

# NETGEAR®

## N600 WiFi Range Extender

Model WN2500RPv2

User Manual



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350 East Plumeria Drive  
San Jose, CA 95134  
USA

## N600 WiFi Range Extender

### Support

Thank you for selecting NETGEAR products.

After installing your device, locate the serial number on the label of your product and use it to register your product at <https://my.netgear.com>. You must register your product before you can use NETGEAR telephone support. NETGEAR recommends registering your product through the NETGEAR website. For product updates and web support, visit <http://support.netgear.com>.

Phone (US & Canada only): 1-888-NETGEAR.

Phone (Other Countries): Check the list of phone numbers at <http://support.netgear.com/general/contact/default.aspx>.

### Compliance

For regulatory compliance information, visit <http://www.netgear.com/about/regulatory>.

See the regulatory compliance document before connecting the power supply.

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# Overview

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# 1

This user manual is for the NETGEAR® N600 WiFi Range Extender, model WN2500RPv2, which is referred to as *the extender*.

This chapter covers the following topics:

- *Unpack Your Extender*
- *Front Panel LEDs and Right Panel WPS Button*
- *Rear Panel Ports, Buttons, and Connector*
- *Attach the Feet*
- *When to Use Your Extender*
- *How the Extender Works*

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**Note:** For more information about the topics covered in this manual, visit the support website at [support.netgear.com](http://support.netgear.com).

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**Note:** Firmware updates with new features and bug fixes are made available from time to time on [downloadcenter.netgear.com](http://downloadcenter.netgear.com). Some products can regularly check the site and download new firmware, or you can check for and download new firmware manually. If the features or behavior of your product does not match what is described in this guide, you might need to update your firmware.

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**Note:** In this manual, the terms *wireless* and *WiFi* are interchangeable.

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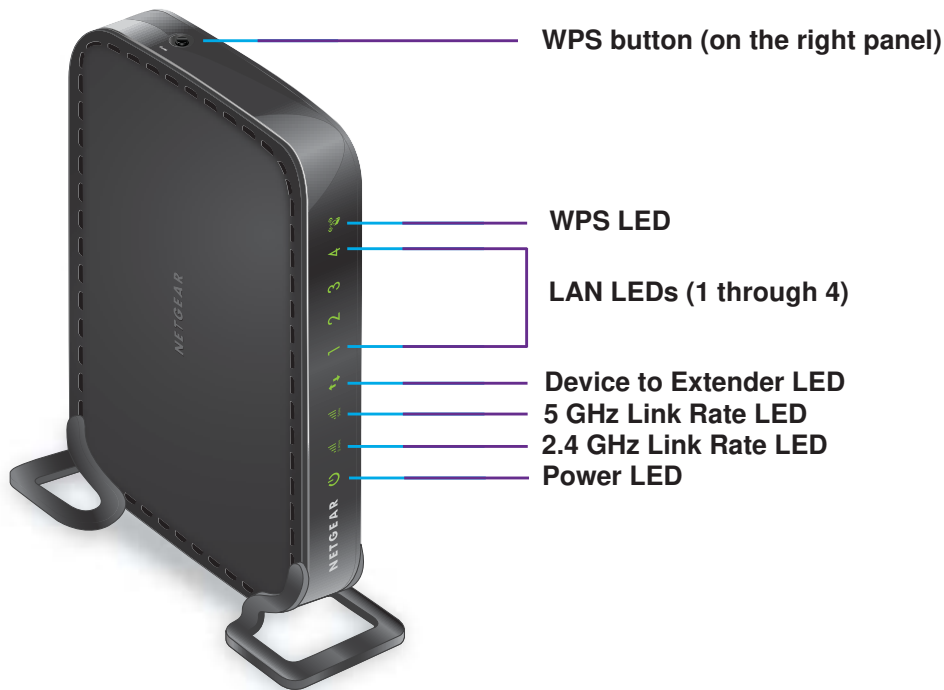
## Unpack Your Extender

Your box contains the following items:

- N600 WiFi Range Extender
- Power adapter
- Snap-on feet
- Installation guide

## Front Panel LEDs and Right Panel WPS Button











Use the LEDs during installation to find the best location for the extender or to monitor the extender performance. The following figure shows the extender in upright position, with the feet attached. (For information about attaching the feet, see [Attach the Feet](#) on page 8.)



**Figure 1. Front panel LEDs and right panel WPS button**

The following table describes the LEDs.

Table 1. Front panel LEDs

LED		Description
Power LED		<b>Solid green.</b> The extender is powered on.
		<b>Solid amber.</b> The extender is booting.
		<b>Blinking amber.</b> The firmware is upgrading or the <b>Restore Factory Settings</b> button was pressed.
		<b>Blinking green.</b> The firmware is corrupt. Visit <a href="http://support.netgear.com">support.netgear.com</a> .
		<b>Off.</b> The extender is powered off.
2.4 GHz Link Rate LED		<b>Green.</b> The 2.4 GHz WiFi connection between the extender and the WiFi router is optimum.
		<b>Amber.</b> The 2.4 GHz WiFi connection between the extender and the WiFi router is good.
		<b>Red.</b> The 2.4 GHz WiFi connection between the extender and the WiFi router is poor.
		<b>Off.</b> The extender and the WiFi router do not have a 2.4 GHz WiFi connection.
5 GHz Link Rate LED		<b>Green.</b> The 5 GHz WiFi connection between the extender and the WiFi router is optimum.
		<b>Amber.</b> The 5 GHz WiFi connection between the extender and the WiFi router is good.
		<b>Red.</b> The 5 GHz WiFi connection between the extender and the WiFi router is poor.
		<b>Off.</b> The extender and the WiFi router do not have a 5 GHz WiFi connection.
Device to Extender LED		<b>Green.</b> The extender is connected to a computer or WiFi device.
		<b>Off.</b> The extender is not connected to a computer or WiFi device.
LAN LEDs (1 through 4)		<b>Green.</b> An Ethernet device is connected to the LAN port.
		<b>Off.</b> No Ethernet device is connected to the LAN port.
WPS LED		<b>Solid green.</b> WiFi security is enabled (WPA or WPA2).
		<b>Blinking green.</b> A WPS connection is in progress.
		<b>Off.</b> WiFi security is not enabled.

## Rear Panel Ports, Buttons, and Connector

The following figure shows the ports, buttons, and connector on the rear panel of the extender. The figure shows the extender in upright position, with the feet attached. (For information about attaching the feet, see [Attach the Feet](#) on page 8.)

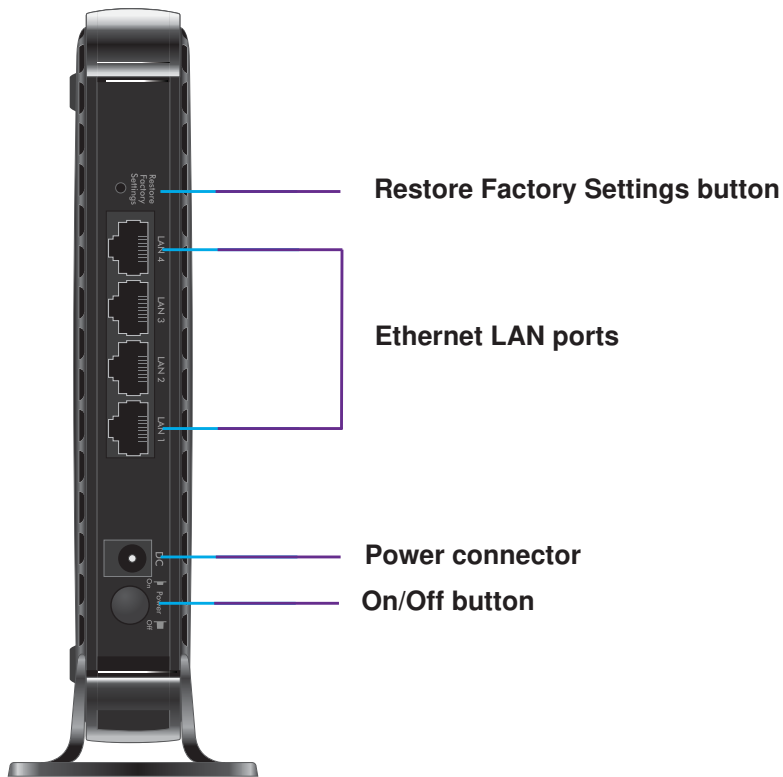


Figure 2. Rear panel

## Attach the Feet

If you prefer to place the extender in upright (vertical) position, attach the feet that come with the extender.

Although the extender functions well in either horizontal or vertical position, a horizontal position might give a better performance.

### ➤ To attach the feet:

1. Hold the extender in upright position with the left side of the extender pointing down.
2. Snap the feet onto the extender.





Figure 3. Attaching the feet

## When to Use Your Extender

NETGEAR recommends that you connect to the extender only when your existing home network connection is poor. Data traffic routed through the extender is inherently slower than traffic routed directly from the network.

NETGEAR recommends that you connect through the extender network only when the WiFi device is in a “dead zone” where connection from the existing network is poor or nonexistent.

## How the Extender Works

The extender works like a bridge between a WiFi router (or a WiFi access point) and a WiFi device outside the range of the WiFi router. The extender has two main jobs:

- The extender connects to a WiFi network that is up and running.

When the extender connects over WiFi to an existing network, it functions as a network client, similar to how a WiFi device connects to a network.

- The extender acts as an access point for WiFi devices.

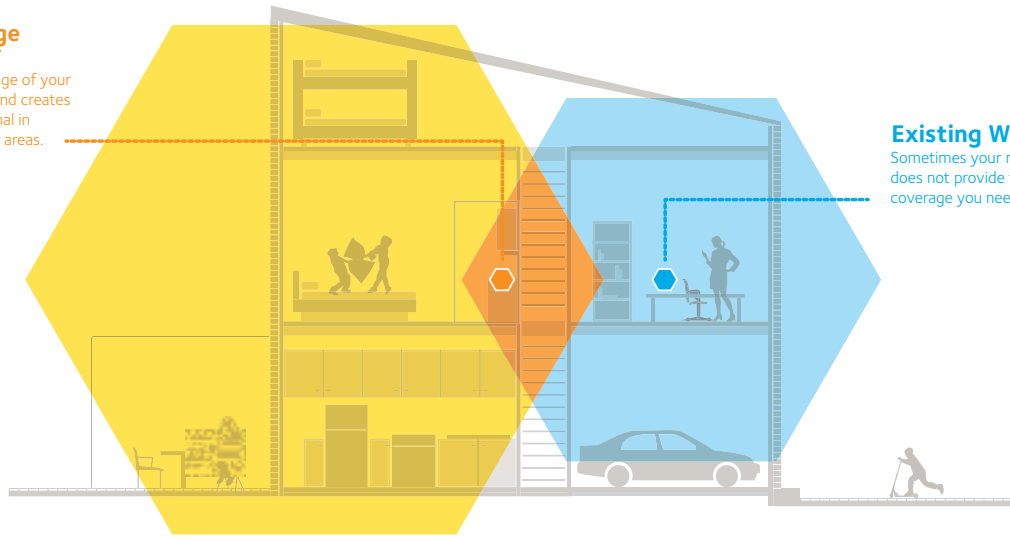
The extender has its own WiFi network that WiFi devices can join. In its role as an access point, the extender performs tasks that WiFi routers do, such as broadcasting its network name (SSID).

The extender must do each of these jobs so that both ends of the bridge are in place.

## N600 WiFi Range Extender

### WiFi Range Extender

Boosts the range of your existing WiFi and creates a stronger signal in hard-to-reach areas.



### Existing WiFi

Sometimes your router does not provide the WiFi coverage you need.

Figure 4. Range extender in a home

## 2. Get Started

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# 2

This chapter covers the following topics:

- *How to Position the Extender*
- *Connect the Extender to Your WiFi Router*
- *Connect the Extender with WPS to a WiFi Network*
- *Access the Extender over WiFi and Use Smart Setup*
- *Access the Extender over Ethernet and Use Smart Setup*

## How to Position the Extender

The ideal location to place the extender is halfway between your WiFi router and your WiFi device.



**Figure 5. Range extender location**

The best connection is established with a clear line of sight between the extender and the WiFi router and a clear line of sight between the extender and the WiFi device that you are using. If a thick wall or other materials block this straight path, move the extender to a different location halfway between the WiFi device and the WiFi router.

Depending on the location that you decide on, either place the extender horizontally or attach the feet and place the extender vertically. Although the extender functions well in either horizontal or vertical position, a horizontal position might give a better performance.

When you make the initial connection between the extender and the WiFi router, place the extender close to the WiFi router. After you have established a connection between the extender and the WiFi router, move the extender to the location where you intend to use it. (You might need to unplug the extender, plug it in again at its new location, and restart it.) Use the Link Rate LEDs on the extender to choose the location where the connection between the extender and the WiFi router is optimal. These steps are described in detail in the sections that describe how to connect the extender to a WiFi network.

## Connect the Extender to Your WiFi Router

To connect the extender to your WiFi router and find the best location for the extender, use *one* of the following methods:

- **WPS.** Use the extender's WPS button to establish a WiFi connection between the extender and the WiFi router (see [Connect the Extender with WPS to a WiFi Network](#)). Use this method if your WiFi router supports Wi-Fi Protected Setup (WPS).
- **WiFi.** Use a computer or WiFi device to join the extender's default WiFi network, then launch a web browser to set up the connection between the extender and a WiFi network (see [Access the Extender over WiFi and Use Smart Setup](#)). Use this method if your WiFi router does not support WPS.
- **Ethernet.** Use an Ethernet cable to connect a computer to the extender, then launch a web browser to set up the connection between the extender and a WiFi network (see [Access the Extender over Ethernet and Use Smart Setup](#)). Use this method if you have difficulty establishing a WiFi connection to the extender.

## Connect the Extender with WPS to a WiFi Network

The easiest way to connect the extender to a WiFi network is by using Wi-Fi Protected Setup (WPS). For this method to be successful, your WiFi router must support WPS.

If your WiFi router does not support WPS, see one of the following sections:

- [Access the Extender over WiFi and Use Smart Setup](#) on page 15
- [Access the Extender over Ethernet and Use Smart Setup](#) on page 22

WPS lets you join a secure WiFi network without typing the network name and password. The WPS button is a physical button on the right side panel of the extender. Your WiFi router might have a physical WPS button, a software WPS button, or both.

WPS does not support WEP network security. If you are using WEP security, follow the instructions in [Access the Extender over WiFi and Use Smart Setup](#) on page 15.

### ➤ To connect the extender with WPS to a WiFi router and find the best location for the extender:

1. Place the extender close to the WiFi router.

**Note:** In a later step in this procedure, after you have established a connection to the WiFi router, you can place the extender at its permanent location.

2. Plug the extender into an electrical outlet.
3. If necessary, press the **Power** button.

The power LED lights amber during startup process. After about one minute, the power LED turns green and the startup process is complete.

You are now ready to connect the extender to your WiFi router.

4. Press the **WPS** button on the right side panel of the extender.

The WPS LED  blinks green for two minutes.

5. Within two minutes, press the **WPS** button on your WiFi router.

After a few seconds, the extender connects to your existing WiFi network. Because you placed the extender close to the WiFi router, the 2.4 GHz Link Rate LED on the extender lights green, indicating a good connection between the WiFi router and the extender.

If the 2.4 GHz Link Rate LED does not light green, try [Step 4](#) and [Step 5](#) again. If it still does not light green, see [Access the Extender over WiFi and Use Smart Setup](#).







6. If your WiFi router supports the 5 GHz band (not all routers do), and you want to extend that band, repeat [Step 4](#) and [Step 5](#) and check that the 5 GHz Link Rate LED lights green to confirm the connection.
7. Now that the extender is connected to the WiFi router, move it to a location where you can boost your WiFi range.







The location you choose must be within the range of your existing WiFi router network.

- Plug the extender into an electrical outlet at the new location and restart the extender.

Unless the extender is outside the range of your WiFi router, the extender connects automatically to the WiFi router.

The Link Rate LEDs help you choose a spot where the extender-to-router connection is optimal. The following tables describe how the LEDs show the quality of the connection.

2.4 GHz LED Status	LED Color	Performance
Both the Link Rate LED and the Device to Extender LED are green.	 and 	The extender provides the best performance.
The Link Rate LED is amber and the Device to Extender LED is green.	 and 	The extender provides a workable performance.
The Link Rate LED is red.	 and 	The extender provides a poor performance.
The Link Rate LED is off.		The extender cannot function.

5 GHz LED Status	LED Color	Performance
Both the Link Rate LED and the Device to Extender LED are green.	 and 	The extender provides the best performance.
The Link Rate LED is amber and the Device to Extender LED is green.	 and 	The extender provides a workable performance.
The Link Rate LED is red.	 and 	The extender provides a poor performance.
The Link Rate LED is off.		The extender cannot function.

If the Link Rate LED is off, the extender cannot connect to the WiFi router. If the Link Rate LED is red, the extender has a poor connection to the WiFi router.

- If the extender has no connection or a poor connection, move the extender closer to your WiFi router and try again until the 2.4 GHz or 5 GHz Link Rate LED is green, or at least amber.
- Use a WiFi network manager on the computer or mobile device to connect to the extender's newly created WiFi network.

By default, the extender adds `_2GEXT` to the end of the 2.4 GHz network name and `_5GEXT` to the end of the 5 GHz network name, for example:

- Existing network name.** *MyNetworkName*
- New extended 2.4 GHz network name.** *MyNetworkName\_2GEXT*
- New extended 5 GHz network name.** *MyNetworkName\_5GEXT*

- Select the new network and use your WiFi router password to connect.

You are now using your extended WiFi network.

## Access the Extender over WiFi and Use Smart Setup

If your WiFi router does not support WPS, access the extender over WiFi and use the browser-based NETGEAR genie® Smart Setup to connect the extender to an existing WiFi network.

The extender has a default NETGEAR\_EXT WiFi network name (SSID) in the 2.4 GHz band so you can access it over WiFi. After you have used Smart Setup to connect the extender to an existing WiFi network, the extender changes its default NETGEAR\_EXT network name to the name of the existing WiFi network and adds \_2GEXT to the end of the 2.4 GHz network name and \_5GEXT to the end of the 5 GHz network name, for example:

- **Existing network name.** *MyNetworkName*
- **New extended 2.4 GHz network name.** *MyNetworkName\_2GEXT*
- **New extended 5 GHz network name.** *MyNetworkName\_5GEXT*

### ➤ To access the extender over WiFi and use Smart Setup to connect the extender to an existing WiFi network:

1. Place the extender close to the WiFi router.

**Note:** In a later step in this procedure, after you have established a connection to the WiFi router, you can place the extender at its permanent location.

2. Plug the extender into an electrical outlet.
3. If necessary, press the **Power** button.

The power LED lights amber during startup process. After about one minute, the power LED turns green and the startup process is complete.


4. Make sure that your computer is not connected to an Ethernet network.

If the computer is already connected to an Ethernet network, you might not be able to connect to the extender.

5. Open a WiFi network manager on your computer or mobile device to find and connect to the default NETGEAR\_EXT WiFi network of the extender.

You can use any WiFi network utility on a computer, tablet, or smartphone to find and connect to the NETGEAR\_EXT WiFi network of the extender. The following figure shows an example of a WiFi network utility.



After the connection with the computer or mobile device is established, the Device to Extender LED  lights solid green.

6. Open a web browser window from the same computer or mobile device.

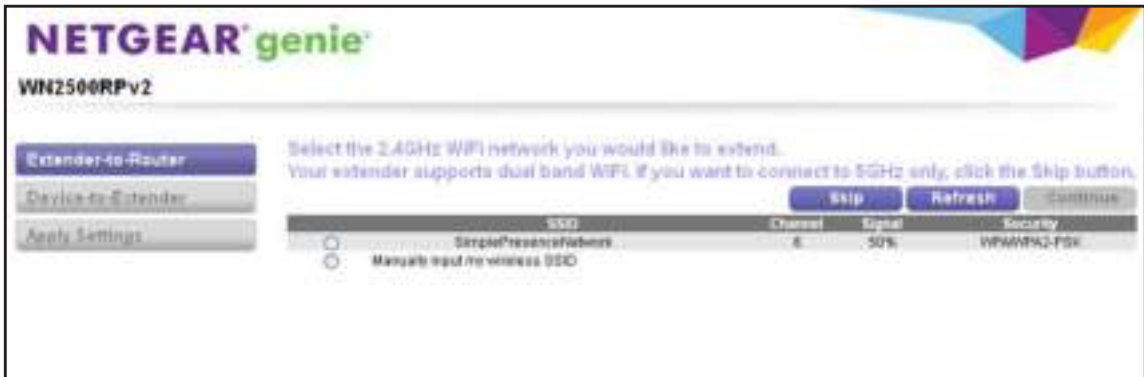
The browser takes you directly to the NETGEAR genie Smart Setup start screen.

**Note:** If you are not automatically directed to the NETGEAR genie Smart Setup start screen, go to [www.mywifiext.net](http://www.mywifiext.net), and enter **admin** for the user name and **password** for the password.



Smart Setup searches for existing WiFi networks automatically and displays the networks in the 2.4 GHz band.





7. Select a 2.4 GHz WiFi network to extend, and click the **Continue** button.



8. Enter the security settings for the existing 2.4 GHz network:
  - If the network uses WPA-PSK, WPA2-PSK, or a combination of these options, do the following:
    - a. In the **Password (network key)** field, type the network passphrase (also called a password or network key).
    - b. Click the **Continue** button.
  - If the network uses WEP, do the following:
    - a. From the **Encryption Strength** menu, select the encryption strength (**64 bit** or **128 bit**).
    - b. Specify the active key by selecting the **Key 1**, **Key 2**, **Key 3**, or **Key 4** radio button (only one key can be the active key) and type the value for the key.  
For 64-bit WEP, type 10 hexadecimal digits (any combination of 0–9, A–F). For 128-bit WEP, type 26 hexadecimal digits. The key values are not case-sensitive.
    - c. Click the **Continue** button.

If Smart Setup detects any networks in the 5 GHz band, it displays them.



9. Select a 5 GHz WiFi network to extend, and click the **Continue** button.

**Note:** If your router does not support the 5 GHz band (not all routers do) or you want to set up the 5 GHz extender network later, click the **Skip** button, and go to *Step 11* on page 19.



10. Enter the security settings for the existing 5 GHz network:
  - If the network uses WPA-PSK, WPA2-PSK, or a combination of these options, do the following:
    - a. In the **Password (network key)** field, type the network passphrase (also called a password or network key).
    - b. Click the **Continue** button.
  - If the network uses WEP, do the following:
    - a. From the **Encryption Strength** menu, select the encryption strength (**64 bit** or **128 bit**).
    - b. Specify the active key by selecting the **Key 1**, **Key 2**, **Key 3**, or **Key 4** radio button (only one key can be the active key) and type the value for the key.  
For 64-bit WEP, type 10 hexadecimal digits (any combination of 0–9, A–F). For 128-bit WEP, type 26 hexadecimal digits. The key values are not case-sensitive.
    - c. Click the **Continue** button.

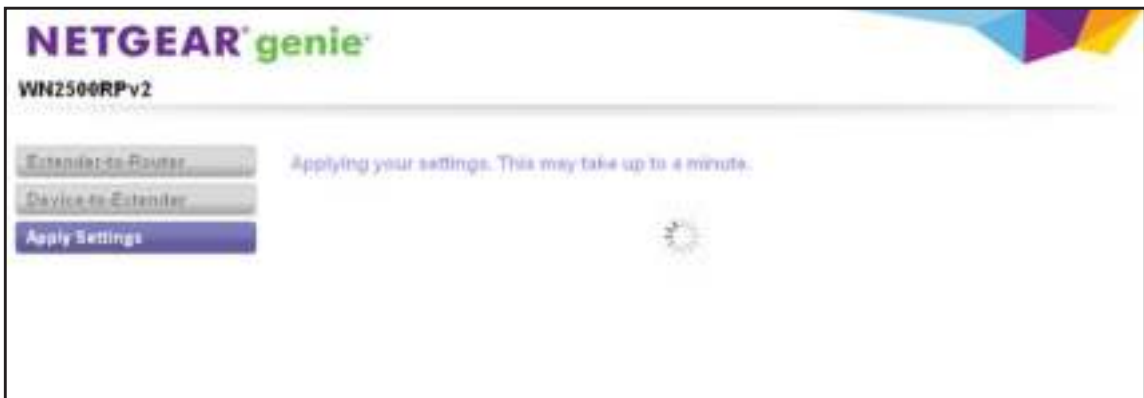
Smart Setup displays the network names and adds `_2GEXT` to the end of the 2.4 GHz network name and `_5GEXT` to the end of the 5 GHz network name.



11. Use the default extension names, or, in the **Name (2.4GHz SSID)** field, and, if you have set up a 5 GHz network, in the **Name (5GHz SSID)** field, enter new network names for your extender WiFi networks, and click the **Continue** button.

**Note:** If you do not want to use the same security modes for your extender networks as you use for your existing networks, clear the check box before you click the **Continue** button. You then can configure the security settings for the extender networks. However, you can also change the security settings later.

The extender applies the settings.



12. Wait a couple of minutes while the extender creates the WiFi networks.

When the extender is ready, Smart Setup summarizes the extender networks.



13. Use a WiFi network manager on the computer or mobile device to connect to the extender's newly created 2.4 GHz or 5 GHz WiFi network.

**Note:** Unless you entered a new network name in [Step 11](#), the extender changes its default NETGEAR\_EXT network name to the name of the WiFi network to which you connected the extender and adds \_2GEXT to the end of the 2.4 GHz network name and \_5GEXT to the end of the 5 GHz network name.

**Note:** If your computer or mobile device cannot join the new WiFi network of the extender, see [Improve the Connection Between the Extender and the WiFi Router](#) on page 83.

14. Select the **My wireless devices are connected to the Extender network** check box, and click the **Continue** button.

Smart Setup describes the color of the Link Rate LED on the front of the extender. Because you placed the extender close the WiFi router, the Link Rate LED is green.



15. Click the **Finish** button.

A pop-up screen displays.

16. To bookmark the URL of the extender, click the **OK** button.

17. If you are prompted to enter a user name and password, type **admin** for the user name and **password** for the password.

The NETGEAR registration screen displays. You are now online.

18. To register the extender, enter your information in the fields onscreen and click the **Register** button.

A message displays, congratulating you that you have extended your network.

19. Close your browser.







20. Now that the extender is connected to the WiFi router and you can connect a computer or mobile device to the extender's WiFi network, move it to a location where you can boost your WiFi range.







The location you choose must be within the range of your existing WiFi router network.

21. Plug the extender into an electrical outlet at the new location and restart the extender.

Unless the extender is outside the range of your WiFi router, the extender connects automatically to the WiFi router.

The Link Rate LEDs help you choose a spot where the extender-to-router connection is optimal. The following tables describe how the LEDs show the quality of the connection.

2.4 GHz LED Status	LED Color	Performance
Both the Link Rate LED and the Device to Extender LED are green.	 and  2.4GHz	The extender provides the best performance.
The Link Rate LED is amber and the Device to Extender LED is green.	 and  2.4GHz	The extender provides a workable performance.
The Link Rate LED is red.	 and  2.4GHz	The extender provides a poor performance.
The Link Rate LED is off.		The extender cannot function.

5 GHz LED Status	LED Color	Performance
Both the Link Rate LED and the Device to Extender LED are green.	 and  5GHz	The extender provides the best performance.
The Link Rate LED is amber and the Device to Extender LED is green.	 and  5GHz	The extender provides a workable performance.
The Link Rate LED is red.	 and  2.4GHz	The extender provides a poor performance.
The Link Rate LED is off.		The extender cannot function.

If the Link Rate LED is off, the extender cannot connect to the WiFi router. If the Link Rate LED is red, the extender has a poor connection to the WiFi router.

22. If the extender has no connection or a poor connection, move the extender closer to your WiFi router and try again until the 2.4 GHz or 5 GHz Link Rate LED is green, or at least amber.
23. Use a WiFi network manager on the computer or mobile device to reconnect to the extender's WiFi network.

**Note:** Unless you entered a new network name in *Step 11*, the extender changes its default NETGEAR\_EXT network name to the name of the WiFi network to which you connected the extender and adds \_2GEXT to the end of the 2.4 GHz network name and \_5GEXT to the end of the 5 GHz network name.

24. Select the new network and use your WiFi router password to connect.

You are now using your extended WiFi network.

## Access the Extender over Ethernet and Use Smart Setup

If your WiFi router does not support WPS, you can use an Ethernet cable to connect your computer to one of the LAN ports of the extender. Then use the browser-based NETGEAR genie Smart Setup to connect the extender to an existing WiFi network.

After you have used Smart Setup to connect the extender to an existing WiFi network, the extender changes its default NETGEAR\_EXT WiFi network name (SSID) in the 2.4 GHz band to the name of the existing WiFi network and adds \_2GEXT to the end of the 2.4 GHz network name and \_5GEXT to the end of the 5 GHz network name, for example:

- **Existing network name.** *MyNetworkName*
- **New extended 2.4 GHz network name.** *MyNetworkName\_2GEXT*
- **New extended 5 GHz network name.** *MyNetworkName\_5GEXT*

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**Note:** After you have set up the extender, you can also connect Ethernet-enabled devices such as gaming consoles and printers to the Ethernet LAN ports of the extender. For more information, see [Connect Ethernet-Enabled Devices](#) on page 66.

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- **To access the extender from a computer over Ethernet and use Smart Setup to connect the extender to an existing WiFi network:**

1. Place the extender close to the WiFi router.

**Note:** In a later step in this procedure, after you have established a connection to the WiFi router, you can place the extender at its permanent location.

2. Plug the extender into an electrical outlet.
3. If necessary, press the **Power** button.

The power LED lights amber during startup process. After about one minute, the power LED turns green and the startup process is complete.

4. Make sure that your computer is not connected to a WiFi network or Ethernet network.  
If the computer is already connected to a WiFi network or Ethernet network, you might not be able to connect to the extender.
5. Connect your computer to the extender with an Ethernet cable.  
You can use any of the four Ethernet LAN ports of the extender.



### CAUTION:

Do not use an Ethernet cable to connect the extender to a WiFi router. If you do so, the extender does not work because it is designed to use only a WiFi connection to a WiFi router.

6. If you have trouble connecting, try the following:
  - Wait a couple of minutes.  
If you start your computer, connect the Ethernet cable to the extender, and launch your browser quickly, the computer might still need a couple of minutes to recognize the Ethernet LAN connection before you can connect.
  - Make sure that your Ethernet cable is securely connected to the extender and the computer, and that the extender Device to Extender Connection LED lights.  
If the LED is not lit, reconnect the Ethernet cable, and relaunch your Internet browser.
7. Open a web browser window from the same computer.

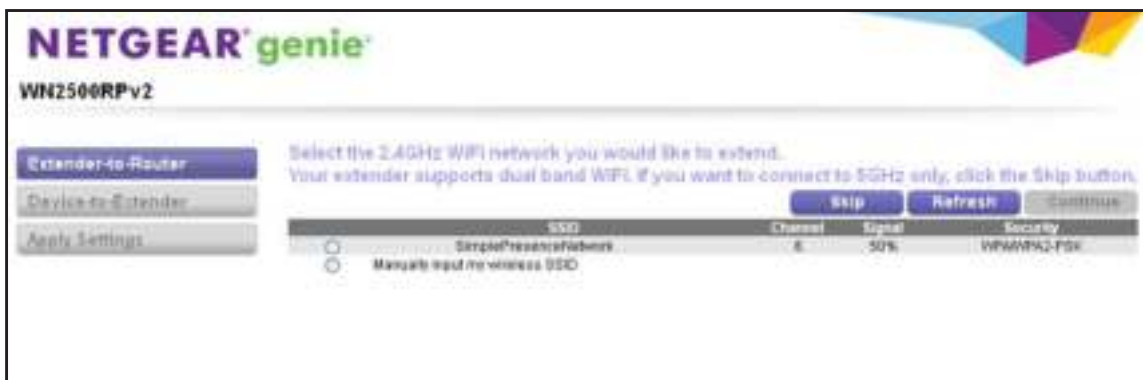


The browser takes you directly to the NETGEAR genie Smart Setup start screen.

**Note:** If you are not automatically directed to the NETGEAR genie Smart Setup start screen, go to [www.mywifiext.net](http://www.mywifiext.net), and enter **admin** for the user name and **password** for the password.



Smart Setup searches for existing WiFi networks automatically and displays the networks in the 2.4 GHz band.



8. Select a 2.4 GHz WiFi network to extend, and click the **Continue** button.





9. Enter the security settings for the existing 2.4 GHz network:
  - If the network uses WPA-PSK, WPA2-PSK, or a combination of these options, do the following:
    - a. In the **Password (network key)** field, type the network passphrase (also called a password or network key).
    - b. Click the **Continue** button.
  - If the network uses WEP, do the following:
    - a. From the **Encryption Strength** menu, select the encryption strength (**64 bit** or **128 bit**).
    - b. Specify the active key by selecting the **Key 1**, **Key 2**, **Key 3**, or **Key 4** radio button (only one key can be the active key) and type the value for the key.  
 For 64-bit WEP, type 10 hexadecimal digits (any combination of 0–9, A–F). For 128-bit WEP, type 26 hexadecimal digits. The key values are not case-sensitive.
    - c. Click the **Continue** button.

If Smart Setup detects any networks in the 5 GHz band, it displays them.



10. Select a 5 GHz WiFi network to extend, and click the **Continue** button.

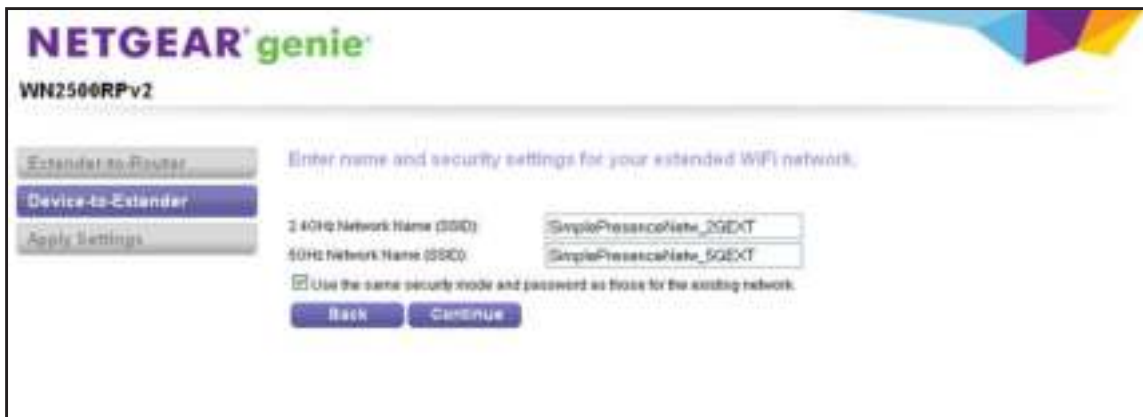
**Note:** If your router does not support the 5 GHz band (not all routers do) or you want to set up the 5 GHz extender network later, click the **Skip** button, and go to [Step 12](#) on page 26.



11. Enter the security settings for the existing 5 GHz network:

- If the network uses WPA-PSK, WPA2-PSK, or a combination of these options, do the following:
  - a. In the **Password (network key)** field, type the network passphrase (also called a password or network key).
  - b. Click the **Continue** button.
- If the network uses WEP, do the following:
  - a. From the **Encryption Strength** menu, select the encryption strength (**64 bit** or **128 bit**).
  - b. Specify the active key by selecting the **Key 1**, **Key 2**, **Key 3**, or **Key 4** radio button (only one key can be the active key) and type the value for the key.  
 For 64-bit WEP, type 10 hexadecimal digits (any combination of 0–9, A–F). For 128-bit WEP, type 26 hexadecimal digits. The key values are not case-sensitive.
  - c. Click the **Continue** button.

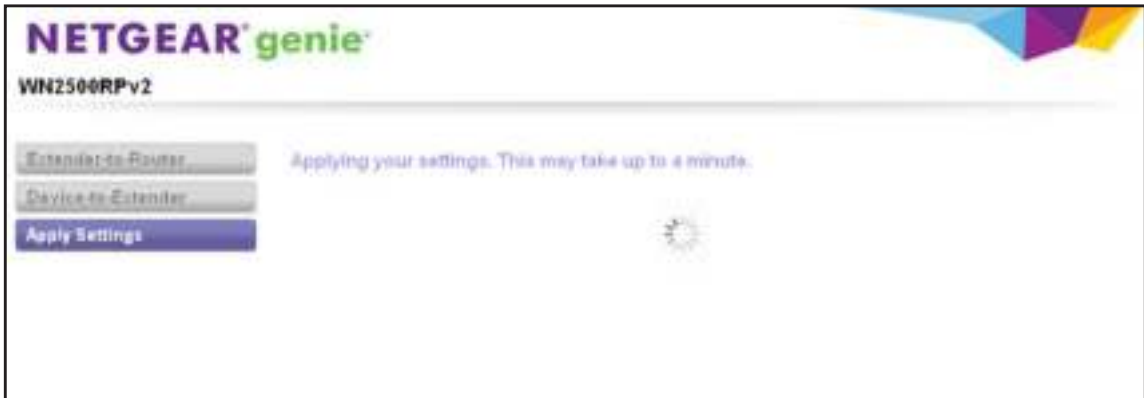
Smart Setup displays the network names and adds **\_2GEXT** to the end of the 2.4 GHz network name and **\_5GEXT** to the end of the 5 GHz network name.



12. Use the default extension names, or, in the **Name (2.4GHz SSID)** field, and, if you have set up a 5 GHz network, in the **Name (5GHz SSID)** field, enter new network names for your extender WiFi networks, and click the **Continue** button.

**Note:** If you do not want to use the same security modes for your extender networks as you use for your existing networks, clear the check box before you click the **Continue** button. You then can configure the security settings for the extender networks. However, you can also change the security settings later.

The extender applies the settings.



13. Wait a couple of minutes while the extender creates the WiFi networks.

When the extender is ready, Smart Setup summarizes the extender networks.



14. Use a WiFi network manager on the computer or mobile device to connect to the extender's newly created 2.4 GHz or 5 GHz WiFi network.

**Note:** Unless you entered a new network name in [Step 12](#), the extender changes its default NETGEAR\_EXT network name to the name of the WiFi network to which you connected the extender and adds \_2GEXT to the end of the 2.4 GHz network name and \_5GEXT to the end of the 5 GHz network name.

**Note:** If your computer or mobile device cannot join the new WiFi network of the extender, see [Improve the Connection Between the Extender and the WiFi Router](#) on page 83.

15. Select the **My wireless devices are connected to the Extender network** check box, and click the **Continue** button.

Smart Setup describes the color of the Link Rate LED on the front of the extender. Because you placed the extender close the WiFi router, the Link Rate LED is green.



16. Click the **Finish** button.

A pop-up screen displays.

17. To bookmark the URL of the extender, click the **OK** button.

18. If you are prompted to enter a user name and password, type **admin** for the user name and **password** for the password.

The NETGEAR registration screen displays. You are now online.

19. To register the extender, enter your information in the fields onscreen and click the **Register** button.

A message displays, congratulating you that you have extended your network.

20. Close your browser.

21. Disconnect the Ethernet cable from the computer and the extender.





22. Now that the extender is connected to the WiFi router and you can connect a computer or mobile device to the extender's WiFi network, move it to a location where you can boost your WiFi range.

The location you choose must be within the range of your existing WiFi router network.



23. Plug the extender into an electrical outlet at the new location and restart the extender.







Unless the extender is outside the range of your WiFi router, the extender connects automatically to the WiFi router.

The Link Rate LEDs help you choose a spot where the extender-to-router connection is optimal. The following tables describe how the LEDs show the quality of the connection.

2.4 GHz LED Status	LED Color	Performance
Both the Link Rate LED and the Device to Extender LED are green.	 and  2.4GHz	The extender provides the best performance.
The Link Rate LED is amber and the Device to Extender LED is green.	 and  2.4GHz	The extender provides a workable performance.

## N600 WiFi Range Extender

2.4 GHz LED Status	LED Color	Performance
The Link Rate LED is red.	 and 	The extender provides a poor performance.
The Link Rate LED is off.		The extender cannot function.

5 GHz LED Status	LED Color	Performance
Both the Link Rate LED and the Device to Extender LED are green.	 and 	The extender provides the best performance.
The Link Rate LED is amber and the Device to Extender LED is green.	 and 	The extender provides a workable performance.
The Link Rate LED is red.	 and 	The extender provides a poor performance.
The Link Rate LED is off.		The extender cannot function.

If the Link Rate LED is off, the extender cannot connect to the WiFi router. If the Link Rate LED is red, the extender has a poor connection to the WiFi router.

24. If the extender has no connection or a poor connection, move the extender closer to your WiFi router and try again until the 2.4 GHz or 5 GHz Link Rate LED is green, or at least amber.
25. Use a WiFi network manager on the computer or mobile device to reconnect to the extender's WiFi network.

**Note:** Unless you entered a new network name in [Step 12](#), the extender changes its default NETGEAR\_EXT network name to the name of the WiFi network to which you connected the extender and adds \_2GEXT to the end of the 2.4 GHz network name and \_5GEXT to the end of the 5 GHz network name.

26. Select the new network and use your WiFi router password to connect.

You are now using your extended WiFi network.

## 3 Manage the Extender Network and Security Settings

---

This chapter covers the following topics:

- *Log In to the Extender After Initial Setup*
- *Change the Password*
- *Connect the Extender to a WiFi Network Without Using Smart Setup*
- *Connect the Extender to a Hidden WiFi Network*
- *Use WPS to Add a Device to the Extender's WiFi Network*
- *Manage the Extender WiFi Settings*
- *Change the Extender IP Address*
- *Manage Advanced WiFi and WPS Settings*
- *Manage a WiFi Access List*
- *Set the Operating Mode to FastLane Technology*
- *Run Smart Setup Again After Initial Setup*
- *Connect Ethernet-Enabled Devices*

## Log In to the Extender After Initial Setup

You can log in to the extender to view or change the extender's settings.

If you connect to the extender before it has been set up, the browser automatically goes to <http://www.mywifiext.net> and displays the NETGEAR genie Smart Setup screens, which step you through the setup process. For more information, see [Access the Extender over WiFi and Use Smart Setup](#) on page 15 or [Access the Extender over Ethernet and Use Smart Setup](#) on page 22.

➤ **To log in to the extender after initial setup:**

1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.
2. In the address field of your browser, enter **www.mywifiext.net**.  
You are prompted to enter a user name and password.
3. Type **admin** for the user name and **password** for the password.

---

**Note:** NETGEAR recommends that you set a more secure password after you log in. For more information, see [Change the Password](#) on page 33.

---

The Status screen displays (see the following figure). Menu selections display on the left. The Status screen shows the current settings for the extender. The firmware version displays below the language menu.

For more information about the Status screen, see [View the Status and Traffic Statistics of the Extender](#) on page 74.

For information about upgrading firmware, see [Update the Firmware](#) on page 73.

4. To change your language, select a language from the menu in the top right of the screen.  
By default, the language selection is **Auto**, which means that the extender uses the language that it detects from the browser that you use.

**NETGEAR genie**  
WN2500RPv2

Auto | English  
Firmware Version: V1.0.0.25\_1.0.17

**Smart Setup**  
Add WPS Client  
Settings  
Maintenance  
**Status**  
Attached Devices  
Backup Settings  
Set Password  
Firmware Update  
Advanced

**Status**

**Hardware Information**

Hardware Version	WN2500RPv2
Firmware Version	V1.0.0.25_1.0.17
GUI Language Version	V1.0.0.24_2.1.30.1
Region	United States

**Connection Status to Existing Network (2.4GHz)**

Name (SSID)	SimplePresenceofNetwork
Link Rate	144 Mbps
Connection Status	Connected

**Connection Status to Existing Network (5GHz)**

Name (SSID)	SimplePresenceofNetwork
Link Rate	216 Mbps
Connection Status	Connected

**Extender IP Info**

MAC Address	C4:04:10:00:00:F1
IP Address	192.168.100.170
DHCP Client	On
IP Subnet Mask	255.255.255.0
Gateway IP Address	192.168.100.1
Default Name Server	192.168.100.1

**Extender Wireless Setting (2.4GHz)**

Name (SSID)	SimplePresenceofNetw_20E1D
Channel	Auto (6)
Wireless mode	144 Mbps
Wireless AP	On
Broadcast Name	On
WiFi Protected Setup	Configured

**Extender Wireless Setting (5GHz)**

Name (SSID)	SimplePresenceofNetw_50E1D
Channel	149(P)-153(D)
Wireless mode	300 Mbps
Wireless AP	On
Broadcast Name	On
WiFi Protected Setup	Configured

Show Statistics

Help Center | Show Hide Help Center

Help & Support | Documentation | Online Support | PDF GPL

SEARCH HELP | Enter Search Item



## Change the Password

The user name to access the extender is admin, and its default password is password. NETGEAR strongly recommends that you set a more secure password.

➤ **To change the password for the extender:**

1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.

2. In the address field of your browser, enter **www.mywifiext.net**.

You are prompted to enter a user name and password.

3. Type **admin** for the user name and **password** for the password.

If you already changed the password and want to change it again, type your personalized password.

4. Select **Maintenance > Set Password**.

The screenshot shows the 'Set Password' page in the NETGEAR extender's web interface. On the left is a navigation menu with options: Smart Setup, Add WPS Client, Settings, Maintenance (selected), Status, Attached Devices, Backup Settings, Set Password (highlighted), Customizable, and Advanced. The main content area is titled 'Set Password' and contains three input fields: 'Old Password', 'Set Password', and 'Repeat New Password'. At the top right of the main area are two buttons: 'Apply' (green) and 'Cancel' (purple).

5. Type the old password.

6. Type the new password twice.

7. Click the **Apply** button.

Your settings are saved.

## Connect the Extender to a WiFi Network Without Using Smart Setup

If you want to change the extender connection to another WiFi network, you can do so without using NETGEAR genie Smart Setup.

---

**Note:** You cannot use the following procedure to change the network names or security options for your extender WiFi networks. For information about how to change these settings, see *Manage the Extender WiFi Settings* on page 43.

---

➤ **To change the extender connection to another WiFi network without using Smart Setup:**

1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.
2. In the address field of your browser, enter **www.mywifiext.net**.  
You are prompted to enter a user name and password.
3. Type **admin** for the user name and type your password.  
If you have not yet personalized your password, type **password** for the password.
4. Select **Settings > Connect to Existing Network**.

The extender scans for existing WiFi networks and displays the networks in the 2.4 GHz band.



If your WiFi network is functioning but not on the list, your WiFi network might be hidden, or the connection between the WiFi router and the extender might be poor. For more information, see the following sections:

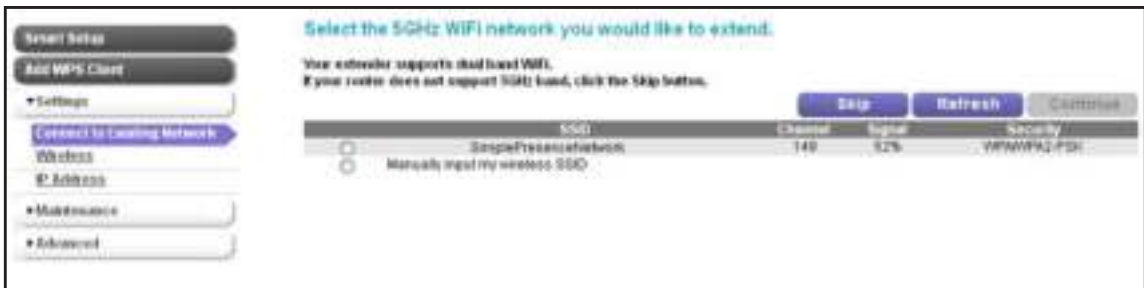
- [Connect the Extender to a Hidden WiFi Network](#) on page 37
- [Improve the Connection Between the Extender and the WiFi Router](#) on page 83

5. Select the radio button for the 2.4 GHz network to which you want to connect the extender, and click the **Continue** button.



6. Enter the security settings for the existing 2.4 GHz network:
  - If the network uses WPA-PSK, WPA2-PSK, or a combination of these options, do the following:
    - a. In the **Password (network key)** field, type the network passphrase (also called a password or network key).
    - b. Click the **Continue** button.
  - If the network uses WEP, do the following:
    - a. From the **Encryption Strength** menu, select the encryption strength (**64 bit** or **128 bit**).
    - b. Specify the active key by selecting the **Key 1**, **Key 2**, **Key 3**, or **Key 4** radio button (only one key can be the active key) and type the value for the key.  
For 64-bit WEP, type 10 hexadecimal digits (any combination of 0–9, A–F). For 128-bit WEP, type 26 hexadecimal digits. The key values are not case-sensitive.
    - c. Click the **Continue** button.

If the extender detects any networks in the 5 GHz band, it displays them.



If your WiFi network is functioning but not on the list, your WiFi network might be hidden, or the connection between the WiFi router and the extender might be poor. For more information, see the following sections:

- [Connect the Extender to a Hidden WiFi Network](#) on page 37
  - [Improve the Connection Between the Extender and the WiFi Router](#) on page 83
7. Select the radio button for the 5 GHz network to which you want to connect the extender, and click the **Continue** button.

**Note:** If your router does not support the 5 GHz band (not all routers do) or you do not yet want to change the 5 GHz network to which the extender connects, click the **Skip** button, and go to [Step 9](#) on page 65.



8. Enter the security settings for the existing 5 GHz network:
  - If the network uses WPA-PSK, WPA2-PSK, or a combination of these options, do the following:
    - a. In the **Password (network key)** field, type the network passphrase (also called a password or network key).
    - b. Click the **Continue** button.
  - If the network uses WEP, do the following:
    - a. From the **Encryption Strength** menu, select the encryption strength (**64 bit** or **128 bit**).
    - b. Specify the active key by selecting the **Key 1**, **Key 2**, **Key 3**, or **Key 4** radio button (only one key can be the active key) and type the value for the key.  
For 64-bit WEP, type 10 hexadecimal digits (any combination of 0–9, A–F). For 128-bit WEP, type 26 hexadecimal digits. The key values are not case-sensitive.
    - c. Click the **Continue** button.
9. Wait about two minutes while the extender changes the WiFi network or networks.



10. Use a WiFi network manager on the computer or on a mobile device to reconnect to the extender's WiFi network.

**Note:** If your computer or mobile device cannot join the new WiFi network of the extender, see *You Cannot Join a WiFi Network and Receive an Error Message* on page 82.

11. Click the **I have connected to the Extender network** button.

The WiFi network settings for the extender are saved and the Status screen displays.

## Connect the Extender to a Hidden WiFi Network

You can manually connect the extender to a hidden WiFi network without using NETGEAR genie Smart Setup.

Before you start the following procedure, you must know the name of the hidden WiFi network, the type of security that the network uses, and the key or passphrase to connect to the network.

---

**Note:** You cannot use the following procedure to change the network names or security options for your extender WiFi networks. For information about how to change these settings, see *Manage the Extender WiFi Settings* on page 43.

---

- **To connect the extender to a hidden WiFi network without using Smart Setup:**
1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.
  2. In the address field of your browser, enter **www.mywifiext.net**.  
You are prompted to enter a user name and password.
  3. Type **admin** for the user name and type your password.  
If you have not yet personalized your password, type **password** for the password.
  4. Select **Settings > Connect to Existing Network**.

The extender scans for existing WiFi networks and displays the networks in the 2.4 GHz band.



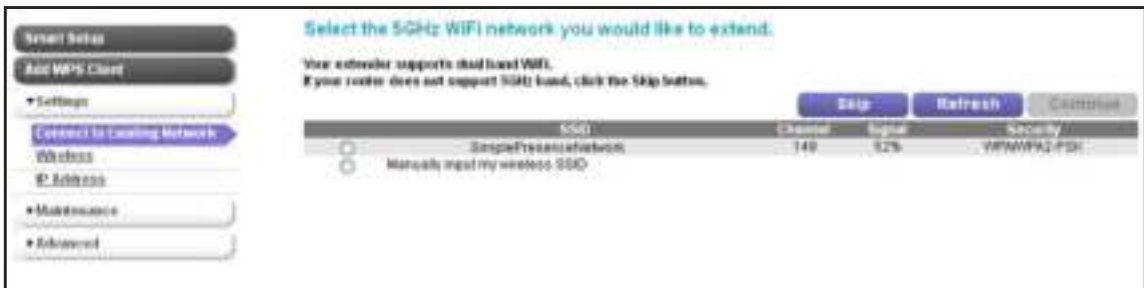
5. Select the **Manually input my wireless SSID** radio button and click the **Continue** button. The screen adjusts.



6. In the **Name (SSID)** field, enter the name of the 2.4 GHz network to which you want to connect the extender.
7. From the **Security** menu, select the security setting for the 2.4 GHz network. The screen adjusts.
8. Enter the security settings for the 2.4 GHz network:
  - If the network uses WPA-PSK, WPA2-PSK, or a combination of these options, do the following:
    - a. In the **Password (network key)** field, type the network passphrase (also called a password or network key).
    - b. Click the **Continue** button.

- If the network uses WEP, do the following:
  - a. From the **Encryption Strength** menu, select the encryption strength (**64 bit** or **128 bit**).
  - b. Specify the active key by selecting the **Key 1**, **Key 2**, **Key 3**, or **Key 4** radio button (only one key can be the active key) and type the value for the key.  
 For 64-bit WEP, type 10 hexadecimal digits (any combination of 0–9, A–F). For 128-bit WEP, type 26 hexadecimal digits. The key values are not case-sensitive.
  - c. Click the **Continue** button.

If the extender detects any networks in the 5 GHz band, it displays them.



9. Select the **Manually input my wireless SSID** radio button and click the **Continue** button.

**Note:** If your router does not support the 5 GHz band (not all routers do) or you do not want to connect the extender to a hidden 5 GHz network, click the **Skip** button, and go to [Step 13](#) on page 40.

The screen adjusts.



10. In the **Name (SSID)** field, enter the name of the 5 GHz network to which you want to connect the extender.
11. From the **Security** menu, select the security setting for the 5 GHz network.

The screen adjusts.

12. Enter the security settings for the 5 GHz network:
  - If the network uses WPA-PSK, WPA2-PSK, or a combination of these options, do the following:
    - a. In the **Password (network key)** field, type the network passphrase (also called a password or network key).
    - b. Click the **Continue** button.



- If the network uses WEP, do the following:
  - a. From the **Encryption Strength** menu, select the encryption strength (**64 bit** or **128 bit**).
  - b. Specify the active key by selecting the **Key 1**, **Key 2**, **Key 3**, or **Key 4** radio button (only one key can be the active key) and type the value for the key.  
 For 64-bit WEP, type 10 hexadecimal digits (any combination of 0–9, A–F). For 128-bit WEP, type 26 hexadecimal digits. The key values are not case-sensitive.
  - c. Click the **Continue** button.

13. Wait about two minutes while the extender connects to the hidden WiFi network or networks.



14. Use a WiFi network manager on the computer or on a mobile device to reconnect to the extender's WiFi network.

**Note:** If your computer or mobile device cannot join the new WiFi network of the extender, see *You Cannot Join a WiFi Network and Receive an Error Message* on page 82.

15. Click the **I have connected to the Extender network** button.

The WiFi network settings for the extender are saved and the Status screen displays.

## Use WPS to Add a Device to the Extender's WiFi Network

WPS (Wi-Fi Protected Setup) lets you connect a computer or WiFi device to the extender's network without entering the WiFi network passphrase or key. Instead, you use a WPS button or enter a PIN to connect.

If you use the Push Button method, the WiFi device that you are trying to connect must have a physical push button or a software push button. If you use the PIN method, you must know the PIN of the WiFi device that you are trying to connect.

WPS supports WPA and WPA2 WiFi security. If your extender network is open (no WiFi security is set), connecting with WPS automatically sets WPA + WPA2 WiFi security on the extender network and generates a random passphrase. You can view this passphrase on the



Wireless Settings screen (for more information, see *Manage the Extender WiFi Settings* on page 43).

---

**Note:** For information about using WPS to connect the extender to a WiFi network during setup, see *Connect the Extender with WPS to a WiFi Network* on page 13.

---

## Use WPS with the Push Button Method

To use the Push Button method to connect a WiFi device to the extender's WiFi network, the WiFi device that you are trying to connect must have a physical push button or a software push button.

➤ **To let a WiFi device join the extender's WiFi network using WPS with the Push Button method:**

1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.

2. In the address field of your browser, enter **www.mywifiext.net**.

You are prompted to enter a user name and password.

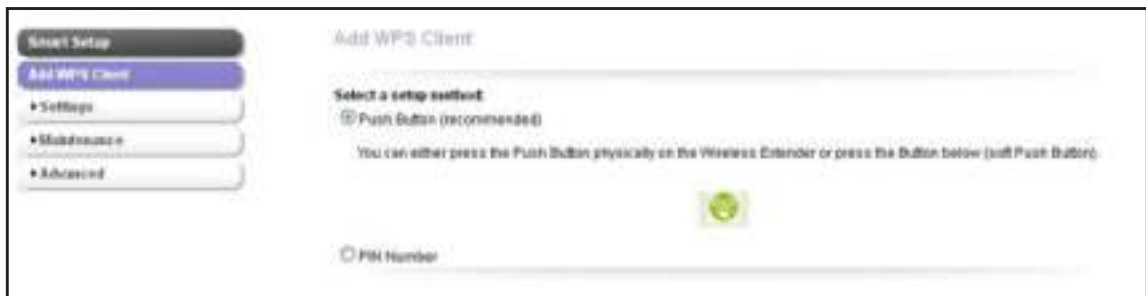
3. Type **admin** for the user name and type your password.

If you have not yet personalized your password, type **password** for the password.


4. Select **Add WPS Client**.

The screen displays a description of the WPS method.

5. Click the **Next** button.



By default, the **Push Button (recommended)** radio button is selected.

6. Either click the  button onscreen or press the **WPS** button on the right side panel of the extender.

Both Link Rate LEDs  2.4GHz  5GHz and the Device to Extender LED  blink green for two minutes.

For two minutes, the extender attempts to find the WiFi device (that is, the client) that you want to join the extender's WiFi network.

7. Within two minutes, go to the WiFi device and press its **WPS** button (to join the extender's WiFi network without entering a password).
8. To verify that the WiFi device is connected to the extender's WiFi network, select **Maintenance > Attached Devices**.

The WiFi device displays onscreen.

## Use WPS with the PIN Method

To use the PIN method to connect a WiFi device to the extender's WiFi network, you must know the PIN of the WiFi device that you are trying to connect.

### ➤ To let a WiFi device join the extender's WiFi network using WPS with the PIN method:

1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.
2. In the address field of your browser, enter **www.mywifiext.net**.  
You are prompted to enter a user name and password.
3. Type **admin** for the user name and type your password.  
If you have not yet personalized your password, type **password** for the password.

4. Select **Add WPS Client**.

The screen displays a description of the WPS method.

5. Click the **Next** button.

On the screen that displays, the **Push Button (recommended)** radio button is selected by default.

6. Select the **PIN Number** radio button.



7. In the **Enter Client's PIN** field, enter the PIN number of the WiFi device.
8. Click the **Next** button.

For four minutes, the extender attempts to find the WiFi device (that is, the client) that you want to join the extender's WiFi network.



9. Within four minutes, go to the WiFi device and use its WPS software to join the network without entering a password.
10. To verify that the WiFi device is connected to the extender's WiFi network, select **Maintenance > Attached Devices**.  
The WiFi device displays onscreen.

## Manage the Extender WiFi Settings

You can change the network name (SSID) for the extender's network and set up WiFi security. If you did not change these settings already during initial setup, the network name is NETGEAR\_EXT, and the network is open (no WiFi security is set up).

---

**Note:** Although the WiFi security of the extender's network can be different from the WiFi security of the network that the extender is connected to, you typically would select the same type of WiFi security for both networks.

---

In some regions, not all channels are available. Do not change the channel unless you experience interference (shown by lost connections or slow data transfers). If this happens, experiment with different channels to see which is the best.

When you use more than one WiFi router or access point, it is better if adjacent routers or access points use different channels to reduce interference. NETGEAR recommends a channel spacing of four channels between adjacent routers or access points (for example, use Channels 1 and 5, or 6 and 10).

---

**Note:** You can change the channel only if you have enabled FastLane Technology or if the extender is not connected to the WiFi router. For more information, see *Set the Operating Mode to FastLane Technology* on page 61. When the extender is in normal operating mode (also referred to as *Internet Surfing* mode), you cannot change the channel.

---

---

**Note:** You can change the wireless mode in one radio band only if the extender is connected to the WiFi router in the other radio band. For example, you can change the wireless mode in the 2.4 GHz band only if the extender is connected to the WiFi router in the 5 GHz band. If the extender is connected to the WiFi router in the 2.4 GHz band, you cannot change the wireless mode in the 2.4 GHz band because the extender adopts the wireless mode that the WiFi router functions in.

---

➤ **To change the WiFi settings for the extender's network:**

1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.
2. In the address field of your browser, enter **www.mywifiext.net**.  
You are prompted to enter a user name and password.
3. Type **admin** for the user name and type your password.  
If you have not yet personalized your password, type **password** for the password.
4. Select **Setting > Wireless**.

The screenshot displays the 'Wireless' configuration page of the N600 WiFi Range Extender. On the left is a sidebar with navigation options: 'Smart Setup', 'Add WPS Client', 'Settings', 'Connect to Existing Network', 'Wireless' (highlighted), 'IP Address', 'Mobile access', and 'Advanced'. The main content area is titled 'Wireless' and features a 'Save' button and a 'Cancel' button. It is organized into two sections: 'My WN2500Pv2 Wireless Network (2.4GHz)' and 'My WN2500Pv2 Wireless Network (5GHz)'. The 2.4GHz section includes a 'Region Selection' dropdown set to 'USA (FCC)', radio buttons for '2.4GHz' (selected) and '5GHz', a text field for 'Name (SSID)' containing 'SimplePresenceNet\_2GEXT', a 'Channel' dropdown set to '11', and a 'Wireless mode' dropdown set to 'Up to 145Mbps'. Under 'Security Options (2.4GHz)', radio buttons for 'None', 'WEP', 'WPA-PSK (TKIP)', 'WPA2-PSK (AES)', and 'WPA-PSK (TKIP) + WPA2-PSK (AES)' (selected) are shown. A 'Password (network key)' field contains '5305305308' with a note '(8-63 characters or 64 hexdigits)'. The 5GHz section has a 'Name (SSID)' field with 'SimplePresenceNet\_5GEXT', a 'Channel' dropdown set to '36', and a 'Wireless mode' dropdown set to 'Up to 433Mbps'. Its 'Security Options (5GHz)' section shows radio buttons for 'None', 'WEP', 'WPA-PSK (TKIP)', 'WPA2-PSK (AES)', and 'WPA-PSK (TKIP) + WPA2-PSK (AES)' (selected). A 'Password (network key)' field contains '5305305308' with the same character limit note.

5. Change the WiFi settings as described in the following table:

Setting	Description
<b>Region Selection</b>	
Region	From the <b>Region</b> menu, select the region in which you operate the extender. <b>Note:</b> If you purchased the extender in the United States or Canada, the selection from the <b>Region</b> menu is <b>North America</b> . You cannot change this selection.
Ethernet ports to WiFi use the following band	Specify if the Ethernet ports on the rear panel of the extender connect to the 2.4 GHz band or the 5 GHz band by selecting one of the following radio buttons: <ul style="list-style-type: none"> <li>• <b>2.4GHz.</b> The Ethernet ports connect to the 2.4 GHz WiFi band. This is the default setting.</li> <li>• <b>5GHz.</b> The Ethernet ports connect to the 5 GHz WiFi band.</li> </ul>
<b>My WN2500RPv2 wireless network (2.4GHz)</b>	
Name (SSID)	In the <b>Name (SSID)</b> field, type a new name or use the name that the extender assigns by default: <ul style="list-style-type: none"> <li>• <b>Existing network name.</b> <i>MyNetworkName</i></li> <li>• <b>New extended 2.4 GHz network name.</b> <i>MyNetworkName_2GEXT</i></li> </ul> If more than one extender operates in your neighborhood, changing the SSID makes it easier to identify the extenders.
Channel	From the <b>Channel</b> menu, select <b>Auto</b> for automatic channel selection or select an individual channel. <b>Note:</b> You can change the channel if you have enabled FastLane Technology or if the extender is not connected to the WiFi router. For more information about FastLane Technology, see <a href="#">Set the Operating Mode to FastLane Technology</a> on page 61. <b>Note:</b> In some regions, not all channels are available. Do not change the channel unless you experience interference (shown by lost connections or slow data transfers). If this happens, experiment with different channels to see which is the best.

## N600 WiFi Range Extender

Setting	Description
Wireless mode	<p>From the <b>Wireless mode</b> menu, select one of the following modes:</p> <ul style="list-style-type: none"> <li>• <b>Up to 54 Mbps.</b> Legacy mode. This mode allows 802.11n, 802.11g, and 802.11b devices to join the network but limits 802.11n devices to function at up to 54 Mbps. If your network security is WEP or WPA-PSK [TKIP], you must use the Up to 54 Mbps mode.</li> <li>• <b>Up to 145 Mbps.</b> Neighbor-friendly mode for reduced interference with neighboring wireless networks. This mode allows 802.11n, 802.11g, and 802.11b devices to join the network but limits 802.11n devices to function at up to 145 Mbps.</li> <li>• <b>Up to 300 Mbps.</b> Performance mode. This mode allows 802.11n, 802.11g, and 802.11b devices to join the network and allows 802.11n devices to function at up to 300 Mbps.</li> </ul> <p><b>Note:</b> You can change the wireless mode in the 2.4 GHz band only if the extender is connected to the WiFi router in the 5 GHz band. If the extender is connected to the WiFi router in the 2.4 GHz band, the extender adopts the wireless mode that the WiFi router functions in and the <b>Wireless mode</b> menu is disabled.</p> <p><b>Note:</b> WPA-PSK [TKIP] security supports speeds of up to 54 Mbps. Even if your devices are capable of a higher speed, WPA-PSK [TKIP] security limits their speed to 54 Mbps.</p> <p><b>Note:</b> To enable the extender to function at full link rate, enable FastLane Technology or disable 20/40 MHz coexistence. For more information about FastLane Technology, see <a href="#">Set the Operating Mode to FastLane Technology</a> on page 61. For more information about disabling 20/40 MHz coexistence, see <a href="#">Manage Advanced WiFi and WPS Settings</a> on page 53. Disable 20/40 MHz coexistence only if no other wireless networks are present in your environment.</p>
<b>Security Options (2.4GHz)</b>	
<p>Select the type of WiFi security that you want to use for the extender's 2.4 GHz WiFi network:</p> <ul style="list-style-type: none"> <li>• <b>None.</b> An open WiFi network that does not provide any security. Any WiFi device can join the network.</li> <li>• <b>WEP.</b> WEP is an older standard, and is less secure than WPA or WPA2. WEP limits the wireless mode to <b>Up to 54 Mbps</b>. WEP uses encryption keys and data encryption for data security. Select 64-bit or 128-bit encryption and enter a key. To join the extender's WiFi network, a user must enter the key. For more information, see <a href="#">Configure WEP</a> on page 50.</li> <li>• <b>WPA-PSK [TKIP].</b> WPA is more secure than WEP. Enter a passphrase. For more information, see <a href="#">Configure WPA, WPA2, or WPA + WPA2</a> on page 49.</li> <li>• <b>WPA2-PSK [AES].</b> WPA2 is even more secure than WEP, but some older WiFi devices do not detect WPA2. Enter a passphrase. To join the extender's WiFi network, a user must enter the passphrase. For more information, see <a href="#">Configure WPA, WPA2, or WPA + WPA2</a> on page 49.</li> <li>• <b>WPA-PSK [TKIP] + WPA2-PASK [AES].</b> When your network includes WiFi devices that support either WPA or WPA2, select WPA-PSK [TKIP] + WPA2-PASK [AES] security. Enter a passphrase. To join the extender's WiFi network, a user must enter the passphrase. For more information, see <a href="#">Configure WPA, WPA2, or WPA + WPA2</a> on page 49.</li> </ul>	

## N600 WiFi Range Extender

Setting	Description
<b>My WN2500RPv2 wireless network (5GHz)</b>	
Name (SSID)	<p>In the <b>Name (SSID)</b> field, type a new name or use the name that the extender assigns by default:</p> <ul style="list-style-type: none"> <li>• <b>Existing network name.</b> <i>MyNetworkName</i></li> <li>• <b>New extended 5 GHz network name.</b> <i>MyNetworkName_5GEXT</i></li> </ul> <p>If more than one extender operates in your neighborhood, changing the SSID makes it easier to identify the extenders.</p>
Channel	<p>From the <b>Channel</b> menu, select <b>Auto</b> for automatic channel selection or select an individual channel.</p> <p><b>Note:</b> You can change the channel if you have enabled FastLane Technology or if the extender is not connected to the WiFi router. For more information about FastLane Technology, see <a href="#">Set the Operating Mode to FastLane Technology</a> on page 61.</p> <p><b>Note:</b> In some regions, not all channels are available. Do not change the channel unless you experience interference (shown by lost connections or slow data transfers). If this happens, experiment with different channels to see which is the best.</p>
Wireless mode	<p>From the <b>Wireless mode</b> menu, select one of the following modes:</p> <ul style="list-style-type: none"> <li>• <b>Up to 54 Mbps.</b> Legacy mode. This mode allows 802.11an and 802.11a devices to join the network but limits 802.11n devices to function at up to 54 Mbps. If your network security is WEP or WPA-PSK [TKIP], you must use the Up to 54 Mbps mode.</li> <li>• <b>Up to 145 Mbps.</b> Neighbor-friendly mode for reduced interference with neighboring wireless networks. Allows 802.11an and 802.11a devices to join the network but limits 802.11n devices to function at up to 145 Mbps.</li> <li>• <b>Up to 300 Mbps.</b> Performance mode. Allows 802.11an and 802.11a devices to join the network and allows 802.11n devices to function at up to 300 Mbps.</li> </ul> <p><b>Note:</b> You can change the wireless mode in the 5 GHz band only if the extender is connected to the WiFi router in the 2.4 GHz band. If the extender is connected to the WiFi router in the 5 GHz band, the extender adopts the wireless mode that the WiFi router functions in and the <b>Wireless mode</b> menu is disabled.</p> <p><b>Note:</b> To enable the extender to function at full link rate, enable FastLane Technology. For more information, see <a href="#">Set the Operating Mode to FastLane Technology</a> on page 61.</p> <p><b>Note:</b> WPA-PSK [TKIP] security supports speeds of up to 54 Mbps. Even if your devices are capable of a higher speed, WPA-PSK [TKIP] security limits their speed to 54 Mbps.</p>

Setting	Description
<b>Security Options (5GHz)</b>	
<p>Select the type of WiFi security that you want to use for the extender's 5 GHz WiFi network:</p> <ul style="list-style-type: none"> <li>• <b>None.</b> An open WiFi network that does not provide any security. Any WiFi device can join the network.</li> <li>• <b>WEP.</b> WEP is an older standard, and is less secure than WPA or WPA2. WEP limits the wireless mode to <b>Up to 54 Mbps</b>. WEP uses encryption keys and data encryption for data security. Select 64-bit or 128-bit encryption and enter a key. To join the extender's WiFi network, a user must enter the key. For more information, see <a href="#">Configure WEP</a> on page 50.</li> <li>• <b>WPA-PSK [TKIP].</b> WPA is more secure than WEP. Enter a passphrase. For more information, see <a href="#">Configure WPA, WPA2, or WPA + WPA2</a> on page 49.</li> <li>• <b>WPA2-PSK [AES].</b> WPA2 is even more secure than WEP, but some older WiFi devices do not detect WPA2. Enter a passphrase. To join the extender's WiFi network, a user must enter the passphrase. For more information, see <a href="#">Configure WPA, WPA2, or WPA + WPA2</a> on page 49.</li> <li>• <b>WPA-PSK [TKIP] + WPA2-PASK [AES].</b> When your network includes WiFi devices that support either WPA or WPA2, select <b>WPA-PSK [TKIP] + WPA2-PASK [AES]</b> security. Enter a passphrase. To join the extender's WiFi network, a user must enter the passphrase. For more information, see <a href="#">Configure WPA, WPA2, or WPA + WPA2</a> on page 49.</li> </ul>	



**CAUTION:**

If you use a WiFi device to change the extender's WiFi settings, you are disconnected when you click the **Apply** button. To reconnect, you must select the new network name that you created, and enter the passphrase or WiFi security key that you set up.

6. Click the **Apply** button.

The extender applies your settings, which might take up to one minute.

7. If you are disconnected, reconnect your WiFi device to the extender's network with its new settings.

Use a WiFi network manager on the computer or on a mobile device to reconnect to the extender's WiFi network.

**Note:** If your computer or mobile device cannot join the new WiFi network of the extender, see [You Cannot Join a WiFi Network and Receive an Error Message](#) on page 82.

8. Click the **I have connected to the Extender network** button.

The WiFi network settings for the extender are saved and the Status screen displays.



## Configure WPA, WPA2, or WPA + WPA2

Both WPA and WPA2 provide strong data security. WPA2 with AES is a hardware implementation. If you want to use WPA2 security, make sure that all devices in your WiFi network support WPA2 security. If you are not sure, use WPA + WPA2 security.

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**Note:** WPA-PSK [TKIP] security supports speeds of up to 54 Mbps. Even if your devices are capable of a higher speed, WPA-PSK [TKIP] security limits their speed to 54 Mbps. NETGEAR recommends that you use WPA2-PSK security, which supports the maximum speed that your devices are capable of.

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The process to configure WPA, WPA2, or WPA + WPA2 security is the same for the 2.4 GHz and 5 GHz bands.

➤ **To configure WPA, WPA2, or WPA + WPA2 in the extender:**

1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.
2. In the address field of your browser, enter **www.mywifiext.net**.  
You are prompted to enter a user name and password.
3. Type **admin** for the user name and type your password.  
If you have not yet personalized your password, type **password** for the password.
4. Select **Settings > Wireless**.



5. Scroll down to either the Security Options (2.4GHz) section (shown in the previous figure) or the Security Options (5GHz) section and select the **WPA-PSK [TKIP], WPA2-PSK [AES], or WPA-PSK [TKIP] + WPA2-PSK [AES]** radio button.

6. In the **PassPhrase** field, enter the passphrase.
7. Click the **Apply** button.  
Your settings are saved.
8. If you are disconnected, reconnect your WiFi device to the extender's network with its new settings.  
Smart Setup can guide you through this process. For more information, see *Run Smart Setup Again After Initial Setup* on page 63.

## Configure WEP

WEP is legacy WiFi security that limits the wireless mode to the **Up to 54 Mbps** selection, irrespective of whether you use the 2.4 GHz band or the 5 GHz band. Unless your WiFi network includes devices that do not support WPA2 or WPA security, NETGEAR recommends that you use WPA2 or WPA + WPA2 security.

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**Note:** 802.11n devices do not support WEP security. If you change the security to WEP, 802.11n devices in either the 2.4 GHz or 5 GHz band cannot join the network.

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**Note:** WPS does not support WEP security. If you change the security to WEP, you can no longer let WiFi devices join the extender's WiFi network by using WPS.

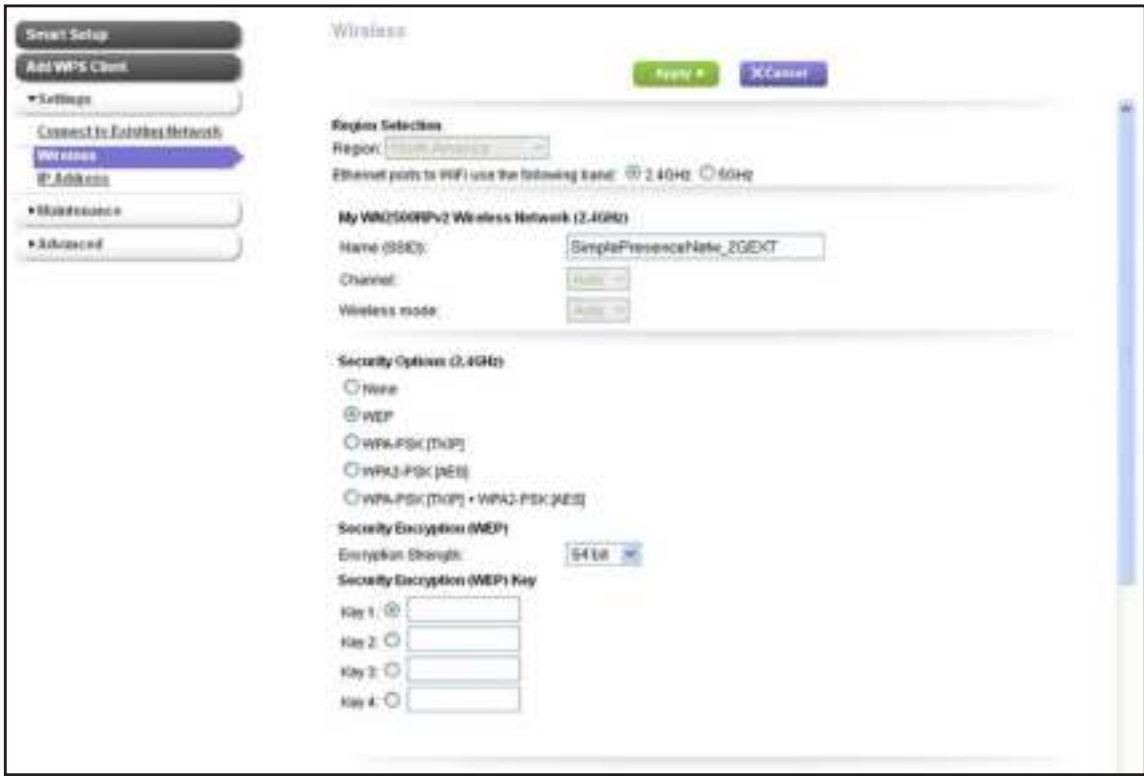
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The process to configure WEP security is the same for the 2.4 GHz and 5 GHz bands.

➤ **To set up WEP:**

1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.
2. In the address field of your browser, enter **www.mywifiext.net**.  
You are prompted to enter a user name and password.
3. Type **admin** for the user name and type your password.  
If you have not yet personalized your password, type **password** for the password.
4. Select **Settings > Wireless**.

5. Scroll down to either the Security Options (2.4GHz) section (shown in the following figure) or the Security Options (5GHz) section and select the **WEP** radio button.



6. From the **Encryption Strength** menu, select the encryption strength setting:
  - **64 bit**. Requires an encryption key of 10 hexadecimal digits (any combination of 0–9, a–f, or A–F) or a string of five characters.
  - **128 bit**. Requires an encryption key of 26 hexadecimal digits (any combination of 0–9, a–f, or A–F) or a string of 13 characters.
7. Specify the active key by selecting the **Key 1**, **Key 2**, **Key 3**, or **Key 4** radio button. Only one key can be the active key.
8. Enter the value for the key:
  - For 64-bit WEP, type 10 hexadecimal digits (any combination of 0–9, A–F). The key values are not case-sensitive.
  - For 128-bit WEP, type 26 hexadecimal digits (any combination of 0–9, A–F). The key values are not case-sensitive.
9. Click the **Apply** button.  
Your settings are saved.
10. If you are disconnected, reconnect your WiFi device to the extender's network with its new settings.

Smart Setup can guide you through this process. For more information, see [Run Smart Setup Again After Initial Setup](#) on page 63.

## Change the Extender IP Address

By default, the extender receives its IP address automatically from the WiFi router to which it connects. If the WiFi router does not have a DHCP server or its DHCP server is disabled, you can assign a static IP address to the extender.

Before you assign a static IP address, you must know the IP address range, subnet mask, gateway IP address, and primary DNS server of your network.



### CAUTION:

NETGEAR recommends that you change the IP address of the extender only if you are technically experienced or have a technically experienced person to help you. Incorrect configuration can prevent you from connecting to the extender and might require you to reset the extender to factory default settings.

#### ➤ To change the IP address of the extender to a static IP address:

1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.
2. In the address field of your browser, enter **www.mywifiext.net**.  
You are prompted to enter a user name and password.
3. Type **admin** for the user name and type your password.  
If you have not yet personalized your password, type **password** for the password.
4. Select extender **Settings > IP Address**.

5. Select the **Use Static IP Address** radio button.
6. Specify the static IP address settings:
  - **IP Address.** The static IP address to be assigned to the extender.
  - **IP Subnet Mask.** The subnet mask associated with the IP address.
  - **Gateway IP Address.** The IP address for the gateway for your WiFi network.
  - **Primary DNS.** The primary domain name server (DNS) for your WiFi network.

7. Click the **Apply** button.  
Your settings are saved, and you are disconnected from the extender.
8. To continue to configure the extender, reconnect to the extender using the new IP address.

## Manage Advanced WiFi and WPS Settings

The extender is already configured with the optimum settings. Do not change the advanced settings unless directed by NETGEAR support. Incorrect settings might disable the extender unexpectedly.

➤ **To view or change the advanced WiFi and WPS settings:**

1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.
2. In the address field of your browser, enter **www.mywifiext.net**.  
You are prompted to enter a user name and password.
3. Type **admin** for the user name and type your password.  
If you have not yet personalized your password, type **password** for the password.
4. Select **Advanced > Wireless Settings**.



5. View or change the following settings as described in the following table:

Setting	Description
<b>Advanced Wireless Settings</b>	
Enable Wireless Access Point (2.4GHz)	By default, the extender functions as a WiFi access point in the 2.4 GHz band. Clear the <b>Enable Wireless Access Point (2.4GHz)</b> check box only if you want to prevent WiFi devices from connecting to the extender in the 2.4 GHz band. LAN devices can still connect to the extender over an Ethernet cable.

## N600 WiFi Range Extender

Setting	Description
Enable SSID Broadcast (2.4GHz)	By default, the extender broadcasts its WiFi network name (SSID) for the 2.4 GHz band. Clear the <b>Enable SSID Broadcast (2.4GHz)</b> check box only to hide the network name of the extender in the 2.4 GHz band. In such a situation, the network name of the extender does not display in a WiFi network manager. A user who wants to join the hidden WiFi network of the extender must know its network name.
Enable 20/40 MHz Coexistence (2.4GHz)	By default, 20/40 MHz coexistence is enabled to prevent interference between wireless networks in your environment at the expense of the wireless speed. If no other wireless networks are present in your environment, you can clear the <b>Enable 20/40 MHz Coexistence</b> check box to increase the wireless speed to the maximum supported speed.
Enable Wireless Access Point (5GHz)	By default, the extender functions as a WiFi access point in the 5 GHz band. Clear the <b>Enable Wireless Access Point (5GHz)</b> check box only if you want to prevent WiFi devices from connecting to the extender in the 5 GHz band. LAN devices can still connect to the extender over an Ethernet cable.
Enable SSID Broadcast (5GHz)	By default, the extender broadcasts its WiFi network name (SSID) for the 5 GHz band. Clear the <b>Enable SSID Broadcast (5GHz)</b> check box only to hide the network name of the extender in the 5 GHz band. In such a situation, the network name of the extender does not display in a WiFi network manager. A user who wants to join the hidden WiFi network of the extender must know its network name.
<b>WPS Settings</b>	
Keep Existing Wireless Settings (2.4GHz b/g/n)	By default, the settings on the Wireless Settings screen remain the same when you use WPS to establish a WiFi connection in the 2.4 GHz band. Clear the <b>Keep Existing Wireless Settings (2.4GHz b/g/n)</b> check box only if you want to allow the WPS process to change the SSID and passphrase for access in the 2.4 GHz band on the Wireless Settings screen.
Keep Existing Wireless Settings (5GHz a/n)	By default, the settings on the Wireless Settings screen remain the same when you use WPS to establish a WiFi connection in the 5 GHz band. Clear the <b>Keep Existing Wireless Settings (5GHz a/n)</b> check box only if you want to allow the WPS process to change the SSID and passphrase for access in the 5 GHz band on the Wireless Settings screen.

**Note:** If you clear a **Keep Existing Wireless Settings** check box and use WPS to add a computer or WiFi device to the extender's network, the SSID and passphrase are automatically generated and other devices that are already connected to the extender's network might be disconnected. You can view the SSID and passphrase on the Wireless Settings screen (see *Manage the Extender WiFi Settings* on page 43). NETGEAR recommends that you keep the **Keep Existing Wireless Settings** check boxes selected.

6. Click the **Apply** button.

Your changes are saved.

## Manage a WiFi Access List

By default, any WiFi device that is configured with the correct network name (SSID) can access the WiFi network of the extender. For increased security, you can restrict access to the WiFi network of the extender to allow only specific WiFi devices based on their MAC addresses. Devices that are not on the access list cannot join the WiFi network of the extender.

Each network device has a MAC address, which is a unique 12-character physical address, containing the hexadecimal characters 0–9, a–f, or A–F only, and separated by colons (for example, 00:09:AB:CD:EF:01). Typically, the MAC address is on the label of the WiFi device. If you do not have access to the label, you can display the MAC address using the network configuration utilities of the computer. You might also find the MAC addresses on the Network Devices screen (see *View the Wired and WiFi Network Devices* on page 78).



### CAUTION:

If you use a WiFi device to set up the access list, add your WiFi device to the access list. Otherwise, you are disconnected when you click the **Apply** button. To avoid this situation, use a computer with a wired connection to access the extender.

## Set Up and Enable the Access List

Before you can enable the access list, you must add the MAC addresses of the WiFi devices that you want to grant access to the WiFi network of the extender.

### ➤ To set up and enable the access list:

1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.
2. In the address field of your browser, enter **www.mywifiext.net**.  
You are prompted to enter a user name and password.
3. Type **admin** for the user name and type your password.  
If you have not yet personalized your password, type **password** for the password.



4. Select **Advanced > Wireless Settings**.



5. Click the **Setup Access List** button.



If you have not yet added any WiFi devices, the Wireless Card Access List is empty.

6. Click the **Add** button.



The Available Wireless Cards table displays the name and MAC address of WiFi devices that are connected to the extender.

7. Select a device by one of the following methods:

- Select a device from the table by selecting its associated radio button.  
The **Device Name** and **MAC Address** fields are automatically populated.
- Enter a device name and MAC address manually:
  - a. In the **Device Name** field, type a name for the WiFi device.
  - b. In the **MAC Address** field, type the MAC address of the WiFi device.



- Click the **Apply** button.

The WiFi device is added to the Wireless Card Access List.



- To add more WiFi devices, repeat *Step 6* through *Step 8*.
- Select the **Turn Access Control On** check box.



**CAUTION:**

If you use a WiFi device to set up the access list, add your WiFi device to the access list. Otherwise, you are disconnected when you click the **Apply** button.

- Click the **Apply** button.

Now only WiFi devices that are in the Wireless Card Access List can access the WiFi network of the extender.

## Disable the Access List

If you decide that you no longer need an access list on the extender, you can disable the access list.

➤ **To disable the access list:**

- On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.
- In the address field of your browser, enter **www.mywifiext.net**.  
You are prompted to enter a user name and password.
- Type **admin** for the user name and type your password.  
If you have not yet personalized your password, type **password** for the password.

4. Select **Advanced > Wireless Settings**.



5. Click the **Setup Access List** button.



6. Clear the **Turn Access Control On** check box.
7. Click the **Apply** button.

Now any WiFi device can access the WiFi network of the extender.

## Change a Device on the Access List

You can change the name or MAC address of a device on the access list.

### ➤ To change a WiFi device on the access list:

1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.
2. In the address field of your browser, enter **www.mywifiext.net**.  
You are prompted to enter a user name and password.
3. Type **admin** for the user name and type your password.  
If you have not yet personalized your password, type **password** for the password.

4. Select **Advanced > Wireless Settings**.



5. Click the **Setup Access List** button.



6. Select the radio button to the left of the device that you want to change.
7. Click the **Edit** button.



8. Change the name of the device or the MAC address.
  9. Click the **Apply** button.
- The changed settings display in Wireless Card Access List.

## Remove a Device from the Access List

If you no longer want to grant a device access to the WiFi network of the extender, you can remove the device from the access list.

➤ **To remove a WiFi device from the access list:**

1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.
2. In the address field of your browser, enter **www.mywifiext.net**.  
You are prompted to enter a user name and password.
3. Type **admin** for the user name and type your password.  
If you have not yet personalized your password, type **password** for the password.
4. Select **Advanced > Wireless Settings**.



5. Click the **Setup Access List** button.



6. Select the radio button to the left of the device that you want to remove.
7. Click the **Delete** button.

The device is removed from the Wireless Card Access List.

## Set the Operating Mode to FastLane Technology

The normal operating mode of the extender (also referred to as *Internet Surfing* mode) is to allow devices on both 2.4 and 5 GHz bands to connect at the same time. This mode extends both WiFi bands at the same time, but reduces the WiFi performance.

FastLane Technology offers maximum WiFi performance. It provides high-speed WiFi with a dedicated band connecting the extender and the WiFi device, and a second band connecting the extender and the WiFi router. FastLane Technology is ideal for HD gaming and HD video streaming.

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**Note:** If all your devices and your WiFi router support only the 2.4 GHz band, or all your devices and your WiFi router support only the 5 GHz band, do not enable FastLane Technology.

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When you enable FastLane Technology, you have two options:

- Use the 2.4 GHz band to connect the extender to the WiFi devices and use the 5 GHz band to connect the extender to the WiFi router. Use this mode if your WiFi router supports the 5 GHz band but the devices that you want to use for gaming and streaming support the 2.4 GHz band.
- Use the 5 GHz band to connect the extender to the WiFi devices and use the 2.4 GHz band to connect the extender to the WiFi router. Use this mode if the devices that you want to use for gaming and streaming support the 5 GHz band but your WiFi router supports the 2.4 GHz band.

➤ **To enable FastLane Technology:**

1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.
2. In the address field of your browser, enter **www.mywifiext.net**.  
You are prompted to enter a user name and password.
3. Type **admin** for the user name and type your password.

If you have not yet personalized your password, type **password** for the password.

4. Select **Advanced > Operating Mode**.



5. By default, the **Internet Surfing** radio button is selected.

6. Select the **FastLane Technology** radio button.

7. Select the FastLane Technology option that you want to enable by selecting one of the following radio buttons:

- **Device-to-extender in 5GHz only and extender-to-router in 2.4GHz only.**  
Your WiFi devices must support the 5 GHz band.
- **Device-to-extender in 2.4GHz only and extender-to-router in 5GHz only (Router must support 5GHz band).**  
Your WiFi router must support the 5 GHz band. This option is enabled by default.

8. Click **Apply**.

Your settings are saved.

9. If you are disconnected, reconnect your WiFi device to the extender's network with its new settings.

For example, if you were connected to the extender's network in the 2.4 GHz band, you now might have to connect in the 5 GHz band, or the other way around.

## Run Smart Setup Again After Initial Setup

There might be situations in which you want to run NETGEAR genie Smart Setup again after the initial setup.

### ➤ To run Smart Setup again:

1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.

2. In the address field of your browser, enter **www.mywifiext.net**.

You are prompted to enter a user name and password.

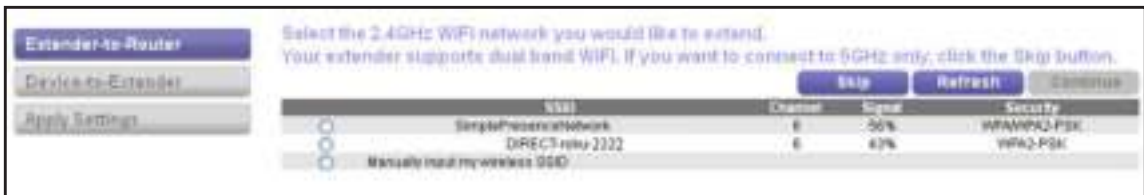
3. Type **admin** for the user name and type your password.

If you have not yet personalized your password, type **password** for the password.

4. Select **Smart Setup**.



Smart Setup searches for existing WiFi networks automatically and displays the networks in the 2.4 GHz band.



5. Select a 2.4 GHz WiFi network to extend, and click the **Continue** button.



6. Enter the security settings for the existing 2.4 GHz network:

- If the network uses WPA-PSK, WPA2-PSK, or a combination of these options, do the following:

a. In the **Password (network key)** field, type the network passphrase (also called a password or network key).

b. Click the **Continue** button.

- If the network uses WEP, do the following:
  - a. From the **Encryption Strength** menu, select the encryption strength (**64 bit** or **128 bit**).
  - b. Specify the active key by selecting the **Key 1**, **Key 2**, **Key 3**, or **Key 4** radio button (only one key can be the active key) and type the value for the key.  
 For 64-bit WEP, type 10 hexadecimal digits (any combination of 0–9, A–F). For 128-bit WEP, type 26 hexadecimal digits. The key values are not case-sensitive.
  - c. Click the **Continue** button.

If Smart Setup detects any networks in the 5 GHz band, it displays them.



7. Select a 5 GHz WiFi network to extend, and click the **Continue** button.

**Note:** If your router does not support the 5 GHz band (not all routers do) or you want to set up the 5 GHz extender network later, click the **Skip** button, and go to [Step 9](#) on page 65.



8. Enter the security settings for the existing 5 GHz network:
  - If the network uses WPA-PSK, WPA2-PSK, or a combination of these options, do the following:
    - a. In the **Password (network key)** field, type the network passphrase (also called a password or network key).
    - b. Click the **Continue** button.
  - If the network uses WEP, do the following:
    - a. From the **Encryption Strength** menu, select the encryption strength (**64 bit** or **128 bit**).
    - b. Specify the active key by selecting the **Key 1**, **Key 2**, **Key 3**, or **Key 4** radio button (only one key can be the active key) and type the value for the key.  
 For 64-bit WEP, type 10 hexadecimal digits (any combination of 0–9, A–F). For 128-bit WEP, type 26 hexadecimal digits. The key values are not case-sensitive.
    - c. Click the **Continue** button.



## N600 WiFi Range Extender

Smart Setup displays the network names and adds `_2GEXT` to the end of the 2.4 GHz network name and `_5GEXT` to the end of the 5 GHz network name.



The screenshot shows the 'Smart Setup' screen for an N600 WiFi Range Extender. On the left, there are three buttons: 'Extender-to-Router', 'Device-to-Extender', and 'Apply Settings'. The 'Device-to-Extender' button is highlighted in blue. The main area contains the text 'Enter name and security settings for your extended WiFi network.' Below this, there are two input fields: 'Name (2.4G SSID)' and 'Name (5G SSID)'. Both fields contain the text 'SimplePresenceNetw\_2GEXT' and 'SimplePresenceNetw\_5GEXT' respectively. There is a checked checkbox with the text 'Use the same security mode and password as those for the existing network.' At the bottom, there are two buttons: 'Back' and 'Continue'.

9. Use the default extension names, or, in the **Name (2.4GHz SSID)** field, and, if you have set up a 5 GHz network, in the **Name (5GHz SSID)** field, enter new network names for your extender WiFi networks, and click the **Continue** button.

**Note:** If you do not want to use the same security modes for your extender networks as you use for your existing networks, clear the check box before you click the **Continue** button. You then can configure the security settings for the extender networks. However, you can also change the security settings later.

The extender applies the settings.



The screenshot shows the 'Smart Setup' screen with the text 'Applying your settings. This may take up to a minute.' Below this text is a circular progress indicator. On the left, there are three buttons: 'Extender-to-Router', 'Device-to-Extender', and 'Apply Settings'. The 'Apply Settings' button is highlighted in blue.

10. Wait a couple of minutes while the extender creates the WiFi networks.  
When the extender is ready, Smart Setup summarizes the extender networks.



The screenshot shows the 'Smart Setup' screen with the text 'Follow the instructions below to connect your devices to the extended network.' Below this text, there are two columns of information for the '2.4GHz Extender Network' and '5GHz Extender Network'. The 2.4GHz network has a Name (SSID) of 'SimplePresenceNetw\_2GEXT', Security of 'WPA/WPA2-PSK', and Password (network key) of '5395395396'. The 5GHz network has a Name (SSID) of 'SimplePresenceNetw\_5GEXT', Security of 'WPA/WPA2-PSK', and Password (network key) of '5395395396'. Below this information, there is a paragraph of text: 'Connect your devices like a laptop, tablet, smart TV, etc. to your extended network. For example, on your laptop you may use the Windows WiFi manager to connect to the newly extended network. (Show image here)'. Below this text is a screenshot of a Windows WiFi manager window showing the 'Choose a wireless network' dialog box. At the bottom, there is a checkbox with the text 'Once you have connected your devices, mark the checkbox and click the Continue button.' and a 'Continue' button.

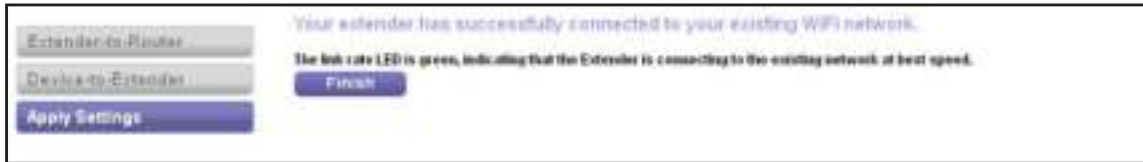
11. Use a WiFi network manager on the computer or mobile device to connect to the extender's newly created 2.4 GHz or 5 GHz WiFi network.

**Note:** Unless you entered a new network name in *Step 9*, the extender changes its default NETGEAR\_EXT network name to the name of the WiFi network to which you connected the extender and adds \_2GEXT to the end of the 2.4 GHz network name and \_5GEXT to the end of the 5 GHz network name.

**Note:** If your computer or mobile device cannot join the new WiFi network of the extender, see *Improve the Connection Between the Extender and the WiFi Router* on page 83.

12. Select the **My wireless devices are connected to the Extender network** check box, and click the **Continue** button.

Smart Setup describes the color of the Link Rate LED on the front of the extender. Because you placed the extender close the WiFi router, the Link Rate LED is green.



13. Click the **Finish** button.  
A pop-up screen displays.
14. To bookmark the URL of the extender, click the **OK** button.  
A NETGEAR website displays. You are now online.

## Connect Ethernet-Enabled Devices

You can use the extender to connect as many as four Ethernet-enabled devices, such as smart TVs, game consoles, and Blu-ray players, to the WiFi network.

After you have set up the extender, plug the Ethernet cable from a device that you want to connect directly into one of the extender's Ethernet LAN ports.

By default, the Ethernet ports connect to the 2.4 GHz WiFi band. For information about how to change the connection to the 5 GHz WiFi band, see *Manage the Extender WiFi Settings* on page 43.

## N600 WiFi Range Extender

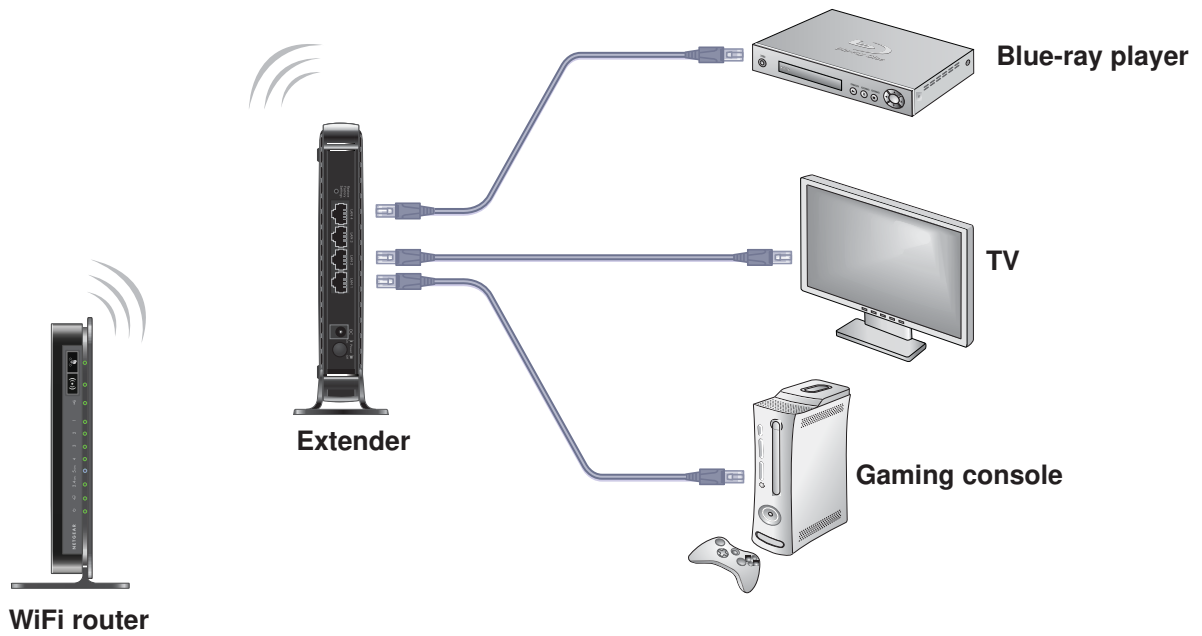


Figure 6. Connecting devices to the LAN ports on the rear panel

# 4

## 4. Maintain and Monitor the Extender

---

This chapter covers the following topics:

- *Back Up and Manage the Extender Configuration*
- *Return the Extender to Its Factory Default Settings*
- *Update the Firmware*
- *View the Status and Traffic Statistics of the Extender*
- *View the Wired and WiFi Network Devices*

## Back Up and Manage the Extender Configuration

When the extender works correctly after initial setup, NETGEAR recommends that you back up the extender configuration settings. After you have backed up the settings, if you have changed the extender configuration settings but are not content with the new settings, you can restore the extender configuration to the backed-up settings.

### Back Up the Configuration Settings

You can back up the configuration file of the extender.

➤ **To back up the extender configuration settings:**

1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.
2. In the address field of your browser, enter **www.mywifiext.net**.  
You are prompted to enter a user name and password.
3. Type **admin** for the user name and type your password.  
If you have not yet personalized your password, type **password** for the password.
4. Select extender **Maintenance > Backup Settings**.



5. Click the **Backup** button.  
Your browser extracts the configuration file from the extender. By default, the name of the backup file is `NETGEAR_WN2500RPv2.cfg`.
6. If you do not have your browser set up to save downloaded files automatically, locate where you want to save the file.

## Restore the Configuration Settings

You can restore the configuration file of the extender to a previously saved configuration file.

➤ **To restore the extender configuration settings:**

1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.
2. In the address field of your browser, enter **www.mywifiext.net**.  
You are prompted to enter a user name and password.
3. Type **admin** for the user name and type your password.  
If you have not yet personalized your password, type **password** for the password.
4. Select extender **Maintenance > Backup Settings**.



5. Click the **Browse** button.
6. Locate and select the previously saved backup file.  
By default, the name of the backup file is `NETGEAR_WN2500RPv2.cfg`.



**CAUTION:**

After you click the **Restore** button, do not try to go online, turn off the extender, shut down the computer, or do anything else to the extender until it finishes restarting!

7. Click the **Restore** button.  
A confirmation pop-up screen displays.
8. Confirm your decision.  
The extender restarts. This process takes about one minute.

## Return the Extender to Its Factory Default Settings

Under some circumstances (for example, if you have lost track of the changes that you made to the extender settings), you might want to erase the configuration and reset it to factory default settings.

To reset the extender to factory default settings, you can use either the Restore Factory Settings button on the rear panel or the Erase function. However, if you have lost the password to access the extender, you must use the Restore Factory Settings button.

For a list of factory default settings, see *Factory Default Settings* on page 85.

### Use the Restore Factory Settings Button



#### CAUTION:

This process erases any settings that you have configured in the extender.

#### ➤ To reset the extender to factory default settings:

1. Insert a straightened paper clip into the hole of the **Restore Factory Settings** button and hold it for about seven seconds.



2. Release the button.

The extender resets and restarts. This process takes about one minute.

## Erase the Extender Configuration Settings



### CAUTION:

This process erases any settings that you have configured in the extender.

#### ➤ To erase the extender's settings:

1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.
2. In the address field of your browser, enter **www.mywifiext.net**.  
You are prompted to enter a user name and password.
3. Type **admin** for the user name and type your password.  
If you have not yet personalized your password, type **password** for the password.
4. Select **Maintenance > Backup Settings**.



### CAUTION:

After you click the **Erase** button, do not try to go online, turn off the extender, shut down the computer, or do anything else to the extender until it finishes restarting!

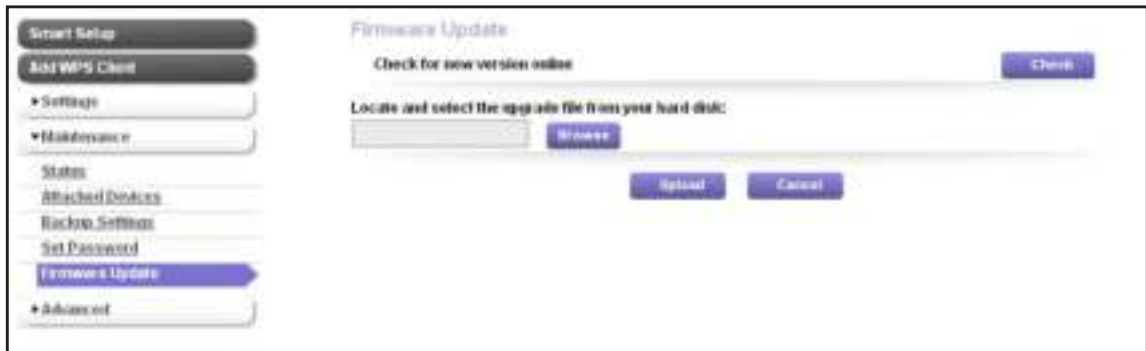
5. Click the **Erase** button.  
A confirmation pop-up screen displays.
6. Confirm your decision.  
The extender restarts. This process takes about one minute.



## Update the Firmware

Unless you changed the settings in the Firmware Update screen previously, the extender is set up to check for new firmware automatically at login.

- **To check manually for new firmware and, if available, update the firmware:**
  1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.
  2. In the address field of your browser, enter **www.mywifiext.net**.  
You are prompted to enter a user name and password.
  3. Type **admin** for the user name and type your password.  
If you have not yet personalized your password, type **password** for the password.
  4. Select **Maintenance > Firmware Update**.



5. Click the **Check** button.
6. If new firmware is available, follow the onscreen prompts to download it onto your computer.

**Note:** You might need to unzip the firmware file.

7. Click the **Browse** button.
8. Locate and select the new firmware file.

The firmware file has a `.chk` extension.



### CAUTION:

After you click the **Upload** button, do not try to go online, turn off the extender, shut down the computer, or do anything else to the extender until it finishes restarting!

9. Click the **Upload** button.

The firmware update starts and the extender restarts. The firmware update process takes a couple of minutes.

## View the Status and Traffic Statistics of the Extender

The Status screen displays when you log in to the extender after initial setup. The Status screen shows the current settings for the extender and provides access to the traffic statistics, such as the number of packets sent and number of packets received for each port.

➤ **To view the status of the extender, to view the traffic statistics, and to change the poll interval:**

1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.
2. In the address field of your browser, enter **www.mywifiext.net**.  
You are prompted to enter a user name and password.
3. Type **admin** for the user name and type your password.  
If you have not yet personalized your password, type **password** for the password.
4. Select **Maintenance > Status**.

Section	Parameter	Value
Hardware Version	Hardware Version	VN0200PHV2
	Firmware Version	V1.0.0.25_1.0.17
	GUI Language Version	V1.0.0.24_1.1.301
	Region	United States
Connected Status for Ethernet Network 1 (LAN1)	Name (SSID)	SimplePresence@Network1
	Link Rate	144 Mbps
	Connection Status	Connected
Connected Status for Ethernet Network 2 (LAN2)	Name (SSID)	SimplePresence@Network2
	Link Rate	216 Mbps
	Connection Status	Connected
Ethernet IP Info	MAC Address	C4:04:13:06:83:F1
	IP Address	192.168.102.175
	DHCP Client	On
	IP Subnet Mask	255.255.255.0
	Gateway IP Address	192.168.102.1
	Domain Name Server	192.168.102.1
	Dynamic DNS Server	
Ethernet Wireless Setting (2.4GHz)	Name (SSID)	SimplePresence@Netc_2000T
	Channel	Auto (0)
	Wireless mode	144 Mbps
	Wireless AP	On
	Broadcast Name	On
	WiFi Protected Setup	Configured
Ethernet Wireless Setting (5GHz)	Name (SSID)	SimplePresence@Netc_3000T
	Channel	149(7)*1330
	Wireless mode	300 Mbps
	Wireless AP	On
	Broadcast Name	On
	WiFi Protected Setup	Configured

## N600 WiFi Range Extender

The following table describes the fields on the Status screen.

Field	Description
Hardware Version	The hardware version of the extender.
Firmware Version	The current firmware version of the extender. If you upgrade the firmware, this field changes.
GUI Language Version	The language version that is set on the extender. If you upgrade the firmware, this field might change.
Region	The region in which you operate the extender.  <b>Note:</b> If you purchased the extender in the United States or Canada, by default, the region is North America.
<b>Connection Status to Existing Network (2.4GHz)</b>	
Name (SSID)	The name (SSID) of the WiFi network in the 2.4 GHz band to which the extender is connected.
Link Rate	The combined transmission (Tx) and receive (Rx) link rate in Mbps of the current WiFi connection in the 2.4 GHz band.
Connection Status	Shows whether the extender is connected to the WiFi network in the 2.4 GHz band.  If the extender is disconnected from the WiFi network in the 2.4 GHz band, a Connect button displays. Click the <b>Connect</b> button connect the extender to the WiFi network in the 2.4 GHz band.  <b>Note:</b> The extender can be connected simultaneously to a network in the 2.4 GHz band and to a network in the 5 GHz band. If you have a dual band WiFi router, the router can broadcast the same network name (SSID) simultaneously in both bands.
<b>Connection Status to Existing Network (5GHz)</b>	
Name (SSID)	The name (SSID) of the WiFi network in the 5 GHz band to which the extender is connected.
Link Rate	The combined transmission (Tx) and receive (Rx) link rate in Mbps of the current WiFi connection in the 5 GHz band.
Connection Status	Shows whether the extender is connected to the WiFi network in the 5 GHz band.  If the extender is disconnected from the WiFi network in the 5 GHz band, a Connect button displays. Click the <b>Connect</b> button connect the extender to the WiFi network in the 5 GHz band.  <b>Note:</b> The extender can be simultaneously connected to a network in the 5 GHz band and to a network in the 2.4 GHz band. If you have a dual band WiFi router, the router can broadcast the same network name (SSID) simultaneously in both bands.
<b>Extender IP Info</b>	
MAC Address	The physical address of the extender.
IP Address	The IP address of the extender. The default is 192.168.1.250.

## N600 WiFi Range Extender

Field	Description
DHCP Client	Shows whether the DHCP client of the extender is on.
IP Subnet Mask	The IP subnet mask that is associated with the IP address of the extender. The default is 255.255.255.0.
Gateway IP Address	The IP address of the WiFi network gateway.
Domain Name Server	The IP address of the Domain Name Server (DNS) of the WiFi network.
<b>Extender Wireless Settings (2.4GHz)</b>	
Name (SSID)	The name (SSID) of the WiFi network of the extender in the 2.4 GHz band.
Channel	The active channel of the WiFi network in the 2.4 GHz band.
Wireless mode	The wireless mode in the 2.4 GHz band: Up to 54 Mbps, Up to 145 Mbps, or Up to 300 Mbps.
Wireless AP	Shows whether the WiFi access point of the extender is on in the 2.4 GHz band.
Broadcast Name	Shows whether broadcasting of the network name (SSID) of the extender is on in the 2.4 GHz band.
Wi-Fi Protected Setup	Shows whether Wi-Fi Protected Setup (WPS) is configured for the 2.4 GHz band.
<b>Extender Wireless Settings (5GHz)</b>	
Name (SSID)	The name (SSID) of the WiFi network of the extender in the 5 GHz band.
Region	The location in which the extender is operating in the 5 GHz band.
Wireless mode	The wireless mode in the 5 GHz band: Up to 54 Mbps, Up to 145 Mbps, or Up to 300 Mbps.
Wireless AP	Shows whether the WiFi access point of the extender is on in the 5 GHz band.
Broadcast Name	Shows whether broadcasting of the network name (SSID) of the extender is on in the 5 GHz band.
Wi-Fi Protected Setup	Shows whether Wi-Fi Protected Setup (WPS) is configured for the 5 GHz band.

5. Click the **Show Statistics** button.



The following table describes the traffic statistics fields that display for each of the four LAN ports, for the WLAN1 port in the 2.4 GHz band, and for the WLAN2 port in the 5 GHz band.

Field	Description
Status	The link status and speed of the port.
TxPkts	The number of packets transmitted on the port since the extender was restarted.
RxPkts	The number of packets received on the port since the extender was restarted.
Collisions	The number of collisions on the port since the extender was restarted.
Tx B/s	The packet transmission rate in bytes per second on the port.
Rx B/s	The packet reception rate in bytes per second on the port.
Up Time	The time elapsed since the connection was initiated.

6. To change the poll interval:
  - a. Click the **Stop** button.
  - b. In the **Poll Interval** field, enter a new value in seconds.
  - c. Click the **Set Interval** button.

## View the Wired and WiFi Network Devices

You can view the active wired and WiFi devices in both the network to which the extender is connected and the extender network. If you do not recognize a WiFi device, it might be an intruder.

➤ **To display the wired and WiFi devices:**

1. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.
2. In the address field of your browser, enter **www.mywifiext.net**.  
You are prompted to enter a user name and password.
3. Type **admin** for the user name and type your password.  
If you have not yet personalized your password, type **password** for the password.
4. Select **Maintenance > Attached Devices**.



For each wired and WiFi device, the IP address, device name, MAC address, and virtual MAC address display.

5. (Optional) Click the **Refresh** button.  
The information onscreen is updated.

## 5. FAQs and Troubleshooting

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# 5

This chapter covers the following topics:

- *FAQs*
- *You Cannot Connect to the Extender*
- *You Cannot Join a WiFi Network and Receive an Error Message*
- *Improve the Connection Between the Extender and the WiFi Router*

## FAQs

This section provides answers for difficulties you might experience with the extender.

1. **Question.** Does the extender work if I connect it to my WiFi router with an Ethernet cable?

**Answer.** No, the extender is designed only to connect over WiFi to a WiFi router.

2. **Question.** What are the default user name and password to log in to the extender?

**Answer.** If you are online at **www.mywifiext.net**, you can use the following user name and password to log in:

- **User name.** admin
- **Password.** password

3. **Question.** When I try to connect to the network, Smart Setup keeps asking me for my passphrase, and I am sure I've entered the correct passphrase. What can I do?

**Answer.** It is likely that the extender is placed at the borderline of the range that the WiFi router covers. For more information, see *How to Position the Extender* on page 12 and *Improve the Connection Between the Extender and the WiFi Router* on page 83.

4. **Question.** I receive an error message on the Review Settings screen on Smart Setup. What can I do?

**Answer.** Make sure that your computer or mobile device is connected to the extender by using the SSID and the passphrase that you have set up and clicking the **Refresh** button in your browser. You should be returned to Smart Setup.

5. **Question.** I connected to NETGEAR\_EXT and launched a browser, but why can I not see Smart Setup?

**Answer.** First, make sure that your device is set up to use DHCP. Second, make sure that the Device to Extender Connection LED is green. Finally, relaunch the browser and enter **www.mywifiext.net**.

6. **Question.** I have enabled a WiFi MAC filter (WiFi access control or ACL) on my WiFi router. What should I do when installing the extender?

**Answer.** When the WiFi device connects through the extender to your router, the MAC address of the WiFi device shown on the router is translated to another MAC address. If your router's MAC filter is enabled, the WiFi device connects to the extender but cannot get an IP address from the extender and cannot access the Internet. To allow the WiFi device to receive an IP address from the extender and access the Internet, you must provide the translated MAC address to the router.

**To get the translated MAC address:**

- a. Disable the MAC filter on your WiFi router.
- b. Turn on the extender and connect all of your WiFi devices to the extender.
- c. Make sure that the Link Rate LED remains lit.



- d. On your computer, launch an Internet browser such as Mozilla Firefox or Microsoft Internet Explorer.
  - e. In the address field of your browser, enter **www.mywifiext.net**.  
You are prompted to enter a user name and password.
  - f. Type **admin** for the user name and type your password.  
If you have not yet personalized your password, type **password** for the password.
  - g. Select **Maintenance > Attached Devices**.
  - h. Write down any MAC addresses that begin with 02:0F:B5 and any virtual MAC addresses.
  - i. On your WiFi router, add the MAC addresses that begin with 02:0F:B5 and the virtual MAC addresses to the MAC filter table.
  - j. Enable the MAC filter on your WiFi router.
7. **Question.** My router security is WEP, and I entered the wrong security key on the extender. I cannot access the extender anymore. What can I do?

**Answer.** The extender cannot detect whether the WEP password is correct. If you entered the wrong password, your WiFi device cannot get the IP address from the extender. You must reset the extender to the factory defaults to get the IP address back.

8. **Question.** Is seamless roaming supported? During a VoIP call, when I move to a different location, the call is dropped. What should I do?

**Answer.** No, the extender does not support seamless roaming. You might notice performance issues if your WiFi device (laptop, smartphone, or tablet) connects to a different WiFi network. For example, you might connect to the extender WiFi network, begin a call, and then move to the location of your existing WiFi network. Your WiFi device automatically connects to the network in your current location, which takes a few seconds and might cause your call to be dropped. To prevent this situation, decide which WiFi network you want to use for your VoIP call, and stay within the range of that network.

## You Cannot Connect to the Extender

If you have trouble connecting to the extender, determine what prevents you from connecting:

- Make sure that you use the correct user name and password to log in:
  - **User name.** admin
  - **Password.** password
- If your browser displays an error page, include **http://** in the address field of your browser by typing **http://www.mywifiext.net**.
- If you already set up the extender but can no longer connect to it over WiFi, check if the Link Rate LED is off or red. For more information, see *Improve the Connection Between the Extender and the WiFi Router* on page 83.

- If you cannot get a WiFi connection working, you can use an Ethernet cable to connect your computer to the extender. For more information, see [Access the Extender over Ethernet and Use Smart Setup](#) on page 22.

## You Cannot Join a WiFi Network and Receive an Error Message

To join a WiFi network, you must know its network name (also called the SSID) so that you can select it. If the network is secure, you must know the passphrase or key. If the extender does not connect to the network that you select, the cause might be one of the following:

- You might have typed the network name, passphrase, or key incorrectly. Use Smart Setup (see [Run Smart Setup Again After Initial Setup](#) on page 63) to select a WiFi network from the list with detected networks, and retype the passphrase or key. The passphrase or key is case-sensitive. For example, PASSWORD25 is not the same as Password25 or password25.
- If the extender cannot detect your WiFi network, check to see if your WiFi network is still up. Make sure that the WiFi router is turned on. If possible, move the extender closer to the WiFi router. For more information, see [Improve the Connection Between the Extender and the WiFi Router](#) on page 83.
- If the extender Link Rate LED is red, a poor WiFi connection exists between the WiFi router and the extender. You can establish the best connection with a clear line of sight between the extender and the WiFi router. Make sure that no physical obstacles exist between the extender and the WiFi router, and try to move the extender closer to the WiFi router. For more information, see [Improve the Connection Between the Extender and the WiFi Router](#) on page 83.

If you use Smart Setup, and the extender cannot connect to the WiFi router or cannot get an IP address from the WiFi router, or the WiFi router is not connected to the Internet, Smart Setup might display the following message:

*You are not able to connect to Internet. Click "Continue" to run through setup or "Exit" to manually configure the connection.*

Either run Smart Setup again, exit Smart Setup and configure the connection manually (see [Connect the Extender to a WiFi Network Without Using Smart Setup](#) on page 33), or try Smart Setup again later (see [Run Smart Setup Again After Initial Setup](#) on page 63).

## Improve the Connection Between the Extender and the WiFi Router

The extender LEDs can help you tell whether the extender is correctly set up and working as it should.

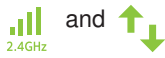

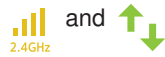

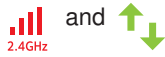

➤ **To improve the connection between the extender and the WiFi router:**

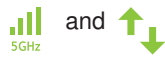

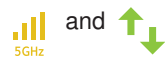

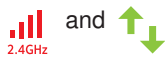

1. Move the extender closer to the WiFi router or to a different spot where it provides a better line of sight.

You might need to unplug the extender, plug it in again at its new location, and restart it. Unless the extender is outside the range of your WiFi router, the extender connects automatically to the WiFi router.

2. As you move the extender, continue to check the Link Rate LED and the Device to Extender LED on the top panel until you find a location where the Link Rate LED is green or amber, and the Device to Extender LED is green.

The following tables describe how the LEDs show the quality of the connection.

2.4 GHz LED Status	LED Color	Performance
Both the Link Rate LED and the Device to Extender LED are green.	 and 	The extender provides the best performance.
The Link Rate LED is amber and the Device to Extender LED is green.	 and 	The extender provides a workable performance.
The Link Rate LED is red.	 and 	The extender provides a poor performance.
The Link Rate LED is off.		The extender cannot function.

5 GHz LED Status	LED Color	Performance
Both the Link Rate LED and the Device to Extender LED are green.	 and 	The extender provides the best performance.
The Link Rate LED is amber and the Device to Extender LED is green.	 and 	The extender provides a workable performance.
The Link Rate LED is red.	 and 	The extender provides a poor performance.
The Link Rate LED is off.		The extender cannot function.

# A

## A. **Factory Settings and Technical Specifications**

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This appendix covers the following topics:

- *Factory Default Settings*
- *Technical and Environmental Specifications*

## Factory Default Settings

To reset the extender to factory default settings, you can use either the **Restore Factory Settings** button on the rear panel or the Erase function. For more information, see [Return the Extender to Its Factory Default Settings](#) on page 71.

The following table shows the factory default settings.

**Table 2. Factory default settings**

Factory Settings		
Smart Setup		Enabled
WiFi	WiFi communication	Enabled
	WiFi network name (SSID)	NETGEAR_EXT
	Security	Disabled
	Transmission speed	Auto <sup>1</sup>
	Country/region	Varies by region
	Operating mode	802.11n, 802.11a, 802.11g, and 802.11b
	Data rate in the 2.4 GHz band	Up to 145 Mbps
	Data rate in the 5 GHz band	Up to 300 Mbps
DHCP		Client enabled

1. Maximum WiFi signal rate (IEEE Standard 802.11). Actual throughput can vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead lower actual data throughput rate.

## Technical and Environmental Specifications

The following table shows the technical and environmental specifications.

**Table 3. Technical specifications**

Technical Specifications	
Network protocol and standards compatibility	Data and routing protocols: TCP/IP, DHCP server and client
Power adapter	<ul style="list-style-type: none"> <li>• North America (input): 120V, 60 Hz</li> <li>• Australia and UK (input): 240V, 50 Hz</li> <li>• Europe, excluding the UK (input): 230V, 50 Hz</li> <li>• All regions (output): 12 VDC @ 2.5A</li> </ul>
Physical specifications	<ul style="list-style-type: none"> <li>• Dimensions: 177 x 116 x 30 mm (7.0 x 4.6 x 1.2 in)</li> <li>• Weight: 0.25 kg (0.54 lb)</li> </ul>
Environmental	<ul style="list-style-type: none"> <li>• Operating temperature: 32° to 140°F (0° to 40°C)</li> <li>• Operating humidity: 90% maximum relative humidity, noncondensing</li> </ul>
Interface	<ul style="list-style-type: none"> <li>• Local: 10BASE-T, 100BASE-TX, RJ-45</li> <li>• 802.11n, 802.11a, 802.11g, and 802.11b</li> </ul>
Electromagnetic emissions	<ul style="list-style-type: none"> <li>• FCC Part 15 Class B</li> <li>• VCCI Class B</li> <li>• EN 55 022 (CISPR 22), Class B C-Tick N10947</li> </ul>