



Introduction

This User Guide can help you connect the extender to your network and solve common setup issues. You can find more help from our award-winning, 24/7 customer support at Linksys.com/support.

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Overview

Front



The light on the front of the range extender gives you information about power and Wi-Fi Protected Setup. Use Wi-Fi Protected Setup to automatically and securely connect client devices such as wireless printers that support Wi-Fi Protected Setup. **Note:** Your antennas might look different from those pictured here.

Power Light	Status/ description
Blinking white	When the extender is powered on, is resetting to factory defaults, or upgrading its firmware
Solid white	When the extender is ready to use
Blinking amber for two minutes	When the extender cannot establish a connection or encounters a problem
	Fix: Unplug the power from the extender, plug it back in, wait two seconds, and then reconnect it to your network



Back

Power Switch European versions only.

Wi-Fi Protected Setup Button Use Wi-Fi Protected Setup to automatically and securely add wireless devices to your network. Refer to Using Wi-Fi Protected Setup on page 7.

Ethernet (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.

Audio Port Connect the extender to your speaker.

Bottom



Reset Press and hold this button for about five seconds to reset the extender to its factory defaults. You can also restore the defaults from the Administration > Factory Defaults screen in the extender's browser- based utility.

How to install the range extender

Before setup, unplug or disconnect any range extenders on the network.

1. Connect the antennas and power cable as pictured. Antennas should be upright for best results. **Note:** Your antennas might look different from those pictured here.



2. 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 will use for setup.



- 3. Wait for a solid light on the cover of the range extender. It could take up to two minutes. On a computer, phone or tablet, connect to the Wi-Fi network "Linksys Extender Setup."
- Windows 7 and Windows 8 will ask you, "Do you want to set up your network?" Click the link, "Connect to network without setting it up."



4. If setup doesn't start automatically, open a browser to http://192.168.1.1.

TIP

You can also connect the range extender by using Wi-Fi Protected Setup. For more information, see "Using Wi-Fi Protected Setup" on page 7.

How to access the browser-based utility

After setting up the extender use the extender's browser-based utility to change any settings.

Windows XP:

TIP

To follow these instructions, UPnP needs to be enabled in Windows XP. To enable UPnP:

- 1. Click Start, Control Panel, Add or Remove Program, then click Add/ Remove Windows Components.
- 2. Select Network Services, then click Details.
- 3. Select UPnP User Interface, then click OK
- 1. Open Windows Explorer. Click My Network Places on the left panel.
- 2. Look for the RE6500 icon on the right panel. (You might be required to change the firewall settings to allow the display of networked computers. Refer to your operating system's help for instructions.)
- 3. Double-click the **RE6500** icon. A web browser will open and prompt you to enter your **User name** and **Password**.
- 4. Leave the User name field blank, and enter the default password "admin."
- 5. Click **OK**.

Windows 8, Windows 7, or Vista:

- 1. Open Windows Explorer (File Explorer in Windows 8). Click **Network**. Look for the RE6500 icon on the right panel. (You might be required to change the firewall settings to allow the display of networked computers. Refer to your operating system's help for instructions.)
- Right-click the **RE6500** icon. Click **Properties**. Click on the address link in Device webpage. A web browser will open and prompt you to enter a User name and Password.
- 3. Leave the User name blank, and enter the default password "admin."

Mac OS X

- 1. Open **Safari**. Click the book icon. Click **Bonjour** on the left panel. Look for the RE6500 icon on the bottom right panel.
- 2. Double-click the RE6500 icon.
- 3. Leave the User name blank, and enter the default password "admin."
- 4. Click **OK**.

Changes to settings will not be effective until you click Save Settings at the bottom of the screen. You also can click Cancel Changes to clear any changes. Click Help on the right side of the screen for additional information on the screen's options.

LINKSYS				
			Lini	sys Extender
Setup	Setup Basic Setup	Wireless	Administration	Status
Language Select your language	English 🗸			Help
Network Setup Extender address	Device name: Link Automatic Configuration - DH	sysExtender00037		
Reboot	Reboot			
		Save Settings	Cancel Changes	

4. Click OK.

Using Wi-Fi Protected Setup

Wi-Fi Protected Setup[™] makes it easy to connect your extender to your network, and connect other devices to your network through the extender.

Wi-Fi Protected Setup light activity

WPS Light	Status/ description
Blinking white	When WPS connection is in process
Solid white	When WPS connection is successful
Blinking amber for two minutes	When WPS cannot establish connection or encounters a problem
	Fix: wait a few seconds after LED stops blinking and try again

Connecting the extender to an existing access point

If your access point or router supports it, you can use Wi-Fi Protected Setup to connect the range extender to the access point or router. Choose from the setup methods below to connect the extender.

NOTE

If you have an access point or a router that does not support Wi-Fi Protected Setup, note the wireless settings, and then manually configure the extender.



Connecting with the Wi-Fi Protected Setup Button

Use this method if your router or access point has a **Wi-Fi Protected Setup** button.



- 1. Press the Wi-Fi Protected Setup button on the extender.
- Click the Wi-Fi Protected Setup button on the router's Wi-Fi Protected Setup screen (if available), OR press and hold the Wi-Fi Protected Setup button on the router for one second. When the connection is complete, the Wi-Fi Protected Setup light on the extender will be solid.
- 3. If you used the extender's Wi-Fi Protected Setup screen, click OK in that screen within two minutes.

NOTE

If you have a dual-band router and wish to connect to both bands, you will have to perform the WPS setup twice. The first connection will be on the 2.4 GHz band.

Connecting with the range extender's PIN

The Wi-Fi Protected Setup PIN (Personal Identification Number) can be found on the product label on the bottom of the extender. You can use this method only if your router's administration utility has a Wi-Fi Protected Setup menu.

2. If your router asks for the client's PIN number, enter this number $\ensuremath{14727030}$ in your router device.

- 1. Enter the extender's PIN into the appropriate field on the router's Wi- Fi Protected Setup screen. Click Register. When the connection is complete, the Wi-Fi Protected Setup light on the extender will be solid.
- 2. Click OK.

Connecting devices to your network through the extender

Choose from the methods below to connect devices that support Wi-Fi Protected Setup to your network.

						Financian Vession: 1.
				Linksys Extend	er	RE6500
Wireless	Setup	Wirels		Uministration		Status
	Site servey	1 Basic Wireless	(Setting) [Qui	1	WPS
3-Fi Protected Setup ^{rus}						
	W76	® Enabled ◎ Di	sabled		Help	
	Wi-Fi Protected	SetunTM				
	Use one of following for	r each Wi-Ti Protected Ser	tup supported device:			
	1. If your diant desire has a WirFr Destand Lower W					
	button, click or press that button and then click the					
		OR	-			
	2. If your client device I	has a Wo-Fs Protected Sets	grine PEN number, enter i	hat number here		
	OR					
	 If your client asks for device. 	the router's PDN number,	enter this number 1203	2129 in your client		
2.4 GHz Wireless	Wi-Fi Protected Set	tup"" Status:	Configured 3.4 CM			
	Network Name (SSI	D):	larry's			
	Security		WPA-PIK WP	A2-95K		
6 GHz Wireless	Wi-Fi Protected Set	tup"" Status	Configured			
	Wireless Band:		5 GHz			
	Security:		WPA-PIK/WP	A2-PSK		

NOTE

Repeat the instructions for each client device that supports Wi-Fi Protected Setup.

Connecting with the Wi-Fi Protected Setup Button

Use this method if your client device has a Wi-Fi Protected Setup button.

Wi-Fi Protected Setup™

Use one of the following for each Wi-Fi Protected Setup supported device:

1. If your router has a Wi-Fi Protected Setup button, click or press that button, and then click the button on the right.



- 1. Press the Wi-Fi Protected Setup button on the client device.
- Click the Wi-Fi Protected Setup button on the extender's Wi-Fi Protected Setup screen, OR press and hold the Wi-Fi Protected Setup button on the top panel of the extender for one second. When the connection is complete, the Wi-Fi Protected Setup light on the extender will be solid.
- 3. If using the extender's Wi-Fi Protected Setup screen, be sure to click OK within two minutes or you will have to start over.

Connecting with the client device's PIN

Use this method if your client device has a Wi-Fi Protected Setup PIN (Personal Identification Number).

2. If your router asks for the client's PIN number, enter this number $\ensuremath{14727030}$ in your router device.

- 1. Enter the PIN from the client device in the field on the extender's Wi-Fi Protected Setup screen.
- Click Register on the extender's Wi-Fi Protected Setup screen. When the connection is complete, the Wi-Fi Protected Setup light on the extender will be solid.
- 3. Click OK on the extender's Wi-Fi Protected Setup screen within two minutes or you will have to start over.

Connecting with the extender's PIN

Use this method if your client device asks for the extender's PIN.

- 1. On the client device, enter the PIN listed on the extender's Wi-Fi Protected Setup screen. (It is also listed on the product label on the bottom of the extender.) When the connection is complete, the Wi-Fi Protected Setup light on the extender will be solid.
- 2. Click OK on the extender's Wi-Fi Protected Setup screen within two minutes.

How to use Site Survey

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

To open the Site Survey page:

- 1. Log in to the browser-based utility (see "How to access the browser-based utility" on page 5).
- 2. Click the Wireless tab. Click the Site Survey page.
- **3. Select**—To connect to a wireless network, click the button next to the wireless network name (SSID) in the Select column, and click Connect.
- 4. SSID—Displays the name of neighboring wireless networks.
- 5. GHz—Displays the radio band (in GHz) of the neighboring wireless networks
- 6. Signal Strength—Displays the relative position of the neighboring access points by indicating the power of the wireless signal received: 1 bar= 20%,2 bars=40%, 3 bars=60%, 4 bars=80%, 5 bars=100%. If no bar is displayed, the extender is located too far away from the upstream access point. Try to keep the signal strength between 60% and 100% for optimum performance.
- **7. Security**—Displays the mode of security in use by the neighboring APs. If a network supports Wi-Fi Protected Setup, the Wi-Fi Protected Setup icon is also displayed.

LINKSYS						
					Li	nksys Extender
Wireless	Setup	Wir	eless		Administration	Status
	Site Survey	Basic Wireless Se	ttings	1.0	Wireless Security	QoS
Site Survey					Refresh Continue	<u>Help</u>
	Select	SSID	GHz	Signal	Security	
	onb-1		2.4	att	NONE	
	myqwest?	9368	2.4	ull	WPA-PSK; WPA2- PSK	
	НарруDo	olphin	2.4	лШ	WPA-PSK; WPA2- PSK	
	HappyDo	olphin-guest	2.4	all	NONE	
	GHOST		2.4	att	WEP	
	myqwest?	9617	2.4	att	WEP	
	Surve	eillance Van	2.4	att	WPA-PSK; WPA2- PSK	
	FBI Surve	eillance ∀an-guest	2.4	att	NONE	
	carol's_w	ifi	2.4	att	WEP	
	Surve	eillance Van	S	att	WPA-PSK; WPA2- PSK	

To connect your extender with an access point or router in Site Survey, you will need to know the password or passphrase of the network on that device.

- 1. Select the network name (SSID) that you want to repeat with your extender by clicking the corresponding button in the Select column.
- Click Connect. When prompted, enter the password or passphrase used to secure your wireless network. The type of security information required in this screen must match your access point or router's wireless security settings.

LINKSYS		
Wireless Security	Network Name (SSID): Security Mode:	Cabo WPA Personal
	Please enter a Passphrase.:	22Lamballe35
	Save Settings	Close

3. Click **Save Settings**. Your extender wireless parameters should be configured. The wireless interface will restart, and the extender will connect to the access point or router you have chosen.

Cross-Band

Cross-Band is the simultaneous use of both bands for high-speed data transfer and uninterrupted streaming and gaming.

Wireless Music Playback



The extender allows you to stream music on your network and play on on speakers through the audio port. This list of supported media players is subject to change with the release of new software or mobile apps.

- Windows users can stream music with Windows Media Player12.
- Mac users can stream music with proprietary software or the SofaPlay app.
- Android users can stream music with MediaHouse, UPnPlay, Skifta, ArkMC, BubbleUPnP, Pixel Media, and 2Player 2.0.
- iOS devices including iPhone, iPad or iPod can stream music with proprietary software or other apps such as ArkMC, Smartstor Fusion, Mconnect, and DK UPnP/DLNA.
- The extender supports MP3, FLAC, WAV, WMA and AAC file formats, as long as those formats are supported by the device and app doing the streaming.
- The 3.5mm stereo port supports earphones and powered speakers.

Troubleshooting

NOTE

Your RE6500 works on 2.4GHz and 5GHz networks.

You cannot get your 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 Wi-Fi Protected Setup indicator stops blinking before trying to make the connection again.

You cannot access your range extender

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

For Mac instructions, see "To fix the problem on Mac computers:" on page 8.

To fix the problem on Windows computers:



1. On your Windows desktop, right-click the wireless icon in the system tray. The icon might look different depending on which version of Windows you are running. 2. Click View Available Wireless Networks.

Disable Status Repair
View Available Wireless Networks
Change Windows Firewall settings
Open Network Connections

 Select your network name. Click Connect. In the example below, the computer was connected to another wireless network named JimsRouter. The name of the correct network, BronzeEagle in this example, is selected.



4. If you are prompted to enter a network key, type your password (Security Key) into the Network key and Confirm network key fields. Click **Connect**.

You should now be able to access the range extender's browser-based utility.

To fix the problem on Mac computers:

1. In the menu bar across the top of the screen, click the Wi-Fi icon. Linksys Connect has automatically assigned your network a name.

In the example below, the computer was connected to another wireless network named JimsRouter. The name of the Linksys E-Series network, BronzeEagle in this example, is selected.

🛜 🌒 💽 (Charged)	
AirPort: On	
Turn AirPort Off	
√JimsRouter	
Home	(t.
BronzeEagle	A 🔶
BronzeEagle-guest	((ı:
Penguin	
RD	
Join Other Network	
Create Network	
Open Network Preferences	

- 2. Select the wireless network name of the router you want to connect to.
- 3. Type your wireless network password (Security Key) into the Password field. Click **OK**.

(The network password.	"BronzeEagle" requires a WPA
	Password:	••••••
		☐ Show password ☑ Remember this network
		Cancel 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.

Specifications

RE6500

Model Name	Linksys RE6500
Model Description	Dual-band Wireless-AC Range Extender
Model Number	RE6500
Standards	IEEE 802.11ac, 802.11a, 802.11n, 802.11g, 802.11b, 802.3u
Ports	Gigabit Ethernet, Audio, power
Buttons	Reset, Wi-Fi Protected Setup™, Power (European model only)
LEDs	Power/Wi-Fi Protected Setup, Ethernet (link, activity)
Cabling Type	CAT 5e
Antennas	2 external
Detachable (y/n)	Yes
Wireless Security	Wi-Fi Protected Access™ 2 (WPA2), Wi-Fi Protected Access™ (WPA), WEP
Security Key Bits	Up to 128-bit encryption

Environmental

Dimensions	6.06″ x 4.29″ x 1.18″ (154 x 109 x 30 mm)
Weight	5.57 oz (158 g)
Power Certification	12VDC/1.0A FCC, ICES-003, RSS210, CE, Wi-Fi (IEEE 802.11a/b/g/n/ac), WPA2™, WMM®, Wi-Fi Protected Setup™
Operating Temperature	32 to 104°F (0 to 40°C) Storage Temperature -4 to 140°F (-20 to 60°C) Operating Humidity 10 to 80% noncondensing Storage Humidity 5 to 90% noncondensing

Specifications are subject to change without notice.

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