Quick Start

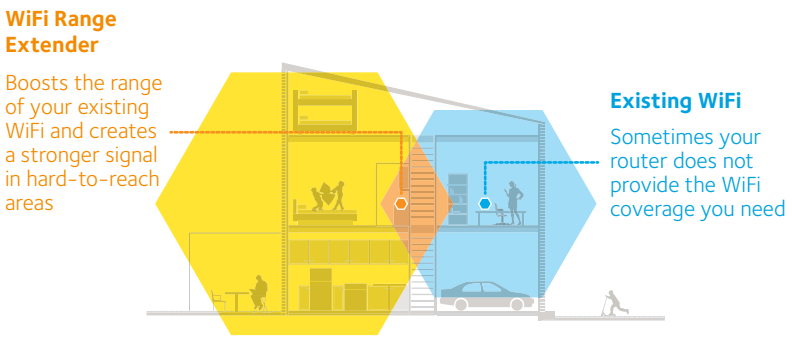
AC1200 WiFi Range Extender

Model EX6120

NETGEAR®

Getting Started

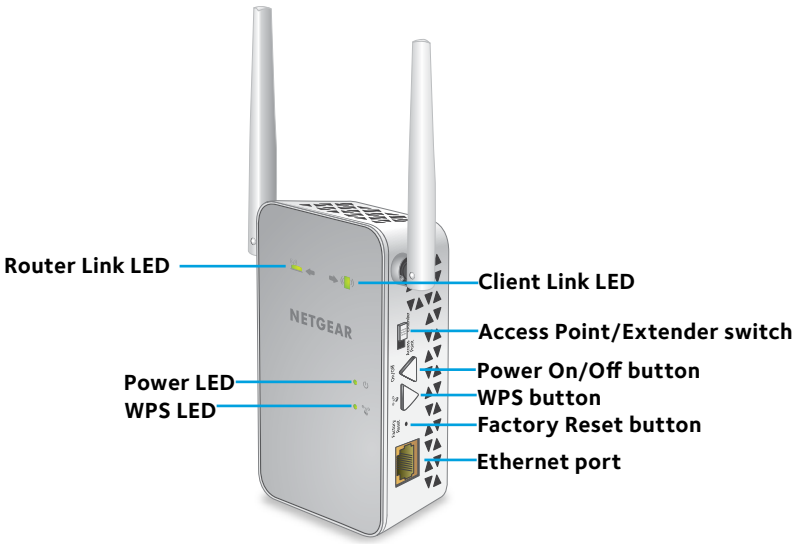
The NETGEAR WiFi Range Extender increases the distance of a WiFi network by boosting the existing WiFi signal and enhancing the overall signal quality over long distances. An extender repeats the signals from an existing WiFi router or access point.



Meet Your Extender

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

Front Panel and Side Panel



LED Descriptions

LED	Description
Router Link LED	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 LED	This LED indicates the connection between the extender and your client device, such as a computer or WiFi device. • **Solid green**. Best connection. • **Solid amber**. Good connection. • **Solid red**. Poor connection. • **Off**. No connection.
Power LED	• **Solid amber**. The extender is booting. • **Solid green**. The extender is powered on. • **Off**. The extender is powered off.
WPS LED	• **Solid green**. WiFi security is enabled (WPA or WPA2). • **Blinking green**. A WPS connection is in progress. • **Off**. WiFi security is not enabled.

Use the Extender in Extender Mode

In extender mode, the extender repeats the signals from an existing WiFi router or access point.

Set the **Access Point/Extender** switch, place the extender, apply power, and connect it to your WiFi network.

Set the Access Point/Extender Switch

To use the extender in extender mode, set the **Access Point/Extender** switch to **Extender** .

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.

   Wait for the Power LED ● ⏻ to light green. This might take up to 60 seconds. 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 6.
- **Connect with web browser setup**. For more information, see *Connect with Web Browser Setup* on page 9.

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 9.

1. Press the **WPS** button on 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 9.

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

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

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

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

8. On your client device, such as a computer or WiFi device, find and connect to the new extended WiFi network.

The extender creates two new extended WiFi networks. The extender's new WiFi network names are based on your existing WiFi network name, with _2GEXT and _5GEXT at the end of the name.

For example:

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

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

9. Test the extended WiFi range by moving your client device to the area with a poor router WiFi signal:
   a. Leave your client device in the area with a poor router WiFi signal and return to the extender.
   b. Check the Client Link LED ((■)) on the extender:
      - If the Client Link LED is solid green or amber, your extended WiFi network reaches the area with a poor router WiFi signal and your network setup is complete.

- If the Client Link LED is red, your extended WiFi network does not reach the area with a poor router WiFi signal.

  You must move your client device closer to the extender until the Client Link LED turns solid green or amber.

Connect with Web Browser Setup

1. Use a WiFi network manager on your client device, such as a computer or WiFi device, to find and connect to the NETGEAR_EXT (SSID) WiFi network.

   After the connection with your client device is established, the Client Link LED lights.

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

   The New Extender Setup page displays.

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

   The Create Account page displays.

5. Complete the fields on the Create Account page and click the **NEXT** button.
6. Click the **WIFI RANGE EXTENDER** button.

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

7. Select a WiFi network to extend and click the **NEXT** button.

   If you do not want to extend both WiFi bands, clear the **2.4GHz WiFi Networks** or the **5GHz WiFi Networks** checkbox.

8. In the **Password (network key)** field, type the existing WiFi network password (also called passphrase or security key) and click the **NEXT** button.

9. Set the network name (SSID) and password for your extender and click the **NEXT** button.

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

10. Use a WiFi network manager on your client device to connect to an extended WiFi network that is listed on the page.

    You must connect your client device before you click the **Continue** button.

11. Click the **Continue** button.

    A message displays confirming that the extender is connected to the existing WiFi network.

12. Click the **Next** button.

    The registration page displays.

13. Complete the registration fields and click the **Finish** button to complete the setup.

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

The Status page displays.

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

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

15. Plug the extender into an electrical outlet and wait for the Power LED ● ⏻ to light green.
16. Use the Router Link LED to help you choose a spot where the extender-to-router connection is optimal.
17. If the Router Link LED doesn't light amber or green, plug the extender into an outlet closer to the router and try again.

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

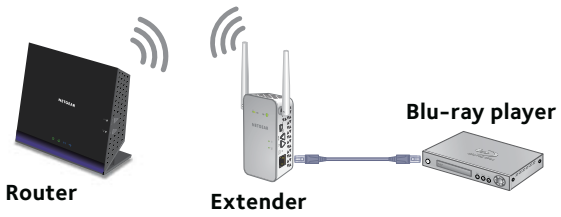
18. Reconnect your client device to the new extended WiFi network.

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

          You must move your client device closer to the extender until the Client Link LED turns solid green or amber.

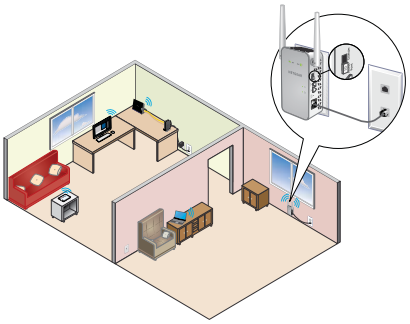
Connect an Ethernet-Enabled Device

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



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.



1. Set the **Access Point/Extender** switch to **Access Point** .
2. Plug the extender into an electrical outlet and wait for the Power LED ● ⏻ to light green.

   If the Power LED does not light, press the **Power On/Off** button.
3. Use an Ethernet cable to connect the Ethernet port on the extender to a router Ethernet LAN port or a remote Ethernet LAN jack with LAN access.

   The extender joins the LAN and creates a WiFi hotspot.

4. Use a WiFi network manager on your client device to find and join a WiFi extender network.

   When the extender is in access point mode, you can join one of the following WiFi extender networks:

   - **2.4 GHz network**. NETGEAR_EXT
   - **5 GHz network**. NETGEAR_5GEXT

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

5. Launch a web browser and enter **www.mywifiext.net** in the address field.

   The New Extender Setup page displays.

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

   The Create Account page displays.

7. Complete the fields on the Create Account page and click the **NEXT** button.
8. Click the **ACCESS POINT** button.

   The extender checks for an Internet connection.

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

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

11. Use a WiFi network manager on your client device to connect to the new access point WiFi network.
12. Click the **Continue** button.

    A screen displays that says you successfully created an access point.
13. Click the **Next** button.

    The registration page displays.
14. Follow the onscreen instructions to register your extender.

Access Extender Settings

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

1. Use a WiFi network manager on your client device, such as a computer or WiFi device, to find and connect to the new extended WiFi network.

   After the connection with the client device is established, the Client Link LED lights.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.

   A login page displays.

4. Type your email and password and click the **LOG IN** button.
   The Status page displays.
5. Make any needed changes.

Frequently Asked Questions

You can find more information about your product in the user manual, which is available at *http://support.netgear.com*.

The web browser setup guide keeps asking me for my network password (passphrase) or security key, and I am sure I have 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, see *Place the Extender and Apply Power* on page 5. 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 13.

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

On the login page, 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. Restore the extender to its factory default settings.
2. Launch a web browser.
3. Enter **www.mywifiext.net** in the address field of the browser.

   The New Extender Setup page displays.
4. Click the **NEW EXTENDER SETUP** button.

   The Extender Setup page displays.

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

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

   The extender resets and returns to the factory default settings.

I 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 a client device connects through the extender to your router, the MAC address of the client 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 client device connects to the extender but cannot get an IP address from the extender and cannot access the Internet.

To allow your client device to receive an IP address from the extender and access the Internet, you must provide the translated MAC address to the 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 client devices to the extender network.
3. Make sure that the Router Link LED remains lit.
4. Log in to your extender:
   a. Launch a web browser and in the address field, enter **www.mywifiext.net**.
      A login page displays.

b. Type your email and password and click the **LOG IN** button. The Status page displays.

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

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

6. On the router, add the extender's virtual MAC addresses and all the virtual MAC addresses of the devices connected to the extender to your router's MAC filter table.
7. Enable the router's MAC filter, wireless access control, or ACL.

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 Client Link LED is green and that you are using a valid IP address.
- Relaunch the web browser and type **www.mywifiext.net** in the address field. Type your email and password and click the **LOG IN** button.

Support

Thank you for purchasing this NETGEAR product. 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*.

NETGEAR recommends that you use only the official NETGEAR support resources. You can get the user manual online at *http://downloadcenter.netgear.com* or through a link in the product's user interface.

Trademarks

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Compliance

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

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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NETGEAR, Inc.
350 East Plumeria Drive
San Jose, CA 95134, USA

Federal Communication Commission Interference Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The product is for indoor use only for all bands.

Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Industry Canada statement:
This device complies with RSS-210 of the Industry Canada Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Ce dispositif est conforme à la norme CNR-210 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.
Caution :
(i) the device for operation in the band 5150-5350 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;
(ii) high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.
Avertissement:
les dispositifs fonctionnant dans la bande 5 150-5 350 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;
(ii) De plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5 250-5 350 MHz et 5 650-5 850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.
Radiation Exposure Statement:
This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated

with minimum distance 25cm between the radiator & your body.

Déclaration d'exposition aux radiations:
Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 25 cm de distance entre la source de rayonnement et votre corps.