



Linksys E-Series Routers



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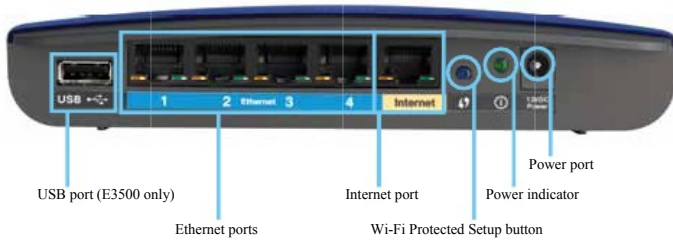
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Product overview

E1200/E1500/E2500/E3500

Back view



Your router's appearance may vary

- **USB port (E3500 only)**—To easily share disk storage with other users on your network or on the Internet, connect a USB drive to this port
- **Ethernet ports**—Connect Ethernet cables (also called network cables) to these Fast Ethernet (10/100, for E1200 and E1500) or Gigabit (10/100/1000, for E2500 and E3500) ports, color coded blue, and to other wired Ethernet network devices on your network
- **Internet port**—Connect an Ethernet cable (also called a network or Internet cable) to this port, color coded yellow, and to your modem

Wi-Fi Protected Setup™ button—Press this button to easily configure wireless security on Wi-Fi Protected Setup-enabled network devices. For more information, see “Wireless Security” on page 8

- **Power indicator**—Stays on steadily while power is connected and following a successful Wi-Fi Protected Setup connection. Flashes slowly during bootup, during firmware upgrades, and during a Wi-Fi Protected Setup connection. Flashes quickly when there is a Wi-Fi Protected Setup error
- **Power**—Connect the included AC power adapter to this port

CAUTION

Use only the adapter that came with your router

- **Power button**—Press | (on) to turn on the router

Bottom view



Your router's appearance may vary

- **Reset button**—Press and hold this button for 5-10 seconds (until the port lights flash at the same time) to reset the router to its factory defaults. You can also restore the defaults using the browser-based utility

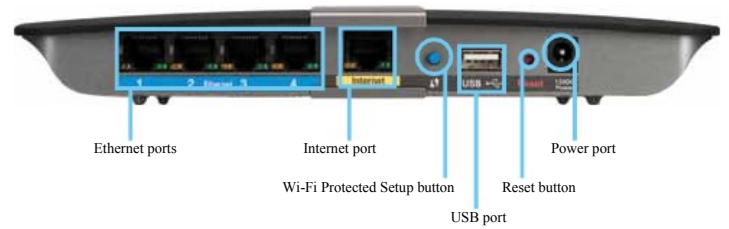
E4200

Top view



- Indicator light—Stays on steadily while power is connected and following a successful Wi-Fi Protected Setup connection. Pulsates slowly during bootup, during firmware upgrades, and during a Wi-Fi Protected Setup connection. Flashes quickly when there is a Wi-Fi Protected Setup error.

Back view



- Ethernet ports—Connect Ethernet cables (also called network cables) to these Gigabit (10/100/1000) ports, color coded blue, and to other wired Ethernet network devices on your network.
- Internet port—Connect an Ethernet cable (also called a network or Internet cable) to this port, color coded yellow, and to your modem.
- Wi-Fi Protected Setup™ button—Press this button to easily configure wireless security on Wi-Fi Protected Setup-enabled network devices. For more information, see “Wireless Security” on page 8.
- USB port—To easily share disk storage with other users on your network or on the Internet, connect a USB drive to this port.
- Reset button—Press and hold this button for 5-10 seconds (until the port lights flash at the same time) to reset the router to its factory defaults. You can also restore the defaults using the browser-based utility.
- Power—Connect the included AC power adapter to this port.

CAUTION

Use only the adapter that came with your router.

- Power button—Press | (on) to turn on the router.

Setting Up Your E-Series Router

Where to find more help

In addition to this User Guide, you can find help at these locations:

- Linksys.com/support (documentation, downloads, FAQs, technical support, live chat, forums)
- Cisco Connect help (run Cisco Connect, then click Learn More where available)
- Browser-based utility context-sensitive help (open the utility, then click Help in the right-side column)

How to set up your router

The easiest and fastest way to set up your router is to run the Cisco Connect setup software

How to start Cisco Connect

When you run the setup CD, Cisco Connect (your router's setup software) is automatically installed onto your computer. You can then use Cisco Connect to easily manage your router.

NOTE:

If you lose your setup CD, you can download the software from Linksys.com/support

To start Cisco Connect for the first time:

1. Insert the CD into your CD or DVD drive
2. Click Set up your Linksys Router

If you do not see this:

- For Windows, click Start, Computer, then double-click the CD drive and the Setup icon
- For Mac, double-click the CD icon on your desktop, then double-click the Setup icon

3. Follow the on-screen instructions to complete your router setup

Use Cisco Connect to manage your router

After your router has been set up and Cisco Connect has been installed, you can use Cisco Connect to easily manage many of your router's settings such as:

- Connect devices to your network
- Test your Internet connection speed
- Configure parental controls
- Set up guest access
- Change your router's name and password

How to manually set up your router

After setting up the router with the setup software (located on the CD), the router will be ready for use. If you would like to change its advanced settings, or if the software does not run, use the router's browser-based utility. You can access the utility with a web browser on a computer connected to the router. For more information on using the utility, see "How to open the browser-based utility" on page 4.

Advanced Configuration

How to open the browser-based utility

To access some advanced settings, you need to open the browser-based utility

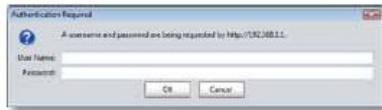
To open the browser-based utility:

1. Run Cisco Connect, click Change under Router settings, click Advanced settings, then click oK

– or –

Open a web browser on a computer connected to your network, then go to 192.168.1.1

The router prompts you for a user name and password



2. Enter the user name and password, then click oK The utility's main menu opens

TIPS

If you set up your router without using Cisco Connect, your router's default password is admin (You can leave the user name blank)

If you used Cisco Connect to set up your router, you can see your router's user name and password by running Cisco Connect, then clicking Router settings



Setup > Basic Setup

The first screen that appears is the Basic Setup screen. This allows you to change the router's general settings.

Language

Select your language To use a different language, select one from the drop-down menu. The language of the browser-based utility will change five seconds after you select another language.

Internet Setup

The Internet Setup section configures the router to your Internet connection. Most of this information can be obtained through your Internet Service Provider (ISP).

Internet Connection Type

Select the type of Internet connection your ISP provides from the drop-down menu. The available types are:

- Automatic Configuration - DHCP
- Static IP
- PPPoE
- PPTP
- L2TP
- Telstra Cable

Automatic Configuration - DHCP

The default Internet Connection Type is Automatic Configuration - DHCP (Dynamic Host Configuration Protocol). Keep the default only if your ISP supports DHCP or if you connect using a dynamic IP address (This option usually applies to cable connections).

Static IP

If you are required to use a fixed IP address to connect to the Internet, select Static IP.

PPPoE

If you have a DSL connection, check whether your ISP uses Point-to-Point Protocol over Ethernet (PPPoE). If so, select PPPoE.

PPTP

Point-to-Point Tunneling Protocol (PPTP) is a service that generally applies to connections in Europe. If your PPTP connection supports DHCP or a dynamic IP address, then select Obtain an IP Address Automatically. If you are required to use a fixed IP address to connect to the Internet, then select Specify an IP Address and configure the options below.

L2TP

Layer 2 Tunneling Protocol (L2TP) is a service that generally applies to connections in Israel.

Telstra Cable

Telstra Cable is a service that generally applies to connections in Australia.

Connect on Demand or Keep Alive

The Connect on Demand and Keep Alive options let you choose whether the router connects to the Internet only as needed (useful if your ISP charges for connect time), or if the router should always be connected. Select the appropriate option.

Wireless > Basic Wireless Settings

The basic settings for wireless networking are set on this screen.

NOTE

After you set up the wireless network(s), set up the wireless security settings.

Wireless Settings



network Mode Select the wireless standards your network will support.

- **Mixed** If you have Wireless-N (2.4 GHz), Wireless-G, and Wireless-B devices in your network, keep the default, Mixed.
- **Wireless-B/G only** If you have both Wireless-B and Wireless-G (2.4 GHz) devices in your network, select Wireless-B/G only.
- **Wireless-B only** If you have only Wireless-B devices, select Wireless-B only.
- **Wireless-G only** If you have only Wireless-G devices, select Wireless-G only.
- **Wireless-n only** If you have only Wireless-N (2.4 GHz) devices, select Wireless-n only.
- **Disabled** If you have no Wireless-B, Wireless-G, and Wireless-N (2.4 GHz) devices in your network, select Disabled.

NOTE

If you have a dual-band router, you can select Mixed, Wireless-A Only, Wireless-N Only, or Disabled for the 5 GHz band.

If you are not sure which mode to use, keep the default, Mixed.

network name (SSID) The Service Set Identifier (SSID) is the network name shared by all devices in a wireless network. It is case-sensitive and must not exceed 32 keyboard characters. The default is Cisco followed by the last 5 digits of the router's serial number, which is found on the bottom of the router. If you used the setup software for installation, then the default Network Name is changed to an easy-to-remember name.

NOTE

If you restore the router's factory default settings (by pressing the Reset button or using the Administration > Factory Defaults screen), the Network Name will return to its default value. Change the Network Name back to its original name, or you will have to reconnect all devices on your wireless network to the new network name.

Channel Width For best performance in a network using Wireless-B, Wireless-G and Wireless-N (2.4 GHz) devices, select Auto (20 MHz or 40 MHz). For a channel width of 20 MHz, keep the default, 20 MHz only.

Channel Select the channel from the drop-down list for Wireless-B, Wireless-G, and Wireless-N (2.4 GHz) networking. If you are not sure which channel to select, then keep the default, Auto.

SSID Broadcast When wireless clients survey the local area for wireless networks to associate with, they will detect the SSID broadcast by the router. To broadcast the router's SSID, keep the default, Enabled. If you do not want to broadcast the router's SSID, then select Disabled.

Wireless Security

Wireless > Wireless Security

The wireless security settings configure the security of your wireless network(s). The router supports the following wireless security options: WPA2/WPA Mixed Mode, WPA2 Personal, WPA Personal, WPA2/WPA Enterprise Mixed Mode, WPA2 Enterprise, WPA Enterprise, WEP, and RADIUS (WPA stands for Wi-Fi Protected Access WEP stands for Wireless Equivalent Privacy RADIUS stands for Remote Authentication Dial-In User Service)

Personal options

Security option	Strength
WPA2 Personal	Strongest
WPA2/WPA Mixed Mode	WPA2: Strongest WPA: Strong
WPA Personal	Strong
WEP	Basic

Office options

The office options are available for networks that use a RADIUS server for authentication. The office options are stronger than the personal options because WPA2 or WPA provides encryption while RADIUS provides authentication.

Security option	Strength
WPA2 Enterprise	Strongest
WPA2/WPA Enterprise Mixed Mode	WPA2: Strongest WPA: Strong
WPA Enterprise	Strong
RADIUS	Basic

Option settings

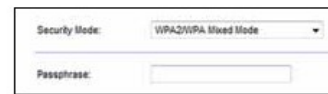
WPA2/WPA Mixed Mode, WPA2 Personal, WPA Personal

NOTES

If you select WPA2/WPA Mixed Mode as your Security Mode, each device in your wireless network MUST use WPA2/WPA and the same passphrase.

If you select WPA2 Personal as your Security Mode, each device in your wireless network MUST use WPA2 Personal and the same passphrase.

If you select WPA Personal as your Security Mode, each device in your wireless network MUST use WPA Personal and the same passphrase.



Passphrase Enter a passphrase of 8-63 characters. The default is password. If you used the setup software for installation, then the default is changed to a unique passphrase, which you can find by running Cisco Connect, then clicking Router settings.

WPA2/WPA Enterprise Mixed Mode, WPA2 Enterprise, WPA Enterprise

These option is used in coordination with a RADIUS server (These should only be used when a RADIUS server is connected to the router)

NOTES

If you select WPA2/WPA Enterprise Mixed Mode as your Security Mode, each device in your wireless network MUST use WPA2/WPA Enterprise and the same shared key

If you select WPA2 Enterprise as your Security Mode, each device in your wireless network MUST use WPA2 Enterprise and the same shared key

If you select WPA Enterprise as your Security Mode, each device in your wireless network MUST use WPA Enterprise and the same shared key



RADIUS Server Enter the IP address of the RADIUS server

RADIUS Port Enter the port number of the RADIUS server The default is 1812

Shared Key Enter the key shared between the router and the server

WEP

WEP is a basic encryption method, which is not as secure as WPA

NOTE:

If you select WEP as your Security Mode, each device in your wireless network MUST use WEP and the same encryption and shared key



Encryption Select a level of WEP encryption, (40/64-bit 10 hex digits) or 104/128-bit (26 hex digits) The default is 40/64-bit (10 hex digits)

Passphrase Enter a passphrase to automatically generate WEP keys Then click Generate

Key 1-4 If you did not enter a passphrase, enter the WEP key(s) manually

TX Key Select a default TX (Transmit) Key to use The default is 1

RADIUS

This option features WEP used in coordination with a RADIUS server (This should only be used when a RADIUS server is connected to the router)

NOTE:

If you select RADIUS as your Security Mode, each device in your wireless network MUST use RADIUS and the same encryption and shared key

RADIUS Server Enter the IP address of the RADIUS server

RADIUS Port Enter the port number of the RADIUS server The default is 1812

Shared Secret Enter the key shared between the router and the server

Encryption Select a level of WEP encryption, (40/64-bit 10 hex digits) or 104/128-bit (26 hex digits) The default is 40/64-bit (10 hex digits)

Passphrase Enter a passphrase to automatically generate WEP keys Then click Generate

Key 1-4 If you did not enter a passphrase, enter the WEP key(s) manually

TX Key Select a default TX (Transmit) Key to use The default is 1

Disabled

If you choose to disable wireless security, you will be informed that wireless security is disabled when you first attempt to access the Internet You will given the option to enable wireless security, or confirm that you understand the risks but still wish to proceed without wireless security

Troubleshooting

This chapter can help you solve common setup issues and connect to the Internet. Your router's CD includes Cisco Connect, the router setup software that makes it easy to connect network devices, change router settings, control guest access, enable parental controls, and connect to the Internet. Cisco Connect is also installed onto your computer during setup. If Cisco Connect is prevented from completing the setup, this chapter will guide you through finding solutions.



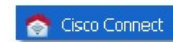
You can find more help from our award-winning customer support at linksys.com/support.

How to run Cisco Connect after setup

When you run the setup CD, Cisco Connect is automatically installed onto your computer. You can then use Cisco Connect to easily manage your network.

To start Cisco Connect on a Windows computer:

1. Click Start, All Programs, then click Cisco Connect.



The Cisco Connect main menu opens.

To start Cisco Connect on a Mac OS X computer:

1. Open Finder and click Applications in the left panel.

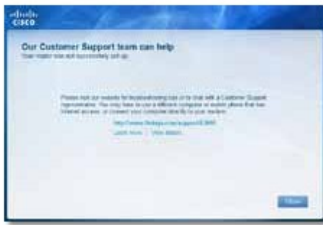


2. Double-click the Cisco Connect icon.



The Cisco Connect main menu opens.

Your router was not successfully set up



If Cisco Connect did not complete the setup, you can try the following:

- Press and hold the Reset button on your router with a paperclip or pin for 10-15 seconds, then run the Setup program again on the router's CD



Your router's appearance may vary

- Temporarily disable your computer's firewall (see the security software's instructions for help), then run the Setup program again on the router's CD
- If you have another computer, use that computer to run the Setup program again on the router's CD

Get Windows XP Service Pack 3 message

On Windows XP computers, Cisco Connect requires Service Pack 3 in order to work. If you receive a "Get Windows Service Pack 3" message when setting up your router for the first time, follow these troubleshooting steps:



If the currently installed Service Pack is older than version 3, you need to download and install Service Pack 3

TIP

To temporarily connect to the Internet and download the required Service Pack, you can use the included Ethernet cable to connect your computer directly to your modem

To install Service Pack 3:

1. Click the link in the Cisco Connect error message or connect to the Microsoft Update website (update.microsoft.com/windowsupdate)
2. Follow the instructions on the website or contact Microsoft if you need further help
3. After downloading and installing Service Pack 3, run the Setup program on your router's CD

Your Internet cable is not plugged in message

If you get a “Your Internet cable is not plugged in” message when trying to set up your router, follow these troubleshooting steps



To fix the problem:

1. Make sure that an Ethernet or Internet cable (or a cable like the one supplied with your router) is securely connected to the yellow Internet port on the back of the router and to the appropriate port on your modem. This port on the modem is usually labeled Ethernet, but may be named Internet or WAN.



Back view of router



Back view of cable modem



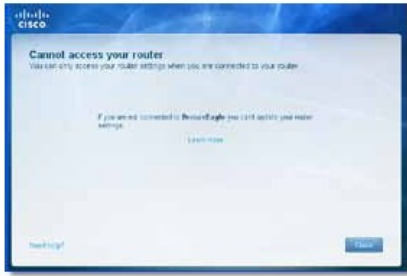
Back view of DSL modem

2. Make sure that your modem is connected to power and is turned on. If it has a power switch, make sure that it is set to the on or I position.
3. If your Internet service is cable, verify that the cable modem’s CABLE port is connected to the coaxial cable provided by your ISP. Or, if your Internet service is DSL, make sure that the DSL phone line is connected to the modem’s DSL port.
4. If your computer was previously connected to your modem with a USB cable, disconnect the USB cable.
5. Return to the Cisco Connect window and click next to try again. If the window has already been closed, run the Setup program again on the router’s CD.



Cannot access your router message

If you cannot access your router because your computer is not connected to your network, follow these troubleshooting steps



To access your router, 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.

To fix the problem on Windows computers:

1. On your Windows desktop, right-click the wireless icon in the system tray.



2. Click View Available Wireless networks. A list of available networks appears.



3. Click your own network name, then click Connect. 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 shown 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, then click Connect.



Your computer connects to the network, and you should now be able to access the router.

To fix the problem on Mac computers:

1. In the menu bar across the top of the screen, click the AirPort icon. A list of wireless networks appears. Cisco 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 shown selected.

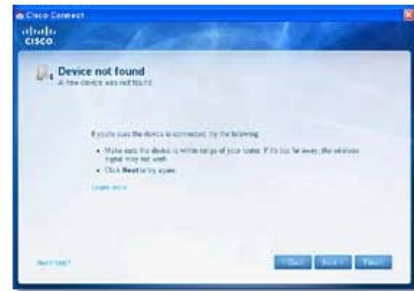


2. Click the wireless network name of your Linksys E-Series router (BronzeEagle in the example).
3. Type your wireless network password (Security Key) into the Password field, then click OK.



Device not found message

If you get a “Device not found” message when trying to connect a network device (such as an iPhone, iPod, or smartphone), follow these troubleshooting steps.



TIP

For a stronger signal during initial setup, move your wireless devices near your router. Long distances make it harder for the router to detect the devices.

To fix the problem:

1. Run Cisco Connect.



2. Click Computers and devices The Computers and other devices window appears
3. Click other Wireless devices



4. Enable your wireless network device's Wi-Fi connection, then search for your wireless network See your device documentation for help

NOTE
Your wireless device must support WPA/WPA2

5. On the wireless network device, select the network name of your router and enter the password (Security Key)
6. In Cisco Connect, click next



Example: On your Smartphone or other wireless device, locate the Wi-Fi menu and search for available wireless networks In this example, using the network information provided by Cisco Connect shown in the previous screen, click BronzeEagle



Android

iPhone

7. Enter the password (Security Key) provided by Cisco Connect In this example, the security key is B6eM9UkCjz

NOTE
The password is case sensitive Make sure that you enter letters in the correct case

8. When your wireless device is successfully connected to your wireless network, enter a name for the device in Cisco Connect, then click Finish



Specifications

Linksys E1200

Model Name	Linksys E1200
Description	Wireless-N Router
Model Number	E1200
Standards	802.11n, 802.11g, 802.11b, 802.3u
Ports	Power, Internet, and Ethernet (1-4)
Buttons	Reset, Wi-Fi Protected Setup™
LEDs	Power/Wi-Fi Protected Setup, Internet, Ethernet (1-4)
Cabling Type	CAT 5e
Transmitted Power	802.11n (20 MHz): 15.0 ± 1.5 dBm @ CH6, MCS 0-4, MCS 8-12 13.5 ± 1.5 dBm @ CH6, MCS 5-7, MCS 13-15 802.11n (40 MHz): 14.0 ± 1.5 dBm @ CH6, MCS 0-4, MCS 8-12 13.5 ± 1.5 dBm @ CH6, MCS 5-7, MCS 13-15 802.11g: 14.5 ± 1.5 dBm @ CH6, all rates 802.11b: 16.5 ± 1.5 dBm @ CH6, all rates
Antenna Gain	≤2.5 dBi, ≤4.0 dBi (2 antennas)
UPnP	Supported
Wireless Security	Wi-Fi Protected Access™ 2 (WPA2), WEP, wireless MAC filtering
Security Key Bits	Up to 128-bit encryption

Environmental

Dimensions	188.7 × 151.7 × 31.2 mm (7.43" × 5.97" × 1.23")
	Unit Weight 252.7g (8.91 oz)
Power	12V, 0.5A
Certifications	FCC, UL/cUL, ICES-003, RSS210, CE, Wi-Fi (IEEE 802.11b/g/n), WPA2™, WMM®, Wi-Fi Protected Setup, Windows 7
Operating Temp	0 to 40°C (32 to 104°F)
Storage Temp	-20 to 60°C (-4 to 140°F)
Operating Humidity	10 to 80% non-condensing
Storage Humidity	5 to 90% non-condensing

NOTES

For regulatory, warranty, and safety information, see the CD that came with your router or go to Linksys.com/support

Specifications are subject to change without notice

Maximum performance derived from IEEE Standard 802.11 specifications. Actual performance can vary, including lower wireless network capacity, data throughput rate, range and coverage. Performance depends on many factors, conditions and variables, including distance from the access point, volume of network traffic, building materials and construction, operating system used, mix of wireless products used, interference and other adverse conditions.

Linksys E1500

Model Name	Linksys E1500
Description	Wireless-N Router with SpeedBoost
Model Number	E1500
Standards	802 11n, 802 11g, 802 11b, 802 3u
Ports	Power, Internet, and Ethernet (1-4)
Buttons	Reset, Wi-Fi Protected Setup
LEDs	Power/Wi-Fi Protected Setup, Internet, Ethernet (1-4)
Cabling Type	CAT 5e
Transmitted Power	802 11n (20 MHz): 17 0 ± 1 5 dBm @ CH6, MCS 0~4, MCS 8~12 16 0 ± 1 5 dBm @ CH6, MCS 5~7, MCS 13~15 802 11n (40 MHz): 15 5 ± 1 5 dBm @ CH6, MCS 0~4, MCS 8~12 14 0 ± 1 5 dBm @ CH6, MCS 5~7, MCS 13~15 802 11g: 18 0 ± 1 5 dBm @ CH6, 6 Mbps 17 0 ± 1 5 dBm @ CH6, 54 Mbps 802 11b: 18 0 ± 1 5 dBm @ CH6, all rates
Antenna Gain	≤3 0 dBi, ≤4 0 dBi, ≤4 5 dBi (3 antennas)
UPnP	Supported
Wireless Security	Wi-Fi Protected Access 2 (WPA2), WEP, wireless MAC filtering
Security Key Bits	Up to 128-bit encryption

Environmental

Dimensions	188 7 × 151 7 × 31 2 mm (7 43" × 5 97" × 1 23")
Unit Weight	254 1g (8 96 oz)
Power	12V, 0 5A
Certifications	FCC, UL/cUL, ICES-003, RSS210, CE, Wi-Fi (IEEE 802 11b/g/n), WPA2, WMM, Wi-Fi Protected Setup, Windows 7
Operating Temp	0 to 40°C (32 to 104°F)
Storage Temp	-20 to 60°C (-4 to 140°F)
Operating Humidity	10 to 80% non-condensing
Storage Humidity	5 to 90% non-condensing

NOTES

For regulatory, warranty, and safety information, see the CD that came with your router or go to Linksys.com/support

Specifications are subject to change without notice

Maximum performance derived from IEEE Standard 802 11 specifications Actual performance can vary, including lower wireless network capacity, data throughput rate, range and coverage Performance depends on many factors, conditions and variables, including distance from the access point, volume of network traffic, building materials and construction, operating system used, mix of wireless products used, interference and other adverse conditions

Linksys E2500

Model Name	Linksys E2500
Description	Advanced Dual-Band N Router
Model Number	E2500
Standards	802 11n, 802 11a, 802 11g, 802 11b, 802 3, 802 3u, 802 3ab
# of Antennas	4 total, 2 internal antennas per each 2.4 GHz & 5 GHz radio band
Detachable (y/n)	No
Modulation	802 11b: CCK, QPSK, BPSK 802 11g: OFDM 802 11a: OFDM 802 11n: BPSK, QPSK, 16-QAM, 64-QAM
Receive Sensitivity (Typical)	2.4 GHz 802 11b: -87 dBm @ 11 Mbps 802 11g: -70 dBm @ 54 Mbps 802 11n 20 MHz: -70 dBm @ MCS15 802 11n 40 MHz: -66 dBm @ MCS15 5 GHz 802 11a: -70 dBm @ 54 Mbps 802 11n 20 MHz: -66 dBm @ MCS23 802 11n 40 MHz: -62 dBm @ MCS23
Antenna Gain in dBi	2.4 GHz: Antenna 1 (right rear): ≤2.94 dBi Antenna 2 (front right): ≤3.78 dBi 5 GHz: Antenna 1 (right front): ≤5.86 dBi Antenna 2 (front left): ≤4.88 dBi
UPnP	Supported
Security features	WEP, WPA, WPA2
Security key bits	Up to 128-bit encryption

Environmental

Dimensions	225 x 35 x 180 mm (8.86" x 1.38" x 7.09")
Unit Weight	452 g (15.94 oz)
Power	12V, 1A
Certifications	FCC, IC, CE, Wi-Fi A/B/G/N
Operating Temp	0 to 40°C (32 to 104°F)
Storage Temp	-20 to 60°C (-4 to 140°F)
Operating Humidity	10 to 80%, relative humidity, non-condensing
Storage Humidity	5 to 90% non-condensing

NOTES

For regulatory, warranty, and safety information, see the CD that came with your router or go to Linksys.com/support

Specifications are subject to change without notice

Maximum performance derived from IEEE Standard 802.11 specifications. Actual performance can vary, including lower wireless network capacity, data throughput rate, range and coverage. Performance depends on many factors, conditions and variables, including distance from the access point, volume of network traffic, building materials and construction, operating system used, mix of wireless products used, interference and other adverse conditions.

Linksys E3500

Model Name	Linksys E3500
Description	Dual-Band N750 Router with Gigabit and USB
Model Number	E3500
# of Antennas	6 total, 3 internal antennas per each 2.4 GHz & 5 GHz radio band
Detachable (y/n)	No
Switch Port Speed	10/100/1000 Mbps
Ports	Internet, Ethernet (1-4), USB, Power
Buttons	Reset, Wi-Fi Protected Setup
LEDs	Power, Ethernet (1-4)
Modulation	802.11b: CCK, QPSK, BPSK 802.11g: OFDM 802.11a: OFDM 802.11n: BPSK, QPSK, 16-QAM, 64-QAM
Receive Sensitivity	2.4 GHz 802.11b: -87 dBm @ 11 Mbps (Typical) 802.11g: -77 dBm @ 54 Mbps (Typical) 802.11n (20 MHz): -71 dBm @ MCS15 (Typical) 802.11n (40 MHz): -68 dBm @ MCS15 (Typical) 5 GHz 802.11a: -75 dBm @ 54 Mbps (Typical) 802.11n 20 MHz: -70 dBm @ MCS15 (Typical) 802.11n 40 MHz: -67 dBm @ MCS15 (Typical)
Antenna Gain	2.4 GHz (Dipole Antennas) Antenna 1 ≤ 2.69 dBi (right) Antenna 2 ≤ 3.67 dBi (left) Antenna 3 ≤ 4.95 dBi (front) 5 GHz (Dipole Antennas) Antenna 1 ≤ 4.73 dBi (right) Antenna 2 ≤ 3.32 dBi (left) Antenna 3 ≤ 3.88 dBi (front)
UPnP	Supported
Security features	WEP, WPA, WPA2
Security key bits	Up to 128-bit encryption

Storage File System Support FAT, and NTFS, and HFS+

Environmental

Dimensions	6.69" x 0.98" x 7.48" (170 x 25 x 190 mm)
Unit Weight	7.62 oz (216 g)
Power	12V, 2A
Certifications	FCC, IC, CE, Wi-Fi A/B/G/N
Operating Temp	32 to 95°F (0 to 35°C)
Storage Temp	-4 to 140°F (-20 to 60°C)
Operating Humidity	10 to 80% relative humidity, non-condensing
Storage Humidity	5 to 90% non-condensing

NOTES

For regulatory, warranty, and safety information, see the CD that came with your router or go to Linksys.com/support

Specifications are subject to change without notice

Maximum performance derived from IEEE Standard 802.11 specifications. Actual performance can vary, including lower wireless network capacity, data throughput rate, range and coverage. Performance depends on many factors, conditions and variables, including distance from the access point, volume of network traffic, building materials and construction, operating system used, mix of wireless products used, interference and other adverse conditions.

Linksys E4200

Model Name	Linksys E4200
Description	Maximum Performance Wireless-N Router
Model Number	E4200
Standards	802 11n, 802 11a, 802 11g, 802 11b, 802 3, 802 3u, 802 3ab
Radio Frequency	2.4 and 5 GHz
Switch Port Speed	10/100/1000 Mbps (Gigabit Ethernet)
Ports	Power, USB, Internet, Ethernet (1-4)
Buttons	Reset, Wi-Fi Protected Setup
LEDs	Top panel: Power Back panel: Internet, Ethernet (1-4)
Number of Antennas	6 total, 3 internal antennas per each 2.4 GHz and 5 GHz radio band
Detachable (y/n)	No
Modulations	802 11b: CCK, QPSK, BPSK 802 11g: OFDM 802 11a: OFDM 802 11n: BPSK, QPSK, 16-QAM, 64-QAM
Receive Sensitivity	2.4 GHz 802 11b: -87 dBm @ 11 Mbps (Typical) 802 11g: -77 dBm @ 54 Mbps (Typical) 802 11n: 20 MHz: -70 dBm @ MCS23 (Typical) 802 11n: 40 MHz: -66 dBm @ MCS23 (Typical) 5 GHz 802 11a: -74 dBm @ 54 Mbps (Typical) 802 11n: 20 MHz: -67 dBm @ MCS23 (Typical) 802 11n: 40 MHz: -64 dBm @ MCS23 (Typical)
Antenna Gain in dBi	2.4 GHz (3 internal PIFA antennas) PIFA 1 ≤ 3.31 dBi (Right) PIFA 2 ≤ 3.45 dBi (Front) PIFA 3 ≤ 1.96 dBi (Left) 5 GHz (3 internal PIFA antennas) PIFA 1 ≤ 3.71 dBi (Right) PIFA 2 ≤ 3.60 dBi (Front) PIFA 3 ≤ 4.27 dBi (Left)

Supported File Systems for Storage Device	FAT32, NTFS, and HSF+
UPnP	Supported
Security Features	WEP, WPA, WPA2
Security Key Bits	Up to 128-bit encryption

Environmental

Dimensions	8.86" x 0.98" x 6.30" (225 x 25 x 160 mm)
Unit Weight	12.7 oz (0.36 g)
Power	12V, 2A
Certifications	FCC, IC, CE, Wi-Fi a/b/g/n, Windows 7, DLNA
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% relative humidity, non-condensing
Storage Humidity	5 to 90% non-condensing

NOTES

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