

NETGEAR®

AC1900 WiFi Range Extender

Model EX6400

User Manual



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San Jose, CA 95134
USA

Support

Thank you for purchasing this NETGEAR product. You can visit www.netgear.com/support to register your product, get help, access the latest downloads and user manuals, and join our community. We recommend that you use only official NETGEAR support resources.

Conformity

For the current EU Declaration of Conformity, visit http://kb.netgear.com/app/answers/detail/a_id/11621.

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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Get to Know Your Extender

1

The AC1900 WiFi Range Extender boosts your existing network range and speed, delivering dual-band WiFi. You can also use the extender in access point mode as a WiFi access point and create a new WiFi hotspot by using a wired Ethernet connection.

This chapter covers the following topics:

- *Front Panel and Side Panel LEDs and Buttons*
- *When to Use Your Extender*
- *Support for the 802.11ac Networking Standard*

Note: For more information about the topics covered in this manual, visit the support website at netgear.com/support.

Note: Firmware updates with new features and bug fixes are made available from time to time at 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.

Front Panel and Side Panel LEDs and Buttons

The LEDs are located on the front panel. A switch and buttons are located on the side panel and an Ethernet port is located on the bottom panel.

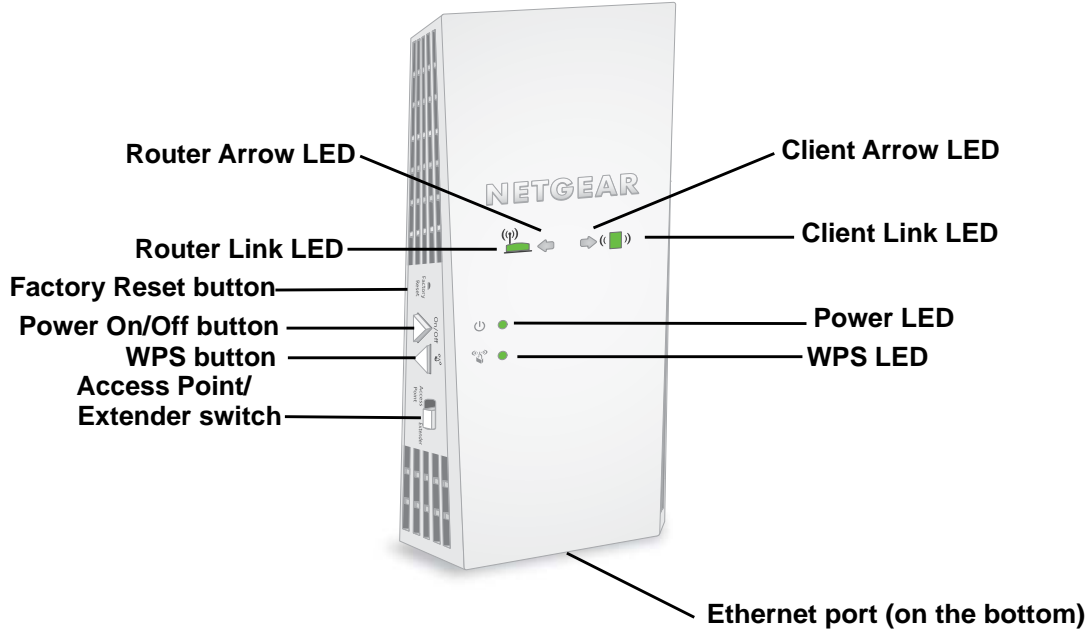


Figure 1. Extender front panel and side panel

Table 1. LEDs






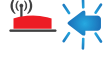
LED	Description
Router Link LED 	This LED indicates the connection between the extender and the router or access point. <ul style="list-style-type: none"> • Solid green. Best connection. • Solid amber. Good connection. • Solid red. Poor connection. • Off. No connection.
Client Link LED 	This LED indicates the connection between the extender and a WiFi-enabled computer or mobile device. <ul style="list-style-type: none"> • Solid green. Best connection. • Solid amber. Good connection. • Solid red. Poor connection. • Off. No connection.
Power LED 	<ul style="list-style-type: none"> • Solid amber. The extender is booting. • Solid green. The extender is powered on. • Off. The extender is powered off.
WPS LED 	<ul style="list-style-type: none"> • Solid green. WiFi security is enabled (WPA or WPA2). • Blinking green. The extender is making a WPS connection. • Off. WiFi security is not enabled.

Table 1. LEDs (continued)

LED	Description
Client Arrow 	If no arrow LEDs are lit, the extender is in a good location. If the Client Arrow LED is blinking, move the WiFi-enabled computer or mobile device closer to the extender.
Router Arrow 	If no arrow LEDs are lit, the extender is in a good location. If the Router Arrow LED is blinking, move the extender closer to the router.

When to Use Your Extender

We recommend that you connect to the extender only when your WiFi network connection is poor. Data traffic routed through the extender is inherently slower than traffic routed directly from the network.

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 performs two main jobs:

- The extender connects to a working WiFi network.

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 broadcasts 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.

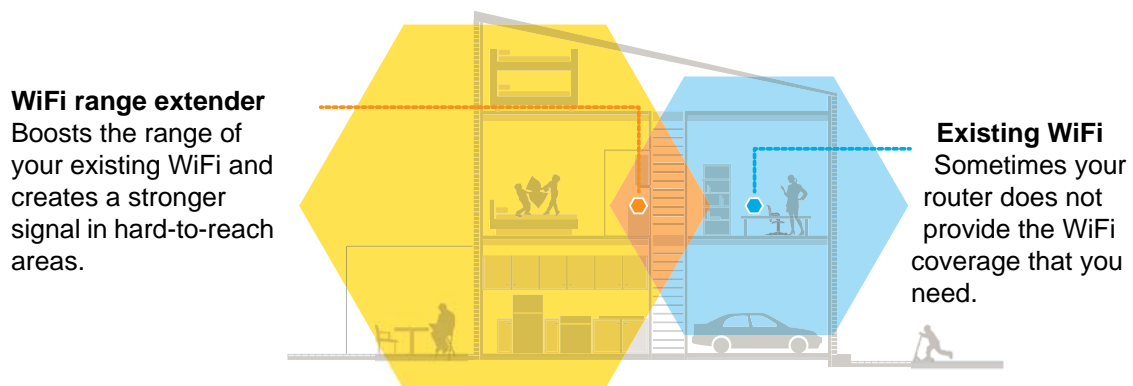


Figure 2. Range extender in a home

Support for the 802.11ac Networking Standard

The extender supports the 802.11ac networking standard. This new standard offers better speed, improved reliability, and more range than older WiFi networking standards. The extender is backward compatible with earlier WiFi standards. However, to get the benefits of 802.11ac, your WiFi router must support the 802.11ac WiFi networking standard.

To learn more about the 802.11ac WiFi networking standard, visit netgear.com/landing/80211ac/.

3x Speed

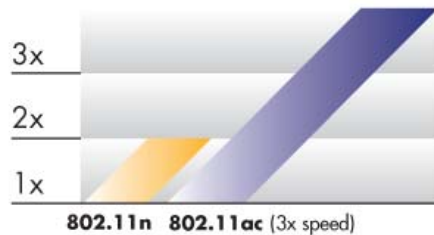


Figure 3. Speed comparison between the 802.11n and 802.11ac standards

2. Get Started

2

This chapter covers the following topics:

- *Use the Extender in Extender Mode*
- *Use the Extender in Access Point Mode*
- *Access Extender Settings*
- *Run Smart Setup*



Use the Extender in Extender Mode

The extender repeats signals from an existing WiFi router or access point. Place the extender, apply power, and connect the extender to your WiFi network.

Note: You can also use the extender as a WiFi access point and create a new WiFi hotspot by using a wired Ethernet connection. See [Use the Extender in Access Point Mode](#) on page 15.

Place the Extender and Apply Power

➤ **To place the extender and apply power:**

1. Set the **Access Point/Extender** switch  to the **Extender** position.
2. Place your extender in the same room as your WiFi router.
Proximity to the WiFi router is required only during the initial setup process.
3. Plug the extender into an electrical outlet.
4. Wait for the Power LED  to light green.
If the Power LED does not light, press the **Power On/Off** button on the extender.

Connect to an Existing WiFi Network

To extend the range of your WiFi network, you must connect the extender to your existing WiFi network. You can do this in one of two ways:

- **Connect with WPS.** For more information, see [Connect With WPS](#) on page 10.
- **Connect with the NETGEAR installation assistant.** For more information, see [Connect With the NETGEAR Installation Assistant](#) on page 12.

Connect With WPS

Wi-Fi Protected Setup (WPS) lets you join a secure WiFi network without typing the network name and password.


Note: WPS does not support WEP network security. If you are using WEP security, follow the instructions in [Connect With the NETGEAR Installation Assistant](#) on page 12.

➤ **To use WPS to connect the extender to your WiFi router:**

1. Press the **WPS** button on the side panel of the extender.

The WPS LED  ● blinks.



2. Within two minutes, press the **WPS** button on your router or access point.

When the extender connects to your existing WiFi network, the WPS LED on the extender lights solid green and the Router Link LED  lights. If the Router Link LED does not light, try again. If it still does not light, see [Connect With the NETGEAR Installation Assistant](#) on page 12.

3. If your WiFi router supports the 5 GHz band, repeat Steps 1 and 2 to connect the extender to the 5 GHz band.
4. Unplug the extender and move it to a new location that is about halfway between your router and the area with a poor router WiFi signal.

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



5. Plug the extender into an electrical outlet and wait for the Power LED  ● to light green.
6. Use the Router Link LED  to help you choose a spot where the extender-to-router connection is optimal.
7. If the Router Link LED does not light amber or green, plug the extender into an outlet closer to the router and try again.

Keep moving the extender to outlets closer to the router until the Router Link LED lights amber or green.


8. On your WiFi-enabled computer or mobile device, find and connect to the new extender WiFi network.

The extender creates two new extender WiFi networks. The extender's new WiFi network names are based on your existing WiFi network name, with _EXT at the end of the name.

For example:

- **Existing WiFi network name.** MyNetworkName
- **New extender network names.** MyNetworkName_2GEXT and MyNetworkName_5GEXT

Use the same WiFi password that you use for your WiFi router.


9. Test the extender WiFi range by moving your WiFi-enabled computer or mobile device to the area with a poor router WiFi signal:
 - a. Leave your WiFi-enabled computer or mobile device in the area with a poor router WiFi signal and return to the extender.
 - b. Check the Client Link LED () on the extender:
 - If the Client Link LED is solid green or amber, your extender WiFi network reaches the area with a poor router WiFi signal and your network setup is complete.
 - If the Client Link LED is red, your extender WiFi network does not reach the area with a poor router WiFi signal.

You must move the WiFi-enabled computer or mobile device closer to the extender until the Client Link LED turns solid green or amber.

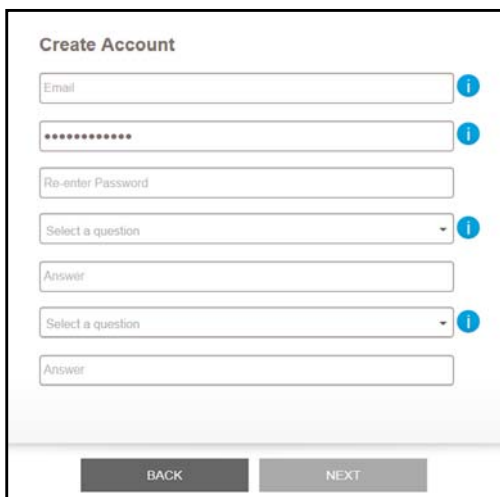
Connect With the NETGEAR Installation Assistant

➤ To connect with the NETGEAR installation assistant:

1. Connect your device to the extender using a wired Ethernet or WiFi connection:
 - To connect with a wired Ethernet connection, use an Ethernet cable to connect the Ethernet port on the extender to an Ethernet port on your computer.
 - To connect with WiFi, on your WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the extender network called NETGEAR_EXT.


After the connection with the WiFi-enabled computer or mobile device is established, the Client Link LED () lights.

2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.
The New Extender Setup page displays.
4. Click the **NEW EXTENDER SETUP** button.



The screenshot shows a 'Create Account' form with the following fields and elements:

- Email input field with an information icon (i).
- Password input field (masked with dots) with an information icon (i).
- Re-enter Password input field.
- Select a question dropdown menu with an information icon (i).
- Answer input field.
- Select a question dropdown menu with an information icon (i).
- Answer input field.
- BACK button.
- NEXT button.

5. Complete the fields on the page and click the **NEXT** button.
6. Verify that the **Access Point/Extender** switch  is set to **Extender** and click the **Continue** button.
7. Select a WiFi network to extend and click the **NEXT** button.
If you do not want to extend both WiFi bands, clear the **2.4 GHz WiFi Networks** or the **5 GHz WiFi Networks** check box.
8. In the **Password (Network Key)** field, type the existing WiFi network password (also called passphrase or security key) and click the **NEXT** button.
9. Set the network name (SSID) and password for your extender and click the **NEXT** button.

Note: Note: We recommend that you use a network name (SSID) for your extender that is different from the SSID that your router uses.

Wait for the page to display a list of new extender WiFi networks, which might take up to one minute.

10. Connect your WiFi-enabled computer or mobile device to the new extender WiFi network using the extender SSID and password that you created in Step 9.
11. Make sure that your WiFi-enabled computer or mobile device is successfully connected before you click the **CONTINUE** button.
12. Click the **CONTINUE** button.

A message displays confirming that the extender is connected and ready.

13. Click the **NEXT** button.

The registration page displays.

14. Complete the registration fields and click the **FINISH** button to complete the setup.

If you do not want to register your extender, click the **Skip Registration** link. Note that you must register your extender before you can use NETGEAR telephone support.


The Status page displays.


15. Unplug the extender and move it to a new location that is about halfway between your router and the area with a poor router WiFi signal.



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

16. Plug the extender into an electrical outlet and wait for the Power LED to light green.

17. Use the Router Link LED  to help you choose a spot where the extender-to-router connection is optimal.
18. If the Router Link LED doesn't light amber or green, plug the extender into an outlet closer to the router and try again.

Keep moving the extender to outlets closer to the router until the Router Link LED lights amber or green.
19. Reconnect your WiFi-enabled computer or mobile device to the new extender WiFi network.
20. Test the extender WiFi range by moving your WiFi-enabled computer or mobile device to the area with a poor router WiFi signal:
 - a. Leave your WiFi-enabled computer or mobile device in the area with a poor router WiFi signal and return to the extender.
 - b. Check the Client Link LED  on the extender:
 - If the Client Link LED is solid green or amber, your extender WiFi network reaches the area with a poor router WiFi signal and your network setup is complete.
 - If the Client Link LED is red, your extender WiFi network does not reach the area with a poor router WiFi signal.

You must move the WiFi-enabled computer or mobile device closer to the extender until the Client Link LED turns solid green or amber.

Connect Ethernet-Enabled Devices

After the extender is connected to your existing WiFi network, you can connect a device to the extender using an Ethernet cable. Then that device can access your existing network through the extender-to-router WiFi connection.

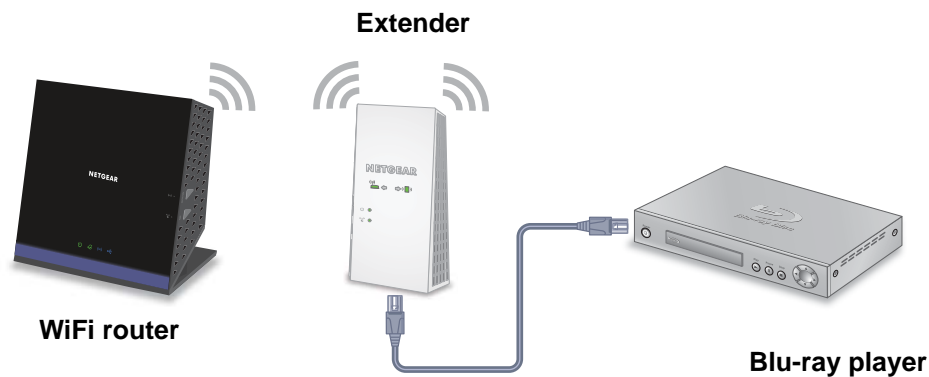


Figure 4. Ethernet connection to the extender

Use the Extender in Access Point Mode

You can use the extender as a WiFi access point, which creates a new WiFi hotspot by using a wired Ethernet connection.

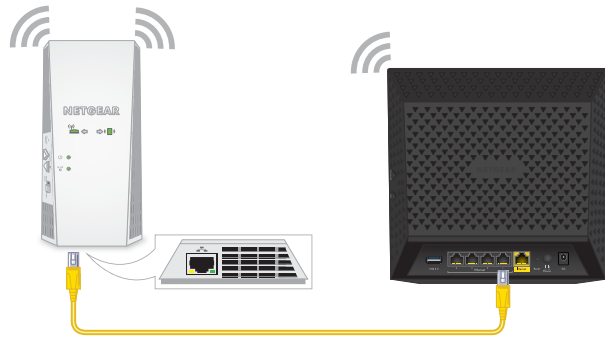





Figure 5. Extender as an access point

➤ To install the extender as an access point:

1. Set the **Access Point/Extender** switch to **Access Point** .
2. Plug the extender into an electrical outlet and wait for the Power LED  to light green. If the Power LED does not light, press the **Power On/Off** button.
3. Use an Ethernet cable to connect the Ethernet port on the extender to a router Ethernet LAN port or a remote Ethernet LAN jack with LAN access. The extender joins the LAN and creates a WiFi hotspot.
4. On your WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to one of the following WiFi extender networks:
 - **2.4 GHz network.** NETGEAR_EXT
 - **5 GHz network.** NETGEAR_5GEXT

When you join the network, the extender the Client Link LED () lights to show that you are connected.

5. Launch a web browser and enter **www.mywifiext.net** in the address field. The New Extender Setup page displays.
6. Click the **NEW EXTENDER SETUP** button. The Create Account page displays.
7. Complete the fields on the page and click the **NEXT** button.
8. When prompted, set the network name (SSID), security option, and password for each access point network and click the **NEXT** button.


Your settings are applied and the extender is ready to be used as an access point.

9. Connect your WiFi-enabled computer or mobile device to the new access point WiFi network using the SSID and password that you created in Step 8.
10. Click the **CONTINUE** button.
A page displays that says you successfully created an access point.
11. Click the **NEXT** button.
The registration page displays.
12. Follow the onscreen instructions to register your extender.

Access Extender Settings

After installation, you can log in to the extender to view or change the extender's settings.

➤ To log in to the extender:

1. Use a WiFi network manager on a WiFi-enabled computer or mobile device to find and connect to the new extender WiFi network.
After the connection with the WiFi-enabled computer or mobile device is established, the Client Link LED () lights.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.
A login window opens.
4. Enter your user name and password and click the **LOG IN** button.
The Status page displays.

Run Smart Setup

You can use Smart Setup to change the extender settings. This is an easy way to connect the extender to a different router or to change the extender WiFi network name (SSID) or WiFi password.

➤ To run Smart Setup:

1. Use a WiFi network manager on a WiFi-enabled computer or mobile device to find and connect to the new extender WiFi network.
After the connection with the WiFi-enabled computer or mobile device is established, the Device Link LED lights solid green.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.
A login window opens.

4. Enter your user name and password and click the **LOG IN** button.
The Status page displays.
5. Click the **SMART SETUP** button.
The Welcome page displays.
6. Click the **WIFI RANGE EXTENDER** button.
The extender scans for WiFi signals and finds the WiFi networks in your area and displays a list.
7. Select your WiFi network and click the **NEXT** button.
8. When prompted, enter the password to connect to your WiFi network and click the **NEXT** button.
A message displays when the extender connects to your existing router's WiFi network.
9. Click the **NEXT** button.
The extender applies your settings to its WiFi network names and WiFi passwords. During this change, the extender disconnects you from its WiFi network.
10. When prompted, connect your WiFi devices to the extender WiFi network and click the **CONTINUE** button.
The registration page displays.
11. Complete the registration fields and click the **FINISH** button to complete the setup.
If you do not want to register your extender, click the **Skip Registration** link. Note that you must register your extender before you can use NETGEAR telephone support.
The Status page displays.

3. Extender Network Settings

This chapter covers the following topics:

- *View Connected Devices*
- *Boost Your Video Streaming With FastLane Technology*
- *View WiFi Settings*
- *Change the WiFi Network Name*
- *Turn Off the SSID Broadcast to Create a Hidden Network*
- *Disable or Enable the WiFi Radios*
- *Change the WiFi Speed*
- *Use WPS to Add a Computer to the Extender's WiFi Network*
- *Deny Access to a WiFi Device*
- *Set Up an Access Schedule*
- *Change the Extender's Device Name*
- *Set Up the Extender to Use a Static IP Address*
- *Use the Extender With MAC Filtering or Access Control*

View Connected Devices

You can view a list of devices that are connected to the extender network.

➤ **To view connected devices:**

1. On your WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.

A login window opens.

4. Enter your user name and password and click the **LOG IN** button.

The Status page displays.

5. Select **Settings > Connected Devices**.

Connected Devices

WiFi Extender

IP Address	Network Name	MAC Address
192.168.1.250	NETGEAR3_2GEXT	DC:EF:09:DA:B3:72

Wired Devices

IP Address	Device Name	MAC Address

WiFi Devices Refresh

Enable Access Control

IP Address	Device Name	MAC Address
192.168.1.128	Brillier-PC	1C:3E:84:51:49:AC

Boost Your Video Streaming With FastLane Technology

Get the most out of your HD entertainment with FastLane technology. With FastLane technology, the extender connects to your router using one band and connects to your devices using another band. Because a band is dedicated to each function, performance is enhanced.

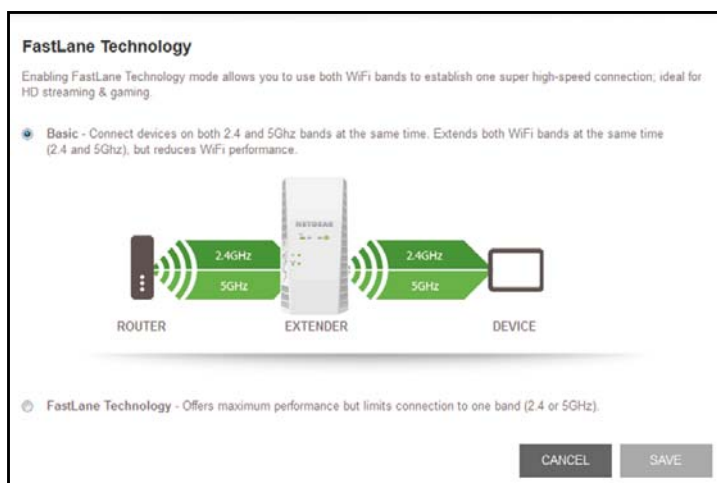
If all your devices and your WiFi router support only the 2.4 GHz band, or all your devices and your WiFi router support only the 5 GHz band, do not enable FastLane Technology.

When you enable FastLane Technology, two options are available:

- 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 activate FastLane mode:**

1. On your WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.
A login window opens.
4. Enter your user name and password and click the **LOG IN** button.
The Status page displays.
5. Select **Do More > FastLane**.



6. Select the **FastLane Technology** radio button.
The page adjusts and displays two more radio buttons.
7. Select a radio button:
 - **Router-to-Extender in 2.4 GHz only and Extender-to-Device in 5 GHz only**
 - **Router to Extender in 5 GHz only and Extender-to-Device in 2.4 GHz only**
8. Click the **SAVE** button.
Your settings are saved.

View WiFi Settings

➤ To view the WiFi settings:

1. On your WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.
A login window opens.
4. Enter your user name and password and click the **LOG IN** button.
The Status page displays.
5. Select **Settings > Wireless**.

Change the WiFi Network Name

➤ To change the WiFi network name:

1. On your WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.
A login window opens.
4. Enter your user name and password and click the **LOG IN** button.

The Status page displays.

5. Select **Settings > Wireless**.

6. In each **Network Name (SSID)** field, type a network name.
7. Click the **SAVE** button.

Your settings are saved.

Turn Off the SSID Broadcast to Create a Hidden Network

By default, the extender broadcasts its WiFi signal so that its WiFi network names (SSIDs) are easy to find from your computer, tablet, or smartphone. You can turn off the SSID broadcast to create a hidden WiFi network. To connect to a hidden network you must know its SSID and password and manually enter them.

- **To turn off the SSID broadcast to create a hidden network:**
 1. On your WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.
 2. Launch a web browser.
 3. Enter **www.mywifiext.net** in the address field of the browser.
A login window opens.
 4. Enter your user name and password and click the **LOG IN** button.
The Status page displays.

5. Select **Settings > Wireless**.

6. Clear the **Broadcast the Network name (SSID)** check box for the network you want to hide.

7. Click the **SAVE** button.

Your settings are saved.

Disable or Enable the WiFi Radios

By default, the extender's WiFi radios broadcast signals in the 2.4 GHz and 5 GHz bands. If you disable the WiFi radios, then no one can connect with WiFi to the extender.

➤ **To enable or disable the WiFi radios:**

1. On your WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.

A login window opens.

4. Enter your user name and password and click the **LOG IN** button.

The Status page displays.

5. Select **Settings > Wireless**.

6. Select or clear the **Enable 2.4 GHz WiFi** check box.

7. Select or clear the **Enable 5 GHz WiFi** check box.

8. Click the **SAVE** button.

Your settings are saved.

Change the WiFi Speed

➤ **To change the WiFi speed:**

1. On your WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.

2. Launch a web browser.

3. Enter **www.mywifiext.net** in the address field of the browser.

A login window opens.

4. Enter your user name and password and click the **LOG IN** button.

The Status page displays.

5. Select **Settings > Wireless**.

6. In each **WiFi Speed** menu, select a speed.

7. Click the **SAVE** button.

Your settings are saved.

Use WPS to Add a Computer to the Extender's WiFi Network

WPS (Wi-Fi Protected Setup) lets you connect a WiFi-enabled computer or mobile 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 include a physical button or a software 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 WiFi Settings page (for more information, see [View WiFi Settings](#) on page 21).

For information about using WPS to connect the extender to a WiFi network during setup, see [Use the Extender in Access Point Mode](#) on page 15.

Use WPS With the Push Button Method

For you 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 include a physical **WPS** button or an onscreen **WPS** button that you can click.

➤ **To use WPS to add a WiFi-enabled computer or mobile device to the extender's WiFi network:**

1. On your WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.

A login window opens.

4. Enter your user name and password and click the **LOG IN** button.

The Status page displays.

5. Select **Settings > Do More > Connect Devices (WPS)**.

6. Leave the **Push Button (recommended)** radio button selected.

7. Click the **WIFI PROTECTED SETUP (WPS)** button.

For two minutes, the extender attempts to add the WiFi-enabled computer or mobile device to its WiFi network.

8. Within two minutes, go to the computer WiFi device and press or click its **WPS** button.
9. To verify that the WiFi device is connected to the extender's WiFi network, select **Settings > Connected Devices**.

The WiFi device displays on the page.

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 connect to the WiFi network using the WPS PIN method:**

1. On your WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.
A login window opens.
4. Enter your user name and password and click the **LOG IN** button.
The Status page displays.
5. Select **Settings > Do More > Connect Devices (WPS)**.
The Connect Devices (WPS) page displays.
6. Select the **PIN Number** radio button.

Connect Devices (WPS)

You can securely connect WiFi client devices to the extender using the WPS feature. [Learn More >](#)

Push Button (recommended) PIN Number

Locate the security pin on your WiFi client device and enter the pin below.

NEXT

7. Type the PIN of the WiFi device in the field.
8. Click the **NEXT** button.
For four minutes, the extender attempts to find the WiFi-enabled computer or mobile device.
9. Within four minutes, go to the WiFi device and use its WPS software to join the WiFi network.
10. To verify that the WiFi device is connected to the extender's WiFi network, select **Settings > Connected Devices**.
The WiFi device displays on the page.

Deny Access to a WiFi Device

By default, access control is disabled so that it is easy for you to connect to the extender's WiFi networks.

You can deny network access to specific computers and WiFi devices based on their MAC addresses. Each network device is assigned 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 cannot access 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 Connected Devices page (see [View Connected Devices](#) on page 19).

➤ **To use WiFi access control to deny access:**

1. On your WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.

A login window opens.

4. Enter your user name and password and click the **LOG IN** button.

The Status page displays.

5. Select **Settings > Connected Devices**.

Connected Devices

WiFi Extender

IP Address	Network Name	MAC Address
192.168.1.250	NETGEAR3_2GEXT	DC:EF:09:DA:B3:76

Wired Devices

IP Address	Device Name	MAC Address
192.168.1.2	Bmiller-PC	74:86:7A:71:B3:F4

WiFi Devices Refresh

Enable Access Control

IP Address	Device Name	MAC Address	Deny
192.168.1.70	Bmiller-PC	1C:3E:84:51:49:AC	<input type="checkbox"/>

CANCEL **SAVE**

6. In the WiFi Devices section, select the **Enable Access Control** check box.

The WiFi Devices table displays the names and MAC addresses of WiFi devices that are connected to the extender.

7. Select the **Deny** check box for the device.
8. Click the **SAVE** button.

Your settings are saved and that device cannot connect to the extender's WiFi network.

Set Up an Access Schedule

You can control WiFi access during specific periods of the day. You can set up an access schedule that prevents Internet access through the extender network based on the times that you set.

➤ **To set up an access schedule:**

1. On your WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.

A login window opens.

4. Enter your user name and password and click the **LOG IN** button.

The Status page displays.

5. Select **Do More > Access Schedule**.

6. Select the **Access Schedule On** radio button.

The page adjusts.

7. In the **Days** menu and the **Time** menu, select the day and time when you want to disable Internet access.

8. Click the **Add Time** button.

The time you specified is added to the Scheduled Times table.

9. Click the **SAVE** button.

Your settings are saved.

Change the Extender's Device Name

The default name is EX6400.

➤ **To change the extender's device name:**

1. On your WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.

A login window opens.

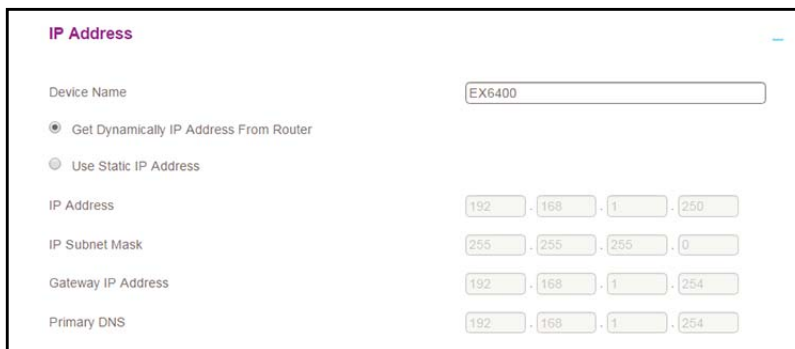
4. Enter your user name and password and click the **LOG IN** button.

The Status page displays.

5. Select **Settings > Wireless Settings**.

The WiFi Settings page displays.

6. Scroll down and click the **IP Address** heading.



IP Address

Device Name: EX6400

Get Dynamically IP Address From Router
 Use Static IP Address

IP Address: 192 . 168 . 1 . 250

IP Subnet Mask: 255 . 255 . 255 . 0

Gateway IP Address: 192 . 168 . 1 . 254

Primary DNS: 192 . 168 . 1 . 254

7. In the **Device Name** field, type a name.

8. Click the **SAVE** button.

Your settings are saved.

Set Up the Extender to Use a Static IP Address

The extender comes set up to use a dynamic IP address, which is the correct setting for most home networks.

➤ **To set up the extender to use a static IP address:**

1. On your WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.

A login window opens.

4. Enter your user name and password and click the **LOG IN** button.
The Status page displays.
5. Select **Settings > Wireless Settings**.
The WiFi Settings page displays.
6. Scroll down and click the **IP Address** heading.



By default, the **Dynamically get IP Address From Router** radio button is selected.

7. Select the **Use Static IP Address** radio button.
8. Complete the fields to specify the IP network IP addresses.
9. Click the **SAVE** button.

Your settings are saved.

Use the Extender With MAC Filtering or Access Control

When the WiFi device connects through the extender to your router, the MAC address of the WiFi device that is shown on the router is translated to another MAC address. If your router's MAC filter, WiFi access control, or ACL 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 add a translated MAC address to your router:

1. Log in to your router and disable the MAC filter, WiFi access control, or ACL.
For information about how to disable your router's MAC filter, WiFi access control, or ACL, see your router's documentation.
2. Power on the extender and connect all of your WiFi devices to the extender.
3. Make sure that the Link Rate LED remains lit.
4. Log in to your extender:
 - a. Launch a web browser.

b. Enter **www.mywifiext.net** in the address field of the browser.

A login window opens.

c. Enter your user name and password and click the **LOG IN** button.

The Status page displays.

5. Select **Settings > Connected Devices**.

The Connected Devices page displays the MAC addresses and virtual MAC addresses for computers and WiFi devices that are connected to the extender network.

6. On the router, add the extender's virtual MAC address and all the virtual MAC addresses connected to the extender network to your router's MAC filter table.

7. Enable the router's MAC filter, WiFi access control, or ACL.

4

4. Monitor and Maintain the Extender

This chapter covers the following topics:

- *Change the Extender User Name and Password*
- *Turn Password Protection Off and On*
- *Recover a Forgotten User Name or Password*
- *Automatically Adjust for Daylight Saving Time*
- *Manually Set the Extender Clock*
- *Back Up and Restore the Extender Configuration*
- *Return the Extender to Its Factory Settings*
- *Update the Firmware*
- *Restart the Extender Remotely*

Change the Extender User Name and Password

You can change the user name and password to log in to the extender.

➤ **To change the extender user name:**

1. On your WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.

A login window opens.

4. Enter your user name and password and click the **LOG IN** button.
The Status page displays.

5. Select **Settings > Password**.

The screenshot shows the 'Password Settings' page. At the top, there is a title 'Password Settings' and a subtitle: 'Turn on or off password protection or change a password to protect unauthorized access to the extender web menu and Smart Setup.' Below this, there are two radio buttons: 'Password On' (which is selected) and 'Password Off'. Underneath, there are several input fields: 'New User Name' (a text box), 'New Password (8-32 characters):' (a text box), 'Verify Password:' (a text box), a dropdown menu labeled 'Select a question', an 'Answer' text box, another dropdown menu labeled 'Select a question', and a final 'Answer' text box.

6. In the **New User Name** field, type a user name.
7. Type the password in the **New Password** field and the **Verify Password** field.
8. Select questions and enter the answers.
9. Click the **SAVE** button.

Your settings are saved.

Turn Password Protection Off and On

We recommend that you leave password protection on to help keep your network secure. You can turn password protection off and on.

➤ **To turn password protection off or on:**

1. On your WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.
A login window opens.
4. Enter your user name and password and click the **LOG IN** button.
The Status page displays.
5. Select **Settings > Password Settings**.
The Password Settings page displays.
6. Select the **Password Off** or **Password On** radio button.
7. Click the **SAVE** button.
Your settings are saved.

Recover a Forgotten User Name or Password

If you changed the password to access the extender and set up password recovery, you can recover your password if you lose it.

➤ **To recover your password to access the extender:**

1. On a WiFi-enabled computer or mobile device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.
You are prompted to enter a user name and password.
3. Click the **Username & Password Help** link.
A page displays requesting the answers to your security questions.
If you forgot the answers to your security questions, restore the extender's factory settings and set up your user name and password again. See *Return the Extender to Its Factory Settings* on page 39 and *Use the Extender in Extender Mode* on page 10.
4. Enter the saved answers to your security questions.
5. Click the **NEXT** button.
Your email and password are displayed.

6. Click the **BACK** button.
A login window opens.
Log in to the extender.

Automatically Adjust for Daylight Saving Time

1. On your WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.
A login window opens.
4. Enter your user name and password and click the **LOG IN** button.
The Status page displays.
5. Select **Do More > Access Schedule**.
The Access Schedule page displays.
6. Select the **Automatically adjust for daylight savings** time check box.
7. Click the **SAVE** button.
Your settings are saved.

Manually Set the Extender Clock

➤ **To manually set the extender clock:**

1. On your WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.
A login window opens.
4. Enter your user name and password and click the **LOG IN** button.
The Status page displays.
5. Select **Do More > Access Schedule**.
The Access Schedule page displays.
6. In the Extender Clock section, select the **Manual** radio button.
7. To specify the time, complete the fields or click the **Sync Clock** button to synchronize the extender time to the time on the WiFi-enabled computer or mobile device that you are using.
8. Click the **SAVE** button.
Your settings are saved.

Back Up and Restore the Extender Configuration

When the extender works correctly after initial setup, we recommend that you back up the extender configuration settings. After you back up the settings, if you change 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 WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.

2. Launch a web browser.

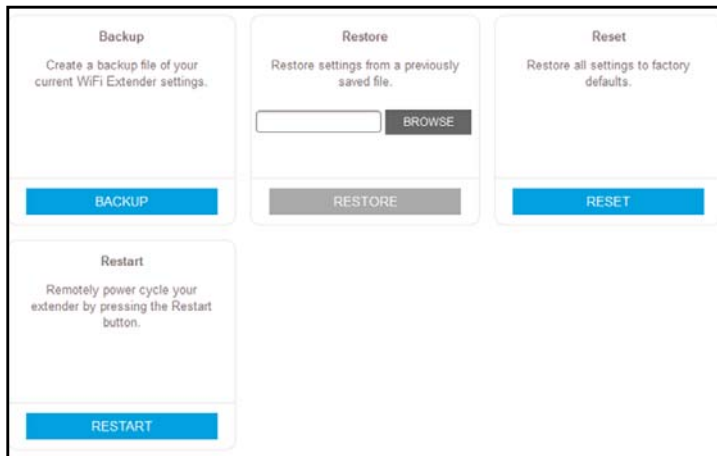
3. Enter **www.mywifiext.net** in the address field of the browser.

A login window opens.

4. Enter your user name and password and click the **LOG IN** button.

The Status page displays.

5. Select **Settings > Other**.



6. Click the **BACKUP** button.

Your browser extracts the configuration file from the extender. By default, the name of the backup file is `NETGEAR_Ex6400.cfg`.

7. If your browser is not set up to save downloaded files automatically, locate where you want to save the file.

8. Click the **OK** button.

The extender configuration settings are backed up.

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 WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.

2. Launch a web browser.

3. Enter **www.mywifiext.net** in the address field of the browser.

A login window opens.

4. Enter your user name and password and click the **LOG IN** button.

The Status page displays.

5. Select **Settings > Other**.

The screenshot shows a web interface with four main sections:

- Backup:** "Create a backup file of your current WiFi Extender settings." Below this is a blue button labeled "BACKUP".
- Restore:** "Restore settings from a previously saved file." Below this is a text input field, a "BROWSE" button, and a grey button labeled "RESTORE".
- Reset:** "Restore all settings to factory defaults." Below this is a blue button labeled "RESET".
- Restart:** "Remotely power cycle your extender by pressing the Restart button." Below this is a blue button labeled "RESTART".

6. Click the **BROWSE** button.

7. Locate and select the previously saved backup file.

By default, the name of the backup file is `NETGEAR_EX6400.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.

8. Click the **RESTORE** button.

A confirmation pop-up window opens.

9. Confirm your decision.

The extender configuration is restored and the extender restarts. This process takes about one minute.

Return the Extender to Its Factory Settings

To reset the extender to its factory settings, you can use the **Factory Reset** button or log in to the extender and reset it to factory settings. For information about the factory settings, see *Factory Default Settings* on page 47.

Use the Factory Reset Button to Restore Factory Settings



CAUTION:

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

➤ **To restore factory settings:**

1. Insert a paper clip into the **Factory Reset** hole and hold it until the Power LED blinks amber.
2. Release the button.

All the LEDs turn off for about 3 seconds.

The Power LED lights solid amber for about 30 seconds.

The Power LED  lights solid green.

The extender returns to its factory settings.

When you plug in the extender, it detects the position of its **Access Point/Extender** switch.

Log In to the Extender and Reset to Factory Settings



CAUTION:

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

➤ **To log in to the extender and reset it to factory settings:**

1. On your WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.

A login window opens.

4. Enter your user name and password and click the **LOG IN** button.

The Status page displays.

5. Select **Settings > Other Settings**.

The screenshot shows a web interface with four main sections:

- Backup:** "Create a backup file of your current WiFi Extender settings." Below this is a blue button labeled "BACKUP".
- Restore:** "Restore settings from a previously saved file." Below this is a text input field, a grey button labeled "BROWSE", and a grey button labeled "RESTORE".
- Reset:** "Restore all settings to factory defaults." Below this is a blue button labeled "RESET".
- Restart:** "Remotely power cycle your extender by pressing the Restart button." Below this is a blue button labeled "RESTART".



CAUTION:

After you click the **RESET** 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.

6. Click the **RESET** button.

A confirmation pop-up window opens.

7. Confirm your decision.

The extender returns to its factory settings and restarts. This process takes about one minute.

Update the Firmware

Unless you changed the settings on the Firmware Update page 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 WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.
A login window opens.
4. Enter your user name and password and click the **LOG IN** button.
The Status page displays.

5. Select **Settings > Firmware Update**.

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

Note: You might need to unzip the firmware file.

8. Click the **BROWSE** button.
9. Locate and select the new firmware file.

The firmware file name ends with 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.

10. Click the **UPLOAD** button.

The firmware update starts and the extender restarts. The firmware update process takes about two minutes.

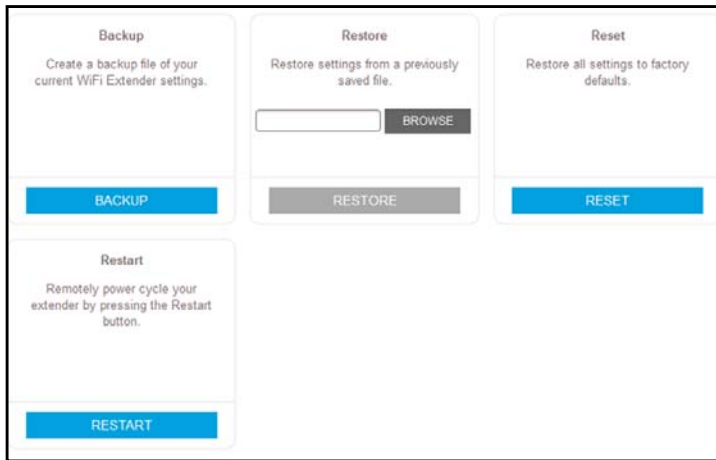
Restart the Extender Remotely

You can log in to the extender and restart it. When the extender restarts, all computers and WiFi devices that are connected to its WiFi network are automatically disconnected.

➤ **To restart the extender remotely:**

1. On your WiFi-enabled computer or mobile device, open the WiFi connection manager and locate and connect to the new extender WiFi network.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.
A login window opens.
4. Enter your user name and password and click the **LOG IN** button.
The Status page displays.

5. Select **Settings > Other Settings**.



6. Click the **RESTART** button.

7. When prompted, click the **Yes** button to confirm.

The extender restarts, which takes about two minutes.

5. FAQs and Troubleshooting

5

This chapter covers the following topics:

- *FAQs*
- *Cannot Connect to the Extender*
- *Cannot Join a WiFi Network*

FAQs

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

The web browser setup keeps asking me for my network password (passphrase) or security key, and I am sure that I entered the correct password. What can I do?

The extender is probably placed at the borderline of the range covered by the router or access point. For more information about where to place the extender, see [Find the Best Location](#) on page 14.

If you are using WEP security, make sure that you are typing the network password in the correct field.

Can I set up the extender in extender mode if I connect it to the router or access point with an Ethernet cable?

No. The extender is designed to connect wirelessly to the router or access point if it is in extender mode. If the extender is in access point mode, you can connect it to the router or access point with an Ethernet connection. For more information about access point mode, see [Use the Extender in Access Point Mode](#) on page 15.

I forgot my login user name and password. What can I do?

In the login window, click the **Username & Password Help** link to answer the security questions that you set up during the initial setup. For more information, see [Recover a Forgotten User Name or Password](#) on page 35.

How do I restore the extender to its factory default settings?

➤ **To restore factory settings:**

1. Use a sharp object such as a pen or paper clip to press and hold the **Factory Reset** button on the extender until the Power LED blinks amber.
2. Release the **Factory Reset** button and wait for the extender to reboot.

The extender resets and returns to the factory default settings.

I am connected to the extender WiFi network and launched a browser. I can't see the web browser setup. What else can I do?

Try these troubleshooting steps:

- Make sure that your computer is set up to use DHCP (most are).
- Make sure that the Device Link LED is green and that you are using a valid IP address.
- Relaunch the web browser and enter **www.mywifiext.net** in the address field. Type your user name and password and click the **LOG IN** button.

Cannot Connect to the Extender

If you cannot connect to the extender, determine what prevents you from connecting:

- If you forgot your user name or password, click the **Username & Password Help** link. For more information, see [FAQs](#) on page 44.
- 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 to see if the Device Link LED is off or red. This indicates a poor connection or no connection. Check to see if you accidentally connected to a different WiFi network instead of the extender network.
- If you cannot get a WiFi connection working, you can use an Ethernet cable to connect your computer to the extender.

Cannot Join a WiFi Network

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:

- It is possible that you typed the network name, passphrase, or key incorrectly. Use Smart Setup (see [Run Smart Setup Installation](#) on page 17) to select a WiFi network 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 working. Make sure that the WiFi router is turned on. If possible, move the extender closer to the WiFi router.
- If the extender Device Link LED is red, the WiFi connection between the WiFi router and the extender is poor. 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.

If you use Smart Setup, and the extender does not connect to the WiFi router, does not connect to the Internet, or cannot get an IP address from the WiFi router, Smart Setup displays a message to notify you that the extender is not configured.

A Supplemental Information

A

This appendix includes the following sections:

- *Factory Default Settings*
- *Technical Specifications*

Factory Default Settings

The following table includes the factory settings for the extender. You can use the **Factory Reset** button or the log in to the extender and reset it to these settings. (See [Return the Extender to Its Factory Settings](#) on page 39.)

Table 2. Factory default settings

Feature	Setting
Setup Wizard	Enabled
WiFi communication	Enabled
WiFi network names (SSIDs)	<ul style="list-style-type: none"> 2.4 GHz network: NETGEAR_2GEXT 5 GHz network: NETGEAR_5GEXT
Security	Disabled
Transmission speed	Auto ¹
Country/region	Varies by region
Operating mode	802.11ac, 802.11n, 802.11g, 802.11b, 802.11a
Data rate	Up to 300 Mbps for 2.4 GHz network and 1733 Mbps for 5 GHz network
DHCP	Client enabled

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

Technical Specifications

The following table includes the product specifications.

Table 3. Technical specifications

Feature	Description
Network protocol and standards compatibility	Data and routing protocols: TCP/IP, DHCP server and client, DNS relay, NAT (many-to-one)
Power consumption	100–240V, 50/60 Hz, 0.5A maximum
Physical specifications	<ul style="list-style-type: none"> Dimensions: 145 x 200 x 100 mm (5.8 x 8 x 4 in.) Weight: 300 g (12 oz.)

Table 3. Technical specifications (continued)

Feature	Description
Environmental	<ul style="list-style-type: none"> • Operating temperature: 32° to 140°F (0° to 40°C) • Operating humidity: 90% maximum relative humidity, noncondensing • Electromagnetic emissions: Meets requirements of FCC Part 15 Class B
Interface	<ul style="list-style-type: none"> • Local: 10BASE-T, 100/1000BASE-Tx, RJ-45 • 802.11ac, 802.11n, 802.11a, 802.11g, 802.11b