

A decorative graphic consisting of numerous overlapping squares of various sizes, arranged in a pattern that tapers from the top right towards the bottom left. The squares are drawn with thin black outlines and are scattered across the upper half of the page.

Easy Start Guide

Ethernet Wireless Router

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Declaration of Conformity

Marking by the above symbol indicates compliance with the Essential Requirements of the R&TTE Directive of the European Union (1999/5/EC). This equipment meets the following conformance standards:

EN300 328, EN301 489-17, EN60950

Countries of Operation and Conditions of Use in the European Community

This device is intended to be operated in all countries of the European Community. Requirement is for indoors vs. outdoors operation, license requirements and allowed channels of operation apply in some countries as described in this document.

Note: The user must use the configuration utility provided with this product to check the current channel of operation and confirm that the devices operating in conformance with the spectrum usage rules for the European Community countries as described below.

If operation is occurring outside of the allowable channels as indicated in this guide, then the user must cease operating the product and consult with the local technical support staff responsible for the wireless network.

This device may be operated indoors or outdoors in all countries of the European Community using the 2.4GHz band: Channels 1 – 13, except where noted below:

- In Italy the end-user must apply for a license from the national spectrum authority to operate this device outdoors.
- In France outdoor operation is only permitted using the 2.4 – 2.454 GHz band: Channels 1 – 7.

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About the Router

Your router offers an easy way of integrating your computer and other network devices into a single network. Here are some of the benefits you can obtain from using the router in your home or office:

Integrated Modem Feature Your router is an ideal solution for high speed Internet connectivity. It is capable of handling the fastest data transfer speed from your Internet provider and sharing this within your local network devices.

Top Notch Security Your router utilizes built-in firewall security to block service attacks. For added flexibility, it can be modified to allow specific applications to pass through while blocking intrusive threats at the same time.

Intuitive User Interface Applying changes on the router settings can be done easily using a Web browser. The router uses a simplified user interface that allows you to apply the configurations you want for the various features of the router.

Your router will serve as the central figure in establishing your local area network (LAN) by using a combination of hardware and software. The hardware includes the cables, wireless access points, and Ethernet ports that create the path to connect your devices. The software part includes the applications that manage the flow of information in these devices.

You can complete the basic installation and Internet connection within 8 minutes. Some more time is needed if you intend to utilize more advanced functions but it can be worth it. Advanced features like port forwarding will help you create your own web server to store your Web site, Dynamic DNS allows you to access your network from the Internet, and remote access enables you to configure your router settings from different locations.

Once installation is complete, it will be much more easier for you to enjoy voice communication, high speed Internet, and data/audio/video sharing within your network.

Requirements

Your computer must meet the following minimum requirements.

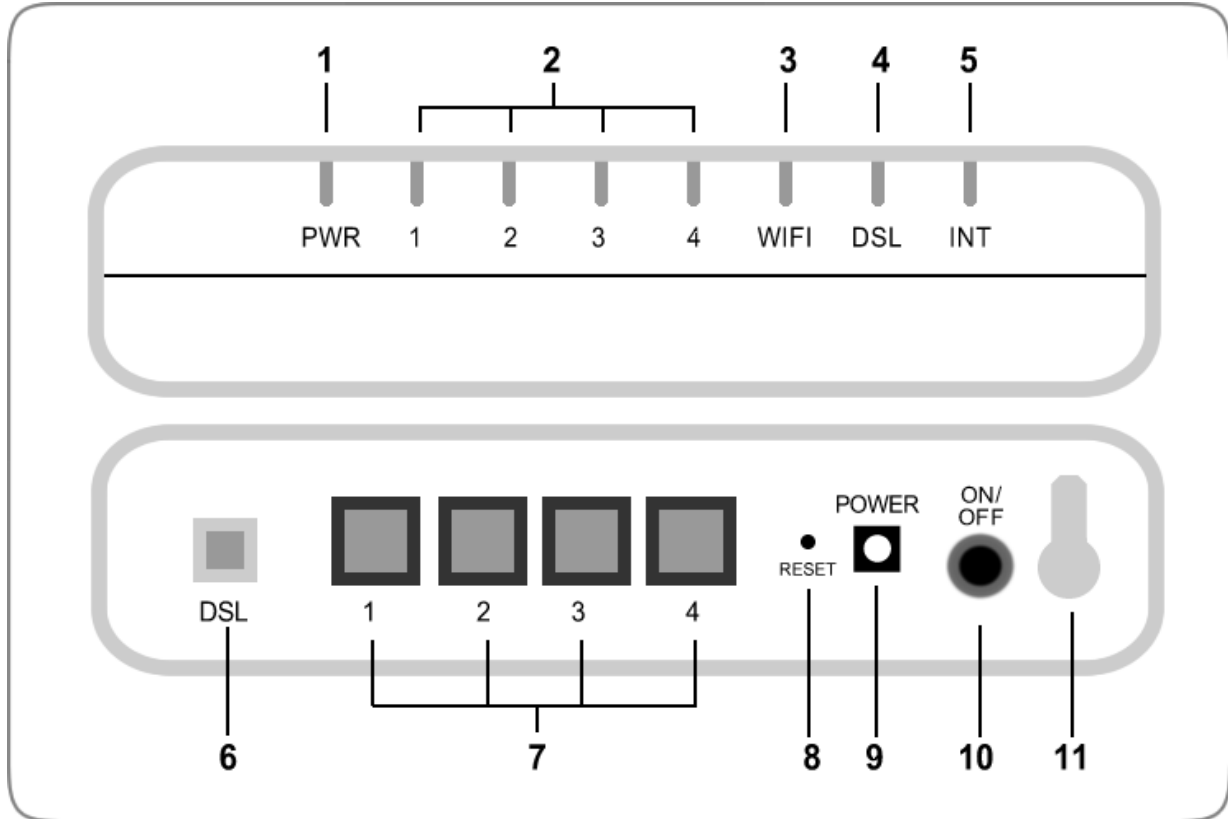
- Any operating system can be used
- Internet Explorer 4.0 or Netscape Navigator 3.02
- 233MHz processor
- CD-ROM Drive
- Ethernet network adapter
- An active DSL Internet account

Package Contents

Package contents are listed below. For any missing items, please contact your dealer immediately. Product contents vary for different models.

- Router
- Ethernet cable
- Telephone cable
- 9V Power Adapter
- Easy Start Guide
- Resource CD

Device Design

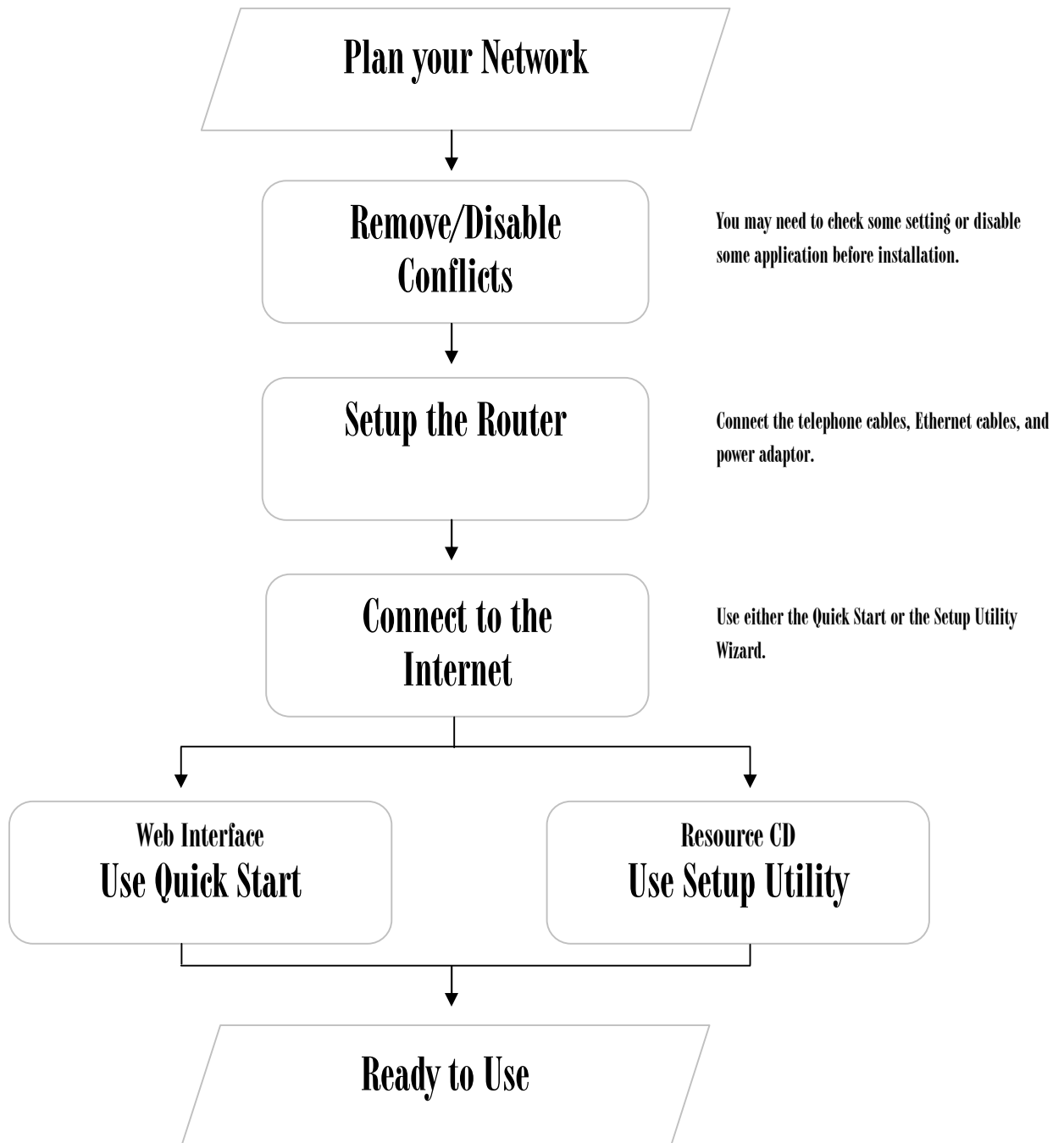


	Label	Action	Description
1	POWER	Off	No power is supplied to the device
		Steady light	Connected to an AC power supply
2	ETHERNET 1-4	Off	No Ethernet connection
		Steady light	Connected to an Ethernet port
		Blinking light	Transmitting/Receiving data
3	WiFi	Off	Access point is disabled
		Steady light	Access point is enabled
		Blinking light	Transmitting/Receiving data
4	DSL	Off	No DSL signal
		Blinking light	Establishing DSL signal
		Steady light	DSL signal is established

5	INTERNET	Off	No Internet connection
		Green light	Connected to the Internet
		Green Blinking light	Transmitting/Receiving data
		Red Blinking light	Cannot establish Internet connection
6	DSL		Connecting the telephone cable
7	ETHERNET 1-4		Connecting with computers/devices through Ethernet cable
8	RESET		Resetting the device. Press for 10 seconds to reset.
9	9V DC		Connecting with the 9V power adapter
10	ON/OFF		Switching the device on/off
11	Antenna		Sending/receiving wireless signals

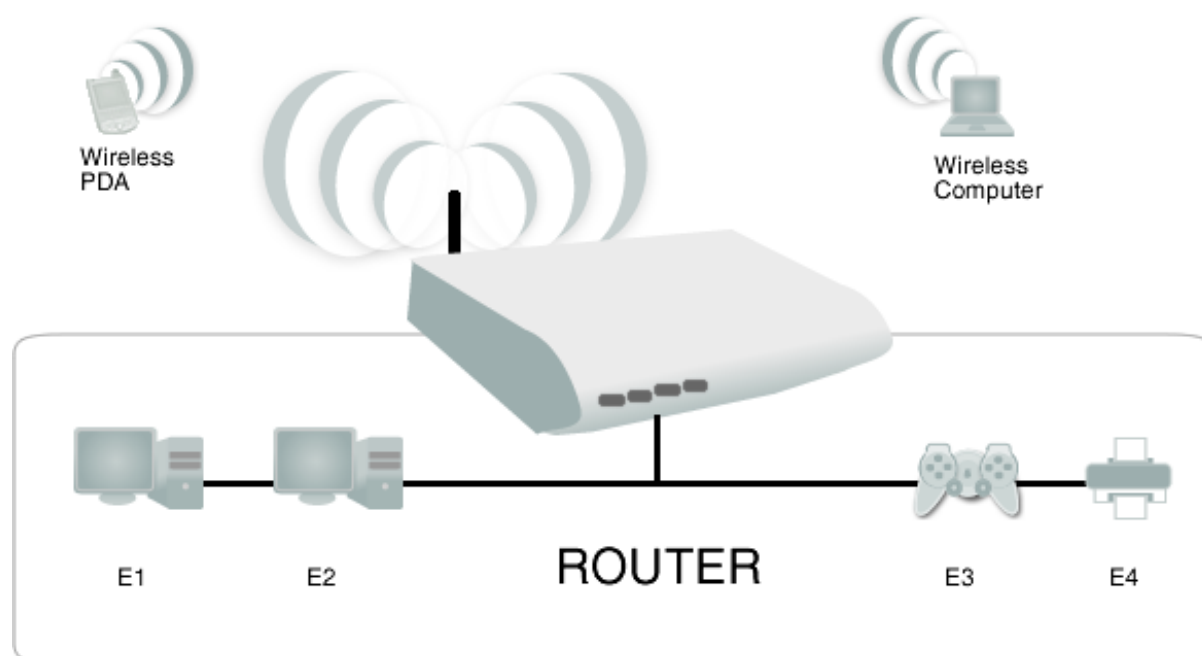
Getting Started

Setting up the device is easy. The flowchart below provides an outline of the steps needed to complete the installation. Brief descriptions appear beside each step. Detailed instructions are provided in the subsequent pages.



Planning Your Network

Before moving ahead to setup your network, it is a good idea to draw out a network diagram to help identify your network devices and plan out how to connect these devices. The illustration below is an example of a network diagram.



To create a network diagram:

- For wireless devices, identify the wireless devices you want to include in the network
- For wired devices, identify which router port you want to use for each device.

Remove or Disable Conflicts

To make sure the router installation moves on smoothly, you need to remove or disable conflicts that may interfere the installation. Probable conflicts may include:

- Internet sharing applications
- Proxy software
- Security software
- TCP/IP settings
- Internet properties
- Temporary Internet files

Internet Sharing, Proxy, and Security Applications

Internet sharing, proxy software, and firewall applications may interfere with the router installation. These should be removed or disabled before start the installation.

If you have any of the following or similar applications installed on your computer, remove or disable them according to the manufacturer's instructions.

Internet Sharing Applications	Proxy Software	Security Software
Microsoft Internet Sharing	WinGate	Symantec
	WinProxy	Zone Alarm

Configuring TCP/IP Settings

Check if your computer uses the default TCP/IP settings.

To check the TCP/IP properties:

1. Select Start > Run. This opens the Run dialog box.
2. Enter control nepa.cpl and then click OK. This opens the Network Connections in your computer.
3. Right-click LAN and then select Properties. This opens the Local Area Connection Properties dialog box.
4. Select Internet Protocol (TCP/IP) and then click Properties. This opens the Internet Protocol (TCP/IP) dialog box.
5. Select Obtain an IP address automatically.
6. Click OK to close the Internet Protocol (TCP/IP) dialog box.
7. Click OK to close the Local Area Connection Properties dialog box.

Configuring Internet Properties

To set the Internet Properties:

1. Select Start > Run. This opens the Run dialog box.
2. Enter control inetpl.cpl and then click OK. This opens Internet Properties.
3. Click Connections tab.
4. In the Dial-up and Virtual Private Network settings pane, select Never dial a connection.
5. Click OK to close Internet Properties.

Removing Temporary Internet Files

Temporary Internet files are files from Web sites that are stored in your computer. Delete these files to clean the cache and remove footprints left by the Web pages you visited.

To remove temporary Internet files:

1. Select **Start > Run**. This opens the Run dialog box.
2. Enter **control** and then click **OK**. This opens Control Panel.
3. Double-click **Internet Options**. This opens Internet Options.
4. In the Temporary Internet Files pane, click **Delete Cookies**.
5. Click **Delete Files**.
6. Click **OK** to close Internet Properties.

Setup the Device

When installing the router, find an area where there are enough electrical outlets for the router, the main computer, and your other computer devices.

To setup the router:

1. Plug one end of the Ethernet cable from the router's ETHERNET port and then plug the other end into the Ethernet port in your computer.
2. If you have another device you need to connect through wire into the router, use another piece of Ethernet cable. Plug one end of the Ethernet cable from the computer's Ethernet port and then plug the other end into an available Ethernet port in the router.
3. Plug one end of the telephone cable from the POTS Splitter's ADSL port and then plug the other end into the router's DSL port

POTS Splitter

Your phone line carries with it both phone calls and Internet signals. When you are using the Internet, the connection produces high-pitched tones that can affect your voice calls when using the phone. Installing a Plain Old Telephone Service (POTS) splitter separates the two signals and eliminates the noise.

To setup the telephone POTS Splitter:

- a. Locate the phone jack in your house.
 - b. Insert the POTS Splitter into the phone jack.
 - c. Plug one end of the telephone cable from the POTS Splitter's TEL port and then plug the other end into the telephone.
4. Connect the power adapter from the router's 9V DC port into the electrical outlet.
 5. Press ON.

Connecting to the Internet

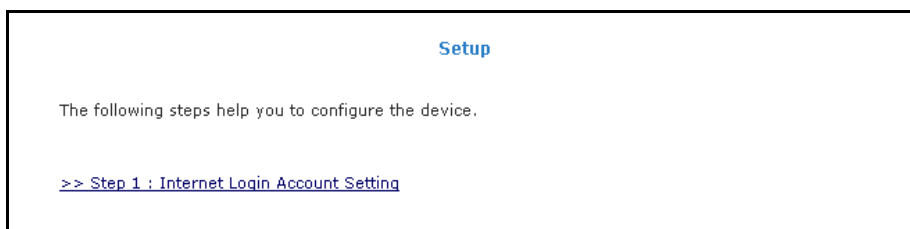
There are two ways to connect to the Internet. You can either use the Web Interface or the Utility Wizard.

Note: Before connecting, the DSL LED on the router's front panel should be steadily on. If DSL continues to blink for at least five minutes, please report this to your Internet service provider. An established DSL signal is required before you connect.

Connecting Via the Web Interface

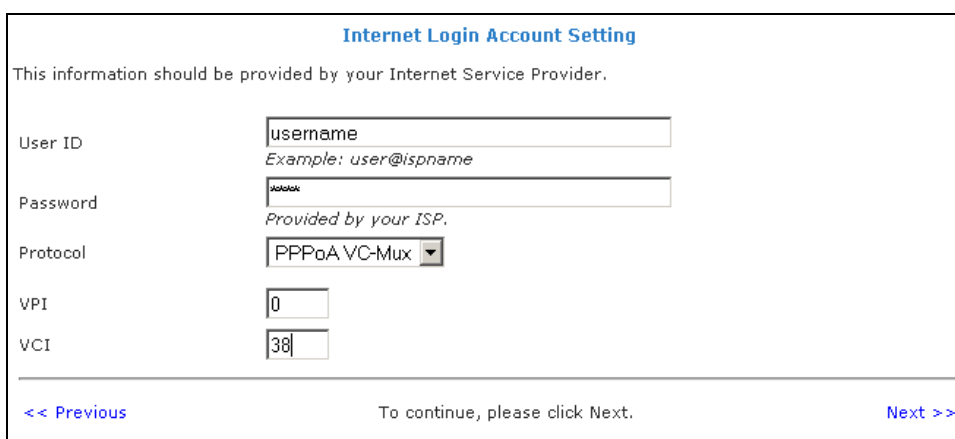
To connect to the Internet via the Web Interface:

1. Open your browser.
2. Enter 192.168.1.1 in the address field and then press Enter. This opens the Setup Page of the web interface.



Setup Page

3. Click Step 1: Internet Login Account Setting. This opens the Internet Login Account Setting page.



Internet Login Account Setting Page

4. Enter the User ID, Password, Protocol, VPI, and VCI for your account. These are the account information from your service provider.

For ISPs with BT phone lines (Most UK ISPs)

Internet Login Account Setting

This information should be provided by your Internet Service Provider.

User ID	<input type="text" value="username"/> <i>Example: user@ispname</i>
Password	<input type="password" value="password"/> <i>Provided by your ISP.</i>
Protocol	<input type="text" value="PPPoA VCI-Mux"/>
VPI	<input type="text" value="0"/>
VCI	<input type="text" value="38"/>

[<< Previous](#) To continue, please click Next. [Next >>](#)

For Kingston Communications (Karoo)

Internet Login Account Setting

This information should be provided by your Internet Service Provider.

User ID	<input type="text" value="username"/> <i>Example: user@ispname</i>
Password	<input type="password" value="password"/> <i>Provided by your ISP.</i>
Protocol	<input type="text" value="PPPoA LLC"/>
VPI	<input type="text" value="1"/>
VCI	<input type="text" value="50"/>

[<< Previous](#) To continue, please click Next. [Next >>](#)

5. Click Next. This opens the Wireless LAN Configuration Page.

Wireless LAN Configuration

This is to specify the network name of your wireless local area network.

Wireless Network Name / SSID
Enter a name (SSID) for your wireless network.

OR

Request Setup Wizard to generate a unique SSID for you.

Country Standard

Wireless Channel

Hide your Wireless Network Name / SSID

Note:

1. Your system's wireless network adapter must have the same SSID as the wireless router to access the network wirelessly
2. You can also make your Wireless Network Name/ SSID invisible to other wireless users by hiding your SSID.
3. Specify the wireless channel for your network. All wireless clients must use the same channel to access to the router.

<< Previous
To Continue, Click Next.....
Next >>

Wireless LAN Configuration Page

6. Enter an SSID, Country Standard, and Wireless Channel.
7. Select Yes or No to specify if you want to hide your wireless network name or not.
8. Click Next. This opens the Wireless LAN Security page.

Wireless LAN Security

This is to ensure privacy by preventing unauthorized users from accessing your wireless network.

Enable Wireless Security

Click for the wizard to create a unique 64 bit/128 bit Encryption Key. Alternatively, you can manually enter a 10 or 26 digits Hexadecimal keys.

Cipher **Encryption Key**

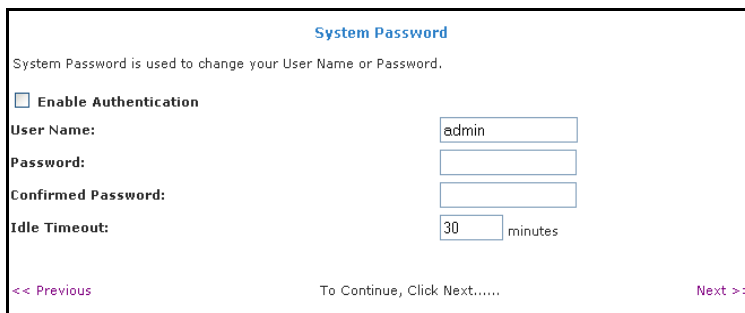
For a 64 bit Network Key.
(10 digits among(0-9) or (a-f)/(A-F). e.g. 52ab4d92ba

For a 128 bit Network Key.
(26 digits among(0-9) or (a-f)/(A-F). e.g. 86cfdbfc2a070e663cc9896d2b

<< Previous
To Continue, Click Next.....
Next >>

Wireless LAN Security

9. Select **Enable Wireless Security**.
10. Enter an **Encryption Key** or click **Generate** to allow the router to create an alphanumeric encryption key for you. The Encryption key will be used to establish the wireless network connection of wireless devices.
11. Click **Next**. This opens the **System Password Page**.



The screenshot shows the 'System Password' configuration page. At the top, it says 'System Password' in blue. Below that, a note states: 'System Password is used to change your User Name or Password.' There is a checkbox labeled 'Enable Authentication' which is currently unchecked. Below this are four input fields: 'User Name:' with the value 'admin', 'Password:', 'Confirmed Password:', and 'Idle Timeout:' with the value '30' and the unit 'minutes'. At the bottom, there are navigation links: '<< Previous' on the left, 'To Continue, Click Next.....' in the center, and 'Next >>' on the right.

System Password Page

12. Select **Enable Authentication** then enter **User Name**, **Password**, and **Confirm Password**.
13. Click **Next**. This opens the **Summary page**.
14. Click **Finish**.
15. Click **OK** when a dialog box opens asking if you want to save and restart.

The router will take about two minutes to save the settings and establish a connection with your Internet service provider. Afterwards, the Basic Home page opens to give you a summary of the account settings.

Connecting Via the Setup Utility Wizard

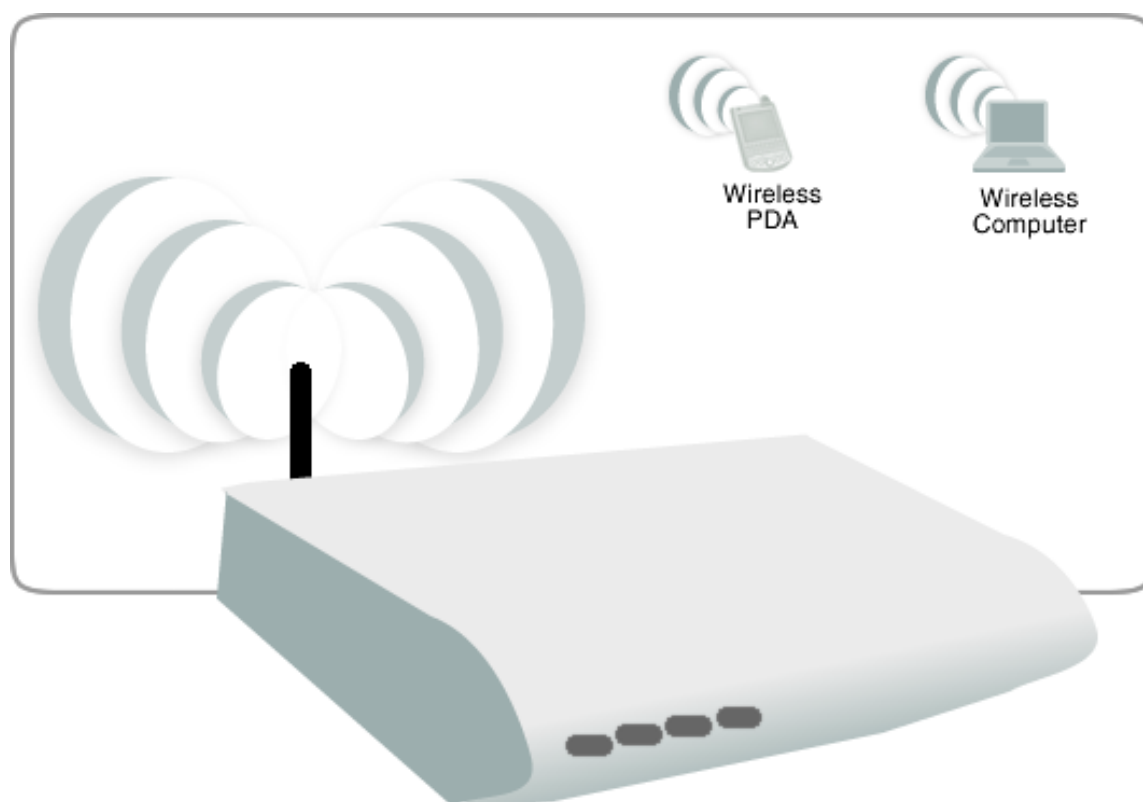
The Setup Utility Wizard can be used to configure your router. However, this only runs on Windows operating systems with a CD-ROM drive.

To connect to the Internet thru Setup Utility Wizard:

1. Insert the Resource CD into your CD-ROM.
2. If the utility does not launch automatically, select Start > Run, enter D:\Setup.exe (where D: is your CD-ROM drive), and then click OK. This opens the Setup Utility.
3. Select your router model and then follow the installation procedure.
4. After a successful connection, on the router's front panel, INTERNET lights up.

Connecting Wireless Devices

After you setup the device settings through the main computer, you can connect other devices with wireless capabilities. Wireless devices relieve you from the task of laying out cables and allow you to use the Internet connection from your router.



To the connect with wireless devices:

1. Turn on your wireless device.
2. Open the software you use to detect a wireless connection. This opens a window to ask for the connection settings.
3. Enter the connection settings. These settings are defined in your router during setup. For more details about wireless connections, please refer to Wireless Menu.

Safety Precautions

- **Do not open, service, or change any component.**
- **Only qualified technical specialists are allowed to service the equipment.**
- **Observe safety precautions to avoid electric shock**
- **Check voltage before connecting to the power supply. Connecting to the wrong voltage will damage the equipment.**