LINKSYS®

User Guide

AC1900
Wi-Fi Range Extender

Model # RE7000

Contents

Product Overview

Front view

Indicator LED

RE7000

The indicator LED on the front of the range extender gives you information about power, updating and signal strength.

Power Light	Status/ description
Blinking Green	• Starting up. • Resetting to factory defaults. • Upgrading firmware.
Solid Green	• Ready to use.
Solid Amber	• Weak connection with the router. Fix: Unplug the extender, and move it closer to the router.
Blinking Amber	• Not connected to the router or other error. *Fix:* 1. *Make sure your router has an Internet connection and Wi-Fi is turned on.* 2. *If the router is in order, unplug the extender, move it closer to the router, plug it back in, wait one minute, reconnect to your network.*

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Side view
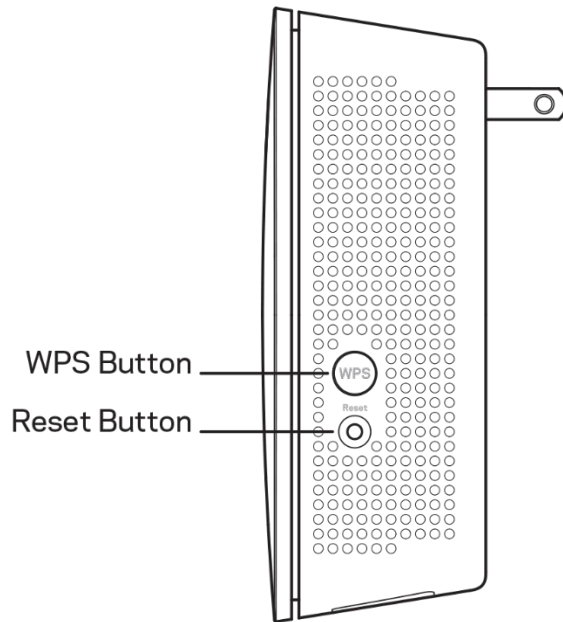
WPS™ Button—Use Wi-Fi Protected Setup to automatically and securely add compatible wireless devices to your network with Push Button Connect. Refer to Using WPS on page **6**.

Reset Button—Press and hold until the power light on the front of the range extender blinks to reset to factory defaults. You can also restore the defaults from the Administration > Factory Defaults screen in the extender's settings interface (page **18**).

Bottom view
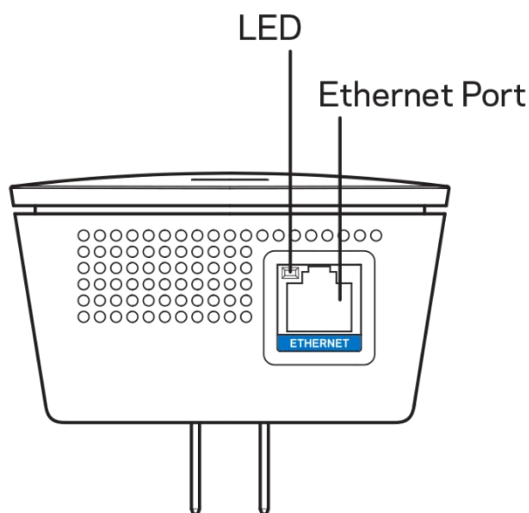
LED—The LED confirms an Ethernet connection to the main router.

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Ethernet Port (blue)—Connect wired devices to your wireless network with Ethernet (network) cables. The green light turns on when an Ethernet device is connected and active on this port. The light blinks when the extender is sending or receiving data over the Ethernet port.

How to Install the Range Extender

There are two ways to use your Linksys extender: as a wireless range extender or as a wired range extender (access point). Wireless range extenders repeat existing Wi-Fi signals. Wired range extenders (access points) create new Wi-Fi hotspots when connected to a router or access point with an Ethernet cable. Both scenarios require a router with a working Internet connection.

Before starting setup, decide whether you want to use your RE7000 as a wireless range extender or as a wired range extender (access point). Instructions for both setups are in this user guide.

Setting up as a wireless range extender

Wi-Fi Protected Setup (WPS)

Does your router have a WPS button?

WPS is a simple way to connect Wi-Fi devices with Push Button Connect. Routers that support WPS have a button that might look like one of these symbols:

If your router has a WPS button, continue with WPS below.

If not, or if you are not sure, continue with browser-based setup on page

Note—The WPS button will not work if you have disabled WPS on your router, or if you have chosen WEP as your network security type. In either case, continue with browser-based setup on page *.*

1. **Plug the range extender into an electrical outlet close to your router.** You can move the range extender to an ideal location later in step 5. After the range extender is plugged in, the indicator LED on the front will blink green for up to a minute.

2. **Wait for the indicator LED on the front of your range extender to blink amber before going to step 3.** This can take up to a minute.
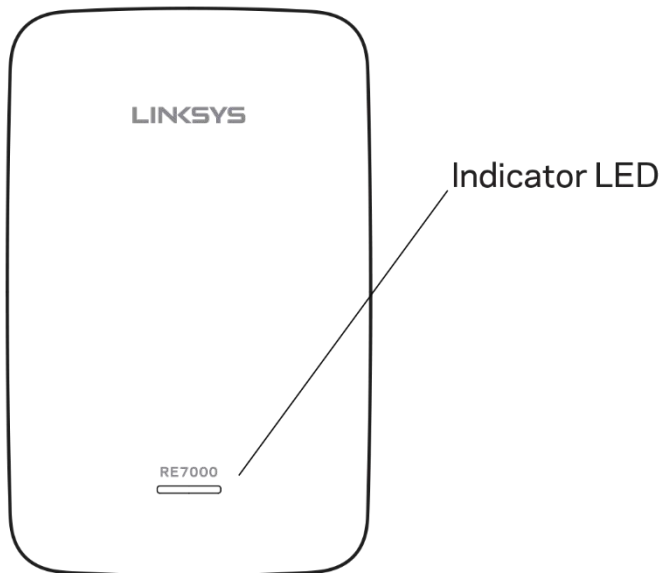
Indicator LED

3. **Extend your 2.4 GHz network.**

   a. Press the WPS button on your router. Within the next two minutes complete step 3b.

   b. Press the WPS button on the side of your range extender. The WPS button will light up and the indicator LED on the front of your range extender will blink green.
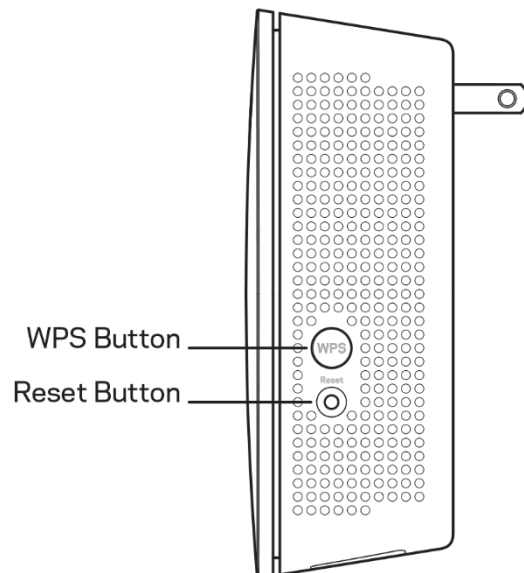
WPS Button

Reset Button

Watch the indicator LED on the front of your range extender to verify whether the connection was successful.

If it turns solid green , the connection was successful. Move to step 4.

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If it blinks amber , the connection failed. You may try again by repeating step 3 or try browser-based setup on page .

4. **Extend your 5 GHz network.**

   You may skip this step if your router does not have a 5 GHz network or if you don't want to extend that network.

   a. Press the WPS button on the side of your router again. Within the next two minutes complete step 4b.

   b. Press the WPS button on your range extender again.

      The WPS button will light up and the indicator LED on the front of your range extender will start to blink green.

      Watch the indicator LED on the front of your range extender to verify whether the connection was successful.

      If it turns solid green , the connection was successful.

      If it starts to blink amber before it turns solid green, the connection failed. You may try again by repeating step 4.

5. **Move your range extender to an ideal spot.**

   Unplug your range extender and plug it back in midway between your router and the area without Wi-Fi. Using your mobile device or laptop, be sure you have at least two bars (around 50%) of your router's Wi-Fi signal at that location. If you don't have two bars, move the range extender closer to the router.
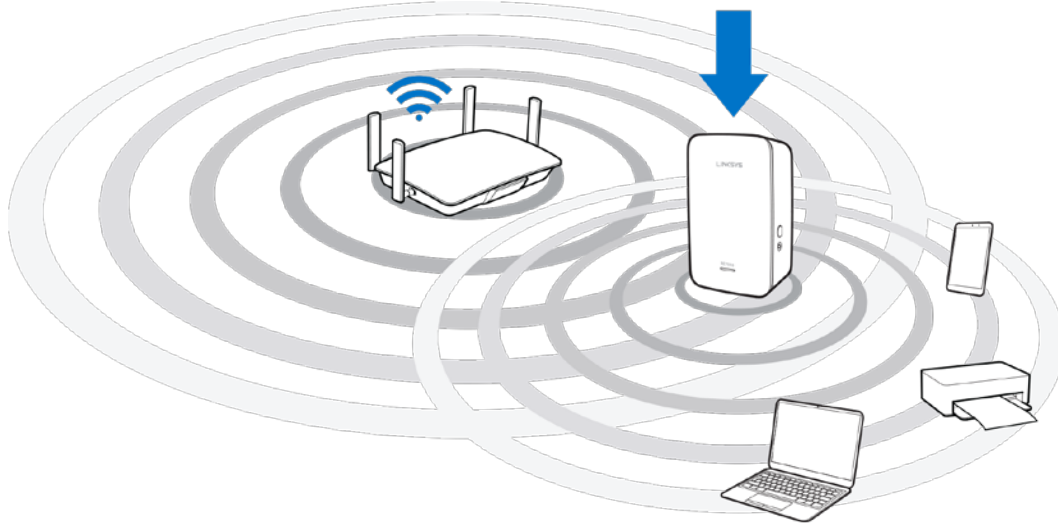
6. **Check indicator LED for connection quality.**

   It can take up to a minute for the ranger extender to boot up after moving it. During this period you will see the blinking green LED once again.

   ○ Solid green Ready to use.

- Solid amber Weak connection to the router. Find an outlet closer to your router.
- Blinking amber Not connected to the router. Find an outlet closer to you router.

7. **Connect your Wi-Fi devices to the extended network you just created.**

   If you have setup your range extender with a Linksys Max-Stream Router, you don't have to do anything. Max-Stream routers support seamless roaming, and your extended Wi-Fi network shares the same network name and password. Connected devices will select the main or extended network as you move around the coverage area.

   If you do not have a router with seamless roaming, select the extended network on your device's Wi-Fi manager. Extended networks are identified by "_Ext" added to the end of your main network name(s). Password(s) will be the same as those for your main network(s).

   Note—*To learn more about seamless roaming and see a list of supported devices visit www.linksys.com/seamless-roaming.*
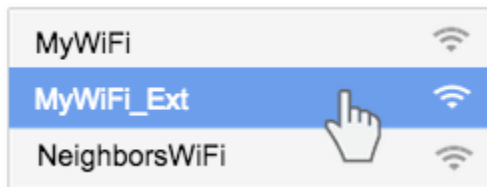

Your range extender is now set up. Enjoy your extended Wi-Fi coverage.

Browser-based setup

Use this setup method if you don't have a WPS button on your router, or if you don't want to use WPS to set up your RE7000.

1. **Plug in the range extender**

   Plug in the range extender midway between your router and the area without Wi-Fi. Using your mobile device or laptop, be sure you have at least two bars (around 50%) of your router's Wi-Fi signal at that location. If you don't have two bars, move the range extender closer to the router. You can move the range extender to an ideal location later using the setup software.
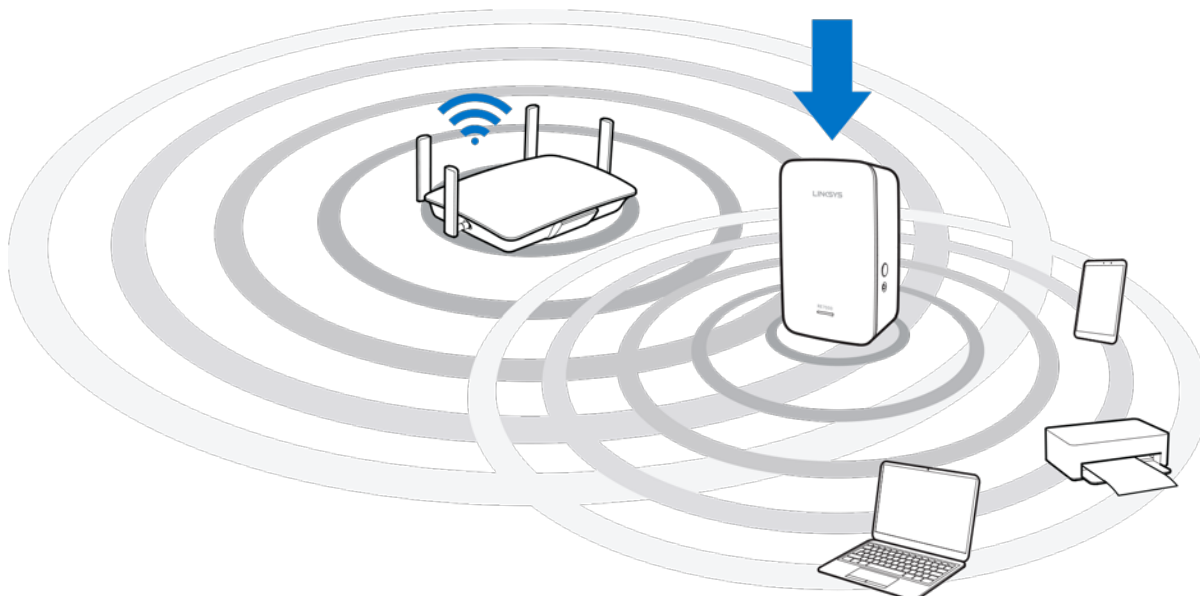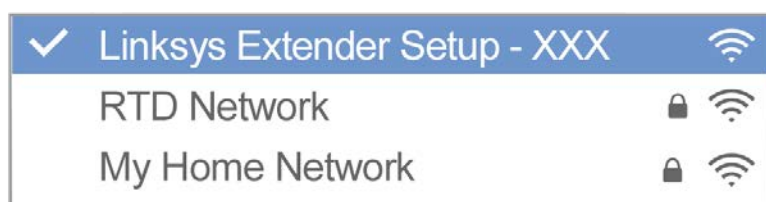
2. **Wait for the indicator LED on the front of your range extender to blink amber.**

   This can take up to a minute

Indicator LED
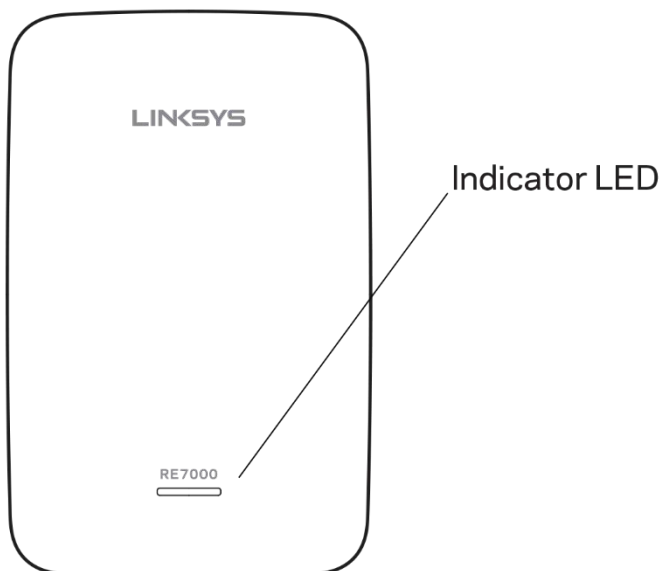
3. **Connect to range extender setup network.**

   On a computer, phone or tablet, connect to the Wi-Fi network: Linksys Extender Setup - XXX. (XXX are the last three digits of your range extender's MAC address.)
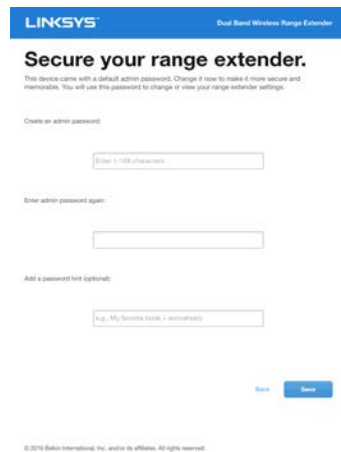
4. **Launch setup.**

    Enter http://extender.linksys.com (or try http://192.168.1.1) in a browser to complete setup. Follow the on-screen instructions:

    ○   Welcome to setup.

    ○   Secure your range extender.

○ Range extender or access point?
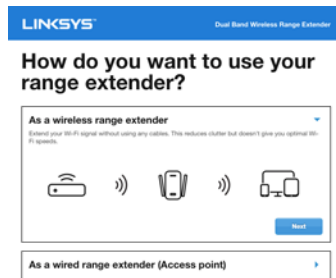
○ Choose a network to extend.

○ Enter password for main network.

○ Your extended wireless network.

○ Spot finder results
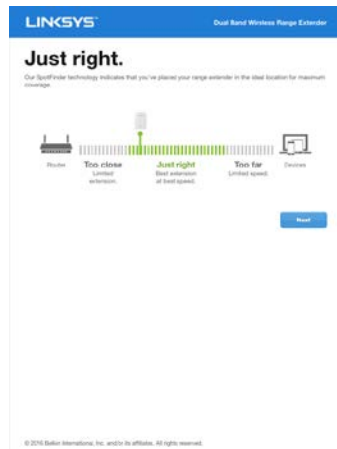
Note—*If you are not connected to your range extender's setup network you will get a page alerting you that you haven't connected to the extender. The page will ask whether you are trying to set up a new range extender or access settings on a range extender you already set up.*

Sometimes you will get a "404 Not Found" error page. If that happens, clear your browser cache and try again.

5. **Connect your Wi-Fi devices to the extended network you just created.**

   If you have set up your range extender with a Linksys Max-Stream router, you don't have to do anything. Max-Stream routers support seamless roaming, and your extended Wi-Fi network shares the same network name and password. Connected devices will select the main or extended network as you move around the coverage area.

   If you do not have a router with seamless roaming, select the extended network on your device's Wi-Fi manager. Extended networks are identified by "_Ext" added to the end of your main network name(s). Passwords will be the same as those for your main network(s).

Setting up as wired range extender (access point)

## Browser-based setup

1. **Prepare for setup**

   Be sure your router has a working Internet connection and you have an Ethernet cable long enough to connect the router to the range extender.

2. **Plug the Linksys extender into a wall outlet.**

3. **Wait for the blinking indicator LED to change from green to amber.**

4. **Use an Ethernet cable to connect the range extender to the LAN port of your router.**

5. **Connect to the Linksys Extender Setup network.**

   On a computer, phone, or tablet, connect to the Wi-Fi network Linksys Extender Setup –
   XXX, where XXX are the last 3 digits of your range extender's MAC address.

✓ Linksys Extender Setup - XXX	📶
RTD Network	🔒 📶
My Home Network	🔒 📶

6. **Launch setup.**
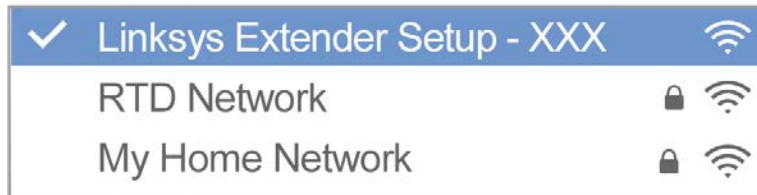
   Enter http://extender.linksys.com (or try http://192.168.1.1) in a browser to complete
   setup. Be sure to choose "As a wired range extender (access point)" when asked how you
   want to use your range extender. Follow the on-screen instructions to create a network
   name and password for your access point.

7. **Connect your Wi-Fi devices to the extended network you just created.**
   Select the extended network on your device's Wi-Fi manager. Extended networks are
   identified by "_Ext" added to the end of your main network name(s).

   *Note—If your router's MAC filtering feature is on you must enter the MAC address of the
   extender into the list of the router's allowed addresses. That will allow the extender, and
   devices connected to extended networks, to connect to the main network.*
   *The MAC addresses of the extender's 2.4GHz and 5GHz radios are identified as Seen By
   Upstream AP in the Status > WLAN Statistics screen. The MAC address of the extender's
   Ethernet port is identified as Extender Mac Address on the Status > Device Info screen.
   Once the extender can access the router, all devices connected to the extender have
   access as well.*

LINKSYS — Dual Band Wireless Range Extender (RE7000 v1.0.00)

Wireless
- Basic Settings
- WPS
- Site Survey
- QoS
- Cross Band
- Spot Finder
- Access Control

Administration
- Management
- Log
- Diagnostics
- Factory Defaults
- Firmware Upgrade

Status
- Device Info
- Ethernet Statistics
- WLAN Statistics

WLAN Statistics
Help

Network Name (SSID):	arachnid	arachnid_5GHz
Extender MAC address:		
Seen by WiFi Clients:	C0:56:27:83:ED:26	C0:56:27:83:ED:28
Seen by Upstream AP:	C2:56:27:03:ED:26	C2:06:27:83:ED:28
AP MAC address:	48:F8:B3:CA:DE:40	48:F8:B3:CA:DE:41
Mode:	802.11 n	802.11 a
Radio Band:	2.4 GHz	5 GHz
Channel Width:	20MHz	20MHz
Channel:	3	36
Wi-Fi Protected Setup:	On	On
Security:	WPA2 Personal	WPA2 Personal
Signal Strength:	(-79 dbm)	(-97 dbm)
Signal Quality:		
Link Rate:	52 Mbps	13 Mbps
Status:	Connected	Connected
Uplink uptime:	5528	5567
Packet count:	485102	185776
Sent (TX):	151308	836

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- Ethernet Statistics
- WLAN Statistics

Device Info
Help

Firmware Version:	1.0.00, build 22, Feb 16, 2016
Firmware Verification:	bf50f5cc17d9aec965c29b8efded38b2
System Time:	Thu Mar 24 10:34:32 2016
Up Time since last reboot:	01:32:35
Extender Mac Address:	C0:56:27:83:ED:25

Network Address

Connection Type:	Automatic Configuration - DHCP
IP Address:	192.168.1.134
Subnet Mask:	255.255.255.0
Default Gateway:	192.168.1.1

Refresh

English

How to Access the Settings Interface

To change or view range extender settings, first connect to an extended network, e.g., MyWiFi_Ext. In a browser, go to http://extender.linksys.com and enter admin password.

Note—Your range extender's default admin password is "admin". It is highly recommended that you change this after WPS setup.

If you have not changed the range extender's default name, you can also access the settings interface when connected to your main router.

Enter into a browser http://RE70000-XXX (Windows) or http://RE7000-XXX.local or (Mac OS X or iOS).

Note—*XXX are the last 3 digits of your range extender's MAC address. You can find the MAC address on the back of your RE7000. (You might have to unplug your range extender to see the MAC address label. Plug it back in and make sure the LED light is solid green before accessing the URL.)*

If you changed your range extender's name, you can access the settings interface by entering the new name in a browser. For example: if you named your extender MyExtender, enter http://MyExtender (Windows) or http://MyExtender.local (Mac OS X or iOS).

You can also enter your range extender's IP address in a browser. Find the IP address on your router's administrative interface.

Note—*If you are not connected to your extended network you will get a page alerting you that you haven't connected to the extender. The page will ask whether you are trying to set up a new range extender or access settings on a range extender you already set up.*

Sometimes you will get a "404 Not Found" error page. If that happens, clear your browser cache and try again.

Using Range Extender Settings

Click *Help* on the right side of the screen for additional information on the screen's options.

Changes to settings will not be effective until you click **Save** at the bottom of the screen. You also can click **Cancel** to clear any changes.

WPS

WPS makes it easy to connect your extender to your network, and connect other devices to your network through the extender.

Connecting the range extender to an existing access point or wireless router (see p. 6)

Connecting devices to your network through the range extender

Repeat the instructions for each client device that supports WPS.

1. **Connecting with the WPS Button**

WPS Button
Reset Button
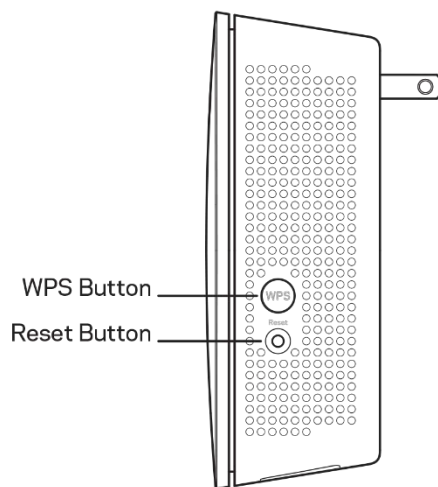
   a. Press the WPS button on the client device.
   b. Click the WPS button on the extender's WPS screen, OR press and hold the WPS button on the side of the extender for one second. When the connection is complete, the indicator LED on the front of the range extender will be solid green for 10 seconds. If the indicator LED blinks amber for 10 seconds, the connection failed. Go back to previous step and try again.
   c. If using the extender's WPS screen, be sure to click **OK** within two minutes or you will have to start over.

2. **Connecting with the client device's PIN**

2. If your client device has a Wi-Fi Protected Setup™ PIN number, enter that number here [_____] and then click [Register]
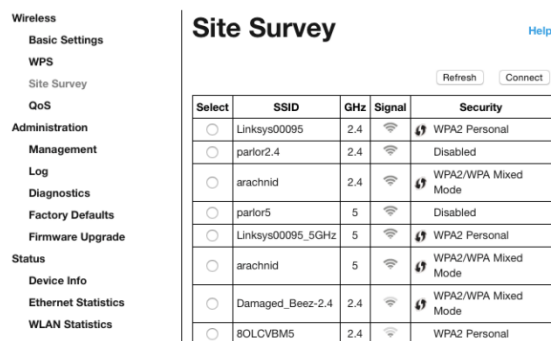
a) Enter the PIN from the client device in the field on the extender's WPS screen.

b) Click Register on the extender's WPS screen. When the connection is complete, the indicator LED on the front of the range extender will be solid green for 10 seconds.

c) Click **OK** on the extender's WPS screen within two minutes or you will have to start over.

3. **Connecting with the extender's PIN**

a) On the client device, enter the PIN listed on the extender's WPS screen. (It is also listed on the product label on the back of the extender.)

b) Click **OK** on the client device's WPS screen within two minutes.

Site Survey

Site Survey gives a snapshot of all access points and wireless routers within range of the extender.

Log in to the settings interface (see "How to Access the Settings Interface" on page). Click the *Wireless* tab. Click the *Site Survey* page.

- Select—Click the button next to the wireless network name (SSID) in the *Select* column, and click Connect. For dual-band networks, be sure to connect to both bands, 2.4 GHz and 5 GHz.
- SSID—The names of neighboring wireless networks.
- GHz—The radio band (in GHz) of the neighboring wireless networks
- Signal Strength—The power of the wireless signal received: dot only = 25%, dot + one wave = 50%, dot + two waves = 75%, dot + three waves = 100%. If no waves are displayed, your extender is too far from the upstream access point or the signal is blocked. Try to keep the signal strength between 50% and 100% for optimum performance.
- Security—The mode of security in use by the neighboring wireless networks If a network supports Wi-Fi Protected Setup, the Wi-Fi Protected Setup icon is also displayed.

QoS (Quality of Service)

RE7000 supports WMM (Wi-Fi Multimedia), which enhances the quality of service (QoS) on a network. QoS prioritizes data packets according to four traffic classes: voice, video, best effort, and background. We recommend keeping the default QoS settings.

Cross-Band

Cross-Band is the simultaneous use of both bands for high-speed data transfer and uninterrupted streaming and gaming. When in Auto Cross-Band (default), the range extender selects the appropriate band (2.4 GHz or 5 GHz) when sending data from wireless clients to the Wi-Fi router.

Access Control

All devices connected to your range extender can access your Wi-Fi network if the extender can access the router. Use the Access Control feature to restrict certain devices. On the *Wireless > Access Control* screen you can specify the MAC addresses of devices to allow or deny.

Troubleshooting

Your range extender works on 2.4GHz and 5 GHz networks.

You cannot get your range extender connected

Check the position of your router and extender.
- For first-time setup, you may need to place the extender closer to the router. After you've set up your extender, you can unplug it and move it to the final location.
- To reduce signal obstructions, try alternate locations for the router and extender.
- Avoid placing the router and extender near metal objects, masonry walls, and reflective surfaces such as glass or mirrors.
- Avoid placing the router and extender near other electronics that may cause signal interference.

If you're using Wi-Fi Protected Setup to connect, wait until the WPS button LED turns from solid amber to off before trying to make the connection again.

You cannot access your range extender

To access your range extender, you must be connected to your extended network. If you currently have wireless Internet access, the problem may be that you have accidentally connected to a different wireless network.

To fix the problem on Windows computers*:
1. On your Windows desktop, click on the wireless icon in the system tray. A list of available networks will appear.

2. Click your extended network name. Click Connect. In the example below, the computer was connected to another wireless network named wraith_5GHz. Your extended network name, Damaged_Beez2.4_Ext in this example, is shown selected.
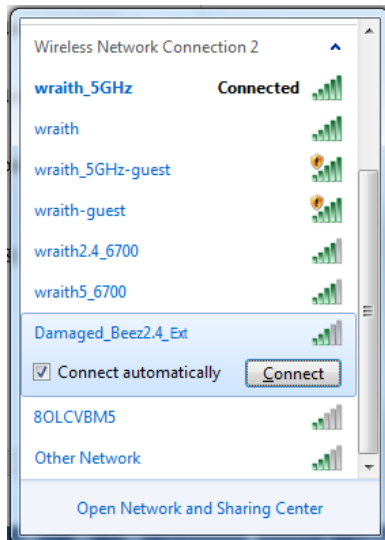
3. If you are prompted to enter a network security key, type your password (security key) into the network *security key* field. Click **OK**.

4. Your computer will connect to the extended network, and you should be able to access the range extender's settings interface.

Depending on your version of Windows, there could be some differences in wording or icons in these steps.

To fix the problem on Mac computers, do the following:

1. In the menu bar across the top of the screen, click the Wi-Fi icon. A list of wireless networks will appear.

2. In the example below, the computer was connected to another wireless network named wraith_5GHz. Your extended network name, Damaged_Beez2.4_Ext in this example, is shown selected.
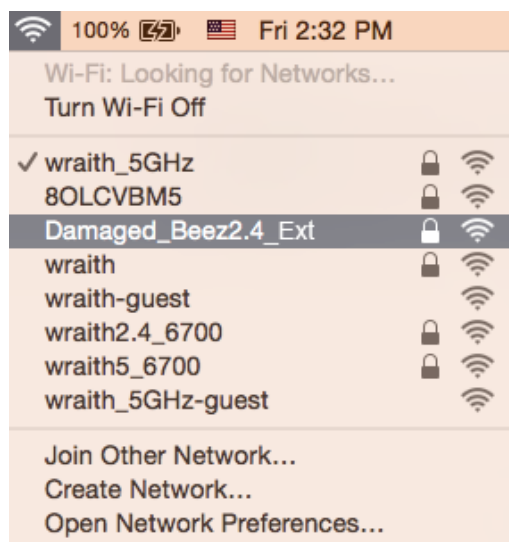
3. Click the extended network name of your range extender (Damaged_Beez2.4_Ext in the example).

4. Type your wireless network password (Security Key) into the *Password* field. Click **OK**

You have intermittent connection problems

Plug in the range extender midway between your router and the area without Wi-Fi. Be sure you have at least 50% of your router's Wi-Fi signal at that point on the device you used for setup. If you have two bars or lower, move closer to your router.

To check the signal strength for individual devices connected to the extended network, go to the *Status > WLAN Statistics* page in your extender settings and click **Wireless Clients Table** at the bottom of the page.

Specifications

RE7000

Description	Dual-band Wireless-AC Range Extender
Standards	IEEE 802.11ac, 802.11a, 802.11n, 802.11g, 802.11b, 802.3ab
Ports	Gigabit Ethernet
Buttons	Reset, Wi-Fi Protected Setup™
LEDs	Power, Wi-Fi Protected Setup, Ethernet (link, activity)
Wireless Security	Wi-Fi Protected Access™ 2 (WPA2), Wi-Fi Protected Access™ (WPA), WEP

Environmental

Dimensions	80 mm x 125 mm x 46 mm (3.15 in x 4.92 in x 1.81 in)
Weight	.255 kg (.56 lb)
Power	Internal AC/DC power supply: 100-240V, ~0.5A, 50/60 Hz
Certification	FCC, ICES-003, RSS-247, CE, Wi-Fi (IEEE 802.11a/b/g/n), WPA2™, WMM®, Wi-Fi Protected Setup™
Operating Temp.	32 to 104°F (0 to 40°C)
Storage Temp.	-4 to 140°F (-20 to 60°C)
Operating Humidity	10 to 80% non-condensing
Storage Humidity	5 to 90% non-condensing

Specifications are subject to change without notice.

Visit linksys.com/support/RE7000 for award-winning 24/7 technical support.

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LNKPG-00286 A01