

FAQs:

Explanation about the Powerline Rate and Actual speed of the Powerline Adapters

Some customers may be confused about the declared speed on the box or specification of power line adapters on the TP-Link official website. However, the declared speed is the speed on the physical level that includes all of the data of the powerline protocol.

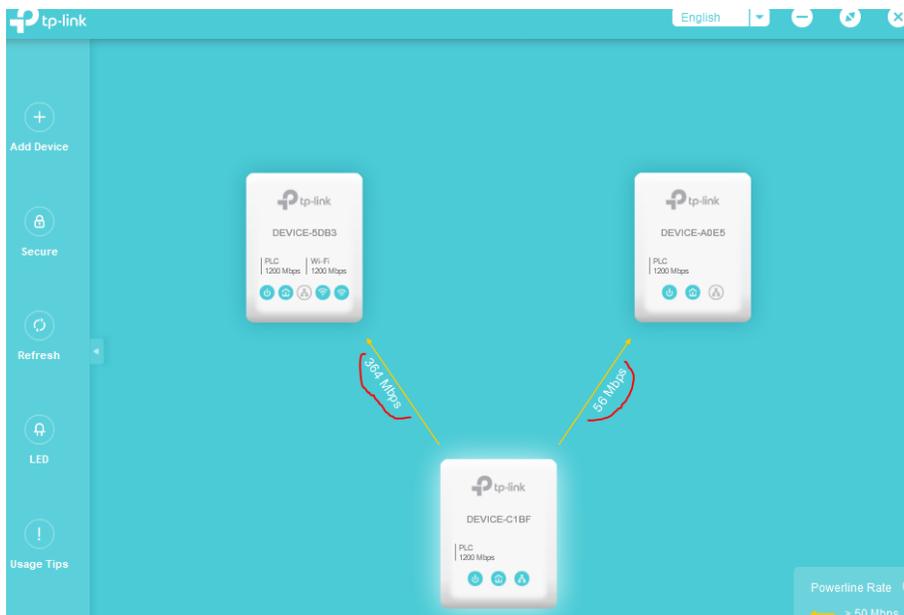
Let's take TL-WPA8630KIT(TL-WPA8630 & TL-PA8010) as an example:



AV1300 The Maximum Powerline speed

AV1300 is not the actual speed but the maximum powerline rate which will be shown on the tppc utility. The powerline speed showing in tppc utility will not reach 1300Mbps due to the interferes in the powerline environment.

We do two tests under some interferes as below, the Powerline speed between TL-WPA8630 and two TL-PA8010 can be only up to 364Mbps and 56Mbps. However, the conversion rate (The ratio of transmission rate and Powerline rate) is about 30%-35%(the actual conversion rate depends on the electric wiring system). So the actual throughput should be about 109Mbps-127Mbps.



Let's assume the Powerline speed between the TL-WPA8630 and TL-PA8010 is 1000Mbps in an ideal environment with few interferences, normally it will make an actual throughput of 300Mbps-350Mbps. This rule basically applies to all Home Plug AV products.

Note:

1. AV600(TL-WPA4010KIT) powerline adapters have a powerline rate of 500 Mbps in an ideal environment and they should have a throughput about 150Mbps-175Mbps theoretically, but their throughput should not spike more than 100 Mbps, since they only have an Ethernet port of 10/100 Mbps. Therefore, if the powerline rate of AV600 powerline adapters is higher than 200 Mbps, customers could get a speed of about 100 Mbps with our AV600 powerline adapters.
2. Some Powerline adapters work with HomeplugAV standard, however, the HomeplugAV2 powerline adapters which use MIMO technology would have a lower conversion rate. For example, if the powerline rates on Utility could reach to 400 M, then according to the conversion rate we mentioned, the throughput of the HomeplugAV powerline adapters would be around 120Mbps-140Mbps. But HomeplugAV2 powerline adapters that use MIMO technology would have a lower conversion rate.

AC1350 the maximum wireless link rate

The rate AC1350 on the box is the maximum wireless link rate that your client can communicate with the router, also called wireless negotiation rate, which is the physical rate derived from IEEE Standard 802.11 specifications. It will vary as a result of many factors, please refer to [here](#) to know more details.

If you have more questions except for the speed, please refer to [here](#).

Powerline adapters may cause intermittent connection of DSL modem router in a few rare cases. Since the powerline adapter works in the same frequency as the DSL telephone line when they are too close to each other, there could be interference between them, and as a result, the DSL modem router could lose internet connection frequently. For series 8 and series 9 Powerline adapters, like TL-WPA8XXX or TL-PA9XXX, we can try enabling the Lower PLC-to-VDSL Interference Mode and see if the issue could be fixed. For more information, please refer to the [FAQ](#).

If the issue persists after enabling the Lower PLC-to-VDSL Interference Mode, or if the issue happens to other series powerline adapters than series 8 and series 9, please try the following troubleshooting methods:

Confirm whether the VDSL telephone line is rolled into a ball or circle because it is too long. If so, please cut the phone line short and straighten it. It has been confirmed that under the same condition when the telephone line is rolled up, the interference received by the VDSL telephone line is much higher than when it is straightened, which is likely to cause frequent internet drops.

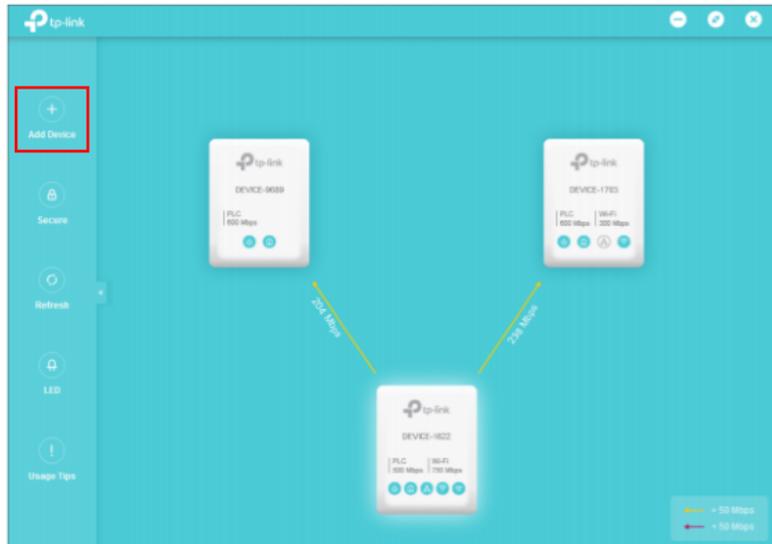
How to add a device to the network using tpPLC Utility (new logo)?

To add a device to the current network, follow the steps below:

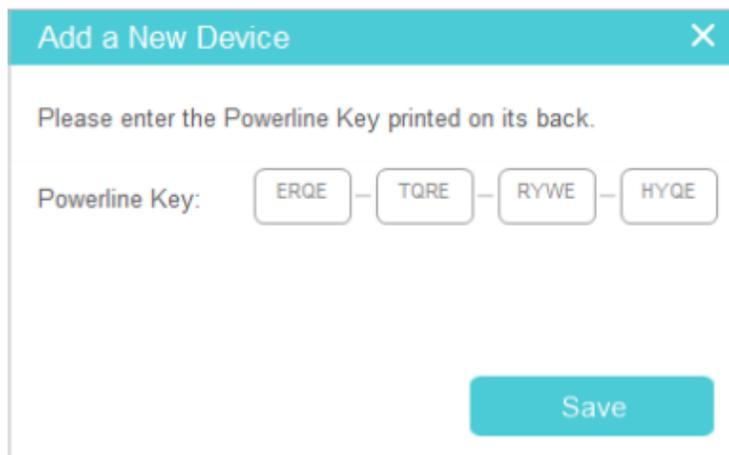
1. Write down the 16-digit powerline key printed on the device label.
2. Plug the device into a wall socket and wait until its LEDs become stable.

3. Open the utility, and click **Add Device** on the left column.

Please note: If the Utility hasn't been installed yet, please refer to [How to prepare for using the tpPLC Utility \(new logo\)?](#)



4. On the **Add a New Device** page, enter the powerline key you wrote down, and click **Save**.



Now the new device will appear on the utility.

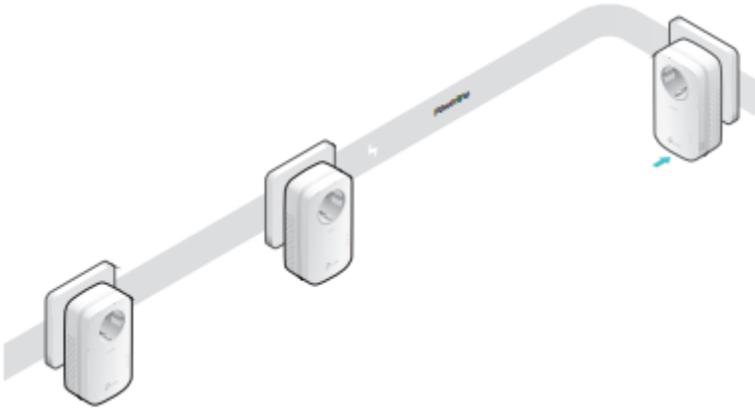
How to add another powerline adapter to the existing powerline network with pair button?

Add a new powerline adapter into the existing powerline network to extend my network.

For example, I've already set up a powerline network using powerline devices, but the network does not reach everywhere I need it to. I purchased another one to further extend my network.

How can I do that? Here takes TL-PA9020P KIT as demonstration.

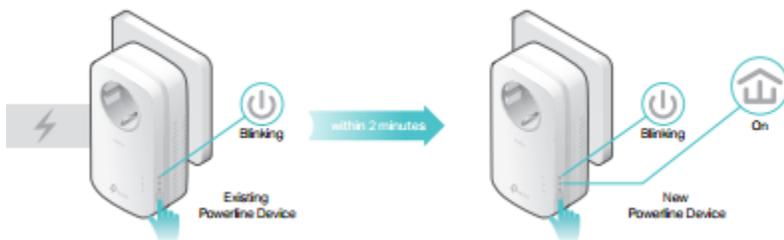
1. Plug the new powerline adapter into a wall outlet near one of the existing powerline devices.



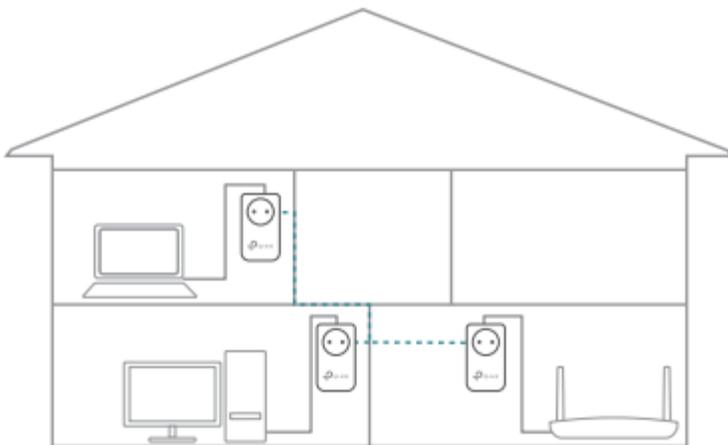
2. Wait for a minute, and check whether the Powerline LED  stays on. If it's on, skip to step 3. If it's not, continue with step 2 to pair the new powerline adapter into the secured powerline network.

a. Press the Pair button on one of the existing powerline devices for 1 second. Its Power LED  starts blinking.

b. Within two minutes, press the Pair button on the new powerline adapter for 1 second. Its Power LED  starts blinking. When the Powerline LED  stays on and solid, the pairing process is complete.



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



Add a New Device ✕

Please enter the Powerline Key printed on its back.

Powerline Key:

Now the new device will appear on the utility.

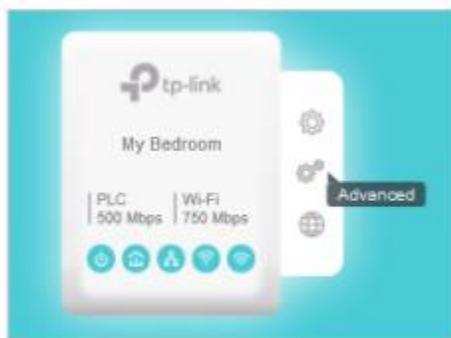
How to set up QoS using tpPLC Utility (new logo)?

QoS (Quality of Service) allows you to give highest priority to a specific traffic type. The powerline device will first guarantee transmission of the selected traffic type in case of data traffic congestion.

To set up QoS, follow the steps below:

Please note: If the Utility hasn't been installed yet, please refer to [How to prepare for using the tpPLC Utility \(new logo\)?](#)

1. Open the utility, move your mouse over a device, and click the  (**Advanced**) icon.



2. Go to the **QoS** page, select a traffic type, and click **Save**.

How to secure your powerline network by pairing?

All powerline adapters share some common factory settings, and can communicate with one another. If you want your powerline adapters to communicate only with your own powerline adapters, you should pair them. Thus a secured powerline network is formed and other powerline adapters can no longer join your powerline network without being paired.

Note: You can only pair two devices at a time.

Secure my powerline network and prevent other powerline devices from being added to my network. For example, I've extended my network using the Plug & Play method. Now I want to secure my network.

How can I do that? Here takes TL-PA9020P KIT as demonstration.

1. Verify all powerline devices' Power LEDs are solid on.

Tips: We recommend that you plug in your powerline devices next to each other, or as close to each other as possible when pairing. Your settings will not be affected. The devices can be relocated to where they are needed once pairing is complete.

2. Press the Pair button on one of the powerline devices for 1 second. Its Power LED  starts blinking.

3. Within two minutes, press the Pair button on another powerline adapter for 1 second. Its Power LED  starts blinking. When the Powerline LED  stays on, the pairing process is complete.

