Chapter 3 Connecting the Router to the Internet

This chapter describes how to set up the router on your local area network (LAN) and connect to the Internet. You will find out how to configure your RangeMax 240 Wireless Router WPNT834 for Internet access using the Setup Wizard, or how to manually configure your Internet connection.

Follow these instructions to set up your router.

Prepare to Install Your Wireless Router

- Observe the wireless placement and range guidelines in "Observing Performance, Placement, and Range Guidelines" on page 4-1.
- *For Cable Modem Service*: When you perform the wireless router setup steps, be sure to use the computer you first registered with your cable ISP.
- *For DSL Service*: You may need information such as the DSL login name/e-mail address and password in order to complete the wireless router setup.

Before proceeding with the wireless router installation, familiarize yourself with the contents of the *NETGEAR RangeMax 240 Wireless Router WPNT834 Resource CD*, especially this manual and the animated tutorials for configuring networking on PCs.

First, Use the Smart Wizard to Configure the Wireless Router

Insert the *Resource CD* in the CD drive of your PC. The following screen appears. Click **SETUP** and follow the prompts.





Now, Set Up a Computer for Wireless Connectivity

You are now connected to the Internet and the wireless feature of the wireless router is enabled! Next, configure your wireless computer.

1. Configure the computer's Wireless Adapter settings.



Wireless Adapter in a Notebook Computer

Figure 3-2

NETGEAR, Inc. wireless adapters display a list of available wireless networks and, when wireless security is disabled, you simply choose yours from the list and connect.

For a non-NETGEAR wireless adapter, configure it to match your settings exactly. If you changed the default Network Name (SSID), be sure to use the correct Network Name (SSID) you set in the wireless router.

WIRELESS FEATURE	DEFAULT SETTING
Network Name (SSID)	NETGEAR
WEP Security	Disabled



Warning: The Network Name (SSID) is case sensitive. Typing nETgear will not work.

2. Verify wireless connectivity.

Verify wireless connectivity. Connect to the Internet or log in to the wireless router from a computer with a wireless adapter. For wireless connectivity problems, see "Troubleshooting Tips" on page 3-4.

You are now wirelessly connected to the Internet! Implement wireless security according to the instructions in "Implementing Appropriate Wireless Security" on page 4-2.

Troubleshooting Tips

Here are some tips for correcting simple problems you may have:

Be sure to restart your network in this sequence:

1) Turn off the modem, wireless router, and computer; 2) Turn on the modem, wait two minutes; 3) Turn on the wireless router and wait 1 minute; 4) Turn on the computer.

Make sure the Ethernet cables are securely plugged in.

- The Internet status light on the wireless router will be lit if the Ethernet cable to the wireless router from the modem is plugged in securely and the modem and wireless router are turned on.
- For each powered on computer connected to the wireless router with a securely plugged in Ethernet cable, the corresponding wireless router LAN port status light will be lit. The label on the bottom of the wireless router identifies the number of each LAN port.

Make sure the wireless settings in the computer and router match exactly.

The Wireless Network Name (SSID) and WEP or WPA security settings of the router and wireless computer must match exactly.

Make sure the network settings of the computer are correct.

- LAN and wirelessly connected computers *must* be configured to obtain an IP address automatically via DHCP. Please see "Preparing a Computer for Network Access" in Appendix B or the animated tutorials on the CD for help with this.
- Some cable modem ISPs require you to use the MAC address of the computer registered on the account. If so, in the Router MAC Address section of the Basic Settings menu, select **Use this Computer's MAC Address**. The router will then capture and use the MAC address of the computer that you are now using. You must be using the computer that is registered with the ISP. Click **Apply** to save your settings. Restart the network in the correct sequence.

Check the router status lights to verify correct router operation.

- If the Power light does not turn solid blue and the Test light does not turn off within 2 minutes after turning the router on, reset the router according to the instructions in "Restoring the Default Configuration and Password" on page 7-7.
- If the Wireless light does not come on, verify that the wireless feature is turned on according to the instructions in "Understanding Wireless Settings" on page 4-3.

Overview of How to Access the Wireless Router

The table below describes how you access the wireless router, depending on the state of the wireless router.

Router State	Access Options	Description
Factory Default Note: The wireless router is supplied in the factory default state. Also, the	Automatic Access via the Smart Wizard Configuration Assistant	Any time a browser is opened on any computer connected to the wireless router, the wireless router will automatically connect to that browser and display the Configuration Assistant welcome page. There is no need to enter the wireless router URL in the browser, or provide the login user name and password.
factory default state is restored when you use the factory reset button. See "Restoring the Default Configuration and Password" on page 7-7 for more information on this feature.	Manually enter a URL to bypass the Smart Wizard Configuration Assistant	You can bypass the Smart Wizard Configuration Assistant feature by typing http://www.routerlogin.net/basicsetting.htm in the browser address bar and clicking Enter. You will not be prompted for a user name or password. This will enable you to manually configure the wireless router even when it is in the factory default state. When manually configuring the router, you must complete the configuration by clicking Apply when finished entering your settings. If you do not do so, a browser on any PC connected to the router will automatically display the router's Configuration Assistant Welcome page rather than the browser's home page.
Configuration Settings Have Been Applied	Enter the standard URL to access the wireless router	Connect to the wireless router by typing either of these URLs in the address field of your browser, then click Enter : • http://www.routerlogin.net • http://www.routerlogin.com The wireless router will prompt you to enter the user name of admin and the password. The default password is password.
	Enter the IP address of the wireless router to access the wireless router.	Connect to the wireless router by typing the IP address of the wireless router in the address field of your browser, then click Enter . 192.168.1.1 is the default IP address of the wireless router. The wireless router will prompt you to enter the user name of admin and the password. The default password is password.

 Table 3-1. Ways to access the router

How to Log On to the Wireless Router After Configuration Settings Have Been Applied

1. Connect to the wireless router by typing *http://www.routerlogin.net* in the address field of your browser, then click **Enter**.

N http://www.routerlogin.net	

Figure 3-3

2. For security reasons, the router has its own user name and password. When prompted, enter **admin** for the router user name and **password** for the router password, both in lower case letters. To change the password, see "Changing the Administrator Password" on page 6-9.

Note: The router user name and password are not the same as any user name or password you may use to log in to your Internet connection.

Enter Netv	vork Passwor	ď	? ×
?	Please type yo	our user name and password.	
20	Site:	www.routerlogin.net	
	Realm	WPN824	
	<u>U</u> ser Name	admin	
	Password	******	
	\Box Save this p	password in your password list	
		OK Can	cel

Figure 3-4

Once you have entered your user name and password, your Web browser should find the WPNT834 router and display the home page as shown in Figure 3-5 below.



NETGE SMART	AR WIZARD RangeMax ¹¹² 240 Wireless Router model WPNT834	angenax 240
 Setup Wizard 	Router Upgrade	Router Upgrade Help
Setup Basic Settings	Check for New Version from the Internet Check	You install new versions of the router's software using the <i>Router Upgrade</i> page.
Wireless Settings Content Filtering Logs	Check for New Version Upon Log-in	Click the check button to go to the NETGEAR web site to get new versions of the router software. After downloading the file, you'll need to unzip (or unstuff) it before upgrading the router.
 Block Sites Block Services Schedule 	Locate and Select the Upgrade File from your Hard Disk:	Select the check box if you want to check for new version upon log-in. For the most current documentation, go to <u>http://kbserver.netgear.com/products/WPNT834.asp</u>
 E-mail Maintenance Router Status 	Upload Cancel	IMPORTANT! Once you click Upload do NOT interrupt the process of sending the software to the router and restarting the router. If you think the process may be interrupted in service user the context Device activers.
 Attached Devices Backup Settings Set Password 		To upgrade Router software:
Router Upgrade Advanced Wireless Settings		 Go to www.NETGEAR.com and download the updated software. If not done automatically, uncompress the file. You may want to read the <i>Release Notes</i> before continuing.
 Port Forwarding / Port Triggering 		Click Browse. Locate and select the file you just downloaded and uncompressed.
WAN Setup LAN IP Setup		 Click Upload to send the software to the router. This loads the new software in the router and causes the router to restart.
Dynamic DNS Static Routes Remote Management		Note: Do not try to go online, turn off the router, shutdown the computer or do anything else to the router until the router finishes restarting! When the Ready light stops blinking, wait a few more seconds before dates or white
• UPnP	v	 Click Router Status and check the Firmware Version to verify that your Router now has the new software installed.

Figure 3-5

When the wireless router is connected to the Internet, click the **Knowledge Base** or the **Documentation** link under the Web Support menu to view support information or the documentation for the wireless router.

If you do not click **Logout**, the wireless router will wait 5 minutes after there is no activity before it automatically logs you out.

How to Bypass the Configuration Assistant

 When the wireless router is in the factory default state, type <u>http://www.routerlogin.net/basicsetting.htm</u> in the address field of your browser, then click Enter.

When the wireless router is in the factory default state, a user name and password are not required.

2. The browser will then display the WPNT834 home page shown in Figure 3-5.



Note: If the **Check for New Version Upon Log-in** checkbox is checked, the home page will be the Router Upgrade page. Otherwise, it will be the Basic Settings page.

If you do not click **Logout**, the wireless router will wait 5 minutes after there is no activity before it automatically logs you out.

How to Manually Configure Your Internet Connection

You can manually configure your router using the Basic Settings menu, shown below, or you can allow the Setup Wizard to determine your configuration as described in the previous section.

ISP Does Not Require Login

Basic Settings		Basic Settin
Does Your Internet Connection Re Yes No	equire A Login?	Does Your Inter Yes No
Account Name (If Required) Domain Name (If Required)		Internet Servico Login
Internet IP Address Get Dynamically From ISP Use Static IP Address		Password Service Name (Idle Timeout (In
IP Address IP Subnet Mask Gateway IP Address	0,0,0,0,0 255,255,255,0 0,0,0,0,0	Domain Name S © Get Automa ◯ Use These
Domain Name Server (DNS) Addre Get Automatically From ISP Use These DNS Servers Primary DNS Secondary DNS	o, o, o, o, o	Primary DN: Secondary I
Router MAC Address © Use Default MAC Address O Use Computer MAC Address O Use This MAC Address		
Apply Car	ncel Test	

ISP Does Require Login

۱g⁄ net Connection Require A Login? e Provider Other V If Required) 5 Minutes) Server (DNS) Address tically From ISP DNS Servers в 0 0 0 0 0 DNS 0 0 0 Apply Cancel Test

Figure 3-6

You can manually configure the router using the Basic Settings menu shown in Figure 3-6 using these steps:

1. Connect to the wireless router by typing *http://www.routerlogin.net* in the address field of your browser, then click **Enter**.

- 2. For security reasons, the wireless router has its own user name and password. When prompted, enter **admin** for the router user name and **password** for the router password, both in lower case letters.
- 3. Click **Basic Settings** on the Setup menu.
- 4. If your Internet connection does not require a login, click **No** at the top of the Basic Settings menu and fill in the settings according to the instructions below. If your Internet connection does require a login, click **Yes**, and skip to step 5.
 - **a.** Enter your Account Name (may also be called Host Name) and Domain Name. These parameters may be necessary to access your ISP's services such as mail or news servers.
 - **b.** Internet IP Address:

If your ISP has assigned you a permanent, fixed (static) IP address for your computer, select **Use Static IP Address**. Enter the IP address that your ISP assigned. Also enter the net mask and the Gateway IP address. The Gateway is the ISP's router to which your router will connect.

c. Domain Name Server (DNS) Address:

If you know that your ISP does not automatically transmit DNS addresses to the router during login, select **Use These DNS Servers** and enter the IP address of your ISP's Primary DNS Server. If a Secondary DNS Server address is available, enter it also.



Note: If you enter an address here, restart the computers on your network so that these settings take effect.

d. Router's MAC Address:

This section determines the Ethernet MAC address that will the router will use on the Internet port. Some ISPs will register the Ethernet MAC address of the network interface card in your computer when your account is first opened. They will then only accept traffic from the MAC address of that computer. This feature allows your router to masquerade as that computer by "cloning" its MAC address.

To change the MAC address, select **Use Computer MAC Address**. The router will then capture and use the MAC address of the computer that you are now using. You must be using the one computer that is allowed by the ISP. Or, select **Use this MAC address** and type it in here.

e. Click Apply to save your settings.

5. If your Internet connection does require a login, fill in the settings according to the instructions below. Select **Yes** if you normally must launch a login program such as Enternet or WinPOET in order to access the Internet.

Note: After you finish setting up your router, you will no longer need to launch the ISP's login program on your computer in order to access the Internet. When you start an Internet application, your router will automatically log you in.

a. Select your Internet service provider from the drop-down list.

Dasic Settings			
Does Your Internet Connection Re	quire A Login?		
• Yes			
O No			
Internet Con ice Dravider		Other	
Internet Service Provider		Other PPTP Teletra Big	Nond
Internet Service Provider ————————————————————————————————————	guest	Other PPTP Telstra Big Other	pond
Internet Service Provider Login Password	guest	Other PPTP Telstra Big Other	pond
Internet Service Provider Login Password Service Name (If Required)	guest	Other PPTP Telstra Big Other	pond

Figure 3-7



- b. The screen will change according to the ISP settings requirements of the ISP you select.
- c. Fill in the parameters for your Internet service provider.
- d. Click Apply to save your settings. Click the Test button to verify you have Internet access.

Using the Smart Setup Wizard

You can use the Smart Setup Wizard to assist with manual configuration or to verify the Internet connection. The Smart Setup Wizard is not the same as the Smart Wizard configuration assistant (as illustrated in Figure 3-1) that only appears when the router is in its factory default state. After you configure the wireless router, the Smart Wizard configuration assistant will not appear again.

To use the Smart Setup Wizard to assist with manual configuration or to verify the Internet connection settings, follow this procedure:

- 1. Connect to the wireless router by typing *http://www.routerlogin.net* in the address field of your browser, then click **Enter**.
- 2. For security reasons, the router has its own user name and password. When prompted, enter **admin** for the router user name and **password** for the router password, both in lower case letters. To change the password, see "Changing the Administrator Password" on page 6-9.



Once you have entered your user name and password, your Web browser should find the WPNT834 router and display the home page as shown in Figure 3-5 on page 3-7.

- 3. Click Setup Wizard on the upper left of the main menu.
- 4. Click Next to proceed. Input your ISP settings, as needed.
- **5.** At the end of the Setup Wizard, click the **Test** button to verify your Internet connection. If you have trouble connecting to the Internet, use the "Troubleshooting Tips" on page 3-4 to correct basic problems, or see Chapter 7, "Troubleshooting".

NETGEAR Product Registration, Support, and Documentation

Register your product at *http://www.netgear.com/register*. Registration is required before you can use our telephone support service.

Product updates and Web support are always available by going to: *http://kbserver.netgear.com/products/WPNT834.asp*.

Documentation is available on the CD and at http://kbserver.netgear.com/documentation/WPNT834.asp

When the wireless router is connected to the Internet, click the **Knowledge Base** or the **Documentation** link under the Web Support menu to view support information or the documentation for the wireless router.