NETGEAR®

AC1200 WiF Range Extender

Model EX6150

User Manual

September 2015
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350 East Plumeria Drive
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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Table of Contents

Chapter 1 Overview

Meet Your Extender 6
Front and Side Panels 6
When to Use Your Extender 7
How the Extender Works 7

Chapter 2 Get Started

Install the WiFi Extender 10
Place the Extender and Apply Power 10
Connect to an Existing WiFi Network 10
Find the Best Location 13
Connect an Ethernet-Enabled Device 14
Use the Extender in Access Point Mode 14
Log In to the Extender After Installation 16
Run Smart Setup Installation 17

Chapter 3 Extender Network Settings

View Connected Devices 20
Boost Your Video Streaming with FastLane Technology 20
View WiFi Settings 22
Change the WiFi Network Name 22
Turn Off the SSID Broadcast to Create a Hidden Network 23
Disable or Enable the WiFi Radios 24
Change the WiFi Speed 25
Use WPS to Add a Computer to the Extender's WiFi Network 26
Use WPS with the Push Button Method 27
Use WPS with the PIN Method 27
Deny Access to a Computer or WiFi Device 28
Set Up an Access Schedule 29
Change the Extender's Device Name 30
Set Up the Extender to Use a Static IP Address 31
Use the Extender with MAC Filtering or Access Control 32

Chapter 4 Maintain and Monitor the Extender

Change the Extender User Name and Password 36
Turn Password Protection Off and On 37
Recover a Forgotten User Name or Password 37
Automatically Adjust for Daylight Saving Time 38

Manually Set the Extender Clock 38
Back Up and Manage the Extender Configuration 39
Back Up the Configuration Settings 39
Restore the Configuration Settings 39
Return the Extender to Its Factory Default Settings 40
Update the Firmware 42
Restart the Extender Remotely 43

Chapter 5 FAQs and Troubleshooting

FAQs 46
Cannot Connect to the Extender 46
Cannot Join a WiFi Network and Receive an Error Message 46

Appendix A Factory Settings and Technical Specifications

Factory Default Settings 49
Technical and Environmental Specifications 50

Overview

1

The 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:

- *Meet Your Extender*
- *When to Use Your Extender*
- *How the Extender Works*

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

Note: Firmware updates with new features and bug fixes are made available from time to time on *downloadcenter.netgear.com*. Some products can regularly check the site and download new firmware, or you can check for and download new firmware manually.

Meet Your Extender

Before you install your extender, familiarize yourself with its LEDs, buttons, and port.

Front and Side Panels

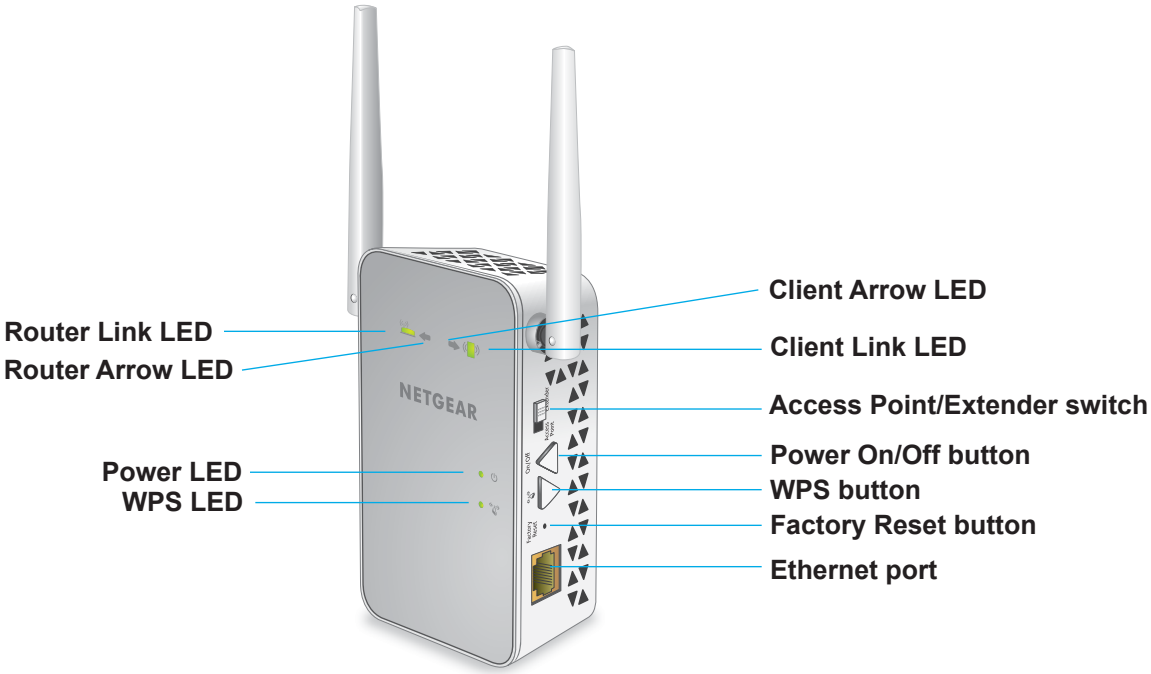


Figure 1. Front and side panels

The following table describes the LEDs.

Table 1. LEDs

LED	Description
Router Link	This LED indicates the connection between the extender and the router or access point: • **Solid green**. Best connection. • **Solid amber**. Good connection. • **Solid red**. Poor connection. • **Off**. No connection.
Client Link	This LED indicates the connection between the extender and a computer or WiFi device: • **Solid green**. Best connection. • **Solid amber**. Good connection. • **Solid red**. Poor connection. • **Off**. No connection.

Table 1. LEDs

LED	Description
Power	• **Solid amber**. The extender is booting. • **Solid green**. The extender is powered on. • **Off**. The extender is powered off.
WPS	• **Solid green**. WiFi security is enabled (WPA or WPA2). • **Blinking green**. A WPS connection is in progress. • **Off**. WiFi security is not enabled

Note: If the Router Arrow LED or Client Arrow LED blinks, see *Find the Best Location* on page 13. If no arrow LEDs light, the extender is in a good location.

When to Use Your Extender

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. 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.

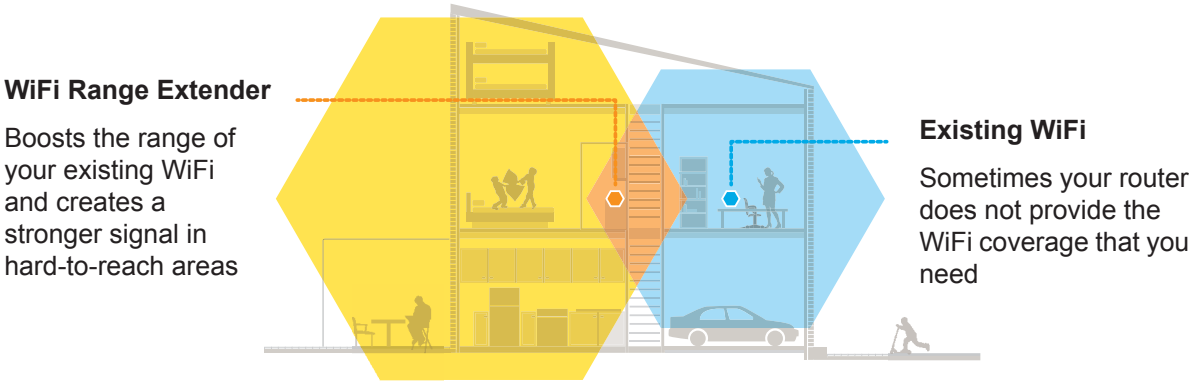


Figure 2. Range extender in a home

Get Started

2

This chapter covers the following topics:

- *Install the WiFi Extender*
- *Use the Extender in Access Point Mode*
- *Log In to the Extender After Installation*
- *Run Smart Setup Installation*

Install the WiFi Extender

Place the extender, apply power, and connect it 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 14.

Place the Extender and Apply Power

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

1. Place your extender in the same room as your WiFi router.

   Proximity to the WiFi router is required only during the initial setup process.
2. Plug the extender into an electrical outlet.
3. Wait for the Power LED to light amber and then turn green.

   If the Power LED does not light, press the **Power On/Off** button on the side of 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 web browser setup**. For more information, see *Connect with Web Browser Setup* on page 11.

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 Web Browser Setup* on page 11.

➢ **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.

   The WPS LED on the extender lights solid green, the Router Link LED lights, and the extender connects to your existing WiFi network.

   If the Router Link LED does not light, try again. If it still does not light, see *Connect with Web Browser Setup* on page 11.

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. Find the new extender WiFi network name on your computer or WiFi device.

   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 WiFi network names**. MyNetworkName_2GEXT and MyNetworkName_5GEXT

5. Connect your computer or WiFi devices to the new extender WiFi network.

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

6. Unplug the extender and move it to a new location closer to the area with a poor WiFi signal.

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

7. Plug the extender into an electrical outlet.
8. Wait for the Power LED to light amber and then turn green.

   If the Power LED does not light, press the **Power On/Off** button on the side of the extender.

9. Use the Router Link LED on the front panel to help you choose a spot where the extender-to-router connection is optimal.

Connect with Web Browser Setup

You can use a web browser to log in to the extender and set up its WiFi connection to your existing WiFi router.

➢ **To use a web browser to connect the extender to your WiFi router:**

1. Use a WiFi network manager on a computer or WiFi device to find and connect to the extender NETGEAR_EXT (SSID) WiFi network.

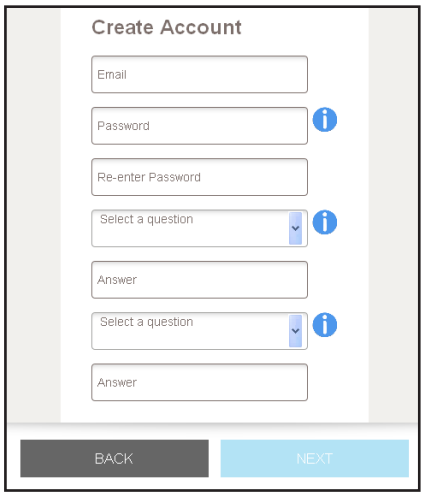
   After the connection with the computer or WiFi device is established, the Client Link LED lights.

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

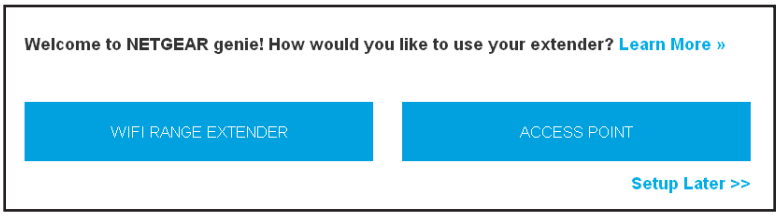
   The New Extender Setup screen displays.

4. Click the **NEW EXTENDER SETUP** button.

   The first time that you log in to the extender, the Create Account screen displays. If the Create Account screen does not display, visit **www.mywifiext.net**.



5. Complete the fields on the Create Account screen and click the **NEXT** button.
6. When prompted, select your country or region from the **Regional Settings** menu and click the **NEXT** button.



7. Click the **WIFI RANGE EXTENDER** button.

   The extender scans for WiFi networks in your area and displays a list.

8. 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.

9. In the **Password (Network Key)** field, type the existing WiFi network password (also called passphrase or security key) and click the **NEXT** button.
10. Set the network name (SSID) and password for your new extender WiFi network and click the **NEXT** button.
11. Connect your client device to the new extender WiFi network using the extender SSID and password that you created in Step 10.

Note: To connect additional devices, repeat Step 11.

12. Make sure that your client device is successfully connected before you click the **Continue** button.
13. Click the **Continue** button.

    A message displays confirming that the extender is connected to the new extender WiFi network.
14. Click the **Next** button.

    The registration screen displays.
15. 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 screen displays.
16. Unplug the extender and move it to a new location closer to the area with a poor WiFi signal.

    The location that you choose must be within the range of your existing WiFi router network.
17. Plug the extender into an electrical outlet.

    Wait for the Power LED to light amber and then turn green.

    If the Power LED does not light, press the **Power On/Off** button.
18. Use the Router Link LED to help you choose a spot where the extender-to-router connection is optimal.

    The extender connects to your existing router's WiFi network.

Find the Best Location

If the WiFi signal is weak, the first time you join the extender network, the Router Link LED or Client Link LED is amber or red. If this happens, adjust the position of the extender:

- If the Router Link LED is amber or red, move the extender closer to the router.
- If the Client Link LED is amber or red, move the computer or WiFi device closer to the extender.

Connect an Ethernet-Enabled Device

After the extender is connected to your existing WiFi network, you can connect a wired device to the extender using an Ethernet cable. The device can then access your existing network through the extender's WiFi connection.

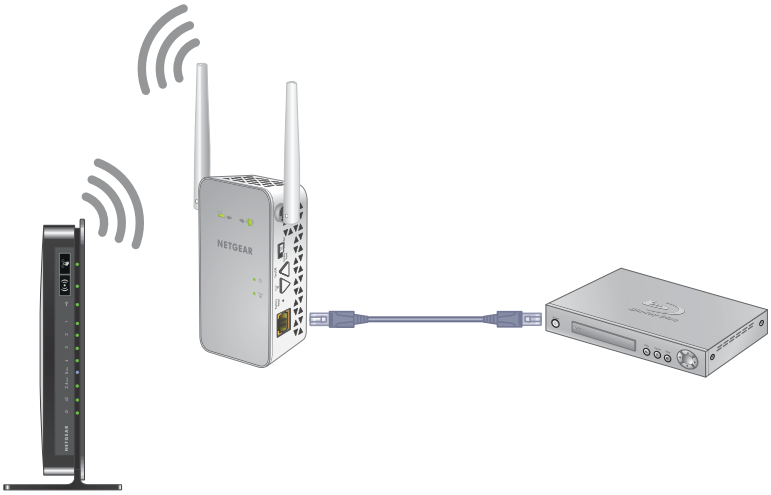


Figure 3. Connect a device to the Ethernet LAN port

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.

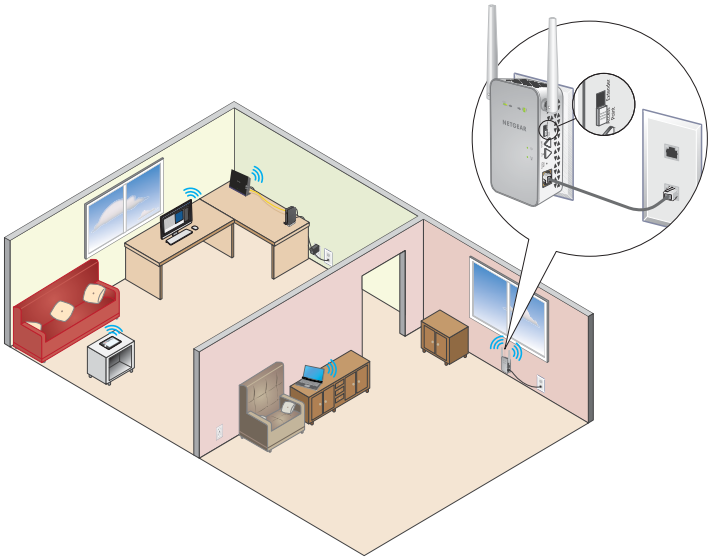


Figure 4. Extender in access point mode

➢ **To use the extender in access point mode:**

1. Plug the extender into an electrical outlet.
2. Wait for the Power LED to light amber and then turn green.

   If the Power LED does not light, press the **Power On/Off** button on the side of the extender.
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. Use a WiFi network manager on a computer or WiFi device to find and connect to the NETGEAR_EXT (SSID) WiFi network.

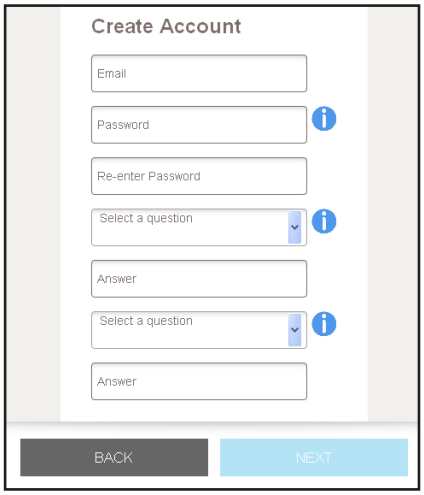
   You can join one of the following extender WiFi networks:

   - NETGEAR_EXT
   - NETGEAR_5GEXT

   When you join the network, the extender Client Link LED lights to show that you are connected.
5. Launch a web browser and enter **www.mywifiext.net** in the address field.

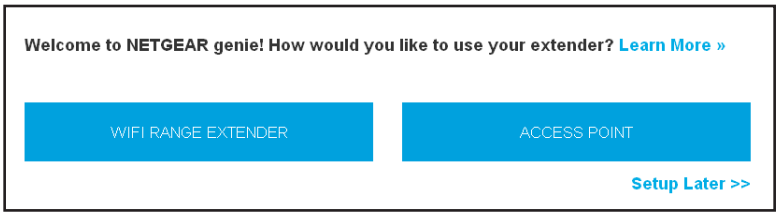
   The New Extender Setup screen displays.
6. Click the **NEW EXTENDER SETUP** button.

   The first time that you log in to the extender, the Create Account screen displays. If the Create Account screen does not display, visit **www.mywifiext.net**.



7. Complete the fields on the Create Account screen and click the **NEXT** button.

8. When prompted, select your country or region from the **Regional Settings** menu and click the **NEXT** button.



9. Click the **ACCESS POINT** button.

   The extender checks for an Internet connection.

10. Click the **HOME NETWORK** or **PUBLIC NETWORK** button.
11. When prompted, set the network name (SSID), security option, and password, and click the **NEXT** button.

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

12. Connect your client device to a new access point WiFi network using the new access point SSID and password that you created in Step 11.
13. Make sure that your client device is successfully connected before you click the **Continue** button.
14. Click the **Continue** button.

    A screen displays that says you successfully created an access point.

15. Click the **Next** button.

    The registration screen displays.

16. 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 screen displays.

Log In to the Extender After Installation

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 computer or WiFi device to find and connect to the new extender WiFi network.

   After the connection with the computer or WiFi device is established, the Client Link LED lights solid green.

2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.

A login screen displays.

4. Enter your email address and password and click the **LOG IN** button.

   The Status screen displays.

Run Smart Setup Installation

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 computer or WiFi device to find and connect to the new extender WiFi network.

   After the connection with the computer or WiFi device is established, the Client Link LED lights solid green.

2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.

   A login screen displays.

4. Enter your email address and password and click the **LOG IN** button.

   The Status screen displays.

5. Click the **SMART SETUP** button.

   The Welcome screen 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 screen 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 screen displays.

Extender Network Settings

3

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 Computer or 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*

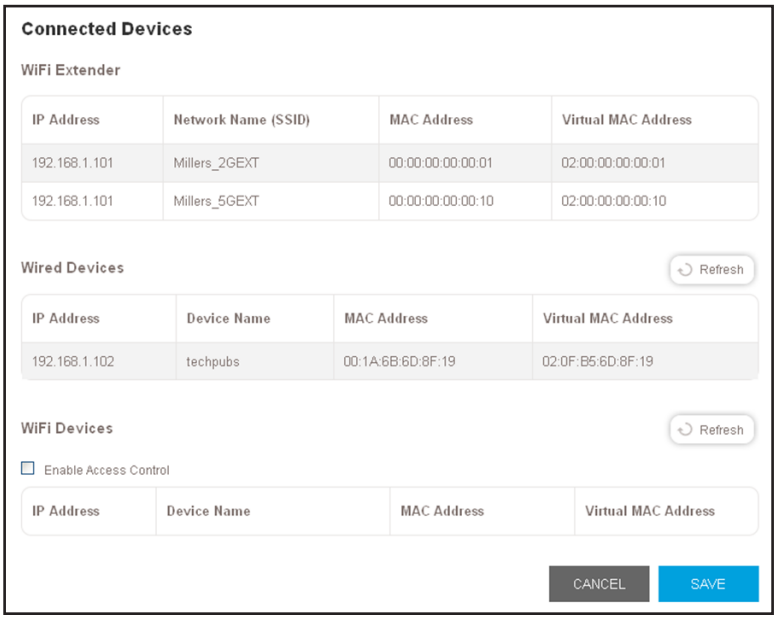
View Connected Devices

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

➢ **To view connected devices:**

1. On a computer or WiFi device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.
3. When prompted, enter your email address and password.
4. Click the **Menu** icon ☰.

   The extender menu displays.
5. Select **Settings > Connected Devices**.



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.

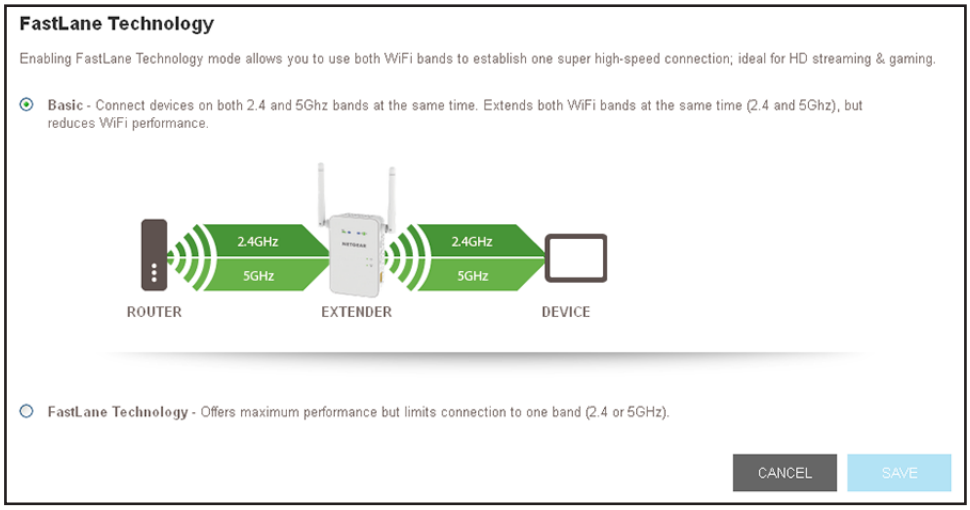
When you enable FastLane Technology, two options are available:

- 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 a computer or WiFi device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.
3. When prompted, enter your email address and password.
4. Click the **Menu** icon ☰.

   The extender menu displays.
5. Select **Do More > FastLane**.



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

   The screen 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.

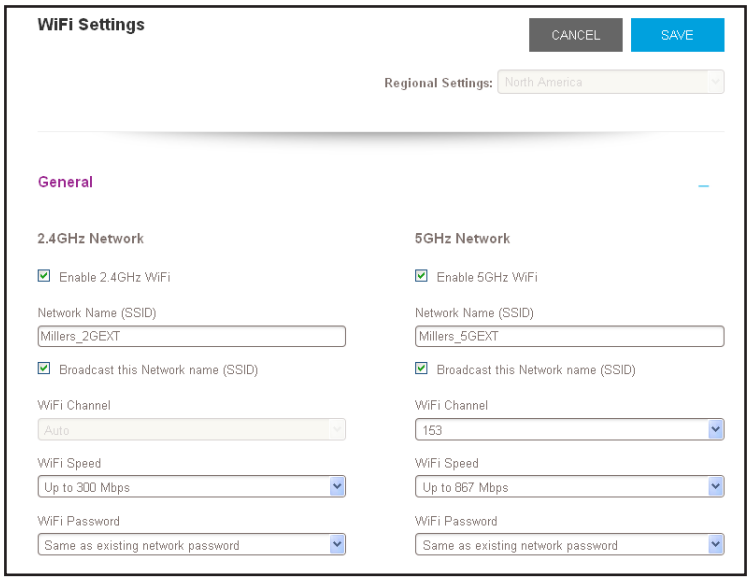
   Your changes are saved.

View WiFi Settings

➢ **To view the WiFi settings:**

1. On a computer or WiFi device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.
3. When prompted, enter your email address and password.
4. Click the **Menu** icon ☰.

   The extender menu displays.
5. Select **Settings > WiFi**.



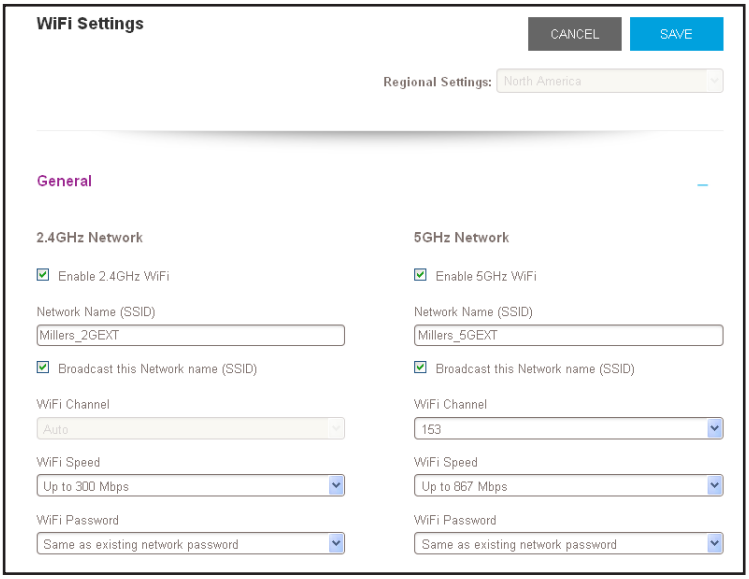
Change the WiFi Network Name

➢ **To change the WiFi network name:**

1. On a computer or WiFi device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.
3. When prompted, enter your email address and password.
4. Click the **Menu** icon ☰.

   The extender menu displays.

5. Select **Settings > WiFi**.



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

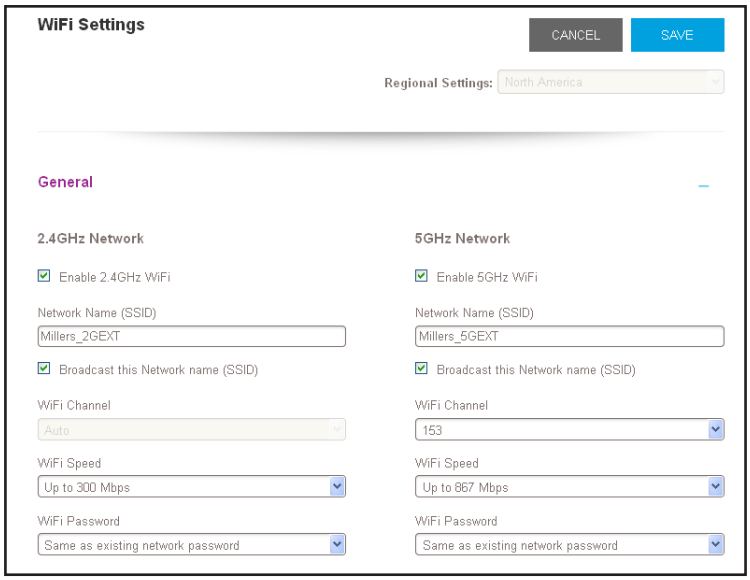
By default, the extender broadcasts its WiFi signal so that its wireless network names (SSIDs) are easy for you to find and connect to from your computer, tablet, or smartphone. You can turn off the SSID broadcast to create a hidden WiFi network. To connect to a hidden network you must know its SSID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

➢ **To turn off the SSID broadcast to create a hidden network:**

1. On a computer or WiFi device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.
3. When prompted, enter your email address and password.
4. Click the **Menu** icon ☰.

   The extender menu displays.

5. Select **Settings > WiFi**.



6. Clear the **Broadcast the Network name (SSID)** check box.
7. Click the **SAVE** button.

   Your settings are saved.

Disable or Enable the WiFi Radios

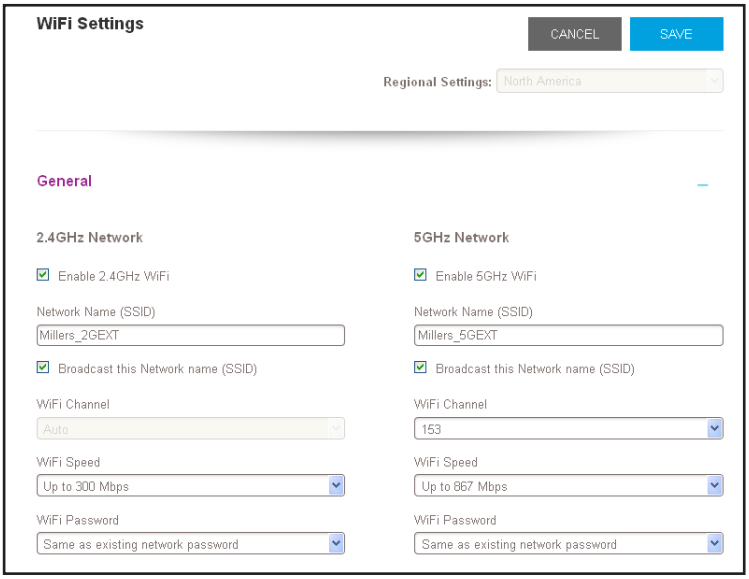
By default, the extender's WiFi radios broadcast signals in the 2.4 GHz and 5 GHz bands. If you disable the WiFi radios, then no one can connect with WiFi to the extender.

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

1. On a computer or WiFi device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.
3. When prompted, enter your email address and password.
4. Click the **Menu** icon ☰.

   The extender menu displays.

5. Select **Settings > WiFi**.



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.

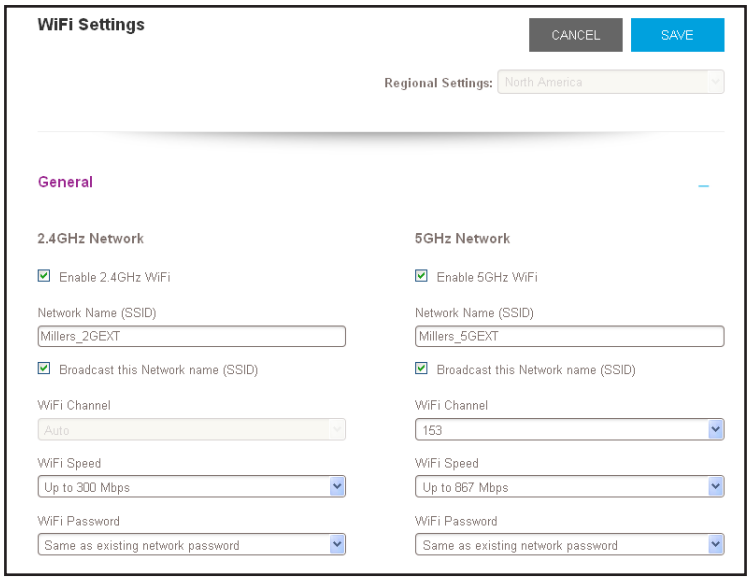
Change the WiFi Speed

➢ **To change the WiFi speed:**

1. On a computer or WiFi device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.
3. When prompted, enter your email address and password.
4. Click the **Menu** icon ☰.

   The extender menu displays.

5. Select **Settings > WiFi**.



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 (WiFi 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 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 screen (for more information, see *View WiFi Settings* on page 22).

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 14.

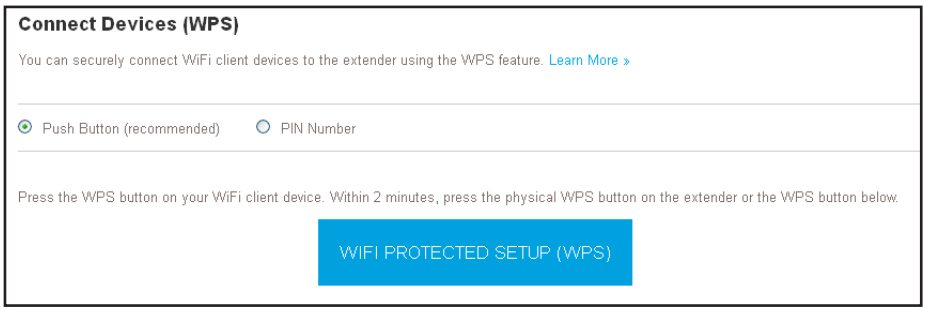
Use WPS with the Push Button Method

To use the 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 display an onscreen WPS button that you can click.

➢ **To use WPS to add a computer or WiFi device to the extender's WiFi network:**

1. On a computer or WiFi device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.
3. When prompted, enter your email address and password.
4. Click the **Menu** icon ☰.

   The extender menu 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 computer or WiFi 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 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.

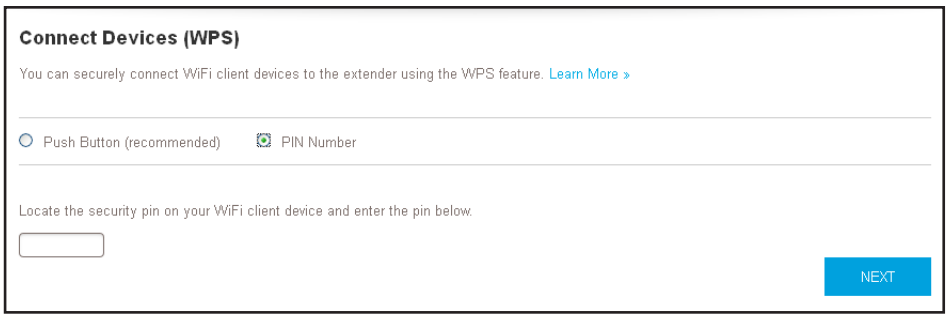
➢ **To add a computer or WiFi device to the extender's WiFi network:**

1. On a computer or WiFi device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.

3. When prompted, enter your email address and password.
4. Click the **Menu** icon ☰.

   The extender menu displays.
5. Select **Settings > Do More > Connect Devices (WPS)**.

   The Connect Devices (WPS) screen displays.
6. Select the **PIN Number** radio button.



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 computer or WiFi 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 onscreen.

Deny Access to a Computer or WiFi Device

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

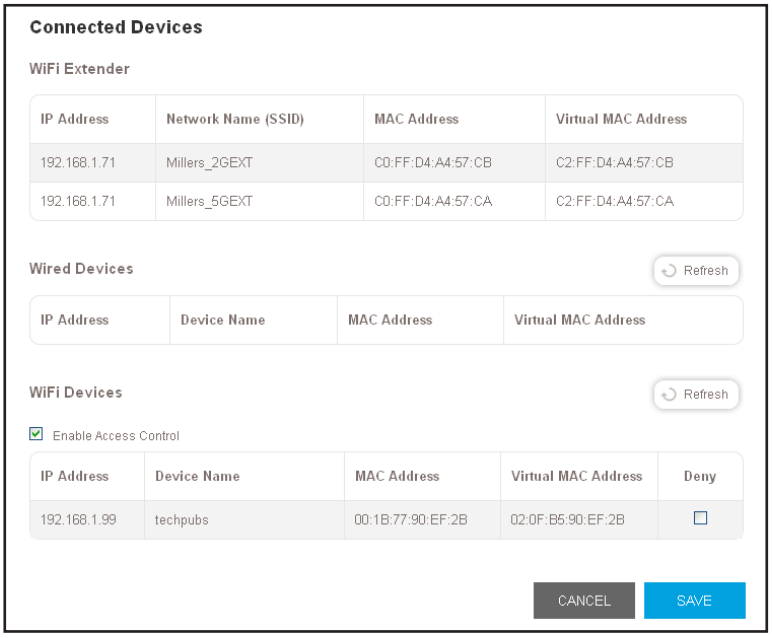
You can deny network access to specific computers and WiFi devices based on their MAC addresses. Each network device is assigned a MAC address, which is a unique 12-character physical address, containing the hexadecimal characters 0–9, a–f, or A–F only, and separated by colons (for example, 00:09:AB:CD:EF:01). 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 screen (see *View Connected Devices* on page 20).

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

1. On a computer or WiFi device that is connected to the extender network, launch a web browser.

2. In the address field of your browser, enter **www.mywifiext.net**.
3. When prompted, enter your email address and password.
4. Click the **Menu** icon ☰.

   The extender menu displays.
5. Select **Settings > Connected Devices**.



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

   The WiFi devices table displays the name and MAC address 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 access to all users 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.

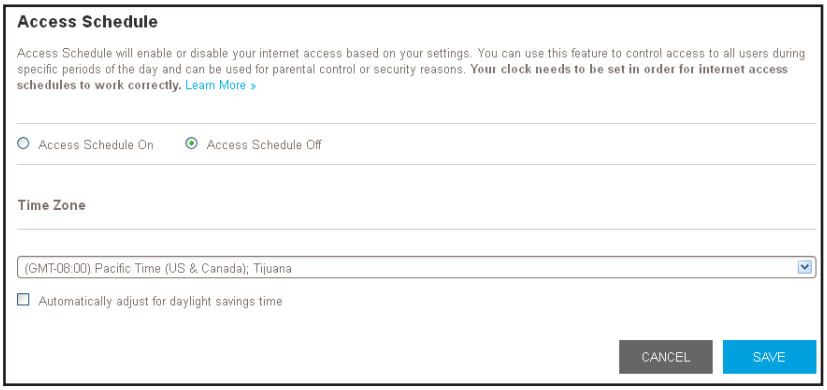
➢ **To set up an access schedule:**

1. On a computer or WiFi device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.
3. When prompted, enter your email address and password.

4. Click the **Menu** icon ☰.

   The extender menu displays.

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



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

   The screen adjusts.

7. In the **Days** menu and the **Time** menu, select the days and time when you want to disable Internet access.
8. Click the **Add Time** button to add the time that you specified to the Scheduled Times table.
9. Click the **SAVE** button.

   Your settings are saved.

Change the Extender's Device Name

The default name is EX6150.

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

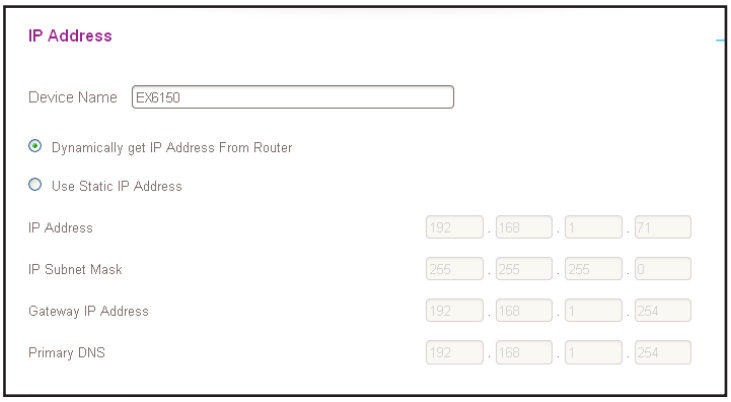
1. On a computer or WiFi device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.
3. When prompted, enter your email address and password.
4. Click the **Menu** icon ☰.

   The extender menu displays.

5. Select **Settings > WiFi Settings**.

   The WiFi Settings screen displays.

6. Scroll down and click the IP address settings.



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.

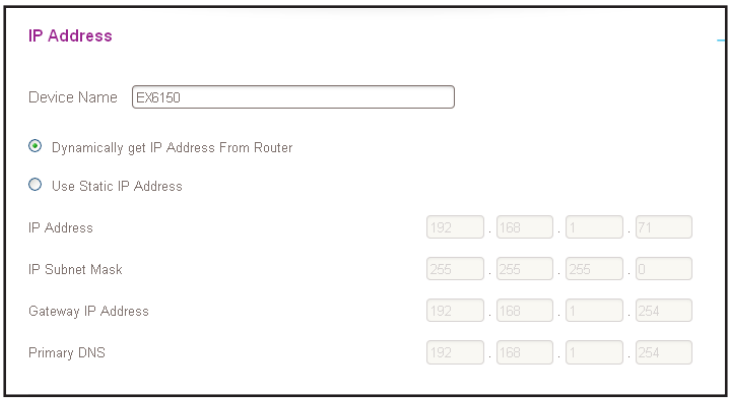
➢ **To set up the extender to use a static IP address:**

1. On a computer or WiFi device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.
3. When prompted, enter your email address and password.
4. Click the **Menu** icon ☰.

   The extender menu displays.
5. Select **Settings > WiFi Settings**.

   The WiFi Settings screen 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 wireless device shown on the router is translated to another MAC address. If your router's MAC filter, wireless 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 wireless 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, wireless access control, or ACL.

   For more information about how to disable your router’s MAC filter, wireless 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 screen displays.
   c. Enter your email address and password and click the **LOG IN** button.
5. Click the **Menu** icon ☰.

The extender menu displays.

6. Select **Settings > WiFi Settings**.

   The WiFi Settings screen displays.

7. Scroll down and select **Connected Devices**.

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

8. On the router, add all of the virtual MAC addresses from your extender to your router's MAC filter table.
9. Check the product label and find the extender's MAC 1 and MAC 2 addresses.
10. Add the extender's MAC 1 address to your router's MAC filter table.
11. Add the extender's MAC 2 address to your router's MAC filter table.

    You must type 02:0F:B5: first, then type the last six digits of your MAC 2 address after.

    For example, if your MAC 2 address is C4:04:15:5F:20:AC, type 02:0F:B5:5F:20:AC in your router's MAC filter table.

12. Convert the extender's MAC 1 address and add the new MAC 1 address to your router's MAC filter table.

    a. Convert the first two hexadecimal values in the extender's MAC 1 address to binary.

    For example, say the first two hexadecimal values in your MAC 1 addresses are C4. The binary code for C is 1100 and the binary code for 4 is 0100. Therefore, the binary code for C4 is 1100/0100.

Hexadecimal Values	Binary Numbers	Hexadecimal Values	Binary Numbers
0	0000	8	1000
1	0001	9	1001
2	0010	A	1010
3	0011	B	1011
4	0100	C	1100
5	0101	D	1101
6	0110	E	1110
7	0111	F	1111

    b. Toggle the second-to-last digit of the binary code to 1 or 0.

    If the second-to-last digit is 1, toggle it to 0. If the second-to-last digit is 0, toggle it to 1. For example, if the binary code is 1100/0100, the new binary code is 1100/0110.

    c. Convert the new binary code back to a hexadecimal value.

For example, if the binary code is 1100/0110, the new hexadecimal value is C6.

Binary numbers	Hexadecimal values	Binary numbers	Hexadecimal values
0000	0	1000	8
0001	1	1001	9
0010	2	1010	A
0011	3	1011	B
0100	4	1100	C
0101	5	1101	D
0110	6	1110	E
0111	7	1111	F

d. Replace the first two hexadecimal values in the old MAC 1 address with the new value that you converted and add the new MAC 1 address to your router's MAC filter table.

For example, if your old MAC 1 address was C4:04:15:5F:20:AD, your new MAC 1 address is C6:04:15:5F:20:AD.

13. Enable the router's MAC filter, wireless access control, or ACL.

Maintain and Monitor the Extender

4

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 Manage the Extender Configuration*
- *Back Up the Configuration Settings*
- *Return the Extender to Its Factory Default Settings*
- *Update the Firmware*
- *Restart the Extender Remotely*

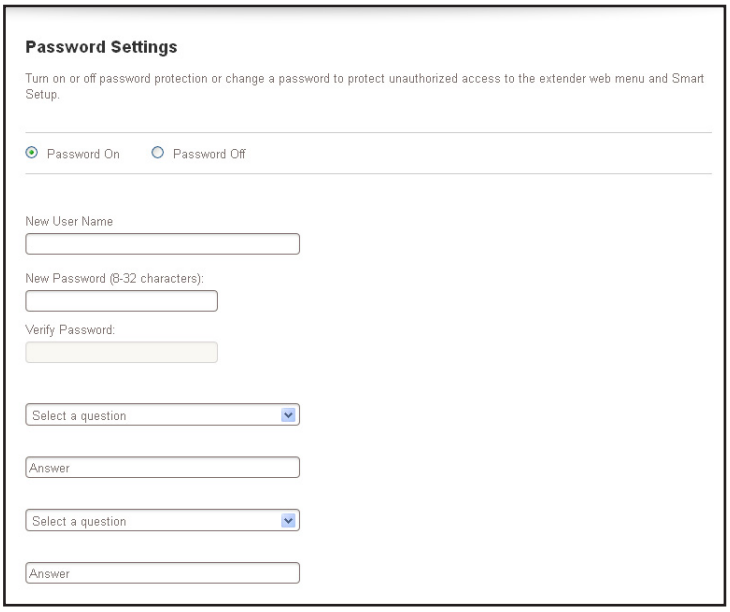
Change the Extender User Name and Password

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

➢ **To add an extender user:**

1. On a computer or WiFi device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.
3. When prompted, enter your email address and password.
4. Click the **Menu** icon ☰.

   The extender menu displays.
5. Select **Settings > Password Settings**.



6. In the **New User Name** field, type an email address.
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

NETGEAR recommends 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 a computer or WiFi device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.
3. When prompted, enter your email address and password.
4. Click the **Menu** icon ☰.

   The extender menu displays.
5. Select **Settings > Password Settings**.

   The Password Settings screen 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 computer or WiFi 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 screen 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 login credentials again. See *Return the Extender to Its Factory Default Settings* on page 40 and *Chapter 2, Get Started*.
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 screen displays.

7. Log in to the extender.

Automatically Adjust for Daylight Saving Time

➢ **To set up the extender to automatically adjust for daylight saving time:**

1. On a computer or WiFi device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.
3. When prompted, enter your email address and password.
4. Click the **Menu** icon ☰.

   The extender menu displays.
5. Select **Do More > Access Schedule**.

   The Access Schedule screen 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 a computer or WiFi device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.
3. When prompted, enter your email address and password.
4. Click the **Menu** icon ☰.

   The extender menu displays.
5. Select **Do More > Access Schedule**.

   The Access Schedule screen 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 computer or WiFi device that you are using.
8. Click the **SAVE** button.

   Your settings are saved.

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 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 a computer or WiFi device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.
3. When prompted, enter your email address and password.
4. Click the **Menu** icon ☰.

   The extender menu displays.
5. Select **Settings > Other Settings**.

6. Click the **BACKUP** button.

   Your browser extracts the configuration file from the extender. By default, the name of the backup file is `NETGEAR_Ex7000.cfg`.
7. If your browser is not 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 a computer or WiFi device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.

3. When prompted, enter your email address and password.
4. Click the **Menu** icon ☰.

   The extender menu displays.
5. Select **Settings > Other Settings**.

6. Click the **BROWSE** button.
7. Locate and select the previously saved backup file.

   By default, the name of the backup file is `NETGEAR_EX7000.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 screen displays.
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 Default Settings

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

To reset the extender to factory default settings, you can either use the **Factory Reset** button on the rear panel or log in to the extender and reset it.

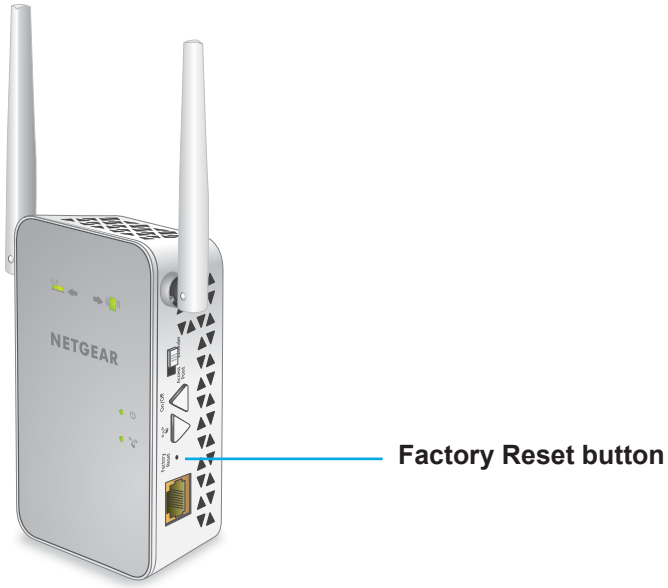
For a list of factory default settings, see *Factory Default Settings* on page 49.

➢ **To use the Factory Reset button to return the extender to factory default settings:**

CAUTION:

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

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



2. Release the button.

CAUTION:

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!

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

➢ **To log in to the extender and reset the extender's to factory settings:**

CAUTION:

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

1. On a computer or WiFi device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.
3. When prompted, enter your email address and password.
4. Click the **Menu** icon ☰.

The extender menu displays.

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

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 screen displays.

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 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 a computer or WiFi device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.
3. When prompted, enter your email address and password.
4. Click the **Menu** icon ☰.

   The extender menu 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 a couple of 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 a computer or WiFi device that is connected to the extender network, launch a web browser.
2. In the address field of your browser, enter **www.mywifiext.net**.
3. When prompted, enter your email address and password.
4. Click the **Menu** icon ☰.

   The extender menu displays.

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

The Other Settings screen displays.

6. Click the **RESTART** button and click the **Yes** button to confirm.

   The extender restarts, which takes about two minutes.

FAQs and Troubleshooting

5

This chapter covers the following topics:

- *FAQs*
- *Cannot Connect to the Extender*
- *Cannot Join a WiFi Network and Receive an Error Message*

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 the place the extender, see *Find the Best Location* on page 13.

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 14.

I forgot my login email address and password. What can I do?

On the login screen, 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 37.

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 46.
- 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 Client Link LED is off or red.
- 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 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:

- 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 Client 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.

To run Smart Setup again, click the **YES** button. To manually configure the extender, click the **NO, CONFIGURE MANUALLY** button.

Factory Settings and Technical Specifications

A

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 **Factory Reset** button on the rear panel or log in to and click the **RESET** button. For more information, see *Return the Extender to Its Factory Default Settings* on page 40.

The following table shows the factory default settings.

Table 2. Factory default settings

Feature	Default Settings
Smart Setup	Enabled
WiFi communication	Enabled
WiFi network name (SSID)	NETGEAR_EXT
Security	Disabled
Transmission speed	Auto[1]
Country/region	Varies by region
Operating mode	802.11a/b/g/n/ac
Data rate in the 2.4 GHz band	54/145/300 Mbps
Data rate in the 5 GHz band	54/173/400/867 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, NAT (many-to-one).
Physical specifications	• Dimensions: 122 x 74 x 38 mm (4.8 x 2.91 x 1.5 in.) • Weight: 294 g (0.65 lb)
Environmental	• Operating temperature: 32° to 140°F (0° to 40°C) • Operating humidity: 90% maximum relative humidity, noncondensing
Interface	• Local: 10BASE-T, 100BASE-TX, 1000BASE-T, RJ-45 • 802.11ac, 802.11n, 802.11a, 802.11g, 802.11b
Electromagnetic emissions	Meets requirements of FCC Part 15 Class B.