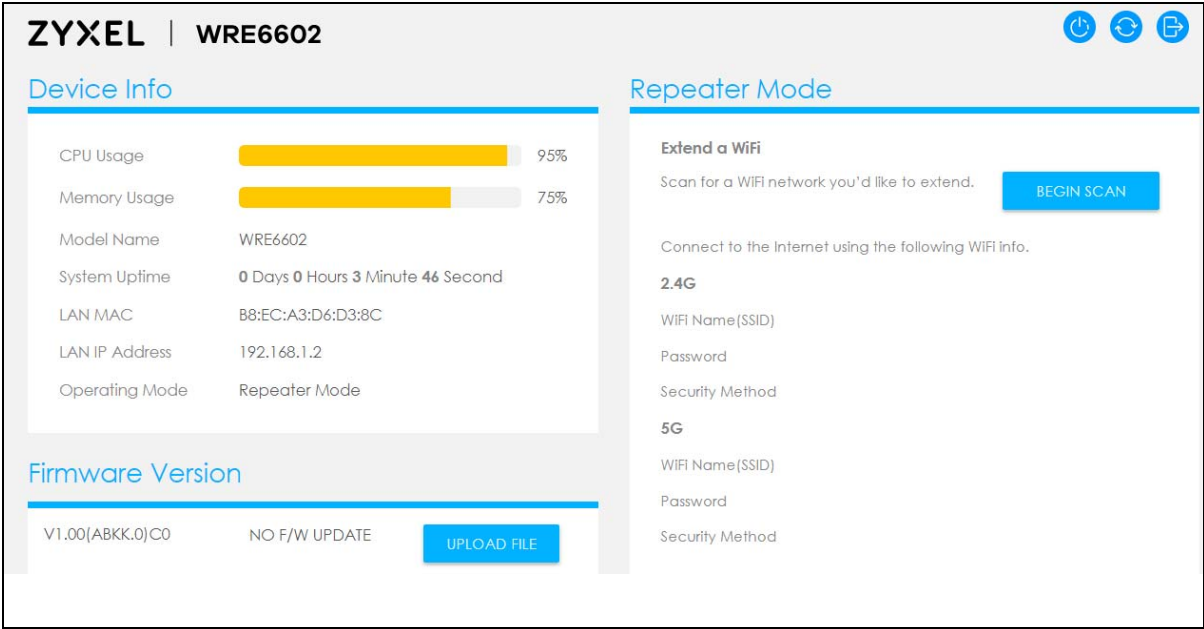


## 2.2.4 Main Screen

If you have previously logged into the Web Configurator but did not click **Logout**, you may be redirected to the main screen.

If the WRE6602 is in Repeater mode the main screen displays as follows. For more information see [Section 4.3.1 on page 26](#).

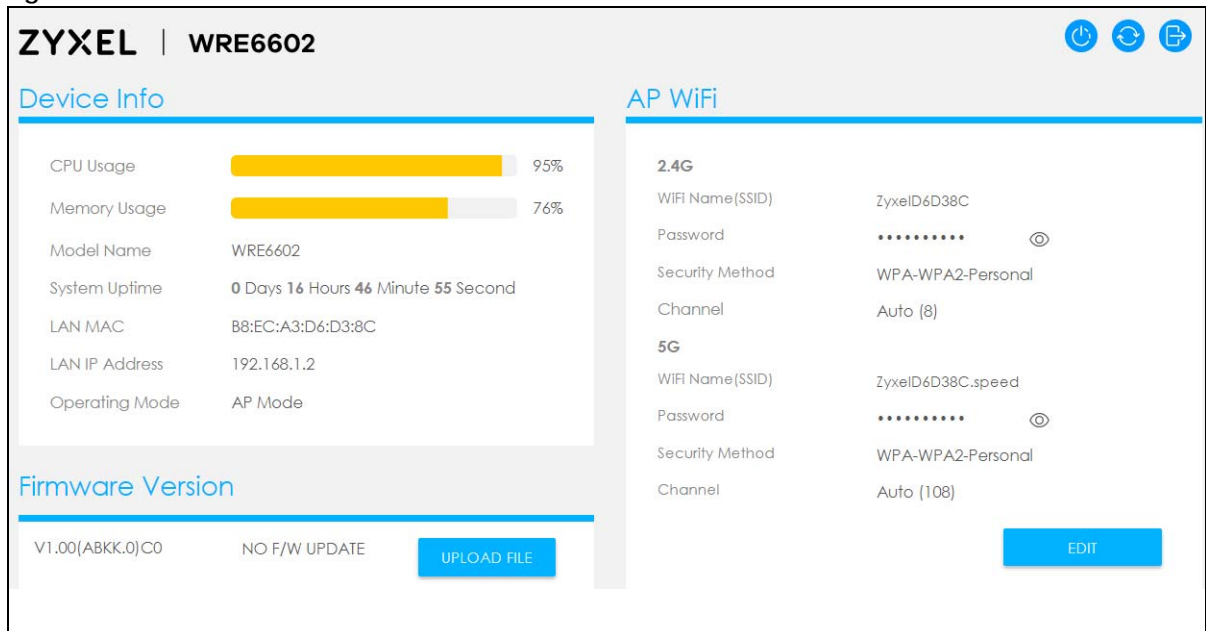
**Figure 8** Main Screen: Repeater Mode





If the WRE6602 is in AP mode the main screen displays as follows. For more information see [Section 5.3.1 on page 33](#).

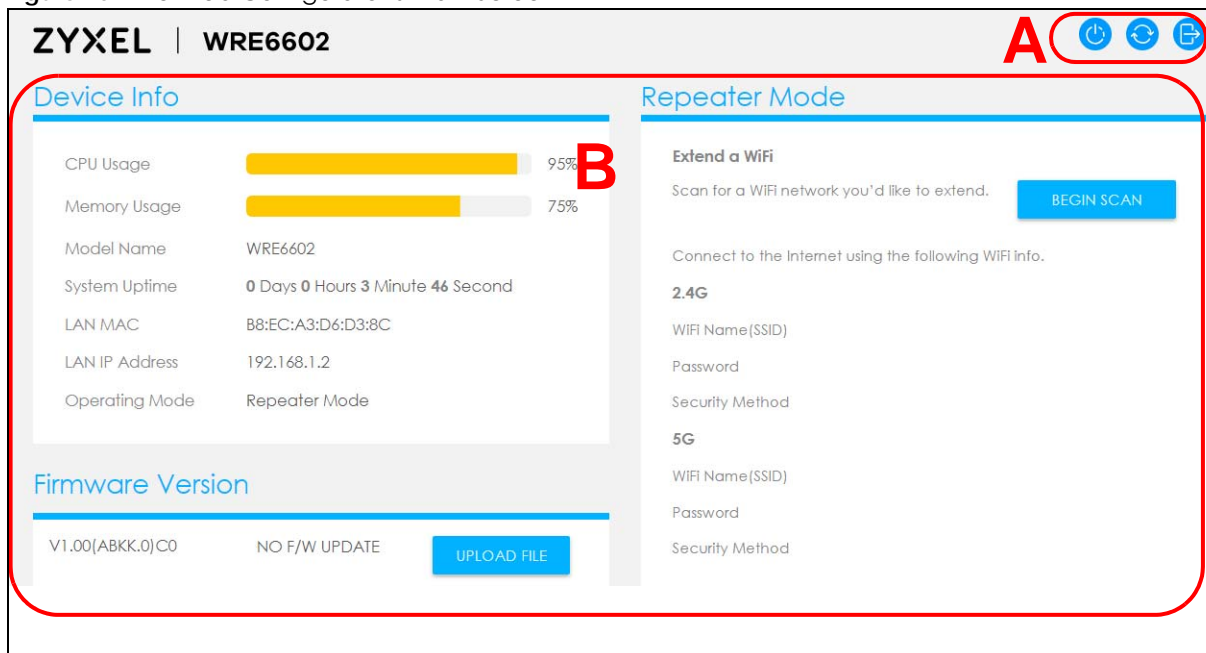
**Figure 9** Main Screen: AP Mode



## 2.3 Navigating the Web Configurator

The following summarizes how to navigate the Web Configurator from the main screen.

**Figure 10** The Web Configurator's Main Screen



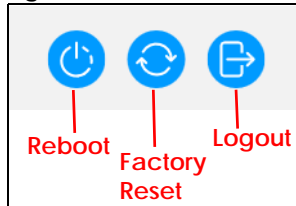
The Web Configurator's main screen is divided into these parts:

- **A** - Title Bar
- **B** - Main Window

### 2.3.1 Title Bar

The title bar provides some useful links that always appear over the screens below, regardless of how deep into the Web Configurator you navigate.

**Figure 11** Title Bar



The icons provide the following functions.

**Table 6** Title Bar: Web Configurator Icons

LABEL	DESCRIPTION
Reboot	Click this icon to reboot the WRE6602 without turning the power off.
Reset	Click this icon to reset the WRE6602 back to factory-default settings.
Logout	Click this icon at any time to exit the Web Configurator.

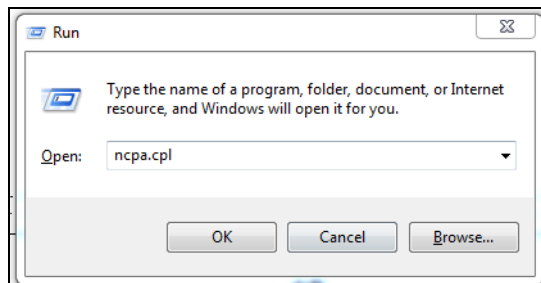
## 2.4 Technical Reference

### 2.4.1 Set Up your Computer's IP Address in Windows

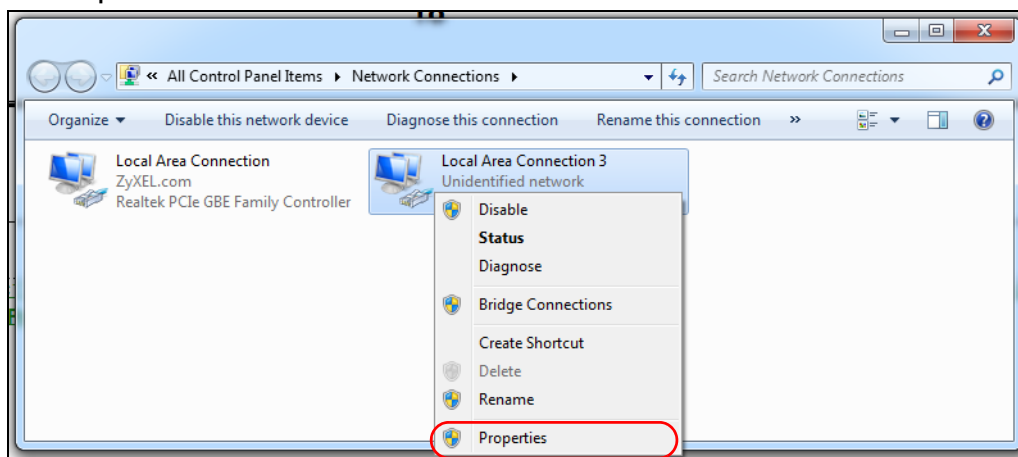
This section shows you how to configure the IP settings on your computer in order for it to be able to communicate with the WRE6602 in its initial configuration. To assign IP information instead of using a dynamic IP, make sure that your network's computers have IP addresses that place them in the same subnet.

To set up an IP address for Windows 7, 8, or 10, do the following:

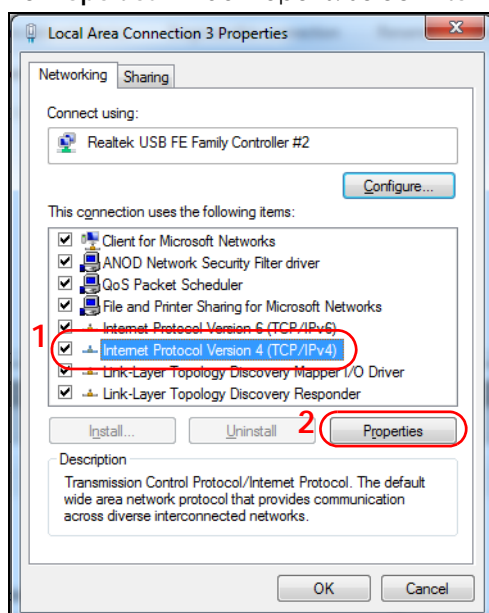
- 1 Press the Windows + R buttons in your keyboard. Type **ncpa.cpl** to open the **Network Connections** screen.



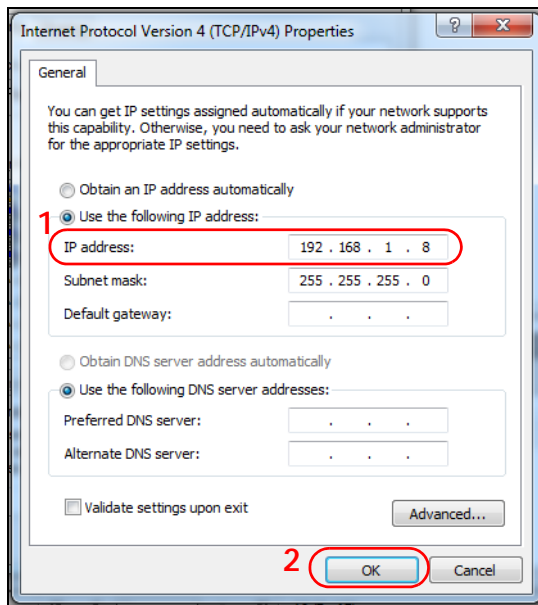
- 2 Select the connection on which you want to set up the Static IP address. Right-click this connection and click **Properties**.



- 3 The **Properties** window opens. Select **Internet Protocol Version 4 (TCP/IPv4)** and click **Properties**.



- 4 The **Properties** screen opens. Select **Use the following IP Address** radio button. Enter any address between 192.168.1.3~192.168.1.254. Click **OK** to apply your changes.



- 5 After you have configured the WRE6602, you will need to change your Static IP back to dynamic. Repeat steps 1~3, and for Step 4 select **Obtain IP address automatically**.

## 2.4.2 Find and Access your WRE6602 Using FindMe

After the WRE6602 is configured and linked to your wireless router you cannot access the WRE6602 using `http://192.168.1.2`.

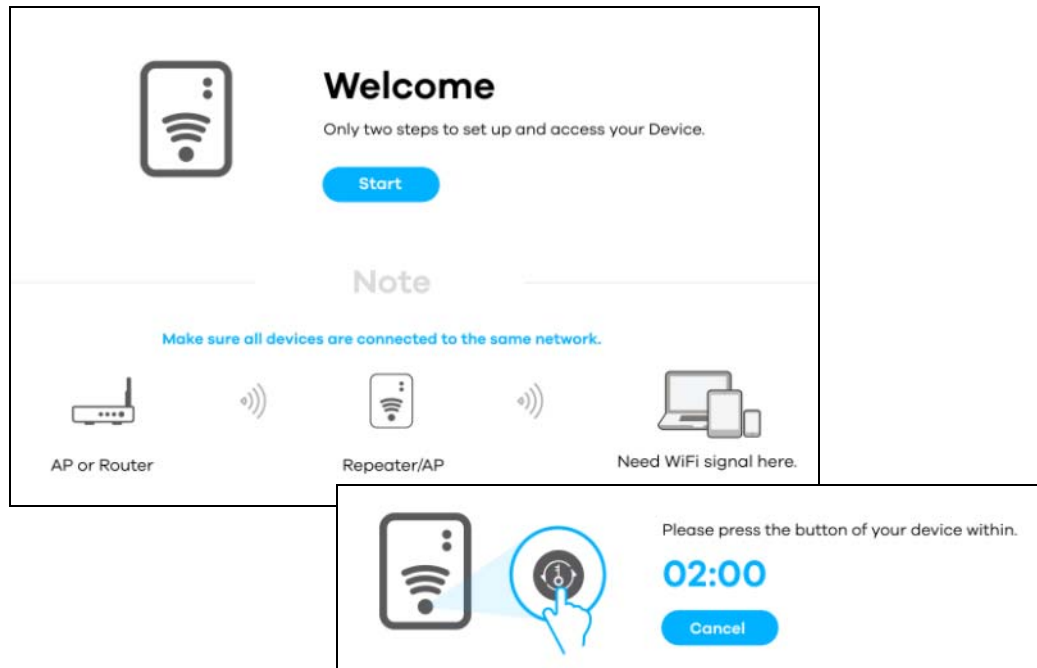
Use FindMe to find and access the WRE6602 Web Configurator. To use FindMe you need to be wirelessly connected to the WRE6602, and have Internet access through the wireless AP or router's network. Follow these steps to connect to the WRE6602 using FindMe:

- 1 Make sure both the WRE6602 and your computer are connected to a router with Internet access.
- 2 Open your web browser and type "`https://findme.zyxel.com`" as the website address.
- 3 Select the Zyxel device you wish to discover, in this case the WRE6602.

Note: Make sure your computer/device used to access this website is in the same network as the WRE6602.



- 4 Click the **Start** button on this screen. Within 2 min press the Smart Push Button on the WRE6602.



- 5 Your WRE6602 is now discovered. Click **Admin Page** to open the login screen.
- 6 Use your password to log in, or the Smart Push Button.

### 2.4.3 Change a Web Browser Language

#### Google Chrome

Follow these steps to change the language in your Google Chrome browser:

- 1 Open the Google Chrome browser. Click the More icon in the top right corner and select **Settings**.
- 2 Click **Advanced** to display the advanced settings.

- 3 Under **Languages** section, click **Language**.
- 4 If the language is not listed click **Add Languages**. Select the language and click **Add**.
- 5 Click the More icon next to the added language you'd like to use. Select **Display Google Chrome in this language**.
- 6 Restart your browser to apply the changes.

## Internet Explorer

Follow these steps to change the language in your Internet Explorer browser:

- 1 Open the Internet Explorer browser. Click the Tools icon in the top right corner and select **Internet Options**.
- 2 In the **General** tab, click **Languages**.
- 3 Click **Add** to include a language in the list.
- 4 Once it is added to the list, select it and click **OK** to close the **Languages** window.
- 5 Click **OK** to close the **Internet Options** screen.

## Mozilla Firefox

Follow these steps to change the language in your Mozilla Firefox browser:

- 1 Open the Mozilla Firefox browser. Click the Menu icon in the top right corner and select **Options**.
- 2 Under **Language and Appearance**, click **Choose...**
- 3 If the language is not listed click **Select a language to add...**, select the language and click **Add**.
- 4 Select the language, and click **Move Up** so your language of preferences displays first.
- 5 Click **OK** and restart your browser to apply the changes.

Note: For other browsers, check the browser's settings and/or help.

# CHAPTER 3

## WRE6602 Modes

### 3.1 Overview

This chapter introduces the different modes available on your WRE6602.

- **System Operation Mode.** This is the operating mode of your WRE6602, or simply how the WRE6602 is being used in the network.

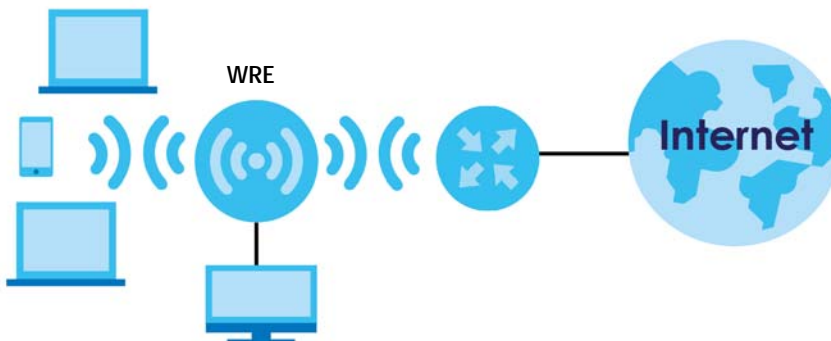
#### 3.1.1 WRE6602 Modes

This refers to the operating mode of the WRE6602, which can act as a:

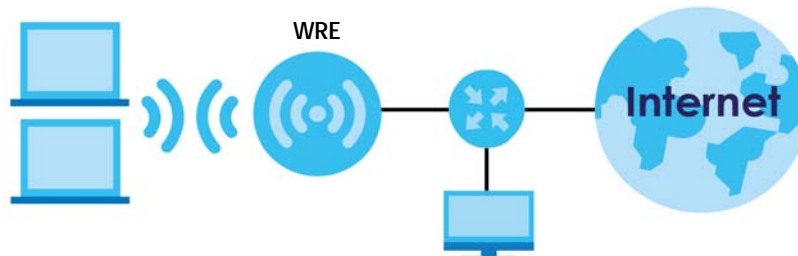
- **Repeater:** In this mode, the WRE6602 can be an access point and a wireless client at the same time. Go to [Section 4.3.1 on page 26](#) to view the main screen in this mode. Use this mode if there is an existing wireless router or access point in your network and you also want to allow clients to connect to the WRE6602 wirelessly.
- **Access Point:** Use this mode if you want to extend your network by allowing network devices to connect to the WRE6602 wirelessly. Go to [Section 5.3.1 on page 33](#) to view the main screen in this mode.

The following figures are an illustration of the device configuration modes of the WRE6602.

**Figure 12** WRE6602 in Repeater Mode Example



**Figure 13** WRE6602 in AP Mode Example



Note: Choose your device mode carefully to avoid having to change it later.

### 3.1.1.1 Changing Operating Mode

Push the **AP //Repeater (R)** mode switch on the WRE6602's bottom panel to the **AP** position to have the WRE6602 act as an access point. Push the switch to the **Repeater** position to have the WRE6602 work as a repeater.

The WRE6602 restarts automatically after you change operating modes.



# CHAPTER 4

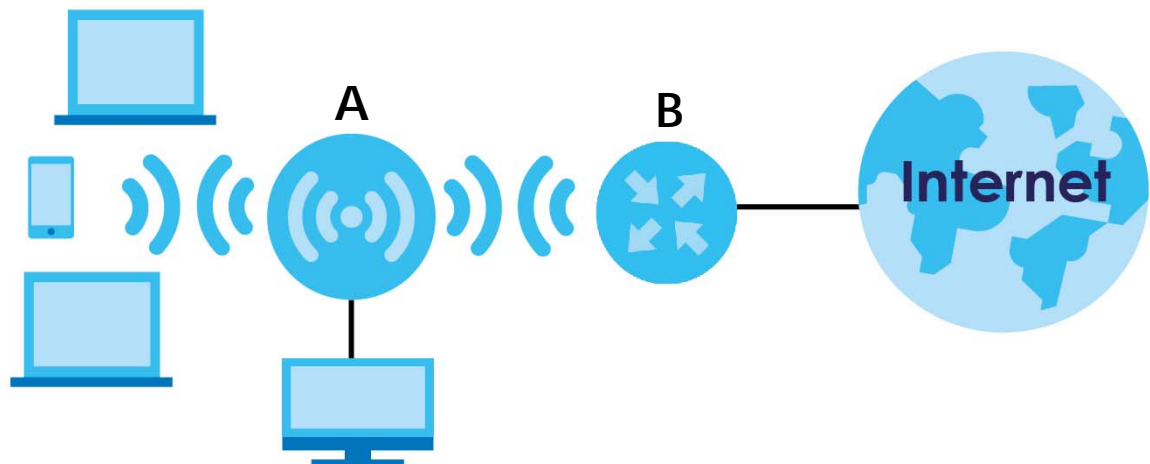
## Repeater Mode

### 4.1 Overview

In repeater mode, your WRE6602 can act as an access point and wireless client at the same time. The WRE6602 can connect to an existing network through another access point and also lets wireless clients connect to the network through it. This helps you expand wireless coverage when you have an access point or wireless router already in your network.

In the example below, the WRE6602 (A) is configured as a repeater. It has three clients that want to connect to the Internet. The WRE6602 wirelessly connects to the available wireless router (B).

**Figure 14** Repeater Mode



After the WRE6602 and the access point connect, the WRE6602 acquires its IP address through the access point. The clients of the WRE6602 can now surf the Internet.

### 4.2 What You Can Do

This chapter provides tutorials for your WRE6602 in Repeater mode, as follows:

- [Setting your WRE6602 to Repeater Mode](#)
- [Connecting the WRE6602 to an AP](#)

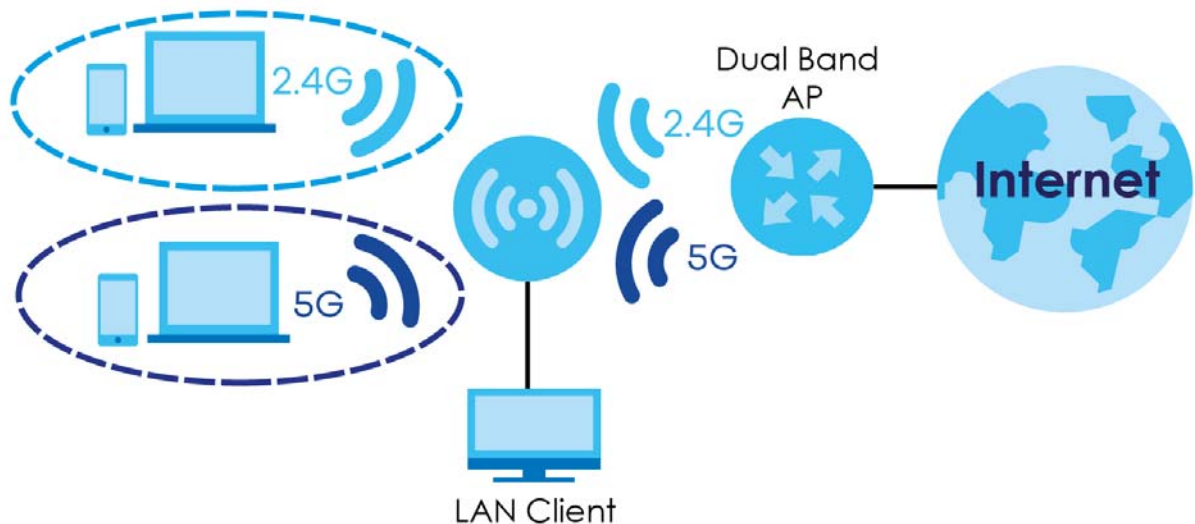
## 4.3 Setting your WRE6602 to Repeater Mode

- 1 To use your WRE6602 as a repeater, see [Section 3.1.1.1 on page 24](#).
- 2 Connect your computer to the LAN port of the WRE6602. Make sure both the WRE6602 and computer are in the same subnet.
- 3 Open a web browser such as Internet Explorer and type "http://192.168.1.2" as the web address in your web browser.
- 4 Press and hold the Smart Push Button for 2 seconds.
- 5 The **Change Password** screen appears. Type a new password and retype it to confirm, then click **CHANGE PASSWORD**.
- 6 The main screen appears.

Note: You have to log in to the Web Configurator again when you change modes. As soon as you do, your WRE6602 is already in Repeater mode.

Note: If a client is connected to the WRE6602 through the wired Ethernet connection, the client can only access the 2.4 GHz WiFi. In the following figure, the LAN Client is only able to communicate with devices in the 2.4 GHz wireless network.

Figure 15 Repeater Mode Overview



### 4.3.1 Repeater Mode Main Screen

The main screen appears after you log into the Web Configurator.

Figure 16 Main Screen: Repeater Mode

**ZYXEL | WRE6602**

**Device Info**

- CPU Usage: 95%
- Memory Usage: 75%
- Model Name: WRE6602
- System Uptime: 0 Days 0 Hours 3 Minute 46 Second
- LAN MAC: B8:EC:A3:D6:D3:8C
- LAN IP Address: 192.168.1.2
- Operating Mode: Repeater Mode

**Repeater Mode**

**Extend a WiFi**

Scan for a WiFi network you'd like to extend. **BEGIN SCAN**

Connect to the Internet using the following WiFi info.

**2.4G**

WiFi Name(SSID)  
Password  
Security Method

**5G**

WiFi Name(SSID)  
Password  
Security Method

**Firmware Version**

V1.00(ABKK.0)C0 NO F/W UPDATE **UPLOAD FILE**

The following table describes the labels in this screen.

Table 7 Repeater Mode: Main Screen

LABEL	DESCRIPTION
Device Info	
CPU Usage	This displays what percentage of the WRE6602's processing ability is currently used. When this percentage is close to 100%, the WRE6602 is running at full load, and the throughput is not going to improve anymore.
Memory Usage	This shows what percentage of the heap memory the WRE6602 is using.
Model Name	This shows the Zyxel model name.
System Uptime	This is the total time the WRE6602 has been on.
LAN MAC	This shows the LAN Ethernet adapter MAC Address of your device.
LAN IP Address	This shows the LAN port's IP address.
Operating Mode	This is the device mode ( <a href="#">Section 3.1.1.1 on page 24</a> ) to which the WRE6606 is set - <b>Repeater Mode</b> .

#### Firmware Version

This is the firmware version and the date created. Use this section to upload new available firmware. Click **UPLOAD FILE** to browse for the new firmware file. After you have selected it click **OK** so the WRE6602 begins the firmware upgrade.

Figure 17 Confirm Upload File Screen @Ositos515

**Upload File**

Confirm Upload File

**CANCEL** **OK**

When the WRE6602 has Internet access you can click **CHECK ONLINE** to search for new firmware. The **INSTALL F/W** button is available when new firmware is released. Click this button to download the latest firmware version. This displays **NO F/W UPDATE** if the WRE6602 has no new firmware updates or if the WRE6602 has no Internet access.

#### Repeater Mode

Table 7 Repeater Mode: Main Screen

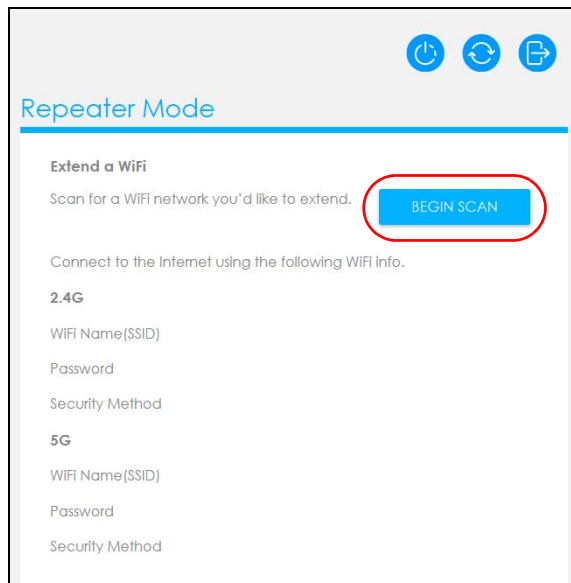
LABEL	DESCRIPTION
Extend a WiFi	Click <b>Begin Scan</b> so the WRE6602 begins searching for available wireless networks in the area.
2.4G	
WiFi Name (SSID)	This displays the SSID of the connected AP's 2.4GHz wireless network.
Password	This shows the password used to access the connected AP's 2.4GHz wireless network.
Security Method	This shows the level of wireless security the WRE6602 is using.
5G	
WiFi Name (SSID)	This displays the SSID of the connected AP's 5GHz wireless network.
Password	This shows the password used to access the AP's 2.4GHz wireless network.
Security Method	This shows the level of wireless security the WRE6602 is using.

## 4.4 Connecting the WRE6602 to an AP

Repeater mode allows you to extend the original AP coverage. Create a secure wireless network simply by selecting an AP from a list of detected APs.

The instructions require that your hardware is connected (see [Section 4.3 on page 26](#)) and you are logged into the Web Configurator through your LAN connection.

- 1 In the main screen, click the **BEGIN SCAN** button for the WRE6602 to begin a site survey, in which the WRE6602 scans for available wireless networks in its surroundings.



- 2 A list of available wireless networks appear. Select the wireless network you'd like to extend to the WRE6602. Enter its password if wireless security is enabled on the selected network. Click **Apply**.

- 3 Wait for the WRE6602 to link to the wireless network. The WRE6602 automatically copies the SSID of the associated wireless router/AP and appends to the 5GHz SSID, see [Section 4.4.1 on page 29](#). Click **Apply** to save settings.
- 4 You have successfully set up your WRE6602 to connect to a wireless router/AP.

Note: The WiFi LED should turn on, confirming the WRE6602 has extended your wireless network successfully.

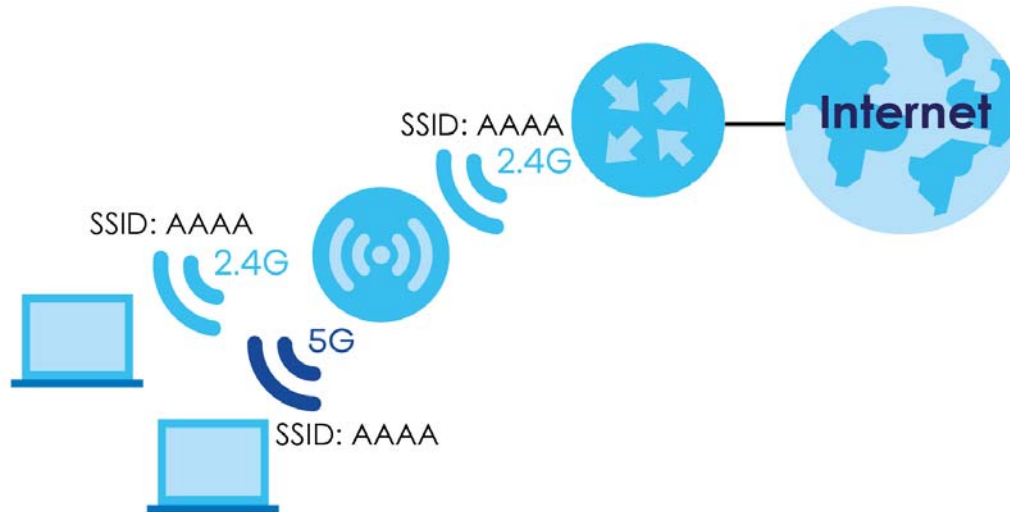
Note: After the WRE6602 has successfully linked to the wireless router/AP you will not be able to use "http://192.168.1.2" as the web address. Because the wireless router/AP assigns a new IP address to the WRE6602. Use FindMe to obtain the WRE6602's new IP address and access the Web Configurator. See [Section 2.4.2 on page 20](#).

The screenshot shows the 'Repeater Mode' configuration page. At the top, there are three icons: a power button, a refresh button, and a save button. Below the title 'Repeater Mode', there is a section 'Extend a WiFi' with the instruction 'Scan for a WiFi network you'd like to extend.' and a blue 'BEGIN SCAN' button. Underneath, it says 'Connect to the Internet using the following WiFi info.' and lists two frequency bands: '2.4G' and '5G'. For each band, there are three fields: 'WiFi Name(SSID)' (both set to 'Zyxe140670'), 'Password' (both masked with dots and having an eye icon to toggle visibility), and 'Security Method' (both set to 'WPA2 Personal').

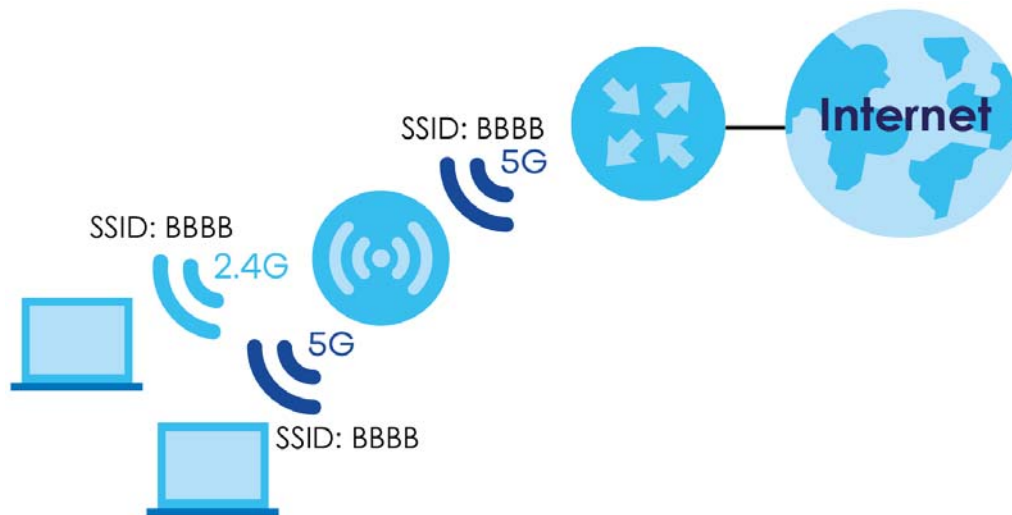
### 4.4.1 WRE6602 SSID Behavior

Once your WRE6602 has connected to a wireless router or AP, the WRE6602 has different behaviors when extending the network to its clients. The WRE6602 checks whether connection to the wireless router or AP is 2.4GHz or 5GHz. Depending on the this connection, the WRE6602 behavior is as follows:

- When there is a single 2.4GHz connection between the wireless router/AP and the WRE6602, the WRE6602 uses this 2.4 GHz SSID for both connections to the 2.4GHz and 5GHz wireless clients.



- When there is a single 5GHz connection between the wireless router/AP and the WRE6602, the WRE6602 uses the 5GHz SSID for both connections to the 2.4GHz and 5GHz wireless clients.



- When there are 2.4GHz and 5GHz connections between the wireless router/AP and the WRE6602, each one with a different SSID. The WRE6602 uses the 2.4GHz SSID for its 2.4GHz connection to the 2.4GHz wireless clients, and the 5GHz SSID for its 5GHz wireless clients respectively.



- When there are 2.4GHz and 5GHz connections with a single SSID from the router to the WRE6602, the WRE6602 uses the same SSID for both connections to the 2.4GHz and 5GHz wireless clients.



Note: If the wireless router's SSID is unavailable, the WRE6602's SSID will also be unavailable.

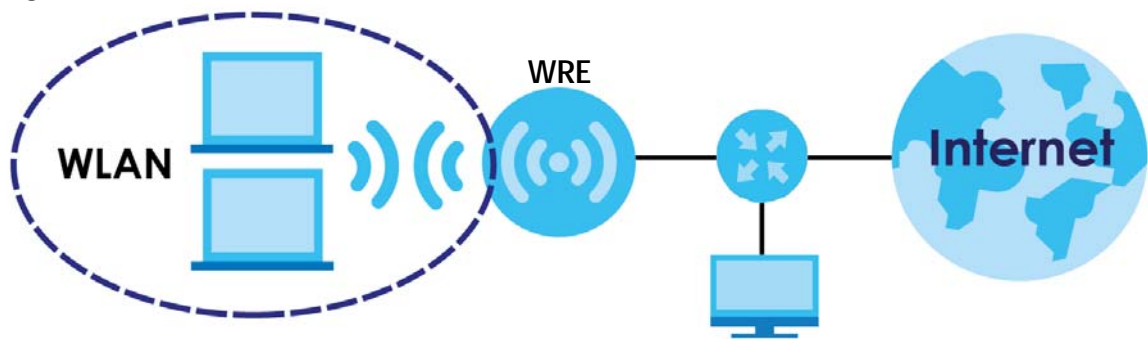
# CHAPTER 5

## Access Point Mode

### 5.1 Overview

In Access Point (AP) mode your WRE6602 bridges a wired network (LAN) and wireless LAN (WLAN) in the same subnet. See the figure below for an example.

**Figure 18** Wireless Internet Access in Access Point Mode



### 5.2 What You Can Do

This chapter provides tutorials for your WRE6602 in AP mode, as follows:

- [Set your WRE6602 to AP Mode](#)
- [Configure the WRE6602 Wireless Settings](#)

### 5.3 Set your WRE6602 to AP Mode

By default, AP mode in the WRE6602 is configured with a static IP address. To set up your WRE6602 in AP mode for the first time, the directly-connected router must have the DHCP server function enabled.

- 1 To use your WRE6602 as an access point, See [Section 3.1.1.1 on page 24](#).
- 2 Connect one end of an Ethernet cable to the **Ethernet** port on the WRE6602 and the other end to your router.
- 3 You can connect wirelessly to the WRE6602 using its default SSID and password (in the product label) and have Internet access.

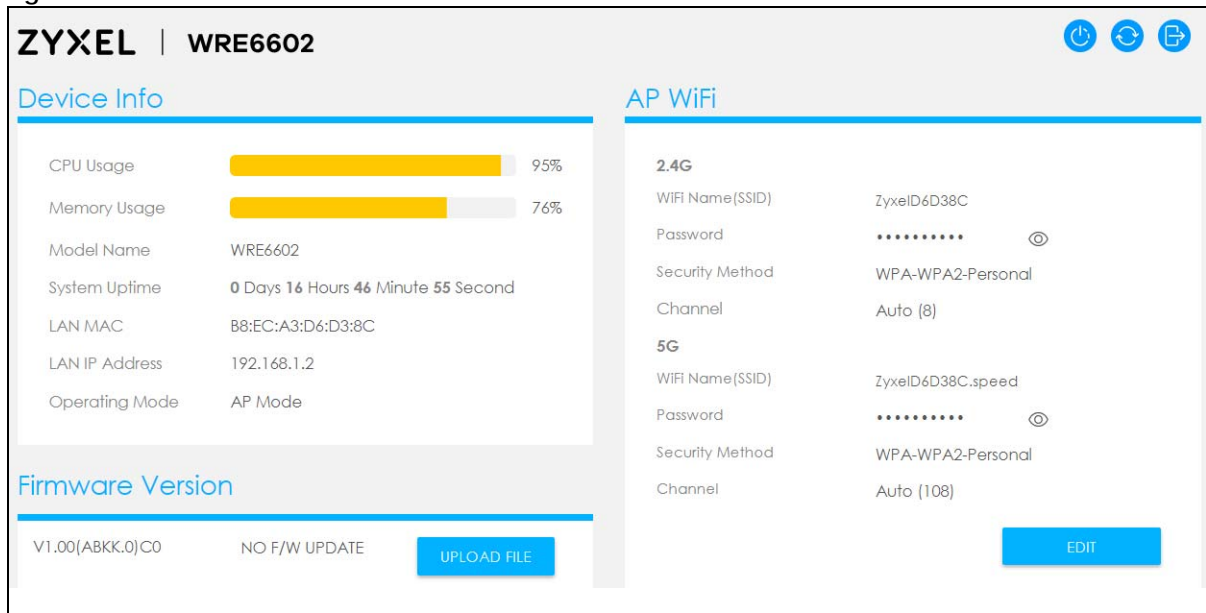


- 4 Alternatively, if you want to modify the default wireless settings connect your computer to your network, make sure both the WRE6602 and computer are under the same subnet.
- 5 Open a web browser window and type "http://192.168.1.2 in the web address.
- 6 The login screen displays.
- 7 Press and hold the Smart Push Button for 2 seconds.
- 8 The **Change Password** screen appears. Type a new password and retype it to confirm, then click **CHANGE PASSWORD**.

### 5.3.1 AP Mode Main Screen

The main screen appears after you log into the Web Configurator.

**Figure 19** Main Screen: AP Mode

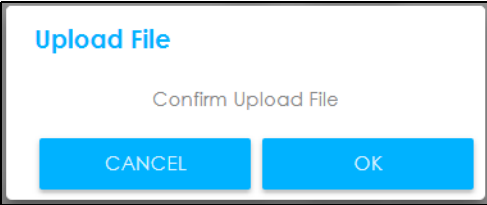


The following table describes the labels in this screen.

**Table 8** AP Mode: Main Screen

LABEL	DESCRIPTION
Device Info	
CPU Usage	This displays what percentage of the WRE6602's processing ability is currently used. When this percentage is close to 100%, the WRE6602 is running at full load, and the throughput is not going to improve anymore.
Memory Usage	This shows what percentage of the heap memory the WRE6602 is using.
Model Name	This shows your device's model name.
System Uptime	This is the total time the WRE6602 has been on.
LAN MAC	This shows the LAN Ethernet adapter MAC Address of your device.
LAN IP Address	This shows the LAN port's IP address.
Operating Mode	This is the device mode ( <a href="#">Section 3.1.1.1 on page 24</a> ) to which the WRE6606 is set - <b>AP Mode</b> .

Table 8 AP Mode: Main Screen

LABEL	DESCRIPTION
<p>Firmware Version</p> <p>This is the firmware version and the date created. Use this section to upload new available firmware. Click <b>UPLOAD FILE</b> to browse for the new firmware file. After you have selected it click <b>OK</b> so the WRE6602 begins the firmware upgrade.</p> <p><b>Figure 20</b> Confirm Upload File Screen</p>  <p>When the WRE6602 has Internet access you can click <b>CHECK ONLINE</b> to search for new firmware. The <b>INSTALL F/W</b> button is available when new firmware is released. Click this button to download the latest firmware version. This displays <b>NO F/W UPDATE</b> if the WRE6602 has no new firmware updates or if the WRE6602 has no Internet access.</p>	
AP WiFi	
2.4G	
WiFi Name (SSID)	This displays the SSID of the WRE6602's 2.4GHz wireless network.
Password	This shows the password a client should use to connect in order to connect to the WRE6602's 2.4GHz wireless network.
Security Method	This shows the level of wireless security the WRE6602 is using.
Channel	This shows the channel the WRE6602 is using.
5G	
WiFi Name (SSID)	This displays the SSID of the WRE6602's 5GHz wireless network.
Password	This shows the password a client should use to connect in order to connect to the WRE6602's 5GHz wireless network.
Security Method	This shows the level of wireless security the WRE6602 is using.
Channel	This shows the channel the WRE6602 is using.
Edit	Click this button to modify the 2.4GHz or 5GHz wireless settings.

## 5.4 Configure the WRE6602 Wireless Settings

The WRE6602 Web Configurator allows you to modify the AP mode wireless settings.

- 1 Click the **EDIT** button in the **AP WiFi** section of the main screen.

**ZYXEL | WRE6602**

**Device Info**

CPU Usage	<div><div></div></div> 95%
Memory Usage	<div><div></div></div> 76%
Model Name	WRE6602
System Uptime	0 Days 16 Hours 46 Minute 55 Second
LAN MAC	B8:EC:A3:D6:D3:8C
LAN IP Address	192.168.1.2
Operating Mode	AP Mode

**Firmware Version**

V1.00[ABKK.0]C0 NO F/W UPDATE **UPLOAD FILE**

**AP WiFi**

**2.4G**

WiFi Name(SSID) ZyxeID6D38C  
Password .....  
Security Method WPA-WPA2-Personal  
Channel Auto (8)

**5G**

WiFi Name(SSID) ZyxeID6D38C.speed  
Password .....  
Security Method WPA-WPA2-Personal  
Channel Auto (108)

**EDIT**

- 2 Modify the **WiFi Name** and/or **Password**. Click **Apply** to save your settings.

**ZYXEL | WRE6602**

**Device Info**

CPU Usage	<div><div></div></div> 95%
Memory Usage	<div><div></div></div> 74%
Model Name	WRE6602
System Uptime	0 Days 0 Hours 12 Minute 42 Second
LAN MAC	B8:EC:A3:D6:BC:48
LAN IP Address	192.168.1.2
Operating Mode	AP Mode

**Firmware Version**

V1.00[ABKK.0]b6 NO F/W UPDATE **UPLOAD FILE**

**AP WiFi**

**2.4G**

WiFi Name(SSID) ZyxeID6BC48.speed  
Password .....  
Security Method WPA2 Personal  
Channel Auto

**5G**

WiFi Name(SSID) ZyxeID6BC48  
Password .....  
Security Method WPA2 Personal  
Channel Auto

**CANCEL** **APPLY**

- 3 Connect wirelessly to the WRE6602 using the new **WiFi Name** and/or **Password**.

# CHAPTER 6

## Troubleshooting

This chapter offers some suggestions to solve problems you might encounter. The potential problems are divided into the following categories.

- [Power, Hardware Connections, and LEDs](#)
- [WRE6602 Access and Login](#)
- [Internet Access](#)
- [Resetting the WRE6602 to Its Factory Defaults](#)
- [Wireless Problems](#)

### 6.1 Power, Hardware Connections, and LEDs

---

[The WRE6602 does not turn on. None of the LEDs turn on.](#)

---

- 1 Make sure the WRE6602 is plugged in to an appropriate power source. Make sure the power source is turned on.
- 2 Disconnect and re-connect the WRE6602.
- 3 Remove the WRE6602 from the outlet. Then connect an electrical device that you know works into the same power outlet. This checks the status of the power outlet.
- 4 If the problem continues, contact the vendor.

---

[One of the LEDs does not behave as expected.](#)

---

- 1 Make sure you understand the normal behavior of the LED. See [Section 1.5.1 on page 10](#).
- 2 Inspect your cables for damage. Contact the vendor to replace any damaged cables.
- 3 Disconnect and re-connect the WRE6602.
- 4 If the problem continues, contact the vendor.

## 6.2 WRE6602 Access and Login

---

I forgot the password.

---

- 1 Push the Smart Push Button to log in.
- 2 If this does not work, you have to reset the device to its factory defaults. See [Section 6.4 on page 39](#).

---

I cannot see or access the **Login** screen in the Web Configurator.

---

- 1 Make sure you are using the correct address.
  - The default web address (URL) of the WRE6602 is **http://192.168.1.2**.
- 2 Make sure your computer and the WRE6602 are in the same subnet. Your computer should have a static IP address between 192.168.1.3 ~ 192.168.1.254.
- 3 Check the hardware connections, and make sure the LEDs are behaving as expected. See [Section 1.5.1 on page 10](#).
- 4 Make sure your Internet browser does not block pop-up windows and has JavaScript and Java enabled.
- 5 Reset the device to its factory defaults, and try to access the WRE6602 with the default address.
- 6 If the problem continues, contact the network administrator or vendor, or try one of the advanced suggestions.

### Advanced Suggestions

- If your computer is connected wirelessly, use a computer that is connected to a **LAN/ETHERNET** port.

---

I can see the **Login** screen, but I cannot log in to the WRE6602.

---

- 1 Use the Smart Push Button to log in. Your computer should be connected to the WRE6602 using an Ethernet cable.
- 2 This can happen when you fail to log out properly from your last session. Try logging in again after 5 minutes.
- 3 Disconnect and re-connect the WRE6602.
- 4 If this does not work, you have to reset the device to its factory defaults. See [Section 6.4 on page 39](#).

## 6.3 Internet Access

---

I cannot access the Internet.

---

- 1 Check the hardware connections, and make sure the LEDs are behaving as expected. See [Section 1.5.1 on page 10](#).
- 2 Try to connect directly to the AP. If you can access the Internet, check that the WRE6602 (repeater mode) has associated with the AP by checking the main screen. See [Section 4.3.1 on page 26](#).
- 3 If you are trying to access the Internet wirelessly, make sure the wireless settings in the wireless client are the same as the settings in the AP.
- 4 Make sure your computer is set to obtain a dynamic IP address after finishing configuration.
- 5 Disconnect all the cables from your device, and follow the directions in the Quick Start Guide again.
- 6 If the problem continues, contact the network administrator or vendor.

---

I cannot access the Internet anymore. I had access to the Internet (with the WRE6602 in repeater mode), but my Internet connection is not available anymore.

---

- 1 Check the hardware connections, and make sure the LEDs are behaving as expected. See the Quick Start Guide and [Section 1.5.1 on page 10](#).
- 2 Reboot the WRE6602.
- 3 Try to connect directly to the AP. If you can access the Internet, check that the WRE6602 (repeater mode) has associated with the AP by checking the main screen. See [Section 4.3.1 on page 26](#).
- 4 If the problem continues, contact the network administrator or vendor.

---

The Internet connection is slow or intermittent.

---

- 1 There might be a lot of traffic on the network. Look at the LEDs, and check [Section 1.5.1 on page 10](#). If the WRE6602 is sending or receiving a lot of information, try closing some programs that use the Internet, especially peer-to-peer applications.
- 2 Check the signal strength. If the signal strength is low, try moving the WRE6602 closer to the AP if possible, and look around to see if there are any devices that might be interfering with the wireless network (for example, microwaves, other wireless networks, and so on).
- 3 Reboot the WRE6602.

- 4 If the problem continues, contact the network administrator or vendor, or try one of the advanced suggestions.

## 6.4 Resetting the WRE6602 to Its Factory Defaults

If you reset the WRE6602, you lose all of the changes you have made. The WRE6602 re-loads its default settings. You have to make all of your changes again.

---

You will lose all of your changes when you reset the WRE6602 to its factory defaults.

---

To reset the WRE6602,

- 1 Make sure the power LED is on.
- 2 Press the Smart Push Button for longer than 10 seconds, the Power LED begins to blink, to set the WRE6602 back to its factory-default configuration.

If the WRE6602 does not restart automatically, disconnect and reconnect the WRE6602. Then, follow the directions above again.

## 6.5 Wireless Problems

---

I cannot access the WRE6602 or ping any computer from the WLAN.

---

- 1 Make sure the wireless LAN is enabled on the WRE6602.
- 2 Make sure the wireless adapter on the wireless station is working properly.
- 3 Make sure the wireless adapter installed on your computer is IEEE 802.11 compatible and supports the same wireless standard as the WRE6602.
- 4 Make sure your computer (with a wireless adapter installed) is within the transmission range of the WRE6602.
- 5 Check that both the WRE6602 and your wireless station are using the same wireless and wireless security settings, and that both the WRE6602 and the AP are using the same wireless and wireless security settings.

# APPENDIX A

## Customer Support

In the event of problems that cannot be solved by using this manual, you should contact your vendor. If you cannot contact your vendor, then contact a ZyXEL office for the region in which you bought the device.

See <http://www.zyxel.com/homepage.shtml> and also [http://www.zyxel.com/about\\_zyxel/zyxel\\_worldwide.shtml](http://www.zyxel.com/about_zyxel/zyxel_worldwide.shtml) for the latest information.

Please have the following information ready when you contact an office.

### Required Information

- 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.

### Corporate Headquarters (Worldwide)

#### Taiwan

- ZyXEL Communications Corporation
- <http://www.zyxel.com>

### Asia

#### China

- ZyXEL Communications (Shanghai) Corp.
- ZyXEL Communications (Beijing) Corp.
- ZyXEL Communications (Tianjin) Corp.
- <http://www.zyxel.cn>

#### India

- ZyXEL Technology India Pvt Ltd
- <http://www.zyxel.in>

#### Kazakhstan

- ZyXEL Kazakhstan
- <http://www.zyxel.kz>



## **Korea**

- ZyXEL Korea Corp.
- <http://www.zyxel.kr>

## **Malaysia**

- ZyXEL Malaysia Sdn Bhd.
- <http://www.zyxel.com.my>

## **Pakistan**

- ZyXEL Pakistan (Pvt.) Ltd.
- <http://www.zyxel.com.pk>

## **Philippines**

- ZyXEL Philippines
- <http://www.zyxel.com.ph>

## **Singapore**

- ZyXEL Singapore Pte Ltd.
- <http://www.zyxel.com.sg>

## **Taiwan**

- ZyXEL Communications Corporation
- <http://www.zyxel.com/tw/zh/>

## **Thailand**

- ZyXEL Thailand Co., Ltd
- <http://www.zyxel.co.th>

## **Vietnam**

- ZyXEL Communications Corporation-Vietnam Office
- <http://www.zyxel.com/vn/vi>

## **Europe**

### **Austria**

- ZyXEL Deutschland GmbH
- <http://www.zyxel.de>

### **Belarus**

- ZyXEL BY
- <http://www.zyxel.by>

## **Belgium**

- ZyXEL Communications B.V.
- <http://www.zyxel.com/be/nl/>
- <http://www.zyxel.com/be/fr/>

## **Bulgaria**

- ZyXEL България
- <http://www.zyxel.com/bg/bg/>

## **Czech Republic**

- ZyXEL Communications Czech s.r.o
- <http://www.zyxel.cz>

## **Denmark**

- ZyXEL Communications A/S
- <http://www.zyxel.dk>

## **Estonia**

- ZyXEL Estonia
- <http://www.zyxel.com/ee/et/>

## **Finland**

- ZyXEL Communications
- <http://www.zyxel.fi>

## **France**

- ZyXEL France
- <http://www.zyxel.fr>

## **Germany**

- ZyXEL Deutschland GmbH
- <http://www.zyxel.de>

## **Hungary**

- ZyXEL Hungary & SEE
- <http://www.zyxel.hu>

## **Italy**

- ZyXEL Communications Italy
- <http://www.zyxel.it/>

## **Latvia**

- ZyXEL Latvia
- <http://www.zyxel.com/lv/lv/homepage.shtml>

## **Lithuania**

- ZyXEL Lithuania
- <http://www.zyxel.com/lt/lt/homepage.shtml>

## **Netherlands**

- ZyXEL Benelux
- <http://www.zyxel.nl>

## **Norway**

- ZyXEL Communications
- <http://www.zyxel.no>

## **Poland**

- ZyXEL Communications Poland
- <http://www.zyxel.pl>

## **Romania**

- ZyXEL Romania
- <http://www.zyxel.com/ro/ro>

## **Russia**

- ZyXEL Russia
- <http://www.zyxel.ru>

## **Slovakia**

- ZyXEL Communications Czech s.r.o. organizacna zlozka
- <http://www.zyxel.sk>

## **Spain**

- ZyXEL Communications ES Ltd
- <http://www.zyxel.es>

## **Sweden**

- ZyXEL Communications
- <http://www.zyxel.se>

## **Switzerland**

- Studerus AG

- <http://www.zyxel.ch/>

## **Turkey**

- ZyXEL Turkey A.S.
- <http://www.zyxel.com.tr>

## **UK**

- ZyXEL Communications UK Ltd.
- <http://www.zyxel.co.uk>

## **Ukraine**

- ZyXEL Ukraine
- <http://www.ua.zyxel.com>

## **Latin America**

### **Argentina**

- ZyXEL Communication Corporation
- <http://www.zyxel.com/ec/es/>

### **Brazil**

- ZyXEL Communications Brasil Ltda.
- <https://www.zyxel.com/br/pt/>

### **Ecuador**

- ZyXEL Communication Corporation
- <http://www.zyxel.com/ec/es/>

## **Middle East**

### **Israel**

- ZyXEL Communication Corporation
- <http://il.zyxel.com/homepage.shtml>

### **Middle East**

- ZyXEL Communication Corporation
- <http://www.zyxel.com/me/en/>

## **North America**

### **USA**

- ZyXEL Communications, Inc. - North America Headquarters
- <http://www.zyxel.com/us/en/>

## **Oceania**

### **Australia**

- ZyXEL Communications Corporation
- <http://www.zyxel.com/au/en/>

## **Africa**

### **South Africa**

- Nology (Pty) Ltd.
- <http://www.zyxel.co.za>

# APPENDIX B

## Legal Information

### Copyright

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### Regulatory Notice and Statement

#### UNITED STATES of AMERICA



The following information applies if you use the product within USA area.

#### FCC EMC Statement

- The device complies with Part 15 of FCC rules. Operation is subject to the following two conditions:
  - (1) This device may not cause harmful interference, and
  - (2) This device must accept any interference received, including interference that may cause undesired operation.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.
- This product has been tested and complies with the specifications 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 device generates, uses, and can radiate radio frequency energy and, if not installed and used according to 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 device does cause harmful interference to radio or television reception, which is found by turning the device 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 devices
  - Connect the equipment to an outlet other than the receiver's
  - Consult a dealer or an experienced radio/TV technician for assistance

The following information applies if you use the product with RF function within USA area.

#### FCC Radiation Exposure Statement

- This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.
- This transmitter must be at least 20 cm from the user and must not be co-located or operating in conjunction with any other antenna or transmitter.
- Operation of this device is restricted to indoor use only, except for relevant user's manual mention that this device can be installed into the external environment.

#### CANADA

The following information applies if you use the product within Canada area.

#### Industry Canada ICES Statement

CAN ICES-3 (B)/NMB-3(B)

### Industry Canada RSS-GEN & RSS-247 statement

- This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.
- This radio transmitter has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

If the product with 5G wireless function operating in 5150-5250 MHz and 5725-5850 MHz, the following attention must be paid.

- The device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.
- For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate; and
- The worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in Section 6.2.2(3) of RSS 247 shall be clearly indicated.

If the product with 5G wireless function operating in 5250-5350 MHz and 5470-5725 MHz, the following attention must be paid.

- For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit.
- Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
- Le présent émetteur radio de modèle s'il fait partie du matériel de catégoriel) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

Lorsque la fonction sans fil 5G fonctionnant en 5150-5250 MHz and 5725-5850 MHz est activée pour ce produit, il est nécessaire de porter une attention particulière aux choses suivantes

- Les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;
- Pour les dispositifs munis d'antennes amovibles, le gain maximal d'antenne permis (pour les dispositifs utilisant la bande de 5 725 à 5 850 MHz) doit être conforme à la limite de la p.i.r.e. spécifiée pour l'exploitation point à point et l'exploitation non point à point, selon le cas;
- Les pires angles d'inclinaison nécessaires pour rester conforme à l'exigence de la p.i.r.e. applicable au masque d'élévation, et énoncée à la section 6.2.2 3) du CNR-247, doivent être clairement indiqués.

Lorsque la fonction sans fil 5G fonctionnant en 5250-5350 MHz et 5470-5725 MHz est activée pour ce produit, il est nécessaire de porter une attention particulière aux choses suivantes.

- Pour les dispositifs munis d'antennes amovibles, le gain maximal d'antenne permis pour les dispositifs utilisant les bandes de 5 250 à 5 350 MHz et de 5 470 à 5 725 MHz doit être conforme à la limite de la p.i.r.e.

### Industry Canada radiation exposure statement

This device complies with IC radiation exposure limits set forth for an uncontrolled environment. This device should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

### Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

## EUROPEAN UNION



The following information applies if you use the product within the European Union.

### Declaration of Conformity with Regard to EU Directive 2014/53/EU (Radio Equipment Directive, RED)

- Compliance information for 2.4GHz and/or 5GHz wireless products relevant to the EU and other Countries following the EU Directive 2014/53/EU (RED). And this product may be used in all EU countries (and other countries following the EU Directive 2014/53/EU) without any limitation except for the countries mentioned below table:
- In the majority of the EU and other European countries, the 5GHz bands have been made available for the use of wireless local area networks (LANs). Later in this document you will find an overview of countries in which additional restrictions or requirements or both are applicable. The requirements for any country may evolve. Zyxel recommends that you check with the local authorities for the latest status of their national regulations for the 5GHz wireless LANs.
- If this device for operation in the band 5150-5350 MHz, it is for indoor use only.
- This equipment should be installed and operated with a minimum distance of 20cm between the radio equipment and your body.
- The maximum RF power operating for each band as follows:
  - the band 2,400 to 2,483.5 MHz is 99.54 mW,
  - the bands 5,150 MHz to 5,350 MHz is 199.07 mW,
  - the 5,470 MHz to 5,725 MHz is 618.02 mW.

Български (Bulgarian)	<p>С настоящото Zyxel декларира, че това оборудване е в съответствие със съществените изисквания и другите приложими разпоредбите на Директива 2014/53/ЕС.</p> <p><b>National Restrictions</b></p> <ul style="list-style-type: none"> <li>The Belgian Institute for Postal Services and Telecommunications (BIPT) must be notified of any outdoor wireless link having a range exceeding 300 meters. Please check <a href="http://www.bipt.be">http://www.bipt.be</a> for more details.</li> <li>Draadloze verbindingen voor buitengebruik en met een reikwijdte van meer dan 300 meter dienen aangemeld te worden bij het Belgisch Instituut voor postdiensten en telecommunicatie (BIPT). Zie <a href="http://www.bipt.be">http://www.bipt.be</a> voor meer gegevens.</li> <li>Les liaisons sans fil pour une utilisation en extérieur d'une distance supérieure à 300 mètres doivent être notifiées à l'Institut Belge des services Postaux et des Télécommunications (IBPT). Visitez <a href="http://www.ibpt.be">http://www.ibpt.be</a> pour de plus amples détails.</li> </ul>
Español (Spanish)	Por medio de la presente Zyxel declara que el equipo cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 2014/53/UE..
Čeština (Czech)	Zyxel tímto prohlašuje, že tento zařízení je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 2014/53/EU.
Dansk (Danish)	<p>Undertegnede Zykel erklærer herved, at følgende udstyr overholder de væsentlige krav og øvrige relevante krav i direktiv 2014/53/EU.</p> <p><b>National Restrictions</b></p> <ul style="list-style-type: none"> <li>In Denmark, the band 5150 - 5350 MHz is also allowed for outdoor usage.</li> <li>I Danmark må frekvensbåndet 5150 - 5350 også anvendes udendørs.</li> </ul>
Deutsch (German)	Hiermit erklärt Zykel, dass sich das Gerät Ausstattung in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 2014/53/EU befindet.
Eesti keel (Estonian)	Käesolevaga kinnitab Zykel seadme seadmed vastavust direktiivi 2014/53/EL põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
Ελληνικά (Greek)	ΜΕ ΤΗΝ ΠΑΡΟΥΣΙΑ Ζyxel ΔΗΛΩΝΕΙ ΟΤΙ ΕΞΟΠΛΙΣΜΟΣ ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 2014/53/ΕΕ.
English	Hereby, Zykel declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.
Français (French)	Par la présente Zykel déclare que l'appareil équipements est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 2014/53/UE.
Hrvatski (Croatian)	Zykel ovime izjavljuje da je radijska oprema tipa u skladu s Direktivom 2014/53/UE.
Íslenska (Icelandic)	Hér með lýsir, Zykel því yfir að þessi búnaður er í samræmi við grunnkröfur og önnur viðeigandi ákvæði tilskipunar 2014/53/UE.
Italiano (Italian)	<p>Con la presente Zykel dichiara che questo attrezzatura è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 2014/53/UE.</p> <p><b>National Restrictions</b></p> <ul style="list-style-type: none"> <li>This product meets the National Radio Interface and the requirements specified in the National Frequency Allocation Table for Italy. Unless this wireless LAN product is operating within the boundaries of the owner's property, its use requires a "general authorization." Please check <a href="http://www.sviluppoeconomico.gov.it/">http://www.sviluppoeconomico.gov.it/</a> for more details.</li> <li>Questo prodotto è conforme alla specifiche di Interfaccia Radio Nazionali e rispetta il Piano Nazionale di ripartizione delle frequenze in Italia. Se non viene installato all'interno del proprio fondo, l'utilizzo di prodotti Wireless LAN richiede una "Autorizzazione Generale". Consultare <a href="http://www.sviluppoeconomico.gov.it/">http://www.sviluppoeconomico.gov.it/</a> per maggiori dettagli.</li> </ul>
Latviešu valoda (Latvian)	<p>Ar šo Zykel deklarē, ka iekārtas atbilst Direktīvas 2014/53/ES būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.</p> <p><b>National Restrictions</b></p> <ul style="list-style-type: none"> <li>The outdoor usage of the 2.4 GHz band requires an authorization from the Electronic Communications Office. Please check <a href="http://www.esd.lv">http://www.esd.lv</a> for more details.</li> <li>2.4 GHz frekvenču joslas izmantošanai ārpus telpām nepieciešama atļauja no Elektronisko sakaru direkcijas. Vairāk informācijas: <a href="http://www.esd.lv">http://www.esd.lv</a>.</li> </ul>
Lietuvių kalba (Lithuanian)	Šiuo Zykel deklaruoja, kad šis įranga atitinka esminius reikalavimus ir kitas 2014/53/ES Direktyvos nuostatas.
Magyar (Hungarian)	Alulírott, Zykel nyilatkozom, hogy a berendezés megfelel a vonatkozó alapvető követelményeknek és az 2014/53/EU irányelv egyéb előírásainak.
Malti (Maltese)	Hawnhekk, Zykel, jiddikjara li dan tagħmir jikkonforma mal-htgijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Direttiva 2014/53/UE.
Nederlands (Dutch)	Hierbij verklaart Zykel dat het toestel uitrusting in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 2014/53/EU.
Polski (Polish)	Niniejszym Zykel oświadcza, że sprzęt jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 2014/53/UE.
Português (Portuguese)	Zykel declara que este equipamento está conforme com os requisitos essenciais e outras disposições da Directiva 2014/53/UE.



Română (Romanian)	Prin prezenta, Zyxel declară că acest echipament este în conformitate cu cerințele esențiale și alte prevederi relevante ale Directivei 2014/53/UE.
Slovenčina (Slovak)	Zyxel týmto vyhlasuje, že zariadenia spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 2014/53/EÚ.
Slovenščina (Slovene)	Zyxel izjavlja, da je ta oprema v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 2014/53/EU.
Suomi (Finnish)	Zyxel vakuuttaa täten että laitteen tyyppinen laite on direktiivin 2014/53/EU oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Svenska (Swedish)	Härmed intygar Zykel att denna utrustning står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 2014/53/EU.
Norsk (Norwegian)	Erklærer herved Zykel at dette utstyret er i samsvar med de grunnleggende kravene og andre relevante bestemmelser i direktiv 2014/53/EU.

**Notes:**

- Although Norway, Switzerland and Liechtenstein are not EU member states, the EU Directive 2014/53/EU has also been implemented in those countries.
- The regulatory limits for maximum output power are specified in EIRP. The EIRP level (in dBm) of a device can be calculated by adding the gain of the antenna used (specified in dBi) to the output power available at the connector (specified in dBm).

**List of national codes**

COUNTRY	ISO 3166 2 LETTER CODE	COUNTRY	ISO 3166 2 LETTER CODE
Austria	AT	Liechtenstein	LI
Belgium	BE	Lithuania	LT
Bulgaria	BG	Luxembourg	LU
Croatia	HR	Malta	MT
Cyprus	CY	Netherlands	NL
Czech Republic	CZ	Norway	NO
Denmark	DK	Poland	PL
Estonia	EE	Portugal	PT
Finland	FI	Romania	RO
France	FR	Serbia	RS
Germany	DE	Slovakia	SK
Greece	GR	Slovenia	SI
Hungary	HU	Spain	ES
Iceland	IS	Switzerland	CH
Ireland	IE	Sweden	SE
Italy	IT	Turkey	TR
Latvia	LV	United Kingdom	GB

**Safety Warnings**

- Do not use this product near water, for example, in a wet basement or near a swimming pool.
- Do not expose your device to dampness, dust or corrosive liquids.
- Do not store things on the device.
- Do not obstruct the device ventilation slots as insufficient airflow may harm your device. For example, do not place the device in an enclosed space such as a box or on a very soft surface such as a bed or sofa.
- Do not install, use, or service this device during a thunderstorm. There is a remote risk of electric shock from lightning.
- Connect ONLY suitable accessories to the device.
- 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 should service or disassemble this device. Please contact your vendor for further information.
- Make sure to connect the cables to the correct ports.
- Place connecting cables carefully so that no one will step on them or stumble over them.
- Always disconnect all cables from this device before servicing or disassembling.
- Do not remove the plug and connect it to a power outlet by itself; always attach the plug to the power adaptor first before connecting it to a power outlet.
- Do not allow anything to rest on the power adaptor or cord and do NOT place the product where anyone can walk on the power adaptor or cord.
- Please use the provided or designated connection cables/power cables/ adaptors. Connect it to the right supply voltage (for example, 110V AC in North America or 230V AC in Europe). If the power adaptor or cord is damaged, it might cause electrocution. Remove it from the device and the power source, repairing the power adapter or cord is prohibited. Contact your local vendor to order a new one.
- Do not use the device outside, and make sure all the connections are indoors. There is a remote risk of electric shock from lightning.

- CAUTION: Risk of explosion if battery is replaced by an incorrect type, dispose of used batteries according to the instruction. Dispose them at the applicable collection point for the recycling of electrical and electronic devices. For detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the store where you purchased the product.
- The following warning statements apply, where the disconnect device is not incorporated in the device or where the plug on the power supply cord is intended to serve as the disconnect device,
  - For permanently connected devices, a readily accessible disconnect device shall be incorporated external to the device;
  - For pluggable devices, the socket-outlet shall be installed near the device and shall be easily accessible.

## Environment Statement

### ErP (Energy-related Products)

Zyxel products put on the EU market in compliance with the requirement of the European Parliament and the Council published Directive 2009/125/EC establishing a framework for the setting of ecodesign requirements for energy-related products (recast), so called as "ErP Directive (Energy-related Products directive)" as well as ecodesign requirement laid down in applicable implementing measures, power consumption has satisfied regulation requirements which are:

- Network standby power consumption < 8W, and/or
- Off mode power consumption < 0.5W, and/or
- Standby mode power consumption < 0.5W.

(Wireless setting, please refer to "Wireless" chapter for more detail.)

### European Union - Disposal and Recycling Information

The symbol below means that according to local regulations your product and/or its battery shall be disposed of separately from domestic waste. If this product is end of life, take it to a recycling station designated by local authorities. At the time of disposal, the separate collection of your product and/or its battery will help save natural resources and ensure that the environment is sustainable development.

Die folgende Symbol bedeutet, dass Ihr Produkt und/oder seine Batterie gemäß den örtlichen Bestimmungen getrennt vom Hausmüll entsorgt werden muss. Wenden Sie sich an eine Recyclingstation, wenn dieses Produkt das Ende seiner Lebensdauer erreicht hat. Zum Zeitpunkt der Entsorgung wird die getrennte Sammlung von Produkt und/oder seiner Batterie dazu beitragen, natürliche Ressourcen zu sparen und die Umwelt und die menschliche Gesundheit zu schützen.

El símbolo de abajo indica que según las regulaciones locales, su producto y/o su batería deberán depositarse como basura separada de la doméstica. Cuando este producto alcance el final de su vida útil, llévelo a un punto limpio. Cuando llegue el momento de desechar el producto, la recogida por separado éste y/o su batería ayudará a salvar los recursos naturales y a proteger la salud humana y medioambiental.

Le symbole ci-dessous signifie que selon les réglementations locales votre produit et/ou sa batterie doivent être éliminés séparément des ordures ménagères. Lorsque ce produit atteint sa fin de vie, amenez-le à un centre de recyclage. Au moment de la mise au rebut, la collecte séparée de votre produit et/ou de sa batterie aidera à économiser les ressources naturelles et protéger l'environnement et la santé humaine.

Il simbolo sotto significa che secondo i regolamenti locali il vostro prodotto e/o batteria deve essere smaltito separatamente dai rifiuti domestici. Quando questo prodotto raggiunge la fine della vita di servizio portarlo a una stazione di riciclaggio. Al momento dello smaltimento, la raccolta separata del vostro prodotto e/o della sua batteria aiuta a risparmiare risorse naturali e a proteggere l'ambiente e la salute umana.

Symbolen innebär att enligt lokal lagstiftning ska produkten och/eller dess batteri kastas separat från hushållsavfallet. När den här produkten når slutet av sin livslängd ska du ta den till en återvinningsstation. Vid tiden för kasseringen bidrar du till en bättre miljö och mänsklig hälsa genom att göra dig av med den på ett återvinningsställe.



台灣



以下訊息僅適用於產品具有無線功能且銷售至台灣地區

- 第十二條 經型式認證合格之低功率射頻電機，非經許可，公司，商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
- 第十四條 低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。
- 無線資訊傳輸設備須忍受合法通信之干擾且不得干擾合法通信；如造成干擾，應立即停用，俟無干擾之虞，始得繼續使用。
- 無線資訊傳輸設備的製造廠商應確保頻率穩定性，如依製造廠商使用手冊上所述正常操作，發射的信號應維持於操作頻帶中

- 使用無線產品時，應避免影響附近雷達系統之操作。
- 若使用高增益指向性天線，該產品僅應用於固定式點對點系統。

以下訊息僅適用於產品屬於專業安裝並銷售至台灣地區

- 本器材須經專業工程人員安裝及設定，始得設置使用，且不得直接販售給一般消費者。





安全警告 - 為了您的安全，請先閱讀以下警告及指示：

- 請勿將此產品接近水、火焰或放置在高溫的環境。
- 避免設備接觸：
  - 任何液體 - 切勿讓設備接觸水、雨水、高濕度、污水腐蝕性的液體或其他水份。
  - 灰塵及污物 - 切勿接觸灰塵、污物、沙土、食物或其他不合適的材料。
- 雷雨天氣時，不要安裝，使用或維修此設備。有遭受電擊的風險。
- 切勿重摔或撞擊設備，並勿使用不正確的電源變壓器。
- 若接上不正確的電源變壓器會有爆炸的風險。
- 請勿隨意更換產品內的電池。
- 如果更換不正確之電池型式，會有爆炸的風險，請依製造商說明書處理使用過之電池。
- 請將廢電池丟棄在適當的電器或電子設備回收處。
- 請勿將設備解體。
- 請勿阻礙設備的散熱孔，空氣對流不足將會造成設備損害。
- 請插在正確的電壓供給插座（如：北美 / 台灣電壓 110V AC，歐洲是 230V AC）。
- 假若電源變壓器或電源變壓器的纜線損壞，請從插座拔除，若您還繼續插電使用，會有觸電死亡的風險。
- 請勿試圖修理電源變壓器或電源變壓器的纜線，若有毀損，請直接聯絡您購買的店家，購買一個新的電源變壓器。
- 請勿將此設備安裝於室外，此設備僅適合放置於室內。
- 請勿隨一般垃圾丟棄。
- 請參閱產品背貼上的設備額定功率。
- 請參考產品型錄或是彩盒上的作業溫度。
- 產品沒有斷電裝置或者採用電源線的插頭視為斷電裝置的一部分，以下警語將適用：
  - 對永久連接之設備，在設備外部須安裝可觸及之斷電裝置；
  - 對插接式之設備，插座必須接近安裝之地點而且是易於觸及的。

## About the Symbols

Various symbols are used in this product to ensure correct usage, to prevent danger to the user and others, and to prevent property damage. The meaning of these symbols are described below. It is important that you read these descriptions thoroughly and fully understand the contents.

### Explanation of the Symbols

SYMBOL	EXPLANATION
	Alternating current (AC): AC is an electric current in which the flow of electric charge periodically reverses direction.
	Direct current (DC): DC is the unidirectional flow or movement of electric charge carriers.
	Earth; ground: A wiring terminal intended for connection of a Protective Earthing Conductor.
	Class II equipment: The method of protection against electric shock in the case of class II equipment is either double insulation or reinforced insulation.

## Viewing Certifications

Go to <http://www.zyxel.com> to view this product's documentation and certifications.

## Zyxel Limited Warranty

Zyxel warrants to the original end user (purchaser) that this product is free from any defects in material or workmanship for a specific period (the Warranty Period) from the date of purchase. The Warranty Period varies by region. Check with your vendor and/or the authorized Zyxel local distributor for details about the Warranty Period of this product. 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 or higher value, and will be solely at the discretion of Zyxel. This warranty shall not apply if the product has been 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 to the purchaser.

To obtain the services of this warranty, contact your vendor. You may also refer to the warranty policy for the region in which you bought the device at [http://www.zyxel.com/web/support\\_warranty\\_info.php](http://www.zyxel.com/web/support_warranty_info.php).

### **Registration**

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.

### **Open Source Licenses**

This product contains in part some free software distributed under GPL license terms and/or GPL like licenses. Open source licenses are provided with the firmware package. You can download the latest firmware at [www.zyxel.com](http://www.zyxel.com). To obtain the source code covered under those Licenses, please contact [support@zyxel.com.tw](mailto:support@zyxel.com.tw) to get it.

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