NETGEAR®

Nighthawk AC1900 WiF Range Extender

Model EX7000 User Manual



December 2014 202-11469-01

350 East Plumeria Drive San Jose, CA 95134 USA

Nighthawk AC1900 WiF Range Extender

Support

Thank you for selecting NETGEAR products.

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

For product updates and web support, visit http://support.netgear.com.

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

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

Compliance

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

See the regulatory compliance document before connecting the power supply.

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Overview

1

The NETGEAR Nighthawk AC1900 WiFi Range Extender boosts your existing network range and speed, delivering dual-band WiFi at speeds up to 1900 Mbps. The Nighthawk combines excellent range with maximum WiFi performance. It works with any standard WiFi router and is ideal for HD video streaming and gaming. Get the whole-home connectivity you need for tablets, smartphones, laptops and more.

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:

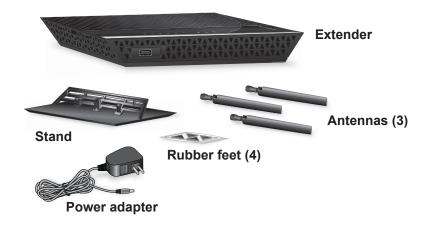
- Unpack Your Extender
- Top Panel LEDs and Front Panel USB Port
- Rear Panel
- Attach the Stand
- Attach the Rubber Feet
- Attach the Antennas
- Retrieve and Display the Product Label
- When to Use Your Extender
- How the Extender Works
- Support for the 801.11ac Networking Standard

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.

Unpack Your Extender

Your box contains the following items:



Top Panel LEDs and Front Panel USB Port

Use the LEDs during installation to find the best location for the extender or to monitor the extender performance. The following figure shows the extender in an upright position, with the stand attached. (For information about attaching the stand, see *Attach the Stand* on page 9.)

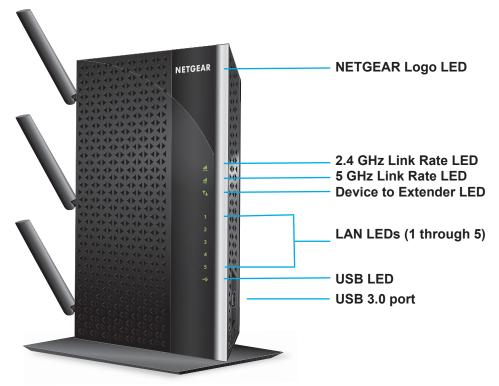


Figure 1. LEDs and USB port

The following table describes the LEDs.

Table 1. Front panel LEDs

LED	Description		
2.4 GHz Link Rate	 Green. The 2.4 GHz WiFi connection between the extender and the WiFi router is optimum. Amber. The 2.4 GHz WiFi connection between the extender and the WiFi router is good. Red. The 2.4 GHz WiFi connection between the extender and the WiFi router is poor. Off. The extender and the WiFi router are not connected using the 2.4 GHz WiFi band. 		
5 GHz Link Rate	 Green. The 5 GHz WiFi connection between the extender and the WiFi router is optimum. Amber. The 5 GHz WiFi connection between the extender and the WiFi router is good. Red. The 5 GHz WiFi connection between the extender and the WiFi router is poor. Off. The extender and the WiFi router are not connected using the 5 GHz WiFi band. 		
LAN (1 through 5)	 Green. An Ethernet device is connected to the LAN port. Off. No Ethernet device is connected to the LAN port. 		
Device to Extender	 Green. The extender is connected to a computer or WiFi device. Amber. The extender is starting or is applying WiFi settings. After about one minute, the LED turns green. Off. The extender is not connected to a computer or WiFi device. 		
USB	 Solid green. A USB device is connected to the USB port. Off. No USB device is connected to the USB port. 		

When the extender is powered on, the LEDs light amber for about one minute.

If you press the **WPS** button, the Link Rate LEDs and the Device to Extender LED blink green for two minutes. For information about using WPS, see *Use WPS to Connect the Extender to Your WiFi Router* on page 14.

The Device to Extender LED blinks amber during a firmware update.

Rear Panel

The following figure shows the ports, buttons, antennas, and connector on the rear panel of the extender.

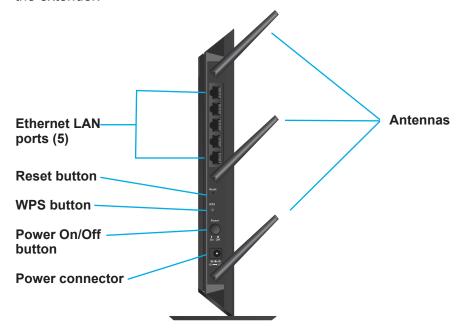


Figure 2. Rear panel

Attach the Stand

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

> To attach the stand:

- 1. Place the stand on a flat surface.
- 2. Hold the extender in upright position with the left side of the extender pointing down.

The left side is the one with three rectangular openings.

The top panel of the extender and the three vertical support posts of the stand must face the same direction.

3. Lower the extender onto the stand until the support posts of the stand snap into the rectangular openings of the extender.



Attach the Rubber Feet

If you prefer to place the extender in horizontal position, you can attach the rubber feet that come with the extender.

> To attach the rubber feet:

1. Place the extender upside down, with the red panel facing you.

The red panel is the bottom.



2. In each corner, attach a rubber foot in such a way that it covers the triangle.

Attach the Antennas

> To attach the antennas:

1. Align the antennas with the antenna posts on the extender.



- 2. Attach the antennas on the threaded antenna posts.
- 3. Position the antennas for the best WiFi performance.

Retrieve and Display the Product Label

The product label that you can retrieve from the extender contains the login URL, serial number, security PIN, MAC addresses of the radios, and other information.

> To retrieve the product label from the extender:

- Place the extender upside down, with the red panel facing you.
 The red panel is the bottom.
- 2. Locate the label handle with NETGEAR printed on it, and pull out the product label.



Figure 3. Pulling out the product label

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.

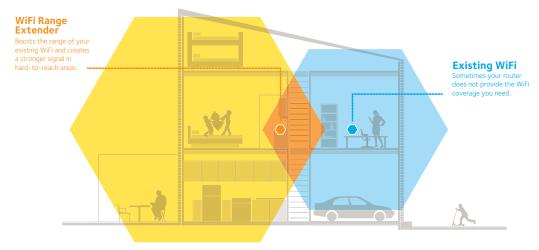


Figure 4. Range extender in a home

Support for the 801.11ac 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 http://www.netgear.com/landing/80211ac/.

3x Speed

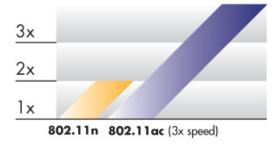


Figure 5. Speed comparison between the 802.11n and 802.11ac standards

Get Started

2

This chapter covers the following topics:

- Install the Extender to Boost Your WiFi Range
- Install the Extender as an Access Point
- Log In to the Extender After Installation
- Run Smart Setup Installation

Install the Extender to Boost Your WiFi Range

The most common way to use the extender is to boost the range of your existing WiFi network. You can also use the extender as a WiFi access point and create a new WiFi hotspot by using a wired Ethernet connection. For information about access point installation, see *Install the Extender as an Access Point* on page 18.

Set Up the Extender Hardware

> To set up the extender hardware:

1. Attach the stand or the rubber feet.

For more information, see *Attach the Stand* on page 9 or *Attach the Rubber Feet* on page 10.

2. Attach the antennas.

For more information, see Attach the Antennas on page 10.

3. Turn on your extender.

Place the extender close to your WiFi router. Plug the extender into an electrical outlet. Press the **Power** button if necessary.

The NETGEAR LED lights white and the Link Rate LEDs and the Device to Extender LED light amber and then turn off.

Use WPS to Connect the Extender to Your WiFi Router

You can use WiFi Protected Setup (WPS) to connect the extender to your WiFi router without typing your existing router's WiFi network name (SSID) or WiFi password. If you do not want to use WPS, see *Use a Web Browser to Connect the Extender to Your WiFi Router* on page 15.

> To use WPS to connect the extender to your WiFi router:

- 1. Make sure that the extender is powered on.
- 2. Press the WPS button on the extender.

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

- 3. Within two minutes, press the **WPS** button on your WiFi router.
- 4. Add a WiFi band.

If your WiFi router supports the 5 GHz band (not all routers do), and you want to extend that band, repeat and check that the 5 GHz Link Rate LED lights green to confirm the connection.

Use a Web Browser to Connect the Extender to Your WiFi Router

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

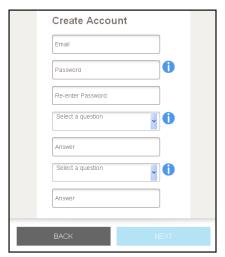
> To use a web browser to connect the extender to your WiFi router:

1. On a computer, tablet, or smartphone, open the WiFi connection manager and connect to the extender network called NETGEAR EXT.

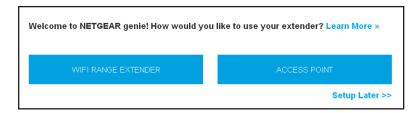
When you are connected to the extender, the Device to Extender LED | lights solid green.

Launch a web browser.

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



3. Complete the fields and click the **NEXT** button.



Click the WiFi RANGE EXTENDER button.

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

- If you do not want to extend both WiFi bands, clear the 2.4GHz WiFi Networks or the 5 GHz WiFi Networks check box.
- 6. Select your WiFi network and click the **NEXT** button.

If your existing WiFi network is hidden, select the **Manually input my wireless SSID** radio button and type your WiFi network name.

7. When prompted, enter the password to connect to your WiFi network and click the **NEXT** button.

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



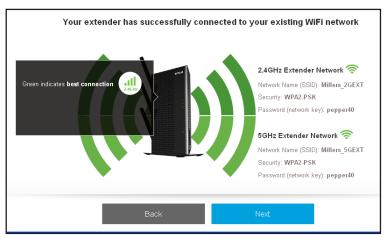
8. Complete the fields to name your extended networks and click the **NEXT** button.

The extender applies your settings. This means that its WiFi network names and WiFi passwords change to the ones that you entered. To make this change, the extender must disconnect the computer or WiFi device that you are using from its WiFi network.

The following screen displays:



9. Use a WiFi network manager on the computer or WiFi device to connect to the new extended WiFi network, and click the **Continue** button.



10. Click the **Next** button.

You are prompted to log in and register your product.

Choose a Location and Check the Signal Strength

Now that the extender is connected to your WiFi router, you can move it to a location that will boost your WiFi range. The location that you choose must be within the range of your existing WiFi router network. The ideal location to place the extender is halfway between your WiFi router and your WiFi device.



Figure 6. Extender location

The best connection is established with a clear line of sight between the extender and the WiFi router and a clear line of sight between the extender and the WiFi device that you are using.

> To move the extender to a good location and check the signal strength:

- Move the extender to a location where you can boost your WiFi range.
 The location you choose must be within the range of your existing WiFi router network.
- Plug the extender into an electrical outlet at the new location and restart the extender.
 Unless the extender is outside the range of your WiFi router, the extender connects automatically to the WiFi router.

The Link Rate LEDs help you choose a spot with a good connection between the extender and the router. The following tables describe how the LEDs show the quality of the connection.

2.4 GHz and 5 GHZ LED Status	LED Color	Performance
Both the Link Rate LED and the Device to Extender LED are green.	and 1	The extender provides the best performance.
The Link Rate LED is amber and the Device to Extender LED is green.	and 1	The extender provides a workable performance.
The Link Rate LED is red.	all	The extender provides a poor performance.
The Link Rate LED is off.		The extender is not connected to the router.

- 3. If the extender is not connected or the connection is poor, move the extender closer to your WiFi router and try again until the 2.4 GHz or 5 GHz Link Rate LED is green, or at least amber.
- **4.** Use a WiFi network manager on the computer or mobile device to connect to the extender's newly created WiFi network.

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

- Existing network name. MyNetworkName
- New extended 2.4 GHz network name. MyNetworkName 2GEXT
- New extended 5 GHz network name. MyNetworkName 5GEXT
- **5.** Select the new network and use your WiFi router password to connect.

You are now using your extended WiFi network.

Connect Ethernet-Enabled Devices

After the extender is connected to your existing WiFi network, you can connect wired devices to the extender using Ethernet cables. Those devices can then access your existing network through the extender's WiFi connection.

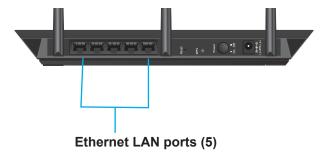


Figure 7. Rear panel Ethernet LAN ports

Install the Extender as an Access Point

You can cable your extender to your existing router and then set up the extender in access point mode to work to create a new WiFi hotspot.

> To use the extender in access point mode:

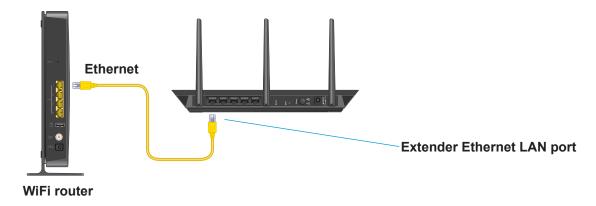
1. Attach the stand or the rubber feet.

For more information, see *Attach the Stand* on page 9 or *Attach the Rubber Feet* on page 10.

2. Attach the antennas.

For more information, see Attach the Antennas on page 10.

3. Use an Ethernet cable to connect your router to the Ethernet port on the extender.



4. Turn on your extender.

Plug the extender into an electrical outlet. Press the **Power** button if necessary.

The NETGEAR LED lights white and the Link Rate LEDs and the Device to Extender LED light amber and then turn off.

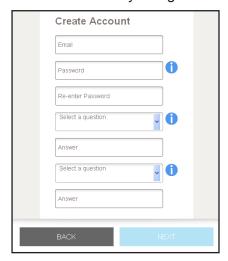
5. Use a WiFi network manager on a computer or WiFi device to find and connect to the NETGEAR_EXT (SSID) WiFi network.

After the connection with the computer or WiFi device is established, the Device to Extender LED 1 lights solid green.

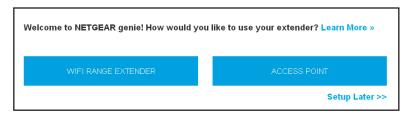
Note: In access point mode, you can connect your computer or WiFi device to the extender only using a WiFi connection.

- 6. Launch a web browser.
- Enter www.mywifiext.net in the address field of the browser.

The first time that you log in to the extender, the Create Account screen displays.



8. Complete the fields and click the **NEXT** button.



9. Click the ACCESS POINT button.

The extender checks for an Internet connection through the router that you connected to the extender.

10. When prompted, set the network name (SSID), security option, and password for each WiFi band, and click the **NEXT** button.

Your settings are applied.

- **11.** Use a WiFi network manager on the computer or WiFi device to connect to the new access point WiFi network.
- **12.** Click the **CONTINUE** button.

A message displays that you successfully created an access point.

Log In to the Extender 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 extended WiFi network.

After the connection with the computer or WiFi device is established, the Device to Extender LED 1 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 extended WiFi network.

After the connection with the computer or WiFi device is established, the Device to Extender LED 1 lights solid green.

- 2. Launch a web browser.
- 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.

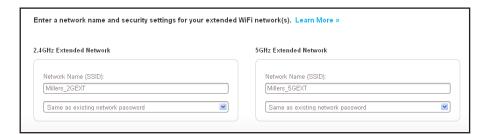
The Welcome screen displays.

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. If you do not want to extend both WiFi bands, clear the **2.4GHz WiFi Networks** or the **5 GHz WiFi Networks** check box.
- 8. Select your WiFi network and click the **NEXT** button.
- When prompted, enter the password to connect to your WiFi network and click the NEXT button.

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



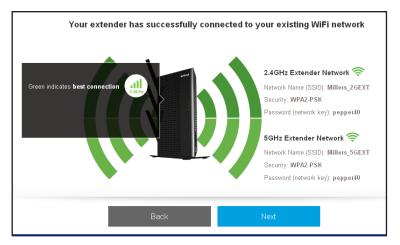
10. Complete the fields to name your extended networks and click the **NEXT** button.

The extender applies your settings to its WiFi network names and WiFi passwords. During this change, the extender disconnects you from its WiFi network.

The following screen displays:



11. Use a WiFi network manager on the computer or WiFi device to connect to the new extended WiFi network and click the **Continue** button.



12. Click the **Next** button.

The Status screen displays.

Optimize Extender Performance

3

This chapter covers the following topics:

- Boost Your Video Streaming
- Adjust the WiFi Coverage

Boost Your Video Streaming

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:

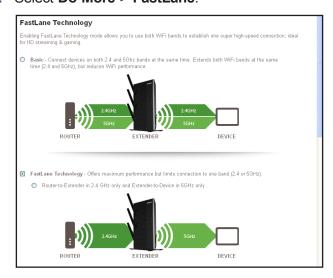
- Use the 2.4 GHz band to connect the extender to the WiFi devices and use the 5 GHz band to connect the extender to the WiFi router. Use this mode if your WiFi router supports the 5 GHz band but the devices that you want to use for gaming and streaming support the 2.4 GHz band.
- Use the 5 GHz band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

Your changes are saved.

Adjust the WiFi Coverage

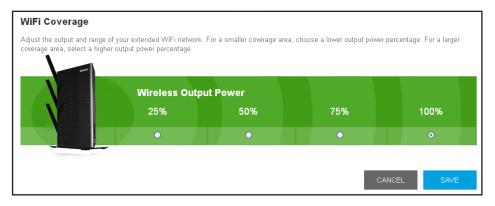
You can set the extender's WiFi coverage depending on how large you want your coverage area to be.

> To adjust the WiFi coverage:

- 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 > WiFi Coverage**.



6. Select a Wireless Output Power radio button.

If your extender is covering a small area, select a lower-output power percentage. If your extender is covering a large area, select a higher-output power percentage.

7. Click the **SAVE** button.

Your settings are saved.

Extender Network Settings

This chapter covers the following topics:

- View Connected Devices
- 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

View Connected Devices

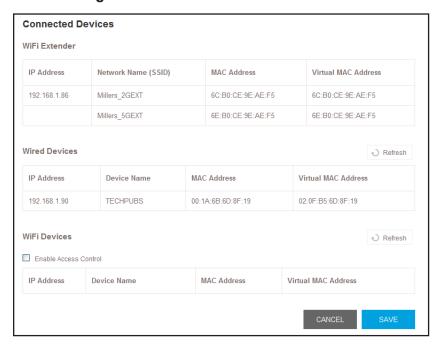
You can view a list of devices that are connected to the extender network.

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.

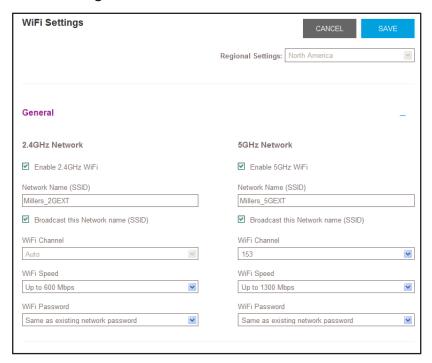
5. Select Settings > Connected Devices.



View WiFi Settings

> To view the WiFi settings:

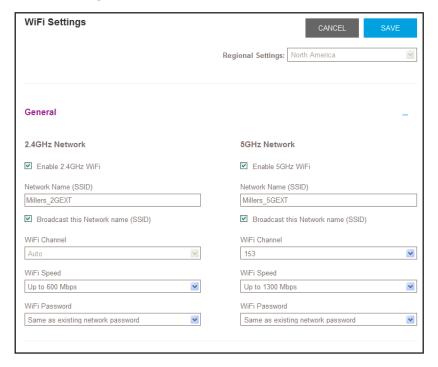
- On a computer or WiFi device that is connected to the extender network, launch a web browser.
- 2. In the address field of your browser, enter www.mywifiext.net.
- 3. When prompted, enter your email address and password.
- 4. Click the **Menu** icon **=**.



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 **=**.



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

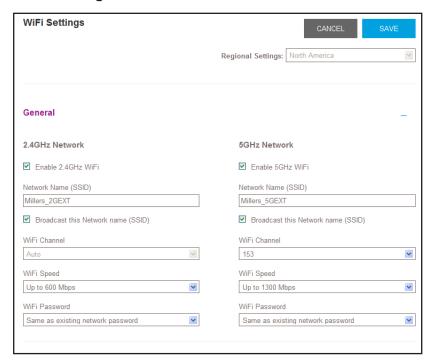
Your settings are saved.

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.
- Click the Menu icon _____.



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

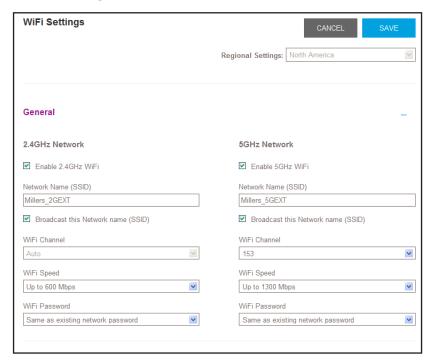
Your settings are saved.

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 **=**.



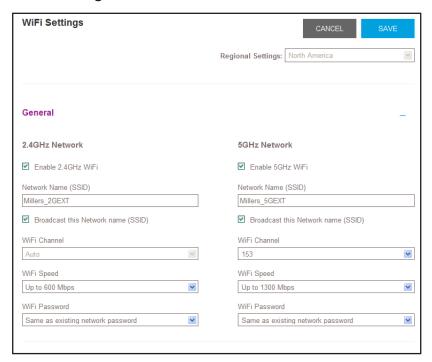
- 6. Select or clear the Enable 2.4 GHz WiFi check box.
- 7. Select or clear the Enable 5 GHz WiFi check box.
- 8. Click the SAVE button.

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.
- Click the Menu icon = .



- 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 push 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 27).

For information about using WPS to connect the extender to a WiFi network during setup, see *Install the Extender as an Access Point* on page 18.

Use WPS with the Push Button Method

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

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

- 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.

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



- **6.** Leave the **Push Button (recommended)** radio button selected.
- 7. Click the WIFI PROTECTED SETUP (WPS) button.

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

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.
- 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.

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.

- 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.

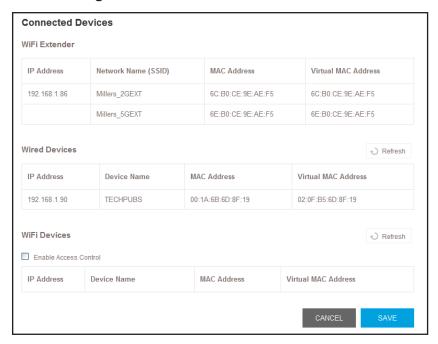
You can deny network access to specific computers and WiFi devices based on their MAC addresses. Each network device is assigned a MAC address, which is a unique 12-character physical address, containing the hexadecimal characters 0–9, a–f, or A–F only, and separated by colons (for example, 00:09:AB:CD:EF:01). 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 27).

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

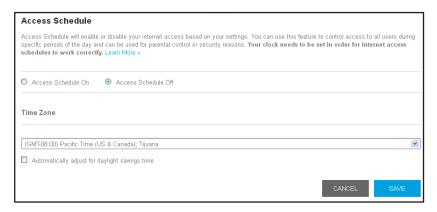
You can control access to all users during specific periods of the day. You can set up an access schedule that prevents Internet access through the extender network based on the times that you set.

> 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.
- Click the SAVE button.

Your settings are saved.

Change the Extender's Device Name

The default name is EX7000.

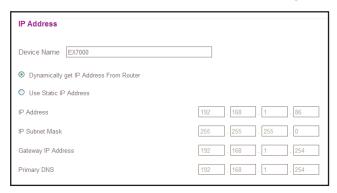
> To change the extender's device name:

- 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 ==.

Select Settings > WiFi Settings.

The WiFi Settings screen displays.

6. Scroll down and click the IP Address heading to expand 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.

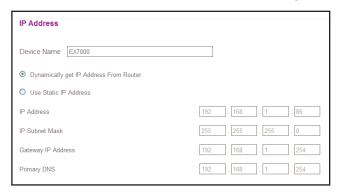
- > To set up the extender to use a static IP address:
 - 1. On a computer or WiFi device that is connected to the extender network, launch a web browser.
 - 2. In the address field of your browser, enter www.mywifiext.net.
 - 3. When prompted, enter your email address and password.
 - 4. Click the **Menu** icon **=**.

The extender menu displays.

Select Settings > WiFi Settings.

The WiFi Settings screen displays.

6. Scroll down and click the IP Address heading to expand the IP address settings.



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.

Maintain and Monitor 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
- Back Up and Manage the Extender Configuration
- Return the Extender to Its Factory Default Settings
- Update the Firmware
- Turn the NETGEAR Logo LED On or Off
- Restart the Extender Remotely

Change the Extender User Name and Password

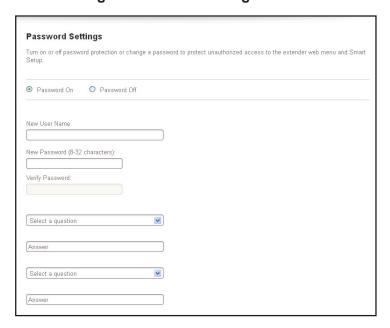
You can change the user name and password to log in to the extender.

> 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 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 and 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.

- **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:

- 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.

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 **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 75.

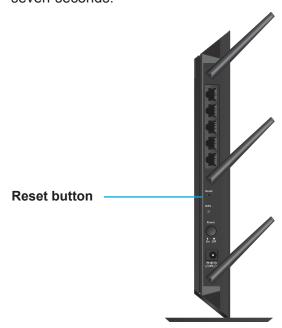
> To use the Reset button to return the extender to factory default settings:



CAUTION:

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

1. Insert a straightened paper clip into the hole of the **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.

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

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.



- 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.

Turn the NETGEAR Logo LED On or Off

When you power on the extender, the NETGEAR logo LED lights white. You can change this setting to turn off the LED.

> To turn the NETGEAR logo LED on or off:

- 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. The LED Logo section displays the LED status as on or off.

6. Click the **OFF** or **ON** button.

The NETGEAR logo LED turns off or on.

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:

- 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.

Share a USB Storage Device

This chapter describes how to access and configure a USB storage drive attached to your extender. The USB port on the extender can be used only to connect USB storage devices such as flash drives or hard drives, or a printer. Do not connect computers, USB modems, CD drives, or DVD drives to the extender USB port.

This chapter contains the following sections:

- USB Storage Device Requirements
- Access a USB Storage Device Attached to the Extender
- Turn the USB Port Off and On
- Add a Network Folder on a USB Drive
- Password-Protect a Folder on a USB Storage Device
- Use the Extender USB Port to Share a Printer

USB Storage Device Requirements

The extender works with most USB-compliant external flash and hard drives. For the most up-to-date list of USB drives that the extender supports, visit http://kbserver.netgear.com/readyshare.

Some USB external hard drives and flash drives require you to load the drivers onto the computer before the computer can access the USB device. Such USB devices do not work with the extender.

The extender supports the following file system types for full read and write access:

- FAT16, FAT32
- NTFS
- NTFS with compression format enabled
- Fxt2
- Ext3
- Ext4
- HFS
- HFS+

Note: Do not connect computers, USB modems, CD drives, or DVD drives to the extender USB port.

Share Files Across Your WiFi Network

You can share data that is stored on most common USB storage devices across your WiFi network with ReadySHARE® USB Storage Access.

> To access your USB device from a Windows computer:

- 1. Insert your USB device into the USB 3.0 port on the extender.
- 2. If your USB device includes a power supply, you must use it when you connect the USB device to the extender.

When you connect the USB device to the extender USB port, it might take up to two minutes before it is ready for sharing. By default, the USB device is available to all computers on your local area network (LAN).

- 3. Select Start > Run.
- **4.** Enter \\readyshare in the dialog box and click the **OK** button.

A screen automatically opens and displays the files and folders on the device.

> To access your USB device from a Mac:

1. Insert your USB device into the USB 3.0 port on the extender.

If your USB device includes a power supply, you must use it when you connect the USB device to the extender.

When you connect the USB device to the extender USB port, it might take up to two minutes before it is ready for sharing. By default, the USB device is available to all computers on your local area network (LAN).

- On a Mac that is connected to the network, launch Finder and select Go > Connect to Server.
- 3. In the Server Address field, enter smb://readyshare.
- 4. When prompted, select the **Guest** radio button.
- 5. Click the Connect button.

A screen automatically opens and displays the files and folders on the device.

Access a USB Storage Device Attached to the Extender

ReadySHARE lets you access and share a USB drive connected to the extender USB port. (If your USB drive uses special drivers, it is not compatible.)

To connect a USB drive:

- 1. Insert your USB storage drive into the USB 3.0 port on the front of the extender.
- 2. If your USB drive uses a power supply, you must use it when you connect the USB drive to the extender.

When you connect the USB drive to the extender USB port, it might take up to two minutes before it is ready for sharing. By default, the USB drive is available to all computers on your local area network (LAN).

> To access the USB drive from a Mac:

- 1. Select Go > Connect to Server.
- 2. In the Server Address field, type smb://readyshare as the server address.
- **3.** Click the **Connect** button.
- **4.** When prompted to enter your name and password, select the **Guest** radio button.
- **5.** Click the **Connect** button.

> To access the USB drive from a Windows computer:

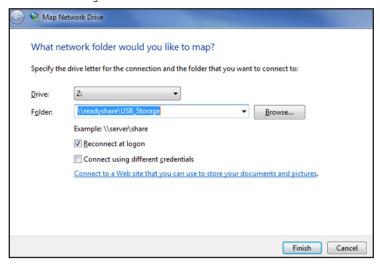
- 1. Select Start > Run.
- 2. Enter \\readyshare in the dialog box.
- 3. Click the **OK** button.

> To map the USB device to a Windows network drive:

- 1. Visit www.netgear.com/readyshare.
- 2. In the ReadySHARE USB Storage Access pane, click the PC Utility link.

The readyshareconnect.exe file is downloaded to your computer.

3. Launch readyshareconnect.exe.



- **4.** Select the drive letter to map to the network folder.
- **5.** If you want to connect to the USB drive as a different user, do the following:
 - a. Select the Connect using different credentials check box.
 - **b.** Type the user name and password.
 - c. Click the OK button.
- 6. Click the Finish button.

The USB drive is mapped to the drive letter that you specified.

Turn the USB Port Off and On

By default the USB port is on, but you can log in to the extender and turn it off and on.

> To turn the USB port off and 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 Do More > USB Port.



- 6. Select the USB Port On or USB Port Off radio button.
- 7. Click the SAVE button.

Your settings are saved.

Add a Network Folder on a USB Drive

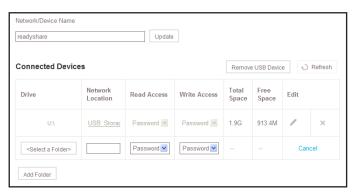
You can add network folders on the USB storage device.

> To add a network folder:

- 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.

- Select Do More > USB Port.
- 6. In the Connected Devices section, click the Add Folder button.



- 7. Browse and select a folder on the USB device.
- 8. Click the SAVE button.

Your settings are saved.

Password-Protect a Folder on a USB Storage Device

> To password-protect a folder:

- 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 > USB Port.
- **6.** To add a folder, in the Connected Devices section, click the **Add Folder** button.



- 7. Browse and select a folder on the USB device.
- 8. To password-protect read access, in the Read Access menu, select Password On.
- 9. To password-protect write access, in the Write Access menu, select Password On.
- 10. Click the **SAVE** button.

Your settings are saved.

Use the Extender USB Port to Share a Printer

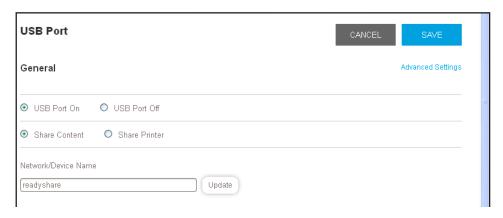
By default, the extender is set up to share content on the USB port so that you can connect a USB storage device. You can share a USB printer instead.

> To use the USB port to share a printer:

- 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 > USB Port**.



- 6. Select the Share Printer radio button.
- 7. Follow the onscreen prompts to connect your printer to the USB port and share it.
- 8. Click the SAVE button.

Your settings are saved.

Use the Extender as a Media Server

7

This chapter contains the following sections:

- Specify ReadyDLNA Media Server Settings
- Play Media from a USB Drive on TiVo

Note: For information about how to connect the USB drive and to specify its settings, see *Chapter 6, Share a USB Storage Device*.

Specify ReadyDLNA Media Server Settings

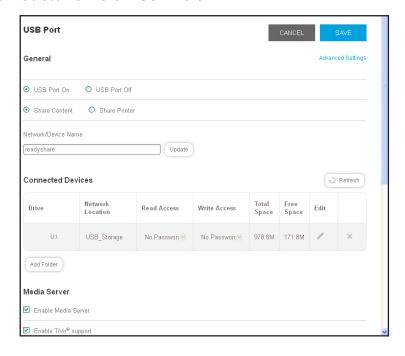
By default, the extender functions as a ReadyDLNA media server, which lets you stream music and movies from an attached USB device to DLNA/UPnP AV-compliant media players, such as Xbox360, Playstation, and NETGEAR media players.

> To specify media server settings:

- 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 > USB Port.



By default, the **Enable Media Server** and **Enable TiVo support** check boxes are selected. This allows the extender to function as a media server and allows the extender to play media on your TiVo device.

- **6.** To change the name of the media server device, type a new name in the **Network/Device Name** field and click the **Update** button.
- 7. Leave the **Content scan** check box selected so that the extender automatically scans and detects media files that are added to the attached USB device.

Note: The extender scans only shared folders that are set up with full read access without a password.

8. Click the SAVE button.

Your changes are saved.

Play Media from a USB Drive on TiVo

You can set up your TiVo to access media files stored on a USB device that is connected to your extender. The TiVo must be on the same network as the extender. This feature supports the following file formats:

- Video. See and play mpeg1, and mpeg2 files.
- Music. See and play MP3 files.
- Pictures. View images in .jpg format.

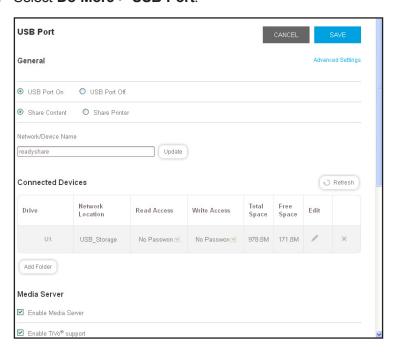
You can use the TiVo (Series 2 and up) Home Media Option to play photos and music on your Windows or Mac computer in your TiVo user interface.

> To set up the extender to work with TiVo:

- 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 > USB Port.



- **6.** If it is not yet selected, select the **Enable TiVo support** check box.
- 7. Click the **SAVE** button.

Your changes are saved.

> To play videos:

1. On the TiVo, select TiVo Central > My Shows.



2. Go to the bottom of the list and select the EX7000.

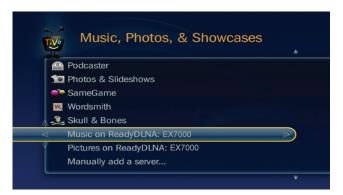


> To play music or view photos:

1. On the TiVo, select **TiVo Central > Music, Photos, & Showcases**.



2. Select an item to play or watch.



> To copy TiVo files to a computer:

Use a TiVo Desktop accessory, available at https://www.tivo.com/shop/accessories#streaming-software.

Share a USB Printer Through the Extender

The ReadySHARE Printer utility lets you share a USB printer that is connected to the USB port on your extender. You can share this USB printer among the Windows and Mac computers on your network.

This chapter contains the following sections:

- Set Up ReadySHARE Printer
- Use the Shared Printer
- View or Change the Status of a Printer
- Use the Scan Feature of a Multifunction USB Printer
- Change NETGEAR USB Control Center Settings

Note: For more information about ReadySHARE features, visit www.netgear.com/readyshare.

Note: For information about how to connect the USB drive and how to specify its settings, see *Chapter 6, Share a USB Storage Device*.

Set Up ReadySHARE Printer

> To set up ReadySHARE Printer:

- 1. Connect the USB printer to a USB port on the extender with a USB printer cable.
- 2. On each computer that will share the printer, do the following:
 - **a.** Install the current USB printer driver software (available from the printer manufacturer).
 - **b.** Download ReadySHARE Printer from www.netgear.com/readyshare.
 - c. In the ReadySHARE Printer pane, click the PC Utility or Mac Utility link.
 - d. Follow the onscreen instructions to download the file.
- 3. Double-click the ReadySHARE Printer utility setup file that you downloaded.

The InstallShield wizard displays.

4. Follow the wizard instructions to install NETGEAR USB Control Center.

After the InstallShield Wizard completes the installation, the NETGEAR USB Control Center prompts you to select a language.

5. Select a language from the menu and click the **OK** button.



Some firewall software, such as Comodo, blocks the NETGEAR USB Control Center from accessing the USB printer. If you do not see the USB printer displayed in the screen, you can disable the firewall temporarily to allow the utility to work.

6. Select the printer and click the **Connect** button.

The printer status changes to Manually connected by *Mycomputer*. Now only your computer can use the printer.

7. Click the **Disconnect** button.

The status changes to Available. Now all computers on the network can use the printer.

Note: After you click the **Connect** and **Disconnect** buttons once, the utility automatically manages the printing queue and handling.

8. To exit the utility, select **System > Exit**.

Use the Shared Printer

After you install the ReadySHARE Printer utility, by default, when you log on to Windows, the utility starts automatically and runs in the background.

- > To manually connect and print from the printer that is connected to the extender:
 - On your computer, click the NETGEAR USB Control Center icon .
 The main screen displays.
 - 2. Click the **Connect** button.

The printer status changes to Manually connected by *Mycomputer*. Now, only the computer you are using can use this printer.

- 3. Use the print feature in your application to print your document.
- To release the printer connection so that all computers on the network can use it, click the Disconnect button.
- > To print and release the connection to the printer that is connected to the extender:
 - To print your document from your computer, use the print feature in your application.
 The NETGEAR USB Control Center automatically connects your computer to the USB printer and prints the document. If another computer is already connected to the printer, your print job goes into a queue to wait to be printed.
 - 2. If your document does not print, use the NETGEAR USB Control Center to check the status.

View or Change the Status of a Printer

The NETGEAR USB Control Center displays the status of the USB printer that is connected to the extender. You can view the status or change the status manually.

- > To view or change the status:
 - 1. On your computer, click the **NETGEAR USB Control Center** icon 🏩.



The Status column shows the status for each device:

 Available. No print jobs are in process. You can use the USB printer from any computer in the network.

- **Connected**. Your computer is connected to the printer. When your print job is done, the printer connection is released.
- **Manually Connected by**. Only the connected computer can use the printer.
- Waiting to Connect. Your computer is not connected to the shared printer yet.
- 2. To change the status from Manually Connected by another computer to Available, click the **Disconnect** button.

The printer connection is released and the status changes to Available.

- 3. To change the status from Waiting to Connect to Available, click the Connect button.
 The printer status changes to Manually connected by my computer. Now, only your computer can use the printer.
- 4. To allow the printer to be shared, click the **Disconnect** button.
 The printer connection is released and the status changes to Available.

Use the Scan Feature of a Multifunction USB Printer

If the USB printer that is connected to the extender supports scanning, you can also use the USB printer for scanning. For example, the USB printer displayed in the Windows Printers and Faxes screen is ready for print jobs.

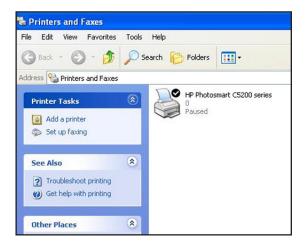
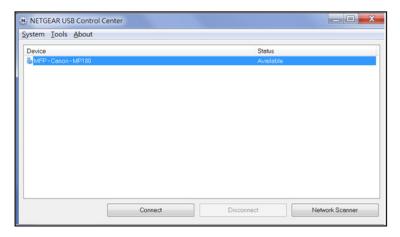


Figure 8. Example of the Windows Printers and Faxes screen

- > To use the scan feature of a multifunction USB printer:
 - 1. Launch the NETGEAR USB Control Center.
 - 2. Make sure that the printer status shows as Available.

3. Click the **Network Scanner** button.



The scanner screen displays so that you can use the USB printer for scanning.

Change NETGEAR USB Control Center Settings

You can stop the NETGEAR USB Control Center from starting automatically when you log in to Windows. You can also change the language and specify the time-out to release the connection to the USB printer that is connected to the extender.

- ➤ To turn off automatic NETGEAR USB Control Center startup:
 - 1. Launch the NETGEAR USB Control Center.
 - 2. Select Tools > Configuration.



- 3. Clear the Automatically execute when logging on Windows check box.
- 4. Click the **OK** button.

Your settings are saved.

> To change the language:

- 1. Launch the NETGEAR USB Control Center.
- 2. Select Tools > Configuration.

The Control Center - Configuration screen displays.

- 3. In the **Language** menu, select a language.
- 4. Click the **OK** button.

The next time NETGEAR USB Control Center starts, the language changes.

> To specify the time-out:

- 1. Launch the NETGEAR USB Control Center.
- 2. Select Tools > Configuration.

The Control Center - Configuration screen displays.

3. In the **Timeout** field, type the number of minutes.

The time-out period is the number of minutes that a computer holds its connection to the USB printer when the connection is not being used.

4. Click the **OK** button.

Your changes are saved.

FAQs and Troubleshooting

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 guide 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. To improve your signal strength, move your extender closer to your router and make sure that the 2.4 GHz or 5 GHz Link Rate LED lights solid amber or green.

Table 2. Link Rate LED colors

LED Color		Performance
2.4GHz	5GHz	The extender provides the best performance.
2.4GHz	5GHz	The extender provides a workable performance.
2.4GHz	5GHz	The extender provides a poor performance.
Off		The extender cannot function.

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

I am connected to NETGEAR_EXT and launched a browser. Why can't I see the web browser setup guide?

Try these troubleshooting steps:

- Make sure that your computer is set up to use DHCP (most are).
- Make sure that the Device to Extender 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.
- If you are installing the extender as an access point, make sure that you are connecting
 your computer or WiFi device to the extender through a WiFi connection instead of an
 Ethernet connection.

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

On the login screen, click the **Username & Password Help** link to answer the security questions you set up during the initial setup.

If you forgot the answers to your security questions, do the following to set up your login credentials again:

1. Reset the extender to its factory default settings.

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For more information about how to reset the extender, see *Return the Extender to Its Factory Default Settings* on page 44.

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

The login screen displays.

Click the NEW EXTENDER SETUP button.

The Create Account screen displays.

5. Complete the fields to set up your user name and password.

My router security is WEP, and I entered the wrong passphrase or security key on the extender. I cannot access the extender anymore. What can I do?

The extender cannot check to see if the WEP passphrase is correct. If you entered the wrong passphrase, your wireless device is not able to get the IP address from the extender. You must reset the extender to its factory default settings to get the IP address back. See *Factory Default Settings* on page 75.

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 *Install the Extender as an Access Point* on page 18.

I enabled a wireless MAC filter, wireless access control, or access control list (ACL) on my router. What should I do when installing the extender?

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. Select Settings > WiFi Settings.

The WiFi Settings screen displays.

6. 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.

- On the router, add all of the virtual MAC addresses from your extender to your router's MAC filter table.
- **8.** Pull out the product label from the extender and find the extender's MAC 1 and MAC 2 addresses.

For information about accessing the product label, see *Retrieve and Display the Product Label* on page 11.

- 9. Add the extender's MAC 1 address to your router's MAC filter table.
- 10. 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.

- **11.** 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..

Table 3. Hexadecimal value to binary numbers

Hexadecimal Values	Binary Numbers
0	0000
1	0001
2	0010
3	0011
4	0100
5	0101
6	0110
7	0111
8	1000

Table 3. Hexadecimal value to binary numbers (continued)

Hexadecimal Values	Binary Numbers
9	1001
A	1010
В	1011
С	1100
D	1101
Е	1110
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..

Table 4. Binary Numbers to hexadecimal values

Binary numbers	Hexadecimal values
0000	0
0001	1
0010	2
0011	3
0100	4
0101	5
0110	6
0111	7
1000	8
1001	9
1010	A
1011	В
1100	С
1101	D

Table 4. Binary Numbers to hexadecimal values

Binary numbers	Hexadecimal values
1110	Е
1111	F

d. Replace the first two hexadecimal values in the old MAC 1 address with the new value 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.

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

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 68.
- If your browser displays an error page, include 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 Link Rate 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 21) 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 Link Rate 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.

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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



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 **Reset** button on the rear panel or the Erase function. For more information, see *Return the Extender to Its Factory Default Settings* on page 44.

The following table shows the factory default settings.

Table 5. 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	Up to 600 Mbps
Data rate in the 5 GHz band	Up to 1300 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 6. Technical specifications

Technical Specifications		
Network protocol and standards compatibility	Data and routing protocols: TCP/IP, DHCP server and client, DNS relay, NAT (many-to-one), VPN pass-through (IPSec, PPTP)	
Power adapter	 North America (input): 120V, 60 Hz All regions (output): 12 VDC @ 2.5A 30W maximum 	
Physical specifications	 Dimensions: 9.92 x 6.85 x 1.22 in. (252 x 174 x 31 mm) Weight: 1.44 lb (654 g) 	
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-TX, RJ-45 USB 3.0 802.11ac, 802.11n, 802.11a, 802.11b 	
Electromagnetic emissions	Meets requirements of FCC Part 15 Class B.	