



User
Guide

Linksys PLEK500 | Powerline Networking Adapter

Contents

Overview3
Features3
How Powerline networking works4
Example installation	4
 Installing the Powerline Network5
Installation overview5
Tips	5
How to share Internet access5
How to add a Powerline adapter to your network5
Setting up advanced security6
 Advanced Configuration6
 Troubleshooting8
 Specifications9

Overview

Thank you for choosing this Linksys Powerline network adapter kit. These adapters provide easy setup and let you connect wired network devices to your home network.

- The **PLEK500** kit includes two PLE500 single-port Powerline adapters.

You need at least two Powerline adapters to create a Powerline network. Connect one Powerline adapter to your network router, and connect the other adapter to a computer or other network device in any room of the house.

You can find more help from our award-winning, 24/7 customer support at Linksys.com/support.

Features



Powerline—The Powerline LED turns on when the adapter is connected to the Powerline network. The LED flashes to indicate network activity.



Ethernet—The Ethernet LED turns on when a wired network device is turned on and connected to the adapter's Ethernet (network) port. The LED flashes to indicate network activity.



Power—The power LED turns on when the adapter is powered on.



Ethernet—These connect to computers or other network devices.



Reset—To restore the factory default settings (including the advanced security settings and the network password), use a pointed object to press and hold the **Reset** button for at least ten seconds.



HomePlug Simple Connect Button—Configures advanced security (the network password) for your Powerline network.

How Powerline networking works

Electrical wiring runs through your home or office, carrying power to electrical outlets in every room. The typical wired Ethernet network uses Ethernet network cables to connect your wired network devices. A Powerline network uses your existing household wiring as the wiring for your Powerline network.

To create your Powerline network, use two or more Powerline adapters. Each device on your Powerline network requires a connection to a Powerline adapter.

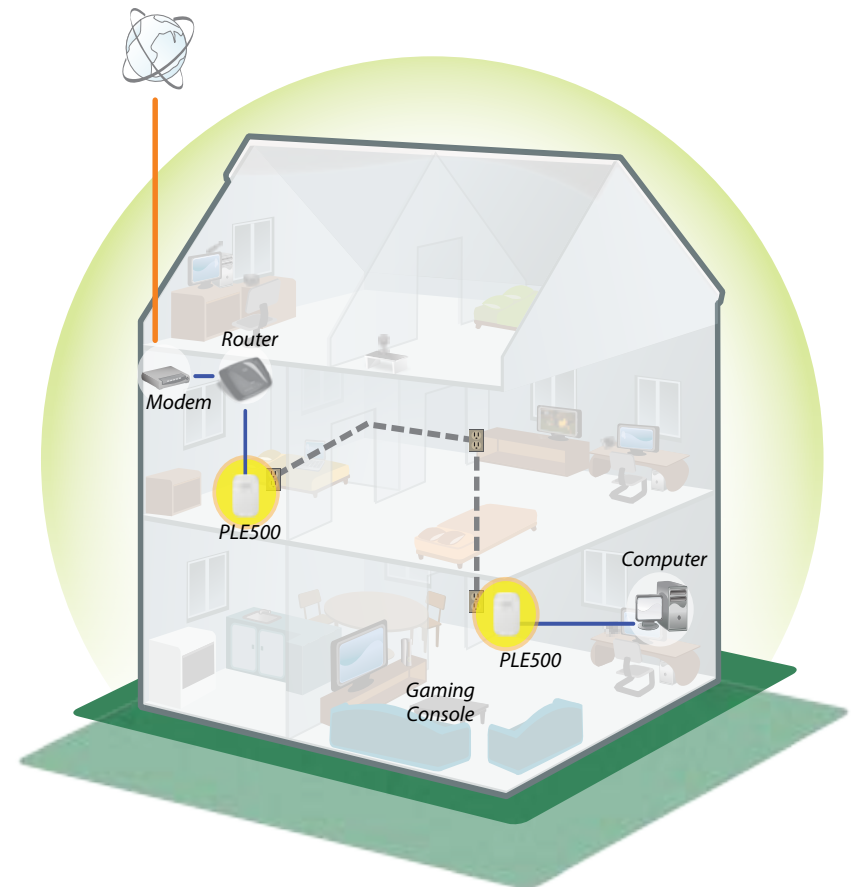
- The **PLE500** has one Ethernet port. One of these devices is typically used in a Powerline network to connect your network's wireless router to the household wiring. You can also use one of these in any room to connect one wired Ethernet device to your Powerline network.

When adding a Powerline network to an existing network, the connections between the Internet, modem, and router stay the same.

Example installation

This diagram shows a basic Powerline network in a house. The router upstairs is connected to a Powerline adapter, which is plugged into an electrical outlet. Downstairs, the computer is connected to a Powerline adapter, which is plugged into an electrical outlet.

Using the household wiring of the home, the router expands the local network to include the gaming console and desktop computer in the living room. Internet access, files, and printers can be shared between the computers and other networked devices. For online gaming, you can play downstairs in the comfort of your living room, while using the high-speed Internet connection of the router and modem upstairs.



Installing the Powerline Network

Installation overview

To set up your Powerline network, you should:

- Make sure you already have Internet access and a working home network.
- Share Internet access with your Powerline network.
- Install Powerline adapters in each room where you want to connect a wired network device.

Tips

- If possible, connect each Powerline adapter directly to a wall power outlet, and not to an extension cord, power strip, or surge protector.
- If a Powerline adapter must be installed onto a power strip, make sure that no other electronic devices are connected to the same power strip.
- For advanced adapter configuration, see “Advanced Configuration” on page 5.

How to share Internet access

To share Internet access over the Powerline network, connect your router to the Powerline network (typically with a single-port Powerline adapter such as the PLE500).

To connect your wireless router to your Powerline network:

1. Connect your single-port Powerline adapter to a power outlet near your wireless router. The adapter's power LED turns on.
2. Use the included Ethernet network cable to the port on the adapter and to an available port on the back of the wireless router. The adapter's Ethernet LED turns on. You are now ready to extend your Powerline network to the rest of your home.

NOTE

For advanced security setup, see “Setting up advanced security” on page 5.

How to add a Powerline adapter to your network

After your existing network's router is connected to a Powerline adapter, you can add adapters elsewhere in your home.

To connect an additional Powerline adapter:





1. Connect the adapter to a power outlet near the network device(s) you want to connect. The adapter's power LED turns on. The Powerline LED flashes, then stays on when the connection is finished.
2. Connect the network device's network cable to an available port on the Powerline adapter. The adapter's Ethernet LED flashes, then stays on when the connection is finished.

Setting up advanced security

NOTE

The devices connected to the Powerline adapters will temporarily lose Internet connection during the security setup.

To configure each network adapter with advanced security:

1. On the first adapter, press and hold the HomePlug Simple Connect button  for at least one second, until the Powerline LED  begins flashing slowly. The adapter creates a new network key for the Powerline network to use.
2. On each other adapter, press and hold the HomePlug Simple Connect button  for at least one second, until the Powerline LED  begins flashing slowly. When the LED stops flashing, the new network key has been shared with that adapter.

NOTE

The devices connected to the adapters will regain Internet access within five minutes.

Advanced Configuration

If you're having difficulty connecting the adapters, or if you'd like to set more advanced options, use the advanced configuration utility.

To install the configuration utility:

1. Download the utility from the product's Support page at Linksys.com/support.
2. Run the setup file you downloaded, then follow the on-screen instructions.



To use the configuration utility:

1. After the utility is installed:
 - On Windows systems:*
 - a. Click **Start, All Programs, Cisco Systems**, then **Cisco Powerline AV2 Utility**. The utility opens.
 - On Macintosh systems:*
 - a. Double-click the **CD** icon on your desktop, then double-click the **Setup** icon.

2. Click the **Network Status** tab to view details of the Powerline adapters that are connected to your network.



- Click the **Security** tab to manually change the network key for each device. If you need to revert to the default key, click **Restore Default Key**.



4. Click the **Administrator** tab to restart an adapter, restore factory defaults, or upgrade the adapter's firmware.



Settings are applied to the adapter(s) immediately. Close the window to exit the utility.

Troubleshooting

None of the LEDs turn on after you installed the Powerline adapter.

Follow these instructions:

1. Disconnect the adapter from the power outlet.
2. Disconnect the Ethernet network cable from the adapter.
3. Wait five seconds.
4. Re-connect the Ethernet network cable to the adapter.
5. Re-connect the adapter to the power outlet.
6. If this solution does not work, make sure that the electrical outlet is working properly. Plug a different device into the outlet, and try to turn it on.

The Ethernet LED does not light up on the Powerline adapter.

When the Ethernet port detects a local network connection, the Ethernet LED should turn on. Follow these instructions:

1. Make sure that the Ethernet network cable is securely connected to the adapter.
2. Make sure that the Ethernet network cable is securely connected to the computer or other network device.
3. Make sure that the Ethernet adapter on your computer is working properly. Refer to Windows Help for more information.

You cannot connect to other computers on your local network or to the Internet.

If you did not set up advanced security for the Powerline network, follow these instructions:

1. Locate the Powerline adapter connected to the computer that cannot connect.
2. On the right side of the adapter, use a pointed object to press and hold the **Reset** button for at least ten seconds. This resets the adapter to its factory default settings.

If you have set up advanced security for the Powerline network, check the following:

- Make sure all adapters on the Powerline network have been configured with the same network password. The network password must be identical in order for them to communicate with each other. See "Setting up advanced security" on page 5 or "Advanced Configuration" on page 5.
- If you are adding a new adapter to a pre-existing Powerline network with a unique network password, follow the instructions in "Advanced Configuration" on page 5.

The LEDs are flashing and I don't know what it means.

Refer to the following table of LED behavior to help diagnose the problem:

Powerline LED	Off	Not connected to Powerline network
	Flashing fast	(Green) Send/Receive data PHY rate >15 Mbps (Yellow) Send/Receive data PHY rate <15 Mbps
	Flashing slow	Pairing
	Solid	Connected to Powerline network
Ethernet LED	Off	Not connected to Ethernet network
	Flashing	Send/Receive data
	Solid	Connected to Ethernet network
Power LED	Off	Device power off
	Solid	Device power on and ready
	Flashing fast momentarily	Factory default
	Flashing fast for one minute	Pairing error/system error
	Flashing slow	Device in standby mode

WEB

If your questions are not addressed here, go to the Linksys Support website at [Linksys.com/support](https://linksys.com/support).

Specifications

Model	PLE500
Standards	HomePlug AV2
Ports	Gigabit Ethernet (10/100/1000)
Buttons	Easy Connect, Reset
LEDs	Powerline, Ethernet, Power
Cabling Type	RJ-45 (1)
Security Features	128-Bit AES Link Encryption
Security Key Bits	128
Modulation schemes	4096/1024/256/64/16/8-QAM, QPSK, BPSK, ROBO

Environmental

Dimensions	3.57 × 2.48 × 1.36 inches (90.6 × 63.0 × 34.5 mm)
Weight	3.7 oz. (105 g)
Power	100-240V AC, 50-60 Hz
Certification	FCC, IC, CE, RoHS
Operating Temp.	32°F to 104°F (0 to 40°C)
Storage Temp.	-4°F to 158°F (-20 to 70°C)
Operating Humidity	10 to 85% Noncondensing
Storage Humidity	5 to 90% Noncondensing

Specifications are subject to change without notice.

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



Cisco, the Cisco logo, and Linksys are trademarks or registered trademarks of Cisco and/or its affiliates in the United States and other countries.
A listing of Cisco's trademarks can be found at www.cisco.com/go/trademarks. All other trademarks mentioned in this document are the property of their respective owners.

© 2013 Cisco and/or its affiliates. All rights reserved.

3425-00158A

130401MS