

TP-LINK®

TL-PA9020P **User Guide**

AV2000 2-port Gigabit Passthrough Adapter

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About This Guide

This guide is a complementation of Quick Installation Guide. The Quick Installation Guide instructs you on quick Internet setup, and this guide provides details of each function and shows you the way to configure these functions appropriate to your needs.

When using this guide, please notice that features of the powerline adapter may vary slightly depending on the model and software version you have, and on your location, and language. All images, parameters and descriptions documented in this guide are used for demonstration only.

Conventions

In this guide, the following conventions are used:

Convention	Description
<i>Blue Italic</i>	Hyperlinks are in blue italic. You can click to redirect to a website or a specific section.
Blue	Contents to be emphasized and texts on the web page are in blue, including the menus, items, buttons, etc.
■ Note:	Ignoring this type of note might result in a malfunction or damage to the device.
🔗 Tips:	Indicates important information that helps you make better use of your device.

More Info

- The latest software, management app and utility can be found at [Download Center](http://www.tp-link.com/support) at <http://www.tp-link.com/support>.
- The Quick Installation Guide (QIG) can be found where you find this guide or inside the product package.
- Specifications can be found on the product page at <http://www.tp-link.com>.
- A Technical Support Forum is provided for you to discuss our products at <http://forum.tp-link.com>.
- Our Technical Support contact information can be found at the [Contact Technical Support](http://www.tp-link.com/support) page at <http://www.tp-link.com/support>.

Chapter 1

Get to Know About Your Powerline Adapter

This chapter introduces what the powerline adapter can do and shows its appearance.

This chapter contains the following sections:

- *Product Overview*
- *Product Appearance*

1.1. Product Overview

What This Product Does

TP-LINK powerline adapter is a network expansion device. With the help of your home's existing electrical circuitry, it can extend Internet access to throughout your home.

2X2 MIMO with Beamforming

The HomePlug AV2 standard with 2X2 MIMO lets you enjoy higher powerline speeds, greater stability, and improved network coverage throughout the home, particularly for previously hard to reach outlets

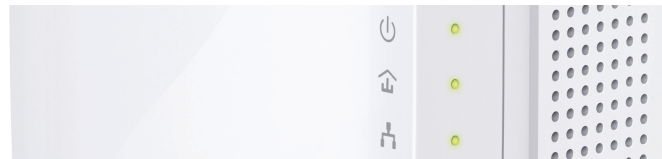
The Integrated Power Socket

With the integrated power socket, you can still get power from the outlet for your other devices. The built-in noise filter also helps to eliminate electrical signal noise that might otherwise affect powerline transmission performance.




1.2. Product Appearance

Note that the appearance of powerline adapters varies by region and version of the product. Your powerline adapter might look different.

1.2.1. LED Legend

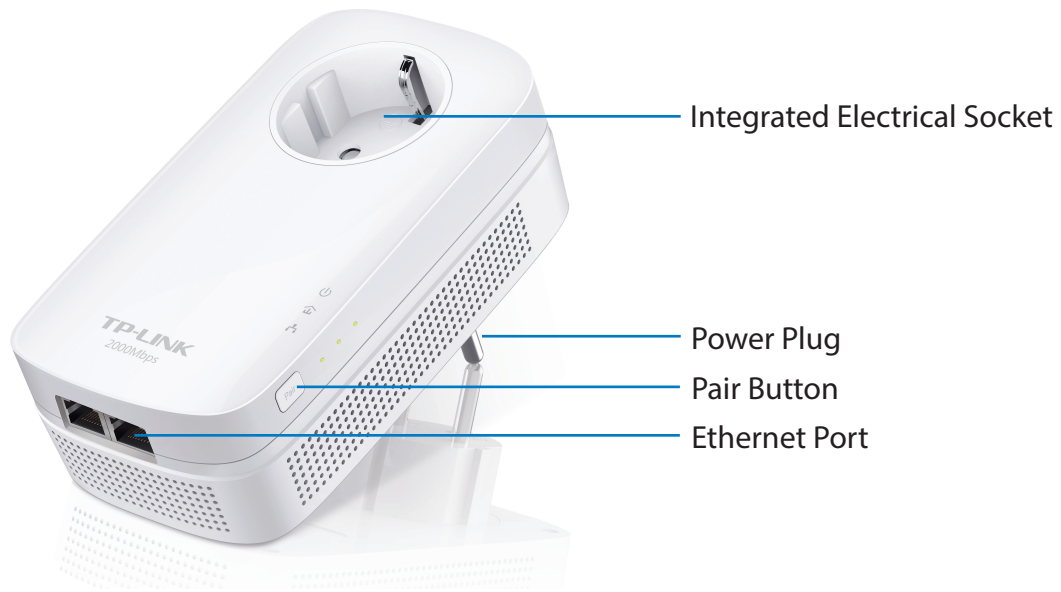


LEDs indicate the working status. For more details, please refer to the following table.

Name	Status	Indication
 Power	On/Off	The powerline adapter is on or off.
	Blinking	Once every second: Pairing is in process.
		Once every 3 seconds: Power-Saving Mode* is on.
 Powerline	Yellow-green	The powerline adapter is in a location with a good signal strength.
	Red	The powerline adapter is in a location with a poor signal strength. We recommend trying another wall socket.
	Off	The powerline adapter is not connected to any powerline network or is in Power-Saving Mode.
 Ethernet	On/Off	At least one Ethernet port is connected or no Ethernet port is connected.

* Five minutes after the device connected to the adapter is turned off, the adapter will automatically switch to Power-Saving Mode.

1.2.2. Physical Interface



Integrated Electrical Socket

Used as a pass-through AC outlet to power other devices. Its built-in noise filter also reduces some electrical noise that may interfere with powerline performance.

Power Plug

The powerline adapter has a Power Plug which can connect to any (100V-240V~, 50/60Hz) power socket.

Pair Button

Press and hold the button for 1 second to join a powerline network. Go to [Secure Your Powerline Network - Pairing](#) for more information.

Press and hold the button for about 8 seconds to leave the existing powerline network.

Press and hold the button for more than 15 seconds to reset the powerline adapter.

Ethernet Port

You can use an Ethernet cable to connect your wired device, such as computer, router, or game console, to the Ethernet port of the powerline adapter .

Chapter 2

Use the Powerline Adapter

This chapter guides you on how to use the powerline adapter.

This chapter contains the following sections:

- *How the Powerline Adapter Extend Your Network*
- *Set Up a New Powerline Network - Plug and Play*
- *Secure Your Powerline Network - Pairing*
- *Add a Powerline Adapter to an Existing Powerline Network*
- *Manage Your Powerline Network Using tpPLC Utility*

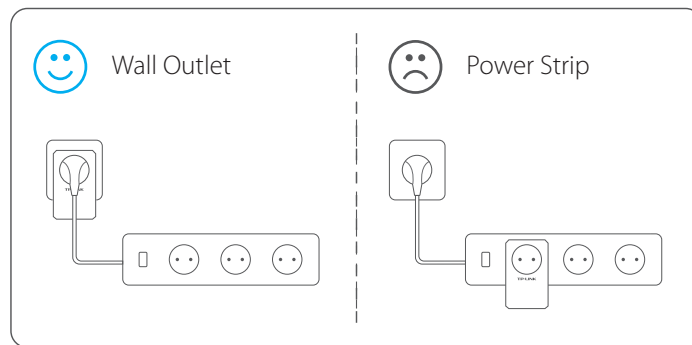
2.1. How the Powerline Adapter Extend Your Network

Generally, you need two powerline adapters to create the first powerline connection. First, you hook up one of the adapters to your existing router, then connect a second adapter to a device that has a network port, such as a desktop computer, a printer, or a game console. After that, plug each adapter into a wall socket and you're done. The adapters turn the electrical wiring in between them into a network cable and extend the network from one to the other.

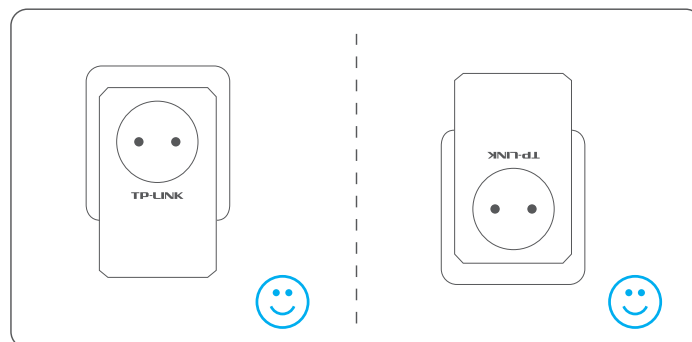
After the first connection is established, you'll need just one more powerline adapter for each additional device that you want to add to the existing network.

For best performance, follow these guidelines when you plan the location of your powerline adapters:

- Plug the powerline adapter directly into a wall socket. Do not plug the powerline adapter into a power strip, extension cord, or surge protector.



- Use the powerline adapter only in below directions.




- All powerline adapters should be on the same electrical wiring system.
- Avoid plugging powerline adapters near appliances that consume a lot of power, such as washers, dryers, or refrigerators.

2.2. Set Up a New Powerline Network - Plug and Play

I want to: Use two powerline adapters to set up a new powerline network in my house.

For example, I have a router in my house, but there are not enough LAN ports to support all my wired devices. I don't want complex and expensive dedicated cabling. So I bought two powerline adapters to extend the network via my household electrical wiring.

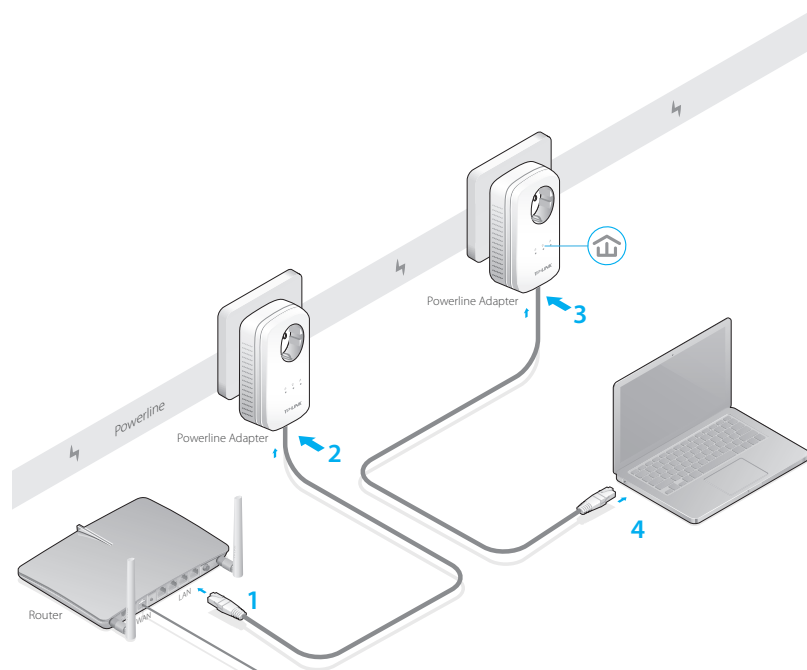
How can I do that?

1. Connect one of the powerline adapters to an available LAN port of the router using an Ethernet cable.
2. Plug the powerline adapter into a wall socket.
3. Plug the second powerline adapter into a wall socket where you want to add Internet access. Wait until the powerline LED  turns on.

Note: If the Powerline LED does not turn on, reset each powerline adapter to its factory default settings. You can refer to [How do I reset my powerline adapter?](#).

Then redo steps 1 to 3.

4. Connect your wired device, such as computer or game console, to the powerline adapter using an Ethernet cable.



Done!

Now enjoy the Internet!

2.3. Secure Your Powerline Network - Pairing

A secure powerline network is necessary if you live in an apartment building where multiple households share the same electrical wiring system. To prevent leaking your network to others living on the same building, the TP-LINK powerline adapter comes with a Pair button that helps create secure powerline connections between the multiple units.





Plug and play provides you the quickest way to set up a powerline network. However, all powerline devices in the network use the same default key, and anyone nearby with a powerline network can potentially access to your network. After using the Pair button between your powerline devices, your powerline network will be configured to use a private encryption key. That is, your network is more secure after pairing.

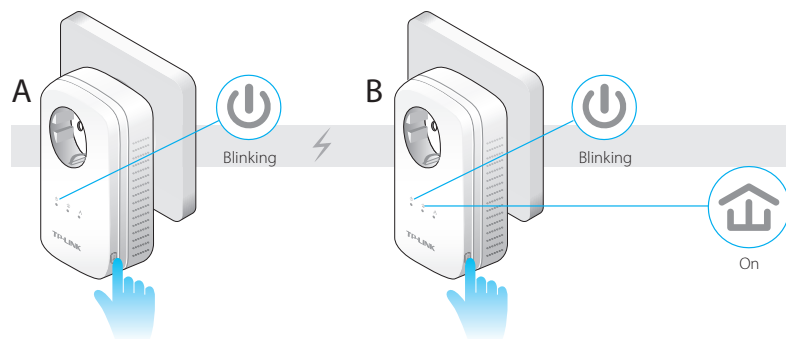
Note: You can create or join a secure powerline network using the Pair button *on two devices at a time*.

I want to: Set up security on my powerline network to prevent any unauthorized access to my network.

For example, I have previously set up a powerline network by plug and play. That is, anyone nearby using the same electrical wiring system as me can potentially access to my network. I want to secure my network.

How can I do that?

1. Make sure that all of the powerline devices are plugged in and their Power LEDs  are solid on.
Tips: We recommend that you plug in the powerline devices near each other when pairing.
2. Press the Pair button on one of the powerline devices for 1 second. The Power LED  starts blinking.
3. Within two minutes, press the Pair button on the second powerline adapter for 1 second. The Power LED  starts blinking. When the Powerline LED  stays on, the pairing process is done!



Done! Now enjoy the secure network!

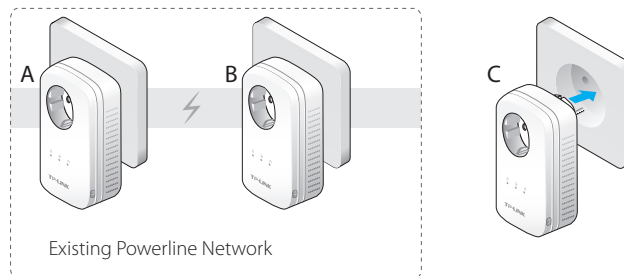
2.4. Add a Powerline Adapter to an Existing Powerline Network





I want to: Add a powerline adapter into the existing powerline network to extend the network.

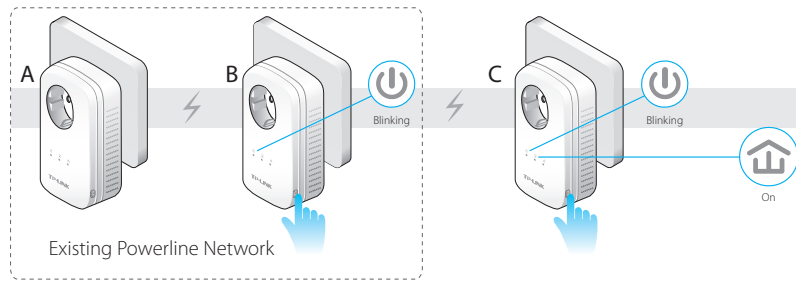
For example, I have previously set up a powerline network, but the network is still not big enough to provide Internet access for all wired devices in my home. So I bought a new powerline adapter to extend the network.

How can I do that?

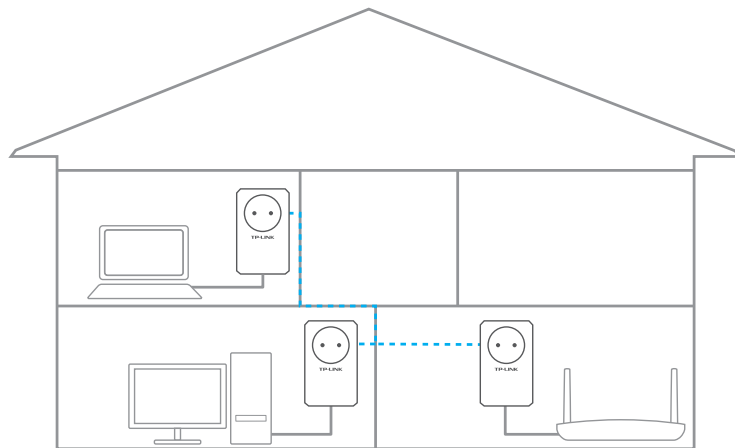
1. Plug the new powerline adapter into a wall socket near one of the existing powerline devices.



2. Wait for a while, and check whether the Powerline LED  stays on. If yes, go to step 3. If no, continue with step 2 to pair the new powerline adapter with one of the existing powerline devices.
 - a. Press the Pair button of one existing powerline device for 1 second. The Power LED  starts blinking.
 - b. Within two minutes, press the Pair button on the new powerline adapter for 1 second. The Power LED  starts blinking. When the Powerline LED  stays on, the pairing process is done, and the new powerline adapter have been added to the network successfully!



3. Relocate the new powerline adapter to where wired Internet access is required.



Done!

Now enjoy the Internet!


2.5. Manage Your Powerline Network Using tpPLC Utility

The tpPLC Utility is a computer software used to view and manage TP-LINK powerline devices. The tpPLC Utility shows you a vivid and intuitive powerline network, and it also enables you to conveniently manage an individual powerline device, as well as manage the whole powerline network.


To obtain the tpPLC Utility and its user guide, go to the product support page at <http://www.tp-link.com>.

FAQ (Frequently Asked Questions)


Q1. How do I reset my powerline adapter?

With the powerline adapter plugged into to the electrical outlet, press and hold the Pair button for more than 15 seconds until the Power LED  goes off momentarily and comes back on.

Q2. How to troubleshoot if there is no Internet connection in my powerline network?

- Make sure all powerline devices are on the same electrical circuit.
- Make sure the Powerline LEDs  light up on all of your powerline devices. If they do not, pair all your powerline devices according to [Secure Your Powerline Network - Pairing](#).
- Make sure all hardware connections are correctly and securely connected.
- Check if you have an Internet connection by connecting the computer directly to the modem or router.

Q3. What can I do if a successfully-paired powerline device does not reconnect after it has been moved to a new location ?

- Try another socket and make sure it is on the same electrical circuit.
- Try to pair it again, and make sure the Powerline LED  is on.
- Check for possible interference, such as a washer, air conditioner or other household appliance that may be too close to one of the powerline devices. Plug it into the integrated electrical socket to remove some electrical noise if your powerline device has an integrated electrical socket.

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FCC STATEMENT



This equipment 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 generates, 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 measures:

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

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interference.
- 2) This device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CE Mark Warning



This is a class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

Industry Canada Statement

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

Korea Warning Statements:

당해 무선설비는 운용중 전파혼신 가능성이 있음.

BSMI Notice

安全諮詢及注意事項

- 請使用原裝電源供應器或只能按照本產品注明的電源類型使用本產品。
- 清潔本產品之前請先拔掉電源線。請勿使用液體、噴霧清潔劑或濕布進行清潔。
- 注意防潮，請勿將水或其他液體潑灑到本產品上。
- 插槽與開口供通風使用，以確保本產品的操作可靠並防止過熱，請勿堵塞或覆蓋開口。
- 請勿將本產品置放於靠近熱源的地方。除非有正常的通風，否則不可放在密閉位置中。
- 請不要私自打開機殼，不要嘗試自行維修本產品，請由授權的專業人士進行此項工作。



Продукт сертифіковано згідно с правилами системи УкрСЕПРО на відповідність вимогам нормативних документів та вимогам, що передбачені чинними законодавчими актами України.



Safety Information

- When product has power button, the power button is one of the way to shut off the product; when there is no power button, the only way to completely shut off power is to disconnect the product or the power adapter from the power source.
- Don't disassemble the product, or make repairs yourself. You run the risk of electric shock and voiding the limited warranty. If you need service, please contact us.
- Avoid water and wet locations.
- Alert to service person

CAUTION

DOUBLE POLE / NEUTRAL FUSING

Explanation of the symbols on the product label

Symbol	Explanation
	AC voltage
	Indoor use only



RECYCLING

This product bears the selective sorting symbol for Waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European directive 2012/19/EU in order to be recycled or dismantled to minimize its impact on the environment.

User has the choice to give his product to a competent recycling organization or to the retailer when he buys a new electrical or electronic equipment.