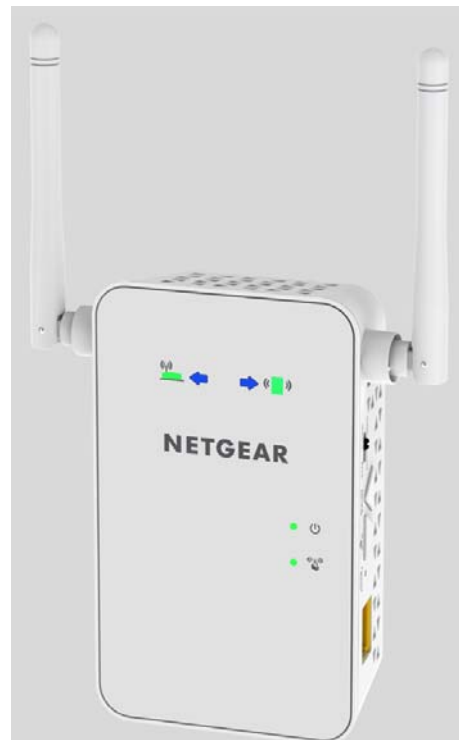


NETGEAR®

EX6100 Universal Dual Band 11ac WiFi Range Extender

User Manual



October 2013
<TBD>

NOTE: This document is for certification purposes. Images are for position only and may differ from the actual product.

350 East Plumeria Drive
San Jose, CA 95134
USA

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>.

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Getting Started

1

The EX6100 Universal Dual Band 11ac WiFi Range Extender works as either a repeater or an access point. It is dual band concurrent for Wifi 11n 2x2 300 Mbps + 11ac 1x1 433 Mbps, and can be used easily when travelling.

This chapter covers the following topics:

- *Hardware Features*
- *How the Extender Works*
- *Find the Best Location*
- *Extender Performance*
- *Internet Connection Options (WiFi or RJ45)*
- *Ethernet Port Connection*
- *Restore Factory Settings*

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

Hardware Features

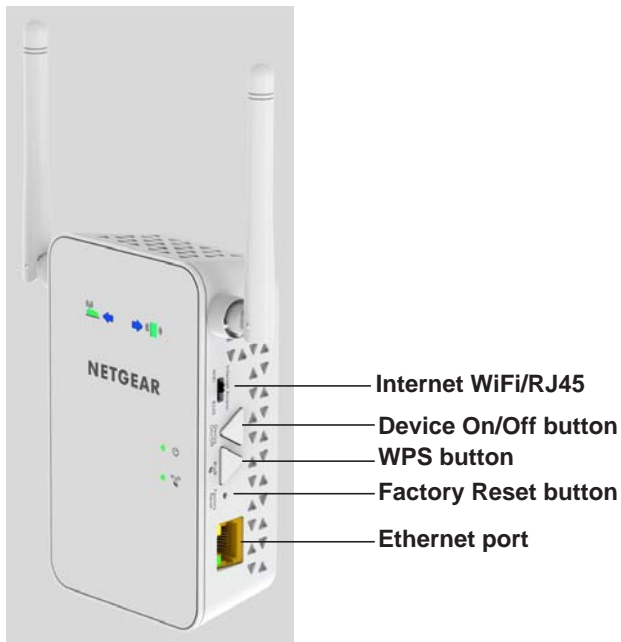


Figure 1. Extender

The LEDs on the front show how the Extender is working:

- **Arrows.**
- **Power.** This LED is lit when the Extender is powered on.
- **WiFi.** The side panel has the following features:
 - **Internet WiFi/RJ45.** Select the preferred method to connect to the Internet.
 - **Device On/Off button.** Turns the device on and off.
 - **WPS button.** Press the WPS button to wirelessly connect the Extender to your router or wireless adapter.
 - **Factory Reset button.** To use this button, stick a paper clip into the reset hole and hold it until the Status LED flashes.
 - **Ethernet port.** You can use this for a wired connection to a computer or other device.

How the Extender Works

The Extender works like a bridge between a wireless router and a computer or wireless device outside the wireless router's range. To do this, the Extender has two main jobs:

1. The Extender connects to a wireless network that is up and running.

When the Extender connects wirelessly to a network, it acts as a network client. This is similar to how a computer connects to a network.
2. The Extender acts as an access point for computers.

The Extender has its own wireless network called NETGEAR_EXT that wireless computers can join. In its role as an access point, the Extender performs tasks that wireless routers do, such as broadcasting its network name (SSID).

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

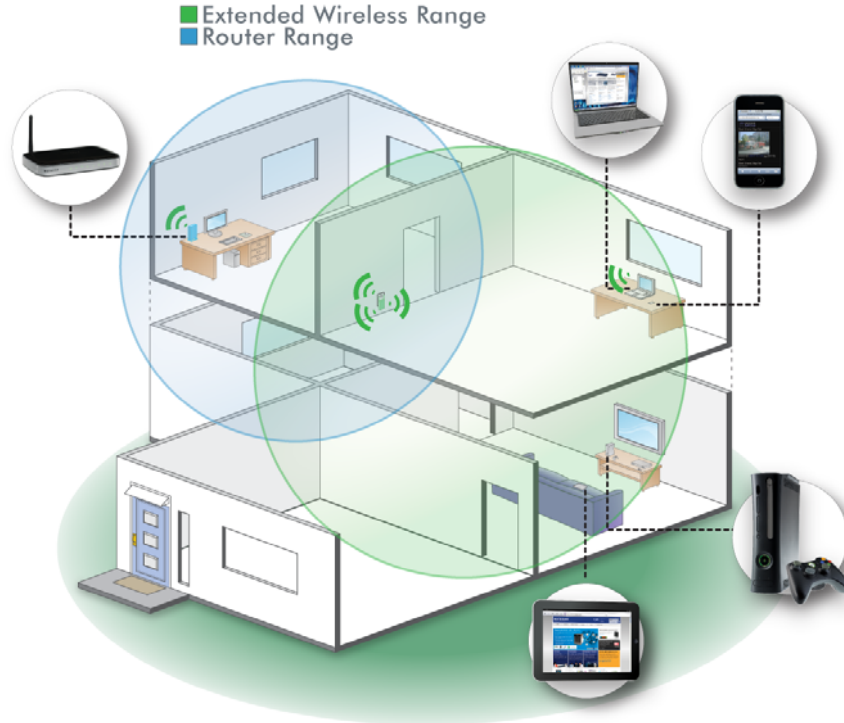


Figure 2. Range Extender in a home

Find the Best Location

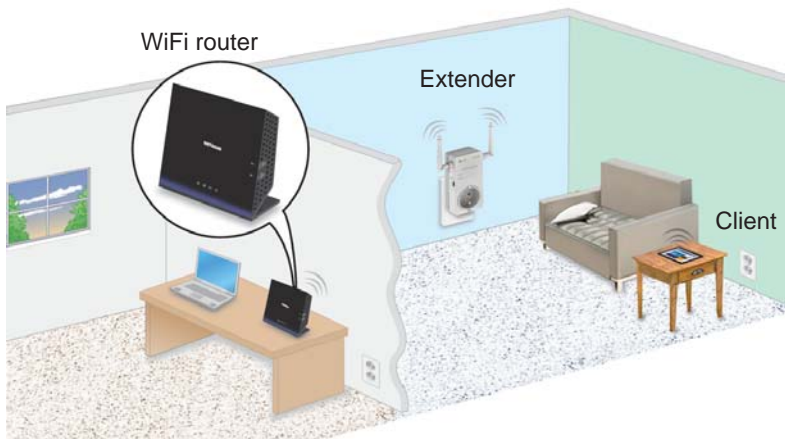


Figure 3. Extender in a home setting.

When you install the extender and join the extender network, the arrow LEDs guide you to the best location to plug in the extender. If no arrow is lit, the location is good.



Blinking left arrow. The extender is too far away from the router or gateway.



Blinking right arrow. The extender is too far away from your computer or wireless device.

Join the Extender WiFi Network

After you install the extender, you can join the extender WiFi network.

➤ **To join the extender network:**

1. Take your computer or wireless device to the location with poor WiFi coverage.
2. Find the new extender network name (MyNetworkName_EXT).
3. Select this network and enter the same WiFi password that you use for your home network.
4. Within 2 minutes, check the arrow LEDs on the extender.
 - If no arrow is lit, the location is good.
 - When the extender connects to a network and a client joins the extender network, an arrow LED blinks for 2 minutes if the WiFi signal strength is weak to or from the extender.



Blinking left arrow. The extender is too far away from the router or gateway.



Blinking right arrow. The extender is too far away from your computer or wireless device.

Note: If you are having trouble getting a good WiFi signal, try to create a better line of sight. For example, move the router up off the floor onto a table or desk, or move furniture that might be blocking the extender.

Extender Performance






The Router Link LED indicates performance between the router and the extender. If this LED is off, the Extender is not connected to a WiFi network.



The Client Link LED indicates the performance between the extender and the client. If this LED is off, no computer or wireless device is connected to the extender network.

These LEDs display the following colors:

-  Green indicates the best performance.
-  Amber indicates a workable performance.
-  Red indicates a poor connection or no connection.

Internet Connection Options (WiFi or RJ45)

You can bring the extender with you when you travel. The extender supports both WiFi and RJ45 cable connections, for flexibility in hotels or WiFi hotspots such as coffee shops. The switch on the side of the extender specifies which connection you want to use.

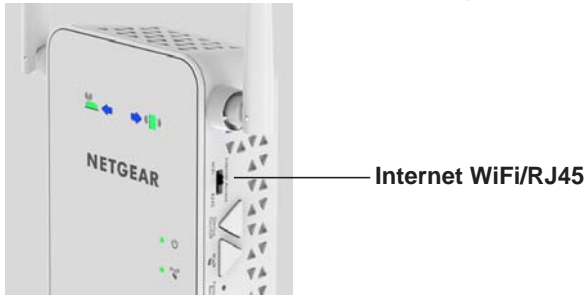


Figure 4. Internet connection switch

WiFi Internet Connection Away from Home

➤ **To use the extender WiFi Internet access when traveling:**

1. Get the password if the hotspot or hotel requires a password for Internet access.
2. Log in to the extender.
3. Select the WiFi network that you want the extender to join.
4. If prompted, enter the password for Internet access.
5. Leave the Extender WiFi network name the same (do not change it).

Using the same WiFi network name saves time. Since your laptop and WiFi devices have connected to the extender WiFi network before, you do not have to change their settings.

6. With your laptop or wireless device, join the extender Wifi network.

RJ45 Internet Connection

➤ **To use the extender as an access point:**

1. Set the Internet switch on the side of the extender to RJ45.
2. Place the Extender and power it on.
3. Connect the Extender to your router or gateway using RJ45 cable.
The Extender broadcasts its WiFi network name.
4. Join the Extender Wifi network.

Ethernet Port Connection

Do not use an Ethernet cable to connect the Extender to a router. If you do so, the Extender does not work.

You can use the Ethernet port to connect a computer to the extender during setup, or you can connect equipment such as a computer, TV, Blu-ray player, or gaming console to the Ethernet port.



Figure 5. Extender Ethernet port connection

Restore Factory Settings

You can use the extender Reset button to restore the factory settings.

➤ **To restore factory settings:**

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



2. Release the button.

All LEDs turn off for about 3 seconds.

The Power LED lights solid amber for about 30 seconds.

The Power LED  lights solid green.

2. Extender Network Settings

2

This chapter covers the following topics:

- *Log In to the Extender*
- *Connect the Extender to Your WiFi Network*
- *Wireless Settings*
- *IP Address Setup*
- *Status Screen*
- *Attached Devices*
- *Back Up and Manage Extender Settings*
- *Set the Password*
- *Upgrade the Firmware*
- *Advanced Wireless Settings*

Log In to the Extender

After installation, you can change the extender network settings if you want. For example, if you change your network name, you can log in to the extender and change its network name to match.

➤ To log in to the extender to change its settings:

1. Launch a web browser.
2. Enter **www.mywifiext.net**.
3. Enter **admin** for the user name and enter **password** for the password.
The simplest way to change the settings is to use the setup wizard.
4. Select **Setup Wizard**.

The wizard helps you through these steps:

- Select the WiFi network that you want to extend.
- Enter the WiFi password for this network.
- Name the Extender network.
- Connect your wireless computer or device to the Extender network.

Connect the Extender to Your WiFi Network

Do not cable the extender to the router. During setup the extender connects to your wireless network only with WiFi. You can use the extender's Wi-Fi Protected Setup (WPS), or the web browser method.

➤ To connect using WPS:

1. Press the **WPS** button on the side of the Extender.
2. Within 2 minutes, press the **WPS** button on your wireless router.



The Secure WiFi LED blinks.




The Router Link LED lights.



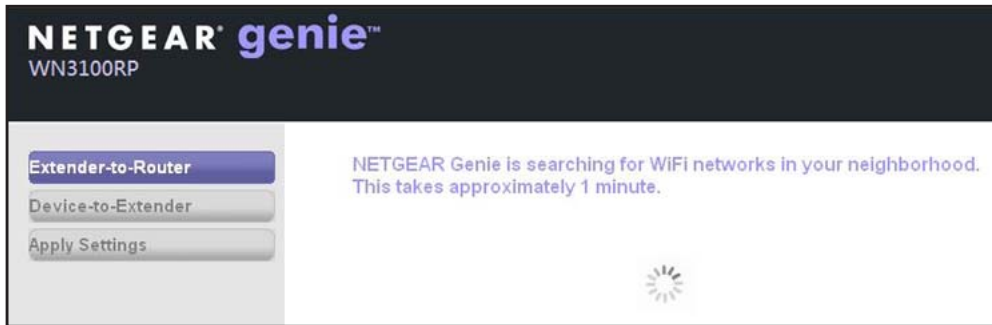
The Secure WiFi LED lights green.

The extender network name changes. See [New Extender WiFi Network Name](#) on page 13.

➤ To connect with the web browser method:

1. On your computer or wireless device, find and join the *NETGEAR_EXT* WiFi network.
 The Client Link LED lights.
2. Open a web browser.
3. When prompted, select a language from the list.

NETGEAR genie displays.



- Follow the steps to connect the extender to the WiFi network.



When the extender connects, the Router Link LED lights.



If the network is secure, the Secure WiFi LED lights green.

New Extender WiFi Network Name

The first time the extender connects to a WiFi network, the Extender WiFi network name (SSID) changes to that network name, with **_EXT** at the end. For example:

WiFi network name: MyNetworkName

Extender network name: **MyNetworkName_EXT**

If the extender does not connect to the WiFi network, move the extender to a different location with a better WiFi signal. For example, you might need to move it closer to the router or gateway.

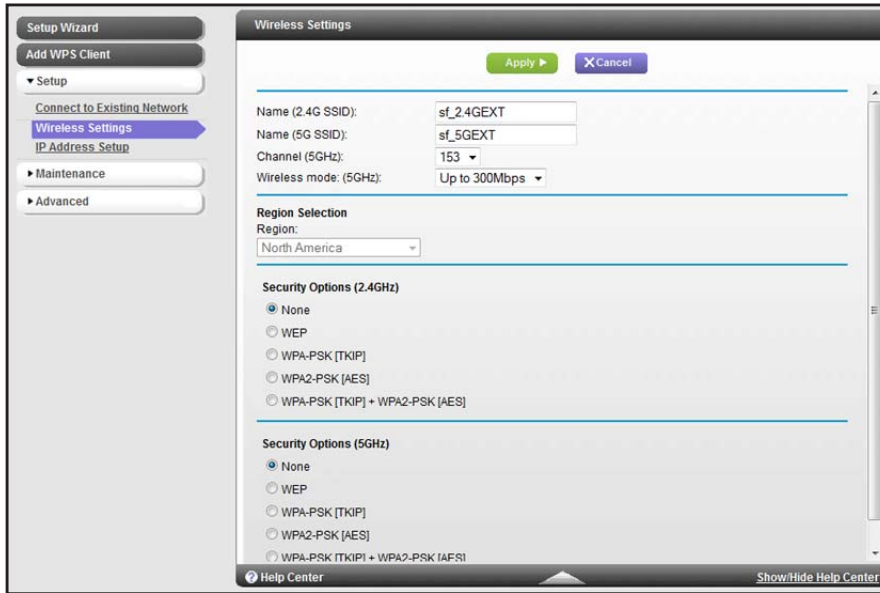
Wireless Settings

You can use the Wireless Settings screen to change the network name (SSID) for the Extender's network and to set up wireless security. If you do not change these settings, the network name is NETGEAR_EXT, and the network is open (no wireless security is set up).

Note: If you use a wireless computer to change the extender's wireless settings, you will be disconnected when you click **Apply**. To reconnect, you have to select the new network name that you created, and enter its passphrase or wireless security key.

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

1. Select **Setup > Wireless Settings** to display the following screen:



2. In the **Name (SSID)** field, you can type in a new name to customize your extender network. This will make it easier to identify your extender if more than one is operating in your neighborhood.
3. In the Security Options section of the screen, select the type of wireless security that you want to use on your network.
 - **None.** This is an open wireless network. Any wireless computer or device is allowed to join this network.
 - **WEP.** WEP is an older standard, and is less secure than WPA or WPA2. WEP uses encryption keys and data encryption for data security. You can select 64-bit or 128-bit encryption.
 - **WPA-PSK [TKIP].** WPA is more secure than WEP. When using wireless computers or devices that support WPA, you can enter a passphrase to join the extender's wireless network.
 - **WPA2-PSK [AES].** WPA2 is even more secure, but some older computers do not support this standard. When using wireless computers or devices that support WPA2, you can enter the passphrase to join the extender's wireless network.
 - **WPA-PSK [TKIP] + WPA2-PSK [AES].** When using wireless computers or devices that support either WPA or WPA2, you can enter the passphrase to join the extender's wireless network.
4. Click **Apply** to save your settings.
5. Use your wireless computer to connect to the extender's network with its new settings. The Smart Wizard can guide you through this process.

Set Up WPA, WPA2, or WPA + WPA2

Both WPA and WPA2 provide strong data security. WPA with TKIP can be used on Windows systems with Service Pack 2 or later. WPA2 with AES is a hardware implementation; see your device documentation before implementing it.

➤ To configure WPA or WPA2 in the Extender:

1. On the Wireless Setting screen, select the radio button for the WPA or WPA2 option of your choice.
2. The settings displayed on the screen depend on which security option you select.
3. For WPA-PSK or WPA2-PSK, enter the passphrase.
4. Click **Apply** to save your settings.

Set Up WEP

WEP is a legacy wireless security setting. NETGEAR recommends that you use a newer standard such as WPA2 or WPA unless you have older wireless equipment that supports only WEP.

➤ To set up WEP:

1. In the Wireless Settings screen, in the Security Options section, select the **WEP** radio button.
2. Select the authentication type: **Automatic**, **Open System**, or **Shared Key**. The default is Open System.

Note: The authentication is separate from the data encryption. You can select authentication that requires a shared key, but still leaves data transmissions unencrypted. Security is stronger if you use both the Shared Key and WEP encryption settings.

3. Select the encryption strength setting:
 - **WEP 64-bit encryption.** Enter 10 hexadecimal digits (any combination of 0–9, a–f, or A–F).
 - **WEP 128-bit encryption.** Enter 26 hexadecimal digits (any combination of 0–9, a–f, or A–F).
4. Enter the encryption keys. You can manually or automatically program the four data encryption keys. These values have to be identical on all computers and access points in your network:
 - **Passphrase.** To use a passphrase to generate the keys, enter a passphrase, and click **Generate**. This automatically creates the keys. Wireless computers have to use the passphrase or keys to access the Extender.

Note: Not all wireless computers support passphrase key generation. If your computer does not support the passphrase, then you will need to type the encryption key in order to join the wireless network.

- **Key 1–Key 4.** These values are *not* case-sensitive. You can manually enter the four data encryption keys. These values have to be identical on all computers and access points in your network. Enter 10 hexadecimal digits (any combination of 0–9, a–f, or A–F).
- 5. Select which of the four keys will be the default.
Data transmissions are always encrypted using the default key. The other keys can be used only to decrypt received data. The four entries are disabled if WPA-PSK or WPA authentication is selected.
- 6. Click **Apply** to save your settings.

IP Address Setup

From the Extender menu at <http://www.mywifiext.net>, under the Maintenance heading, select **Setup > IP Address Settings**.

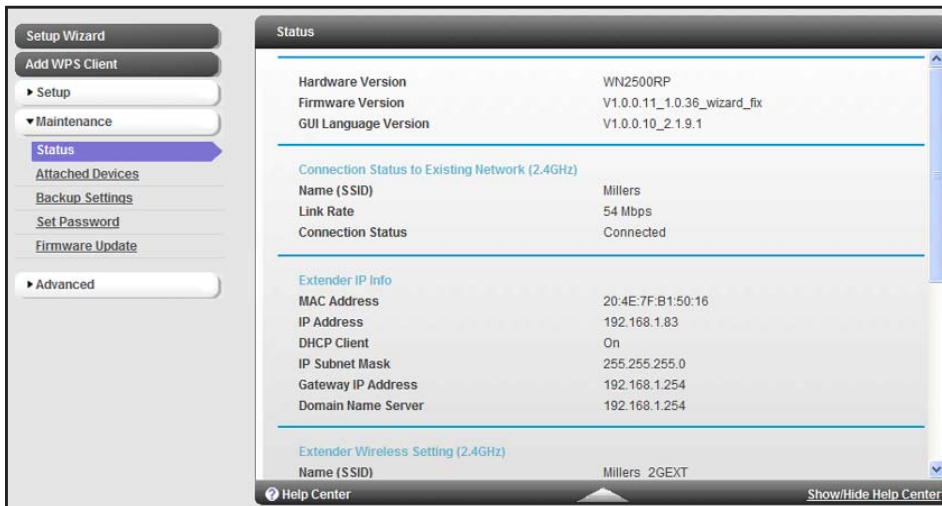
The IP Address Setup screen shows whether the Extender is set to get its IP address dynamically from the router (this is the most common setting), or is set up with a static IP address.

- **Get Dynamically IP Address From Router.** The wireless network router assigns an IP address when the Extender connects to its wireless network. Most networks are set up so that the router automatically does this.
- **Use Static IP Address.** Specify a static IP address. This is not usually necessary. If you set this up, you should be technically experienced or have a technically experienced person help you.
 - **IP Address.** The static IP address.
 - **IP Subnet Mask.** The subnet mask associated with the IP address.
 - **Gateway IP Address.** The IP address for the gateway.

- **Primary DNS.** The primary Domain Name Server (DNS).
- **Secondary DNS.** The secondary Domain Name Server (DNS).

Status Screen

When you connect to <http://www.mywifiext.net>, after the automatic firmware check, the Status screen displays. You can also select **Status** from the menu to display this screen:



This screen shows the current settings and the status of your Extender.

You can click **Show Statistics** to see device performance statistics such as the number of packets sent and number of packets received for each port. See [Show Statistics](#) on page 18.

The following fields are displayed in the Status screen:

- **Hardware Version.** The hardware version of the extender.
- **Firmware Version.** The current firmware version of the extender. If you upgrade the firmware, this field changes.
- **GUI Language Version.** The language version running on the extender. If you upgrade the firmware, this field changes.

Connection Status to Existing Network

- **Name (SSID).** Your Extender is set up to connect to this SSID, also called the wireless name.
- **Connection Status.** The status of your wireless connection (connected or disconnected).
- **Link Rate.** The actual transmission (Tx) and receive (Rx) link rate in the current wireless connection.

Extender PC Info

- **MAC Address.** The physical address of the Extender, as seen from the local area network (LAN).
- **IP Address.** The IP address of the Extender. The default is 192.168.1.250.
- **DHCP Server.** Identifies the network DHCP server on the wireless network.
- **IP Subnet Mask.** The IP subnet mask associated with the LAN IP address of the Extender. The default is 255.255.255.0.
- **Gateway IP Address.** The IP address of the wireless network gateway.
- **Domain Name Server.** The IP address of the Domain Name Server (DNS) of the wireless network.

Extender Wireless Settings

- **Name (SSID).** The name (SSID) of the wireless network.
- **Region.** The location where the Extender is operating.
- **Channel.** The channel of the wireless network.
- **Wireless AP.** On or Off.
- **Broadcast Name.** On or Off.
- **Wi-Fi Protected Setup.** Configured.

Show Statistics

Scroll to the bottom of the Status screen, and click **Show Statistics**. The following screen displays:

System Up Time 00:04:58							
Port	Status	TxPkts	RxPkts	Collisions	Tx B/s	Rx B/s	Up Time
LAN	100M/Full	1143	1224	0	1506	657	00:04:31
WLAN	145M	0	0	0	0	0	00:04:53

Poll Interval :: (secs)

The screen shows statistics for the LAN (local), and wireless LAN (WLAN) ports. For each port, the screen displays the following:

- **Status.** The status of the port.
- **TxPkts.** The number of packets transmitted on this port since reset or manual clear.
- **RxPkts.** The number of packets transmitted on this port since reset or manual clear.

- **Collisions.** The number of collisions on this port since reset or manual clear.
- **Tx B/s.** The current line utilization—percentage of current bandwidth used on this port.
- **Rx B/s.** The average line utilization for this port.
- **Up Time.** The time elapsed since the last power cycle or reset.
- **Poll Interval.** Specify the poll interval frequency. If you change this value, click **Set Interval** so that your change takes effect.

Attached Devices

Select **Maintenance > Attached Devices** to display the following screen:

Attached Devices				
Wired Devices				
#	IP Address	Device Name	MAC Address	Virtual MAC Address
1	192.168.1.100	TECHPUBS	00:1A:6B:6D:8F:19	02:1A:6B:6D:8F:19
Wireless Devices (Wireless intruders also show up here)				
#	IP Address	Device Name	MAC Address	Virtual MAC Address
<input type="button" value="Refresh"/>				

Back Up and Manage Extender Settings

Select **Maintenance > Backup Settings** to display this screen.

The Backup and Restore options in the Backup Settings screen let you save and retrieve a file containing your Extender's configuration settings. Once you have your Extender working correctly, you should back up the information to have it available if something goes wrong. When you back up the settings, they are saved as a file on your computer. You can restore the device's settings from this file.

➤ To back up settings:

1. Click **Backup**. Your browser extracts the configuration file from the Extender.
2. If you do not have your browser set up to save downloaded files automatically, locate where you want to save the file.
3. You can give the file a meaningful name at this time, such as internet_adapter.cfg.

➤ **To restore settings:**

1. On the Backup Settings screen, click **Browse**.
2. Locate and select the previously saved backup file.
3. Click **Restore**.

A screen displays letting you know that the device has been successfully restored to the previous settings. The Extender restarts. This takes about 1 minute.



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!

4. Close the message window.

➤ **To erase settings:**

Under some circumstances (for example, if you have lost track of the changes that you made to the Extender settings), you might want to erase the configuration. After an erase, the Extender returns to its factory settings (see *Factory Settings* on page 25).

To erase the configuration, click the **Erase** button in the Backup Settings screen. The Extender automatically shuts down and reboots with its factory settings.



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!

Set the Password

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

➤ **To set the password:**

1. Select **Maintenance > Set Password**. The following screen displays:

The screenshot shows a web form titled "Set Password". It contains three text input fields: "Old Password", "Set Password", and "Repeat New Password". At the bottom of the form, there are two buttons: "Apply" and "Cancel".

2. Type the old password, type the new password twice, and then click **Apply**.

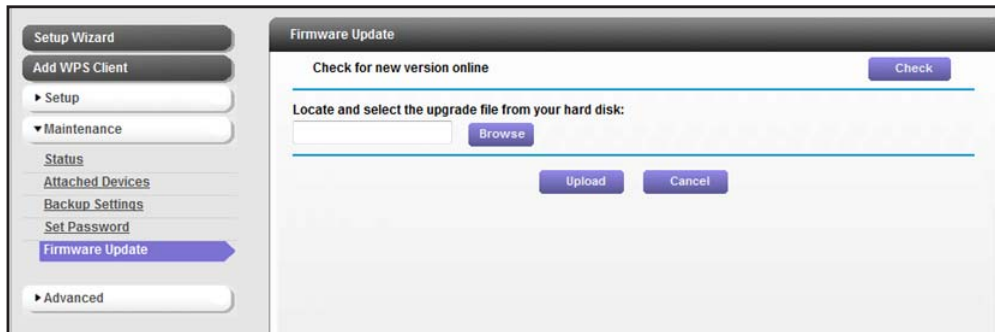
Upgrade the Firmware

Unless you changed the settings in the Firmware Upgrade screen previously, the Extender is set up to check for new firmware automatically at log in.

If you do not want to use the automatic firmware check, clear the **Check for New Version Upon Login** check box.

➤ **To check for firmware and upgrade if it is available:**

1. Select **Maintenance > Firmware Update**. The following screen displays:



2. Click **Check** to see if new firmware is available. If it is, follow the onscreen prompts to download it onto your computer.
3. In the Browse field, enter the path for the new firmware, or click **Browse** to locate and select the file.
4. Click **Upload** to install the new firmware on your Extender.



CAUTION:

Once you start the firmware upgrade, 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!

Advanced Wireless Settings

The Extender is already configured with the optimum settings. Do not alter these settings unless directed by NETGEAR support. Incorrect settings might disable the Extender unexpectedly.

➤ **To view or change the advanced wireless settings:**

From the Extender menu at <http://www.mywifiext.net>, select **Advanced > Wireless Settings**. The following screen displays:

Advanced Wireless Settings

Advanced Wireless Settings

Enable Wireless Access Point

Enable SSID Broadcast

WPS Settings

Device's PIN: **94093209**

Disable Device's PIN

Keep Existing Wireless Settings

Wireless Card Access List Set Up Access List

Apply Cancel

You can view or configure the following settings:

- Wireless Mode
 - Internet Surfing
 - Performance
- Advanced Wireless Settings
 - **Enable Wireless Access Point (2.4 GHz).** Enable the extender to work as a wireless access point. If this check box is cleared, then computers or wireless devices cannot connect wirelessly to the extender.
 - **Enable SSID Broadcast (2.4 GHz).** Enable the extender to broadcast its wireless network name (SSID). If this check box is cleared, then the wireless network is hidden. To join a hidden wireless network, you have to type the wireless name.
 - **Enable Wireless Access Point (5 GHz).** Enable the extender to work as a wireless access point. If this check box is cleared, then computers or wireless devices cannot connect wirelessly to the extender.
 - **Enable SSID Broadcast (5 GHz).** Enable the extender to broadcast its wireless network name (SSID). If this check box is cleared, then the wireless network is hidden. To join a hidden wireless network, you have to type the wireless name.
- WPS Settings

- **Disable Device's PIN.** Selecting this check box disables the extender's PIN. The PIN can be used for a WPS wireless connection.
- **Keep Existing Wireless Settings.** When this check box is selected, the settings in the Wireless Settings screen stay the same when WPS is used for a wireless connection.
- **Wireless Card Access List.** Specify a list of computers or wireless devices that are allowed to connect to the network. If you use an access list, then computers that are not on the list are not allowed to join the wireless network.

➤ **To set up a wireless card access list:**

1. On the Advanced Wireless Settings screen, click **Setup Access List**.

The following screen displays:

2. Select the **Turn Access Control On** check box.
3. Add the computers and wireless devices that you want to give access to the network.
 - Click the **Add** button for each device.
 - If you are not sure of the MAC address, check the product label.
 - Make sure to add the computer or wireless device that you are currently using to make changes.
4. Click **Apply** so that your changes take effect.

A. Supplemental Information



This chapter covers the following topics:

- *Factory Settings*
- *Technical Specifications*

Factory Settings

You can press and hold the **Factory Settings** button on the side panel for 7 seconds. The Extender resets, and returns to its factory settings.

Table 1.

Factory Settings		
Smart Wizard		Enabled
Wireless	Wireless communication	Enabled
	Wireless Network Name (SSID)	NETGEAR_EXT
	Security	Disabled
	Transmission speed	Auto ¹
	Country/Region	United States (varies by region)
	Operating mode	802.11n, 802.11g, 802.11b, 802.11ac
	Data rate	Up to 433 Mbps

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

Technical Specifications

Table 2.

Technical Specifications	
Network protocol and standards compatibility	Data and Routing Protocols: TCP/IP, DHCP server and client
AC input	100-240V~, 0.3A (Max)
Physical specifications	<ul style="list-style-type: none"> • Dimensions: 112 x 74 x 45 mm (4.41 x 2.91 x 1.77 in) • Weight: 0.245 kg (0.54 lb)
Environmental	<ul style="list-style-type: none"> • Operating temperature: 32° to 140° F (0° to 40° C) • Operating humidity: 90% maximum relative humidity, noncondensing • Electromagnetic emissions: Meets requirements of: FCC Part 15 Class B.
Interface	<ul style="list-style-type: none"> • Local: 10BASE-T, 100BASE-Tx, RJ-45 • 802.11n/g/b/ac



Notification of Compliance

Regulatory Compliance Information

This document includes user requirements for operating NETGEAR products in accordance with national laws including usage of radio spectrum and operation of radio devices. Failure of the end-user to comply with the applicable requirements may result in unlawful operation and adverse action against the end-user by the applicable national regulatory authority.

The NETGEAR product firmware limits operation to only the channels allowed in a particular region or country. Therefore, all options described in this document may not be available in your version of the product.

This document applies to both Class A and Class B devices:

- Class A devices are intended to be used in a commercial or industrial environment. They are not intended to be used in a residential home or be available for general public use.
- Class B devices are intended to be used in a residential setting, and may also be used in commercial and industrial applications. Examples of Class B devices are telephones, personal computers, and residential data gateways.

Europe – EU Declaration of Conformity

This section applies to products bearing the CE or CE! mark:



Products bearing the CE or CE! mark comply with the following EU directives:

- EMC Directive 2004/108/EC
- Low Voltage Directive 2006/95/EC
- Ecodesign Directive 2009/125/EC
- RoHS Directive 2011/65/EU

If the product has telecommunications functionality, it also complies with the requirement of the following EU directive:

- R&TTE Directive 1999/5/EC

Compliance with these directives implies conformity to harmonized European standards that are noted in the EU Declaration of Conformity. The EU CE Declaration of Conformity may be found at http://support.netgear.com/app/answers/detail/a_id/11621/.

Caution for installing this equipment outdoors: (Valid in all EU member states, EFTA states, and Switzerland.) Be aware that outdoor installations require special attention and will only be handled by trained and qualified installation personnel. No one from the general public is permitted to install NETGEAR wireless products outdoors when external antennas, power and grounding must be installed for use. Particular attention has to be given allowed operational frequencies. Contact NETGEAR for instructions on how to contact an installer for outdoor operations if this product requires the special considerations for outdoor installations. For detailed information concerning installations in France, the user should contact the national spectrum authority in France (<http://www.arcep.fr/>)

FCC Requirements for Operation in the United States

Information in this section applies to products bearing the FCC mark (or statement):



FCC Information to User

This NETGEAR product does not contain any user serviceable components and is to be used with approved antennas only. Any product changes or modifications will invalidate all applicable regulatory certifications and approvals.

The following statement applies to these products:

- EX6100
- WN3500RP

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with FCC multi-transmitter product procedures.

FCC Guidelines for Human Exposure

This NETGEAR product complies with FCC radiation exposure limits set forth for an uncontrolled environment. The equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body.

FCC Declaration of Conformity

We, NETGEAR, Inc., 350 East Plumeria Drive, San Jose, CA 95134, declare under our sole responsibility that this product complies with Part 15 Subpart B of FCC CFR47 Rules. Operation is subject to the following two conditions:

- The device may not cause harmful interference, and
- The device must accept any interference received, including interference that may cause undesired operation.

FCC Radio Frequency Interference Warnings & Instructions

The NETGEAR product 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 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 or more of the following methods:

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

FCC RF Radiation Exposure and SAR Statements

The information in this section applies to products that transmit data or communicate wirelessly.

SAR Statement

The information in this section applies to NETGEAR wireless products that are intended to be operated close to human body.

NETGEAR products that are intended to be operated close to the human body are tested for body-worn Specific Absorption Rate (SAR) compliance. The SAR limit set by the FCC is 1.6 W/kg.

The FCC has established detailed SAR requirements and NETGEAR products meet these requirements.

NETGEAR USB products were tested while installed in a host notebook computer.

RF Exposure Information

NETGEAR products have been evaluated under FCC Bulletin OET 65C (01-01) and found to be compliant to the requirements as set forth in CFR 47 Sections, 2.1093, and 15.247 (b) (4) addressing RF exposure from radio frequency devices. NETGEAR products meet the applicable government requirements for exposure to radio frequency waves. To see the test results reporting the highest SAR level measured for this device, visit <http://www.netgear.com/about/regulatory/declarations-conformity/>

Radiation exposure: NETGEAR products comply with radiation exposure limits set forth for an uncontrolled environment and meet radio frequency (RF) exposure guidelines for wireless routers. NETGEAR products should be installed and operated keeping the product 20cm or more away from a person's body. For devices that are battery powered and may be operated closer than 20cm to you, refer to the NETGEAR website for exposure levels.

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.

NETGEAR products comply with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) NETGEAR products may not cause harmful interference, and (2) NETGEAR products must accept any interference received, including interference that may cause undesired operation.

For products available in the USA market, only channel 1~11 can be operated. Selection of other channels is not possible.

The following statement applies to these products:

- EX6100
- WN3500RP

The device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with FCC multi-transmitter product procedures.

The EX6100 device operates in 5.15~5/25GHz frequency range. It is restricted in indoor environment only.

Non-DFS Warning

The NETGEAR products do not support operation in the 5600-5650MHz band. The firmware on the device restricts the operation in this frequency band and does not utilize the channels in this band.

The NETGEAR products will not permit operations on channels 120~132 for 11a and 11n/a, which overlap the 5600~5650MHz band.

Japan Notices VCCI

This information in this section applies to products bearing the VCCI mark:



Class A ITE

この装置は、クラス A 情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

Class B ITE

この装置は、クラス B 情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。

取扱説明書に従って正しい取り扱いをして下さい。

Japan Wireless Notice

この製品には、認証済みの無線機器を搭載しています。

TV Tuner (on Selected Models)

The information in this section applies to NETGEAR products incorporating a TV tuner.

Note to CATV System Installer: This reminder is provided to call the CATV system installer's attention to Section 820-93 of the National Electrical Code, which provides guidelines for proper grounding and, in particular, specifies that the Coaxial cable shield be connected to the grounding system of the building as close to the point of cable entry as possible.

Canadian Department of Communications Radio Interference Regulations

The information in this section applies to products bearing the statement:

“This digital apparatus does not exceed the Class B limits for radio-noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.”

CAN ICES-3 (B)/NMB-3(B)

Industry Canada

NETGEAR products comply with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) NETGEAR products may not cause harmful interference, and (2) NETGEAR products must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE: Radiation Exposure Statement

NETGEAR products comply with IC radiation exposure limits set forth for an uncontrolled environment. NETGEAR products should be installed and operated with minimum distance 20cm between the radiator and your body.

Pour les produits disponibles aux États-Unis / Canada du marché, seul le canal 1 à 11 peuvent être exploités. Sélection d'autres canaux n'est pas possible.

Cet appareil et son antenne (s) ne doit pas être co-localisés ou fonctionnement en association avec une autre antenne ou transmetteur.

les dispositifs fonctionnant dans la bande 5150-5250 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.

For products available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

The EX6100 and its antennas(s) must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with IC multi-transmitter product procedures.

The EX6100 for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems.

Caution

Ce dispositif est conforme à la norme CNR 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.

NOTE IMPORTANTE: Déclaration d'exposition aux radiations

Pour les appareils qui transmettent des données sans fil: 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 20 cm de distance entre la source de rayonnement et votre corps.

Interference Reduction Table

The table below shows the Recommended Minimum Distance between NETGEAR equipment and household appliances to reduce interference (in feet and meters).

Household Appliance	Recommended Minimum Distance (in feet and meters)
Microwave oven	30 feet / 9 meters
Baby monitor – analog	20 feet / 6 meters
Baby monitor – digital	40 feet / 12 meters
Cordless phone – analog	20 feet / 6 meters
Cordless phone – digital	30 feet / 9 meters
Bluetooth device	20 feet / 6 meters
ZigBee	20 feet / 6 meters

South Korea Notices

The information in this section applies to products bearing the KCC mark:





알림 : 대한민국으로 배송되는 제품인 경우

Class A : A급 기기 (업무용 방송통신기자재)	이 기기는 업무용(A급) 전자파적합기기로서 판매자 또는 사용자는 이 점을 주의하시기 바라며, 가정외의 지역에서 사용하는 것을 목적으로 합니다.
Class B : B급 기기 (가정용 방송통신기자재)	이 기기는 가정용(B급) 전자파적합기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

Taiwan WWAN Wireless Notice

The information in this section applies to products bearing the Taiwan National Communications Commission mark:

This ent has complied with NCC regulations.

第十.  認證合格之低功率射頻電機，非經許可，公司，商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條→低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

在 5.25-5.35 兆赫頻帶內操作之無線資訊傳輸設備，限於室內使用。

無線資訊傳輸設備忍受合法通信之干擾且不得干擾合法通信；如造成干擾，應立即停用，俟無干擾之虞，始得繼續使用。

無線資訊傳設備的製造廠商應確保頻率穩定性，如依製造廠商使用手冊上所述正常操作，發射的信號應維持於操作頻帶中。

Thailand Notice

The information in this section applies to products approved by the Thailand National Communications Commission:

เครื่องโทรคมนาคมและอุปกรณ์นี้ มีความสอดคล้องตามข้อกำหนดของ กทช.

China Notices

The information in this section applies to products bearing the Chinese Compulsory Certification Mark:



This device complies with the requirements in China for Safety and Quality

Australia and New Zealand Notices

The information in this section applies to products bearing the Australia C-Tick and A-Tick Compulsory Marks:



This device equipment complies with the Australian and New Zealand regulatory approvals requirements.

Powerline Device Safety Information

Follow these safety guidelines to ensure your own personal safety and to help protect your system from potential damage:

- For national approvals (approval schemes other than CB), relevant national standards for plug, socket-outlet, and direct plug-in units (for example, US) shall also be consulted while testing and approving such products according to the national standards.
- Check the electrical current for any device plugged into the filtered AC socket. Do not exceed home and product outlet ratings and electrical requirements.
- The socket-outlet shall be installed near the equipment and be easily accessible
- Only power cords and allowed to be inserted into the filtered AC socket; no other equipment with a direct plug-in is allowed. Power cords needs to be a maximum of 1m long and a minimum of 0.75mm² of cross-sectional area.
- Do not plug devices into the Powerline Pass Thru Adapter filtered AC outlet that exceed the product ratings. The output voltage of the filtered AC outlet is the same as the power outlet that the Powerline Pass Thru Adapter is plugged into. To help avoid damaging your system, be sure that the attached devices are electrically rated to operate with the power available in your location.
- If the input AC voltage is less than 100 Vac, the device plugged into the filtered AC socket of the Powerline Pass Thru Adapter might not perform as well as expected.
- **DO NOT PLUG MAJOR HOME APPLIANCES** into the filtered AC socket or into an attached power strip. The device is not intended to be used with home appliances such as air conditioners, power tools, space heaters, fans hair dryers, ovens, or refrigerators.
- Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate.
- Do not service any product except as explained in your system documentation.
- Opening or removing covers that are marked with the triangular symbol with a lightning bolt can expose you to electrical shock. Only a trained service technician should service components inside these compartments.
- Use the product only with approved equipment.
- Allow the products to cool before removing covers or touching internal components.
- To help avoid damaging your system, be sure that the voltage selection switch (if provided) on the power supply is set o match the power available at your location:
 - 110 volts (V), 60 hertz (Hz) in most of North and South America and some Far Eastern countries such as south Korea and Taiwan
 - 100, 50 Hz in eastern Japan and 100, 60Hz in western Japan

- 230v, 50Hz in most of Europe, the Middle East, and the Far East
 - The peripheral power cables are equipped with three-prong plugs to help ensure proper grounding. Do not use adapter plugs or remove the grounding prong from a cable.
 - Observe extension cable and power strip ratings. Make sure that the total ampere rating of all products plugged into the extension cable or power strip does not exceed 80 percent of the ampere ratings limit for the extension cable or power strip.
 - To help protect your system from sudden, transient increases and decreases in electrical power, use a surge suppressor, line conditioner, or uninterruptible power supply (UPS).
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NETGEAR, Inc., 350 E. Plumeria Avenue, San Jose, CA 95134 USA

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