Tenda

User Guide

Shenzhen Tenda Technology Co.,Ltd.

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I Get to Know the Adapter

Before you use the PLC product, take a moment to become familiar with the package contents and the front panel. Pay particular attention to the LEDs on the front panel.

1 Overview

PH3 AV1000 Gigabit Powerline Adapters are designed for online video/audio player, web camera, IPTV and other high bandwidth applications. It adopts electrical circuit to transmit Internet data with electrical power, which in a sense reduces the Ethernet cable cost and easily extends network coverage to where the electrical power can get within the valid range. The rate of these powerline adapters are up to 1000Mbps, giving a guarantee of a more fluent online playing experience.

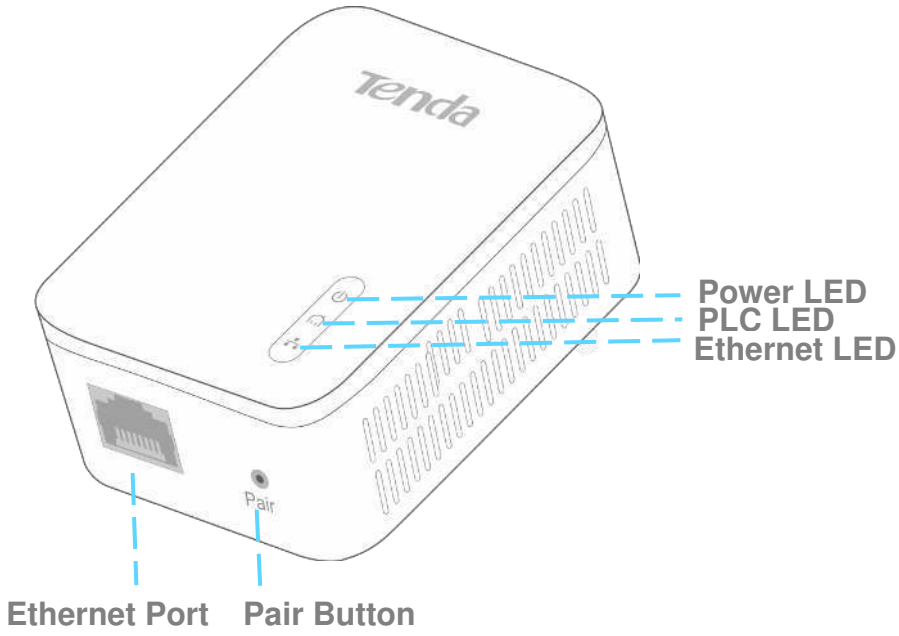
2 Package Contents

Unpack the package. Your box should contain the following items:

- AV1000 Gigabit Powerline Adapter * 2
- Install Guide * 1
- Ethernet Cable * 2

* If any item is incorrect, missing or damaged, please keep the original package and contact the vendor for replacement immediately.

3 LED/Interface/Button



LED	Color	Status	Description
Power	/	Off	The device is NOT receiving electrical power.
	Green	Solid	The electrical power is on.
	Green	Slow blinking	The device is in power saving mode.
PLC	/	Off	The device doesn't pair with other powerline devices, or is powered off.
	Green	Solid	The device is connected to a powerline network.
	Green	Fast blinking	The device is pairing with a powerline devices.
	Red	Solid	The powerline signal of the adapter is poor; try plugging the adapter closing to your router or modem until the PLC LED turns to green.
Ethernet	/	Off	No Ethernet cable is detected on the Ethernet port.
	Green	Solid	The Ethernet cable is connected properly.

Interface/Button	Description
Ethernet Port	For connecting to the Internet, a computer, or other network devices via an Ethernet cable.
Pair	Press and hold it for about 1 second to start pairing.
	Press and hold it for about 6 seconds (the Power LED will be off and then light up again) to restore the adapter to factory default.

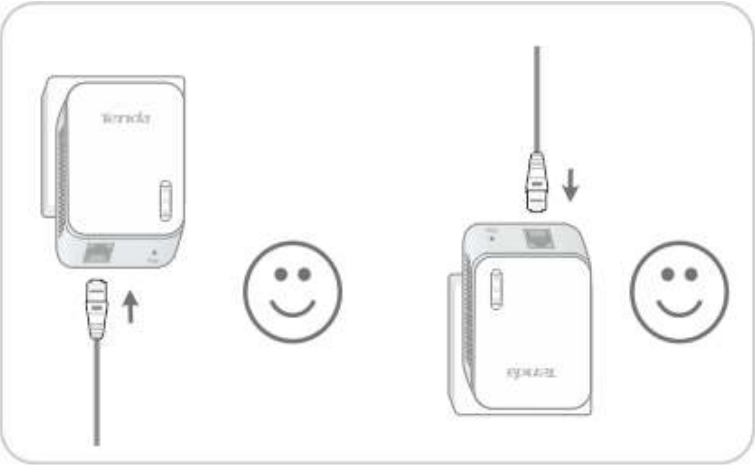
II Access the Internet

This section explains how to access the Internet via a pair of Powerline Adapters, including how to position and use your Powerline Adapters, how to connect them and access the Internet. Here's an example for you.

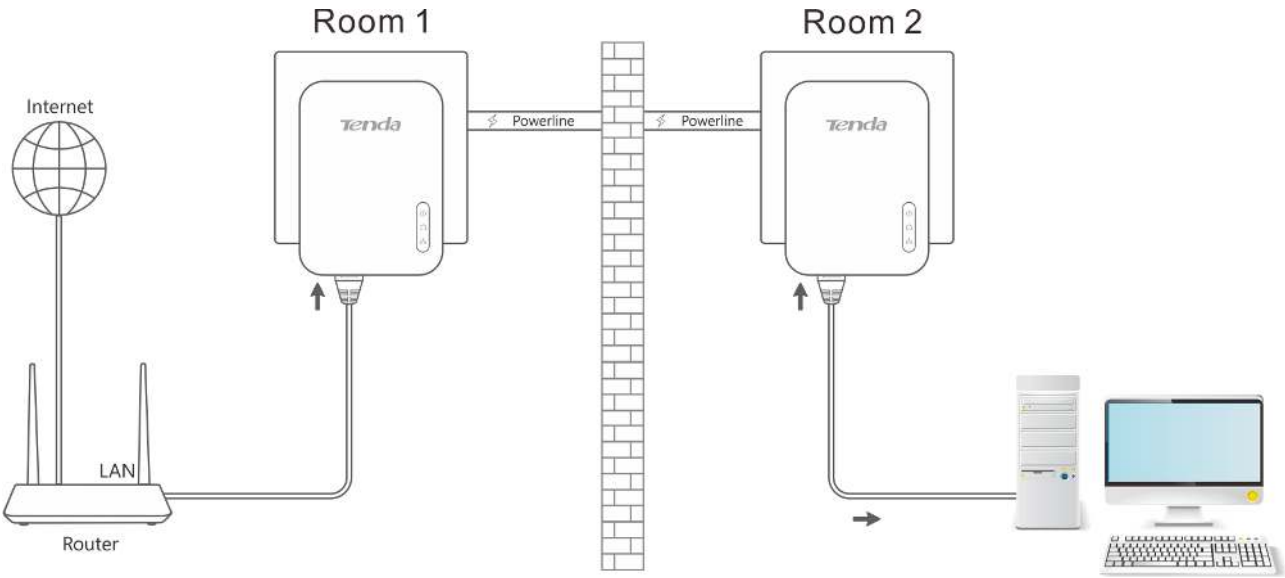
1 Install Your Adapters

Attention

The adapter can only be used in vertical directions.



Plug and Play



1 Connect one adapter to one of the LAN ports of an ADSL modem/wireless router for Internet access, and plug it into a wall outlet nearby.

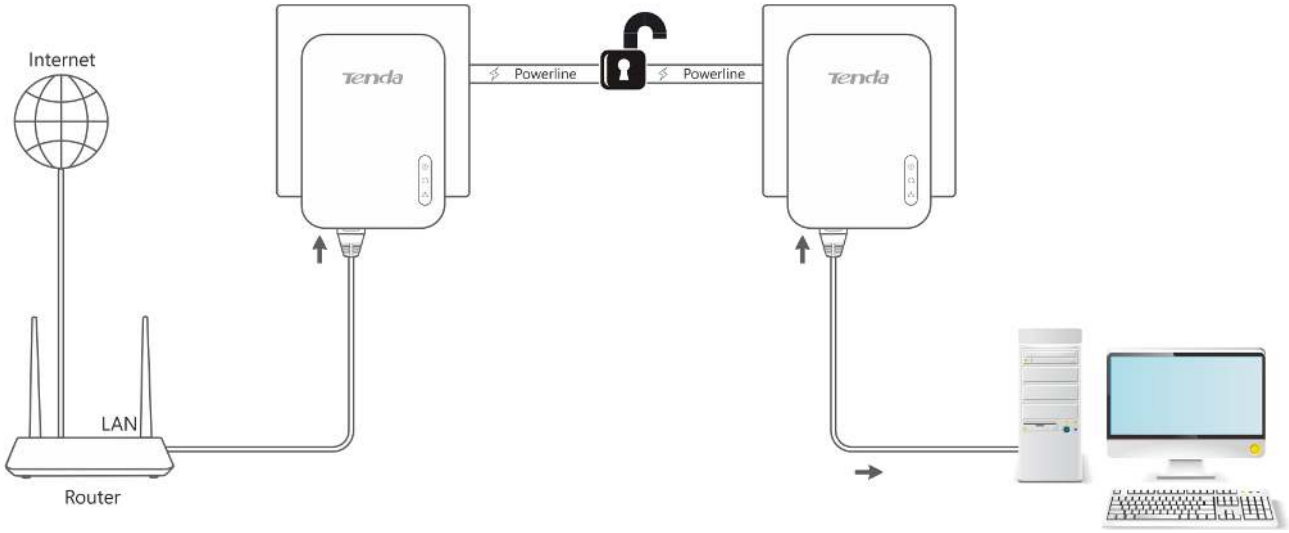
2 Connect the other adapter to a computer or other wired devices, and plug it to a wall outlet.

3 Wait until the PLC LEDs on the two adapters are lit.

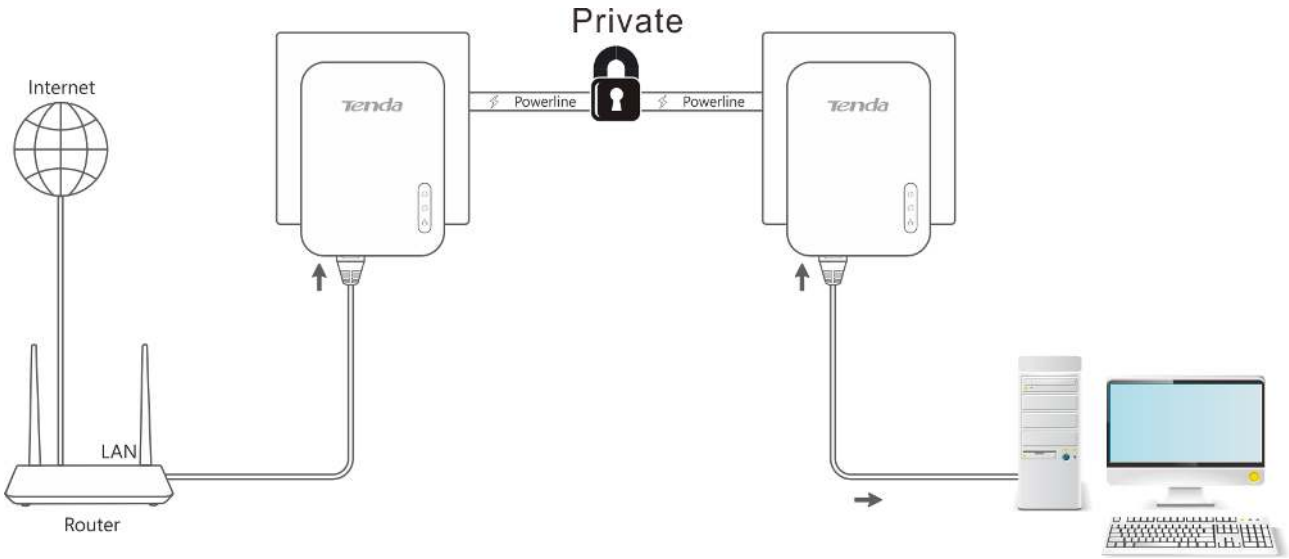
Then you can try accessing the Internet via your computer. If you cannot access the Internet after the operation above, please refer to Q1 for solution.

2 Secure Your Powerline Network

Two or more powerline adapters under the same electrical circuit will automatically interconnect to create an unencrypted public network (Named "**HomePlugAV**").



If you want to create a secure powerline network (Named "Private"), use the Pair button to pair the two adapters with each other.



Procedure:

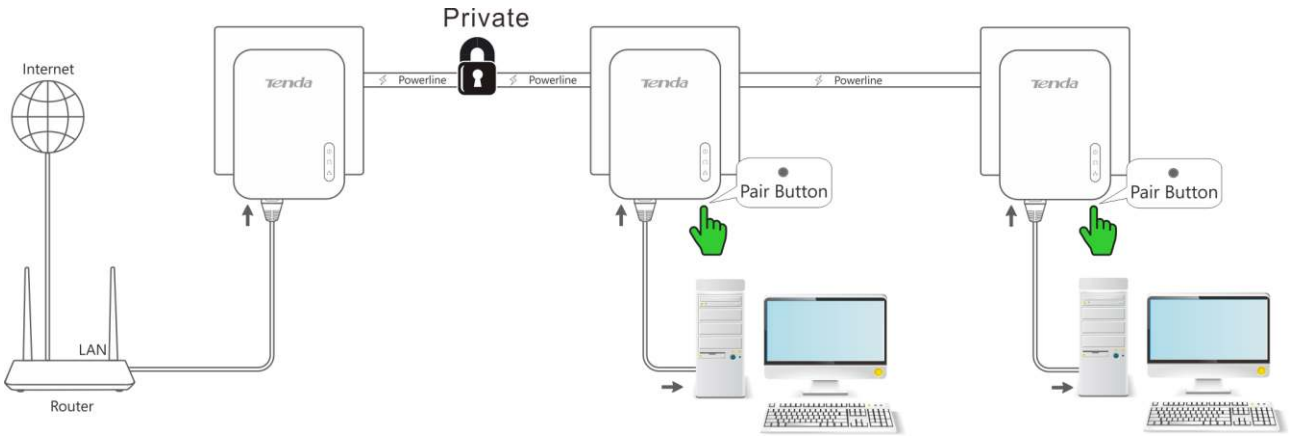
1. Plug in your adapters.
2. Wait until the PLC LEDs on the two adapters are lit.
3. Press the **Pair** button on one adapter for 1 second, and the PLC LED on the adapter starts blinking.
4. Then press the **Pair** button on the other adapter for 1 second.

Both buttons must be pressed within two minutes.

Observe the PLC LEDs on the two adapters until they are lit again. It indicates that a secure powerline network is established successfully between the two adapters.

3 Add Adapters to a Private Powerline Network

If you want to add more powerline adapters to a private powerline network, follow the steps below:



1. Press the **Pair** button on any powerline adapter in the security powerline network for 1 second.
2. Within two minutes, plug in the new powerline adapter, and press its **Pair** button for 1 second.
3. Observe the PLC LEDs on the two adapters until they are lit.
4. Done.

III Manage Your Adapters

This section introduces how to manage your adapters using the UI, including changing your Powerline adapters' device name/network name, resetting your Powerline adapters, and etc.

1 UI Installation

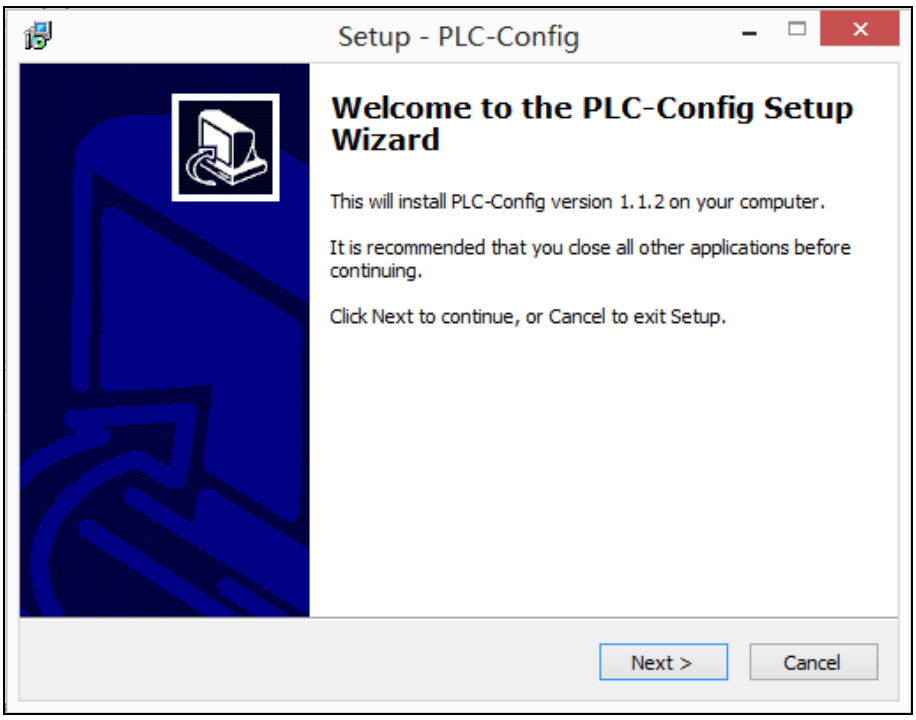
This section instructs you to install the adapter s' UI on your computer.

If you are a Windows 8 user, simply follow steps below. If you are using other operation systems, instructions herein are also good for references.

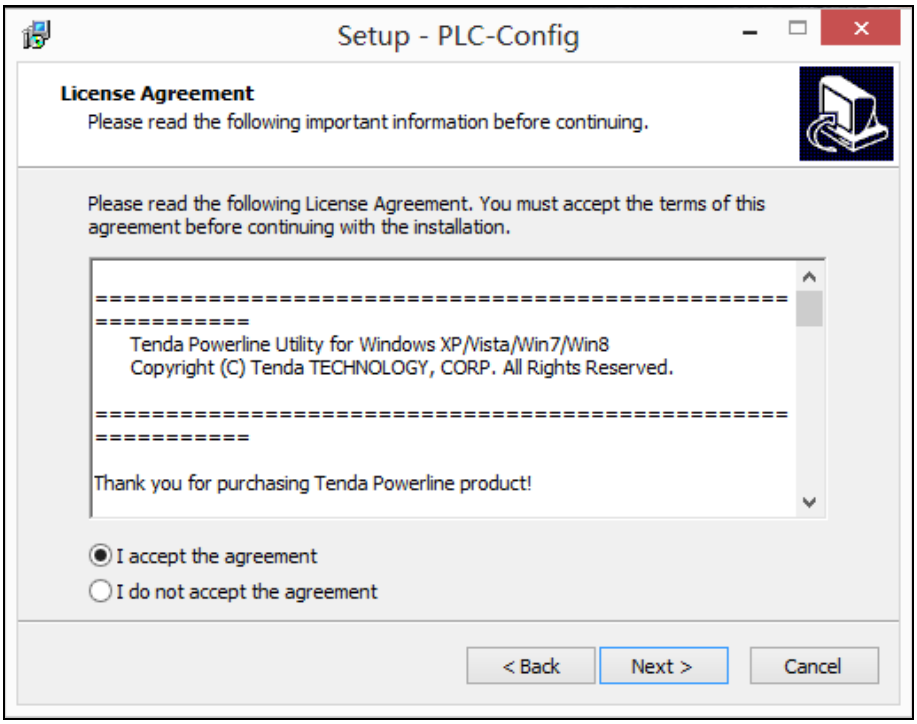
To install the UI:

Go to Tenda official website **http://www.tendacn.com** to download the management software. Save it to your local host, and unzip it.

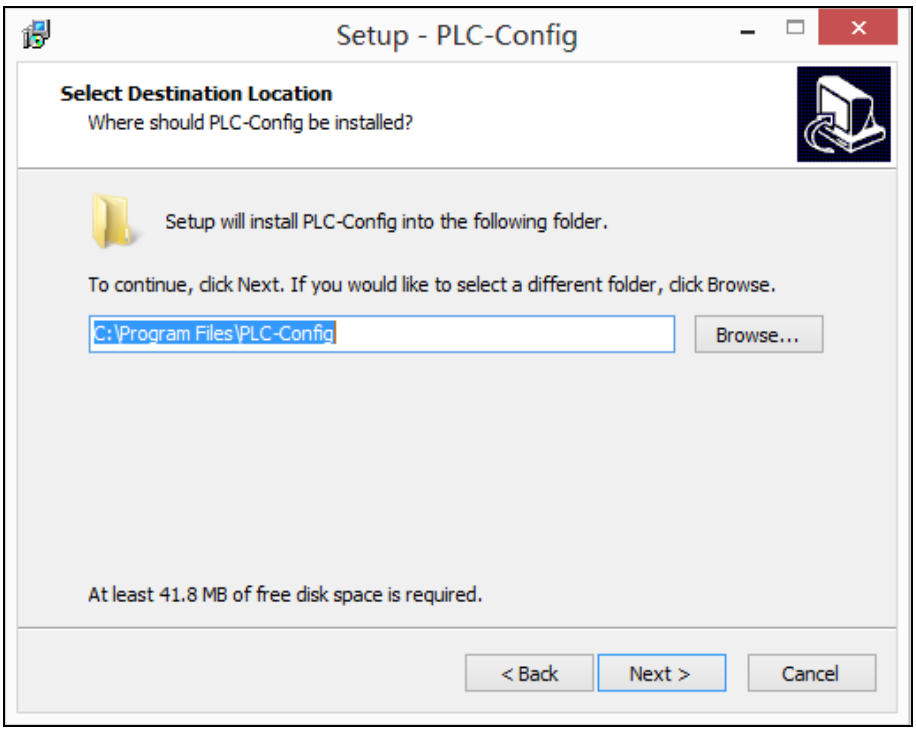
1. Double click the setup icon setup to run the management software, and click **Next** when you see the screen below.



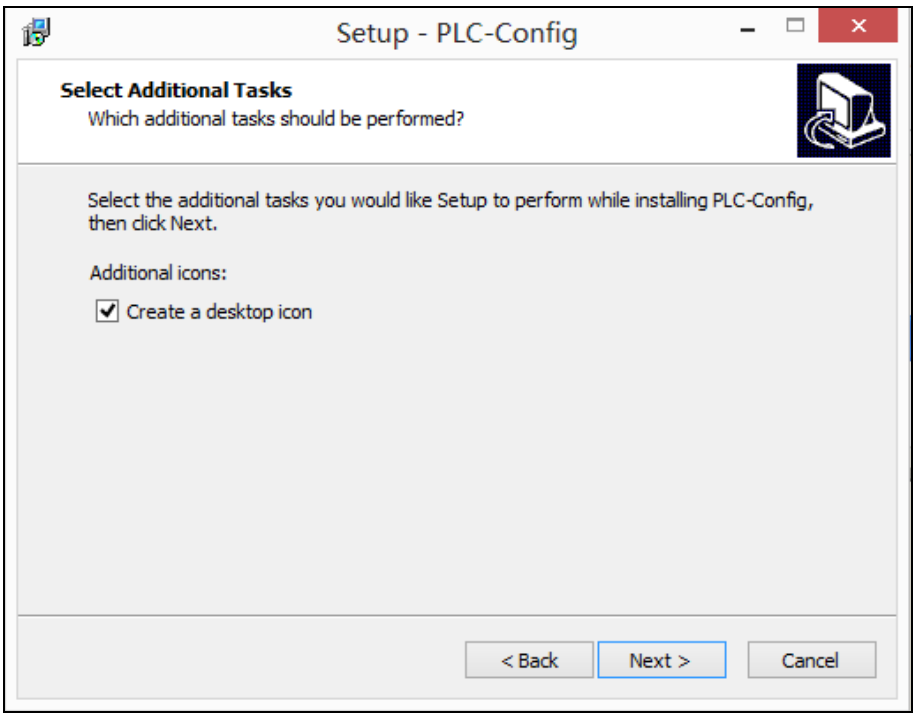
2 After you read the license agreement shown as below, select "**I accept the agreement**" and click **Next**.



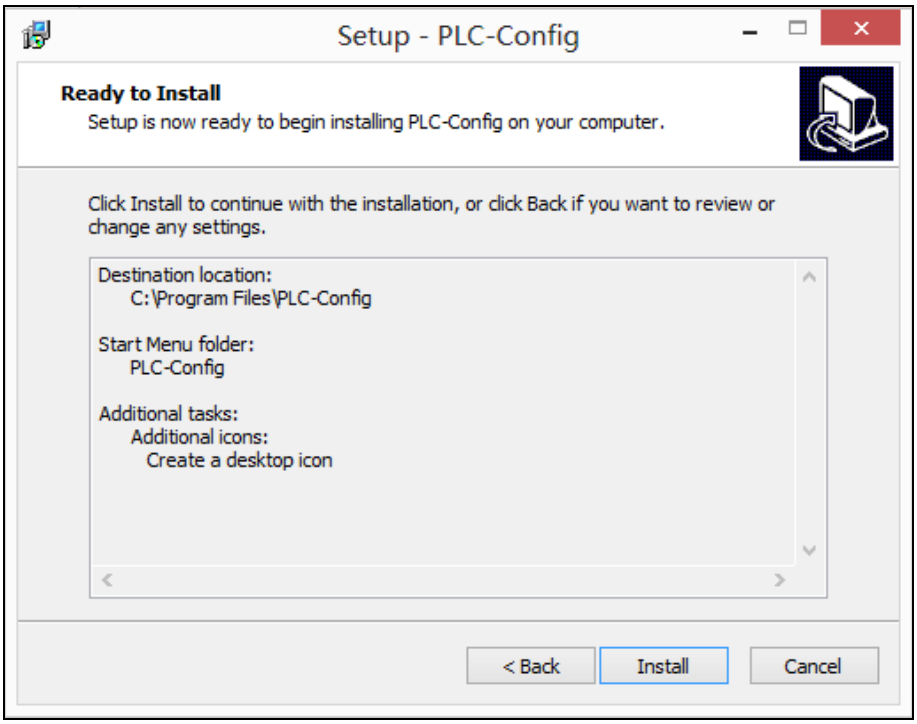
3 Click **Browse…** on below screen to locate where to install the UI and click **Next** to go forward.



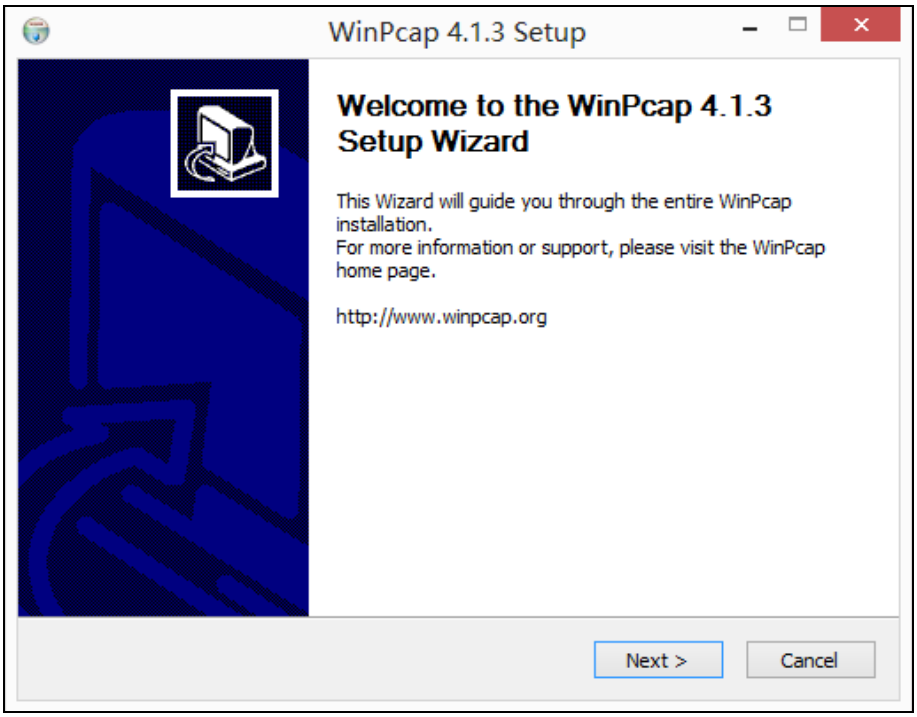
4 Keep clicking **Next** until the screen below displays. Then check the **Create a desktop icon** option and click **Next**.



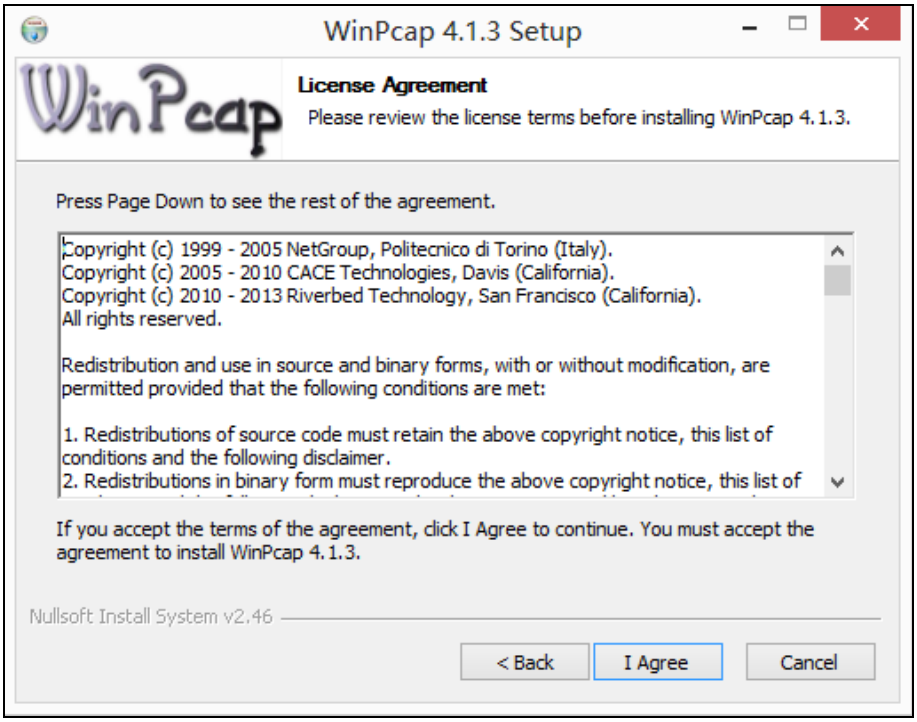
5 Click **Install** to install the UI.



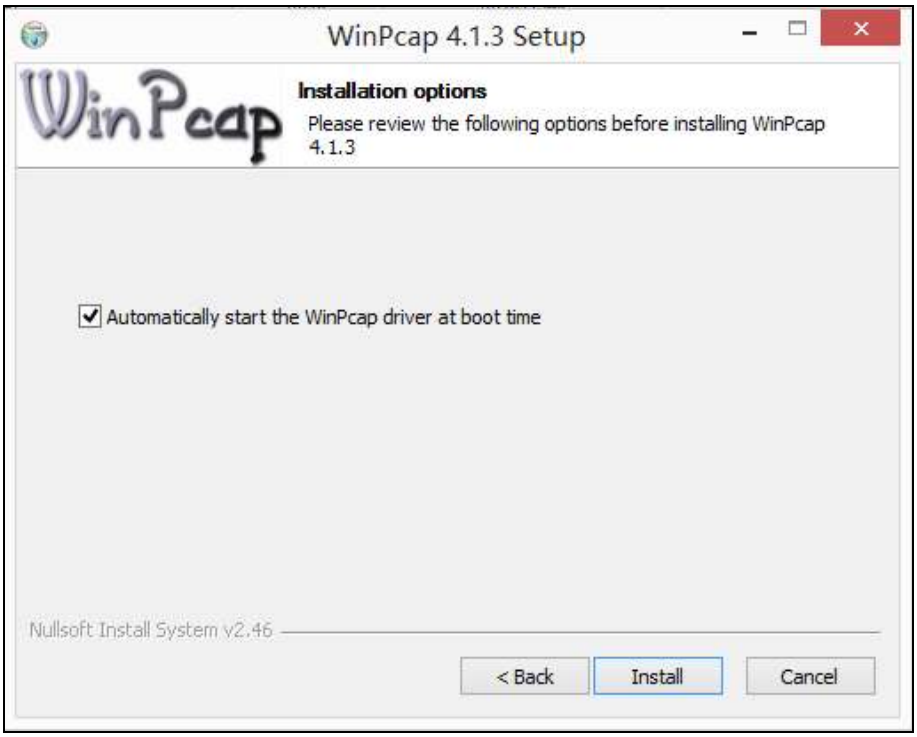
6 **WinPcaP** Setup Wizard will be displayed as below. Click **Next** to go forward.



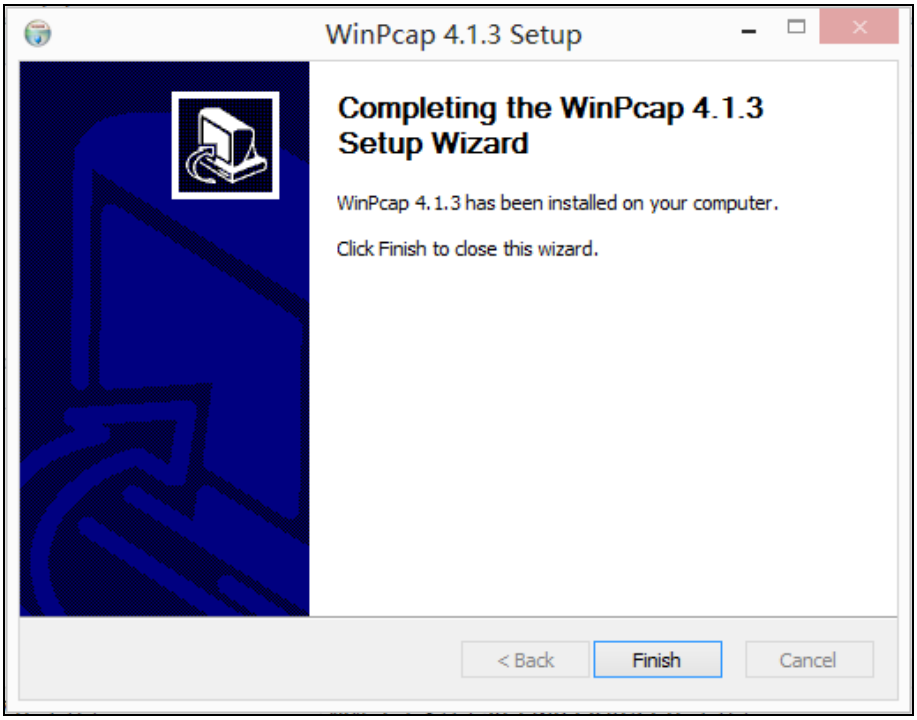
7 Click **I Agree**.



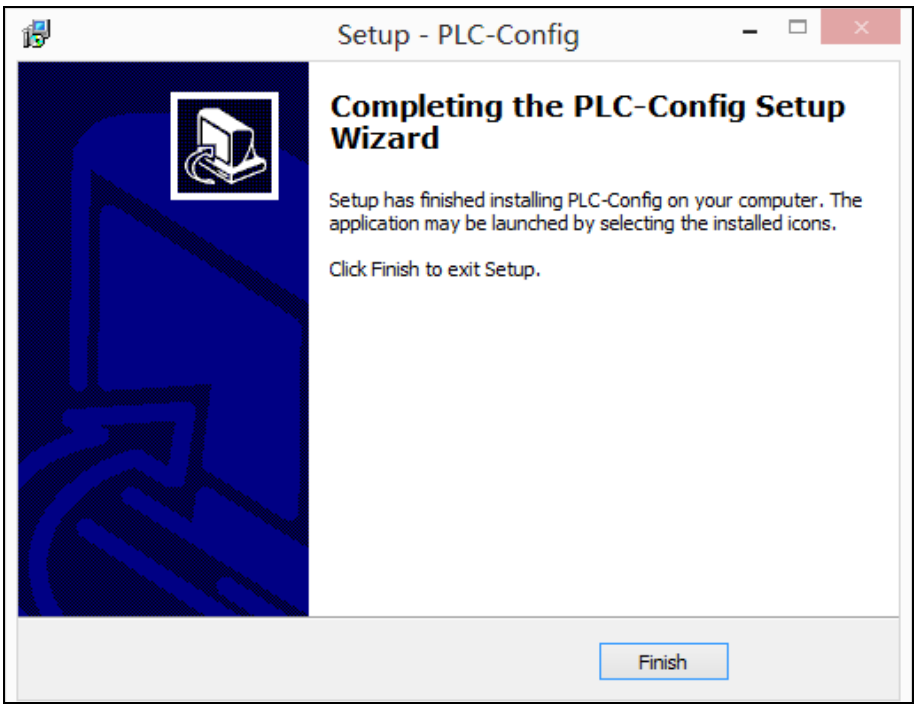
⑧ Click **Install**.



⑨ Click **Finish**.



⑩ Click **Finish** to complete the installation.



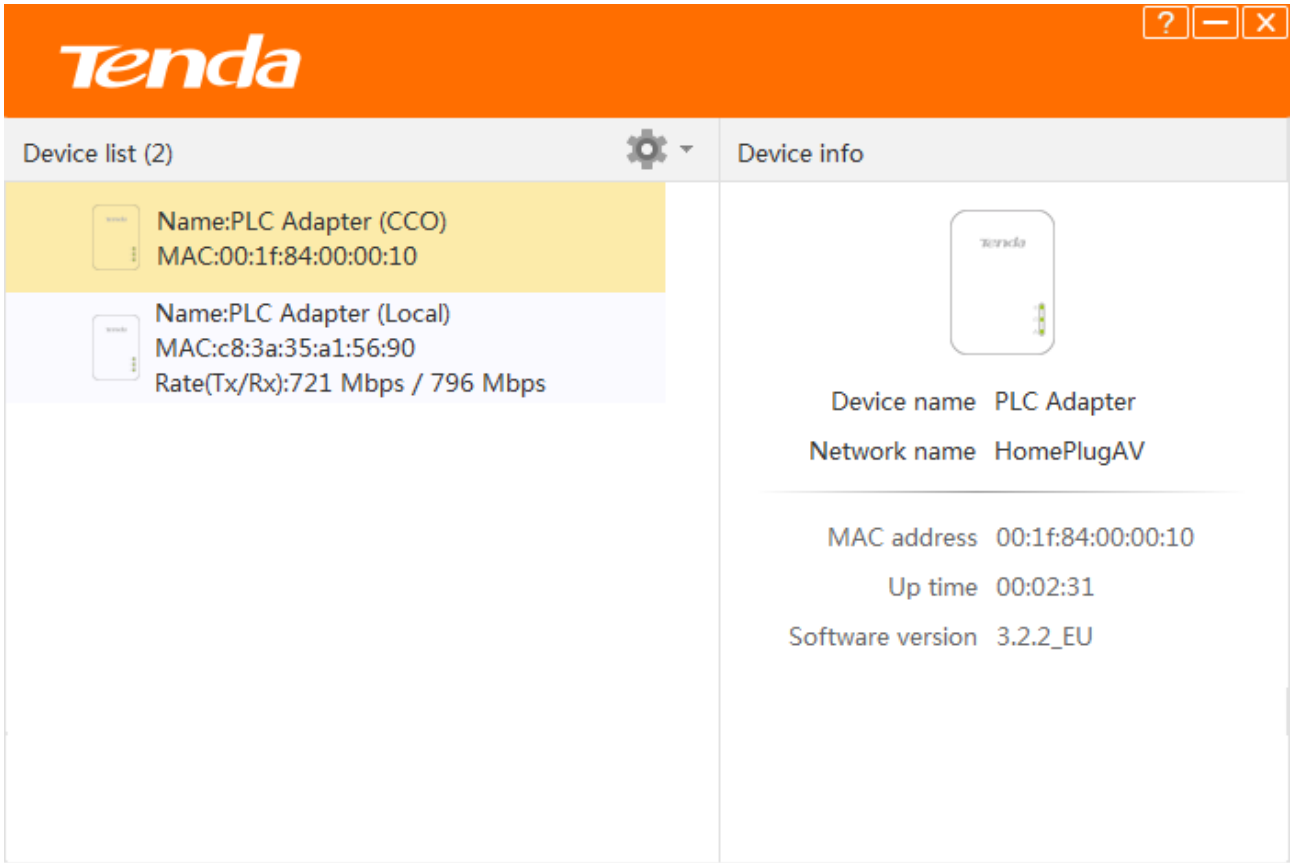
After you finish the installation, a UI shortcut

will appear on your desktop.

2 Run the UI

After the UI is installed, double-click

icon on your desktop to run the UI. The main interface is shown as below:



In the Device List, you can view the adapters in a same powerline network which have negotiated with each other.

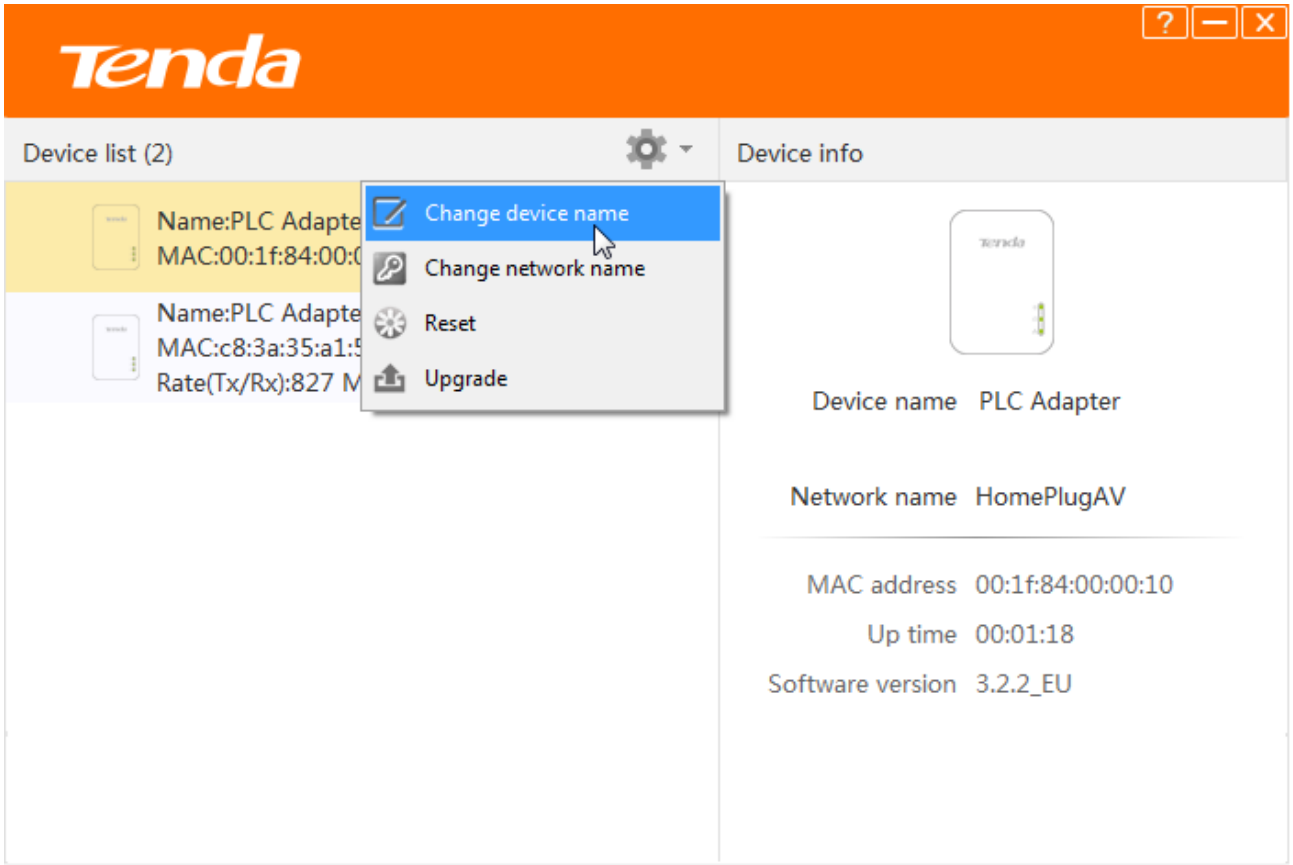
CCO	This adapter will be regarded as a station, to which other adapters will attempt to connect. When attempting to connect to each other, adapters automatically negotiate with each other to select an adapter as CCO.
Local	This adapter is connected to the computer with the UI installed.
Device Info	The Device Info of a currently selected adapter.
Network name /HomePlugAV	HomePlugAV is the local Powerline network name if you do not customize a Powerline network name, or use pair button to pair the adapters with each other. To establish a same powerline network, powerline adapters MUST share an identical network name. Based on the network name, the powerline network is classified into 2 types: a powerline network named "HomePlugAV" is considered a public network; a powerline network named "Private" is considered an encrypted network.
MAC Address	The MAC address of a currently selected adapter.
?	Click to see the User Guide.

3 Change Device Name

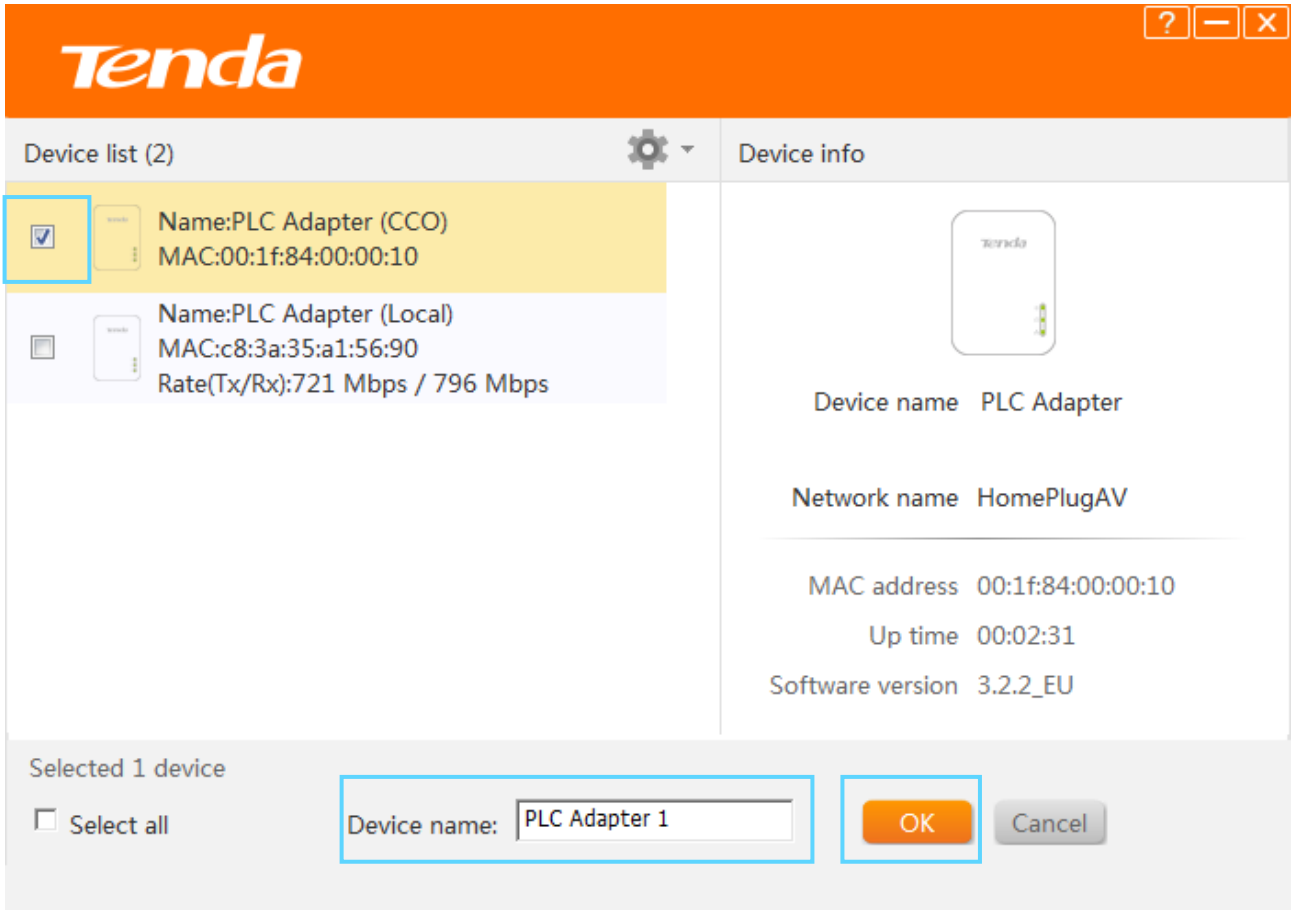
For easy recognition and convenient management, you can change the adapter's name if there are multiple adapters managed by the UI.

To change device name:

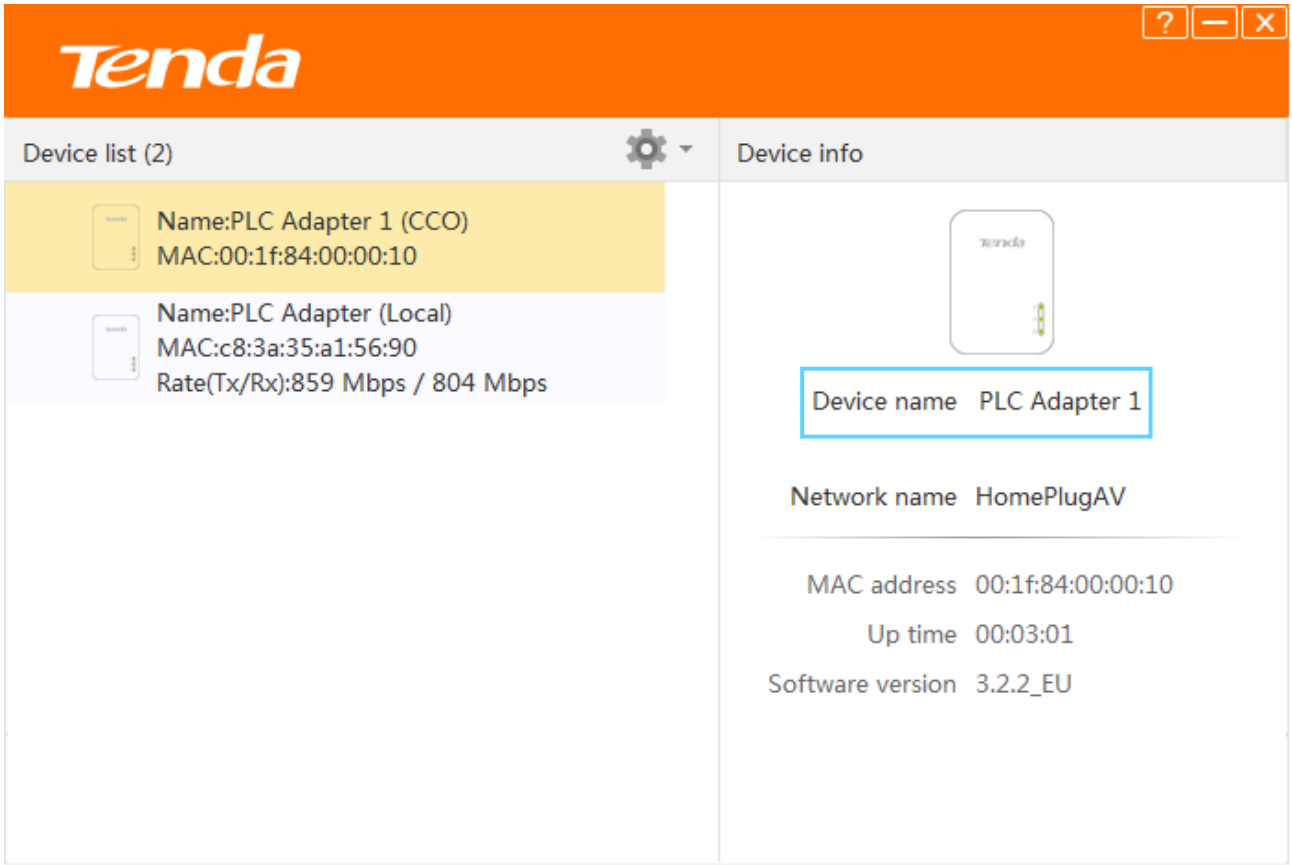
1. Click to start configuration.
2. Select **Change Device Name**.



3 Select the adapter whose name you want to change, and specify a new name in the **Device name** edit box, and click **OK**.



After it saved successfully, you'll find that the **Device name** displays the new name.

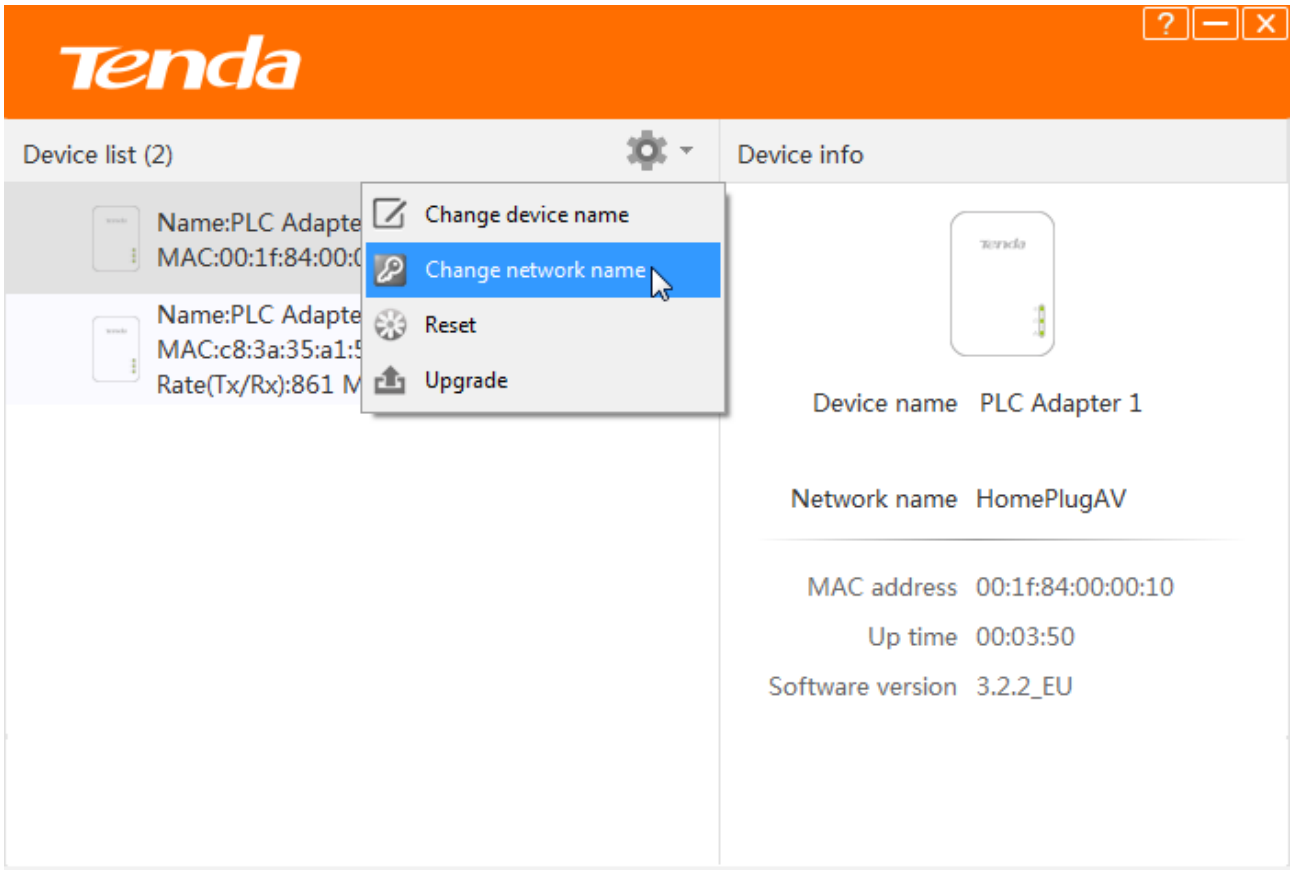


4 Change Network Name

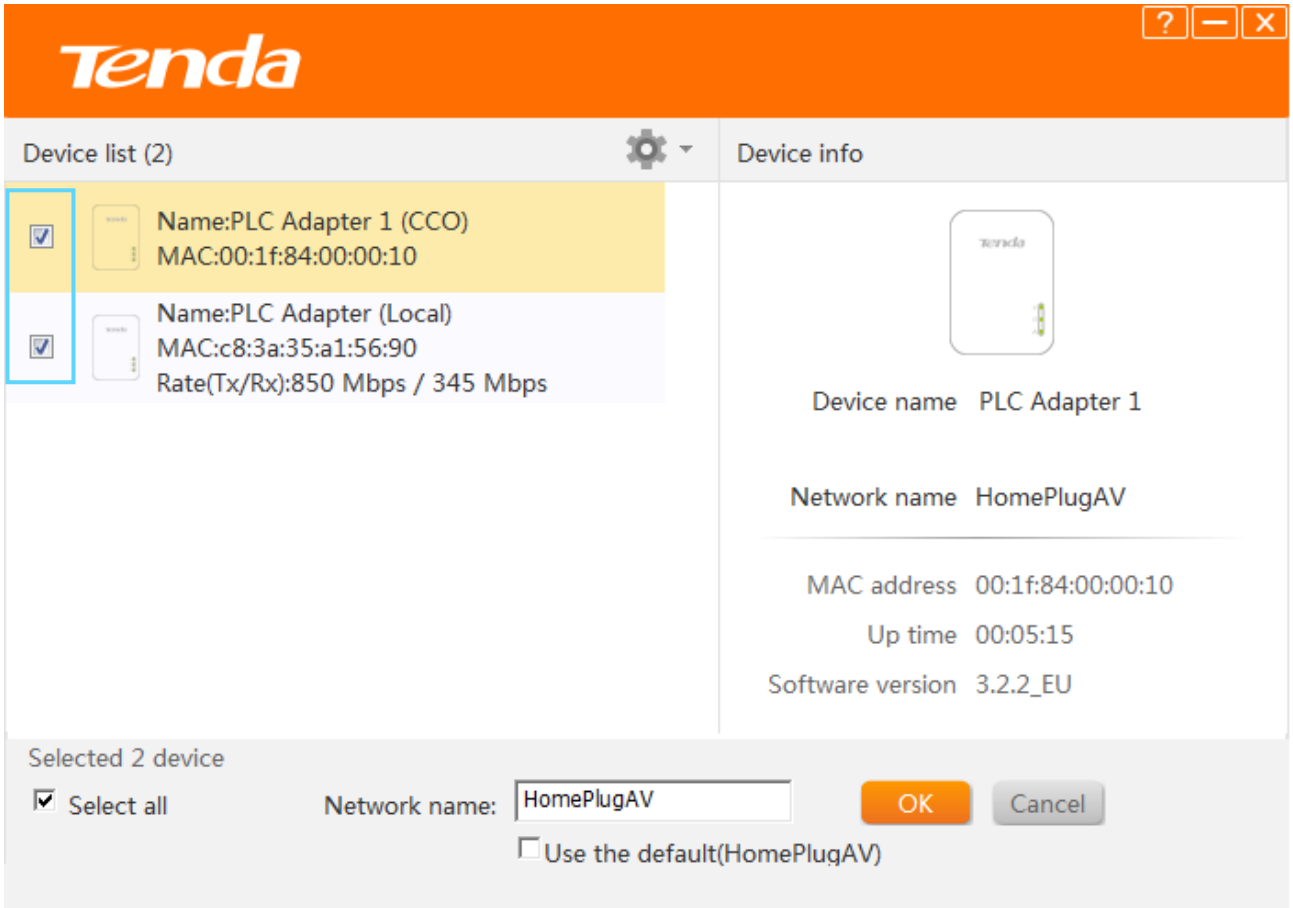
To establish a same powerline network, powerline adapters MUST share an identical network name. Therefore, if you change one adapter's network name in a powerline network, you MUST change the other adapters' as well. If not, the adapter will exit from the current powerline network. Also, if you change the default network name **HomePlugAV** into another one, this powerline network will become an encrypted private powerline network. You need to use the pair button to add more adapters into this powerline network.

To change the network name:

1. **Click** to start configuration.
2. Then select **Change Network Name**.

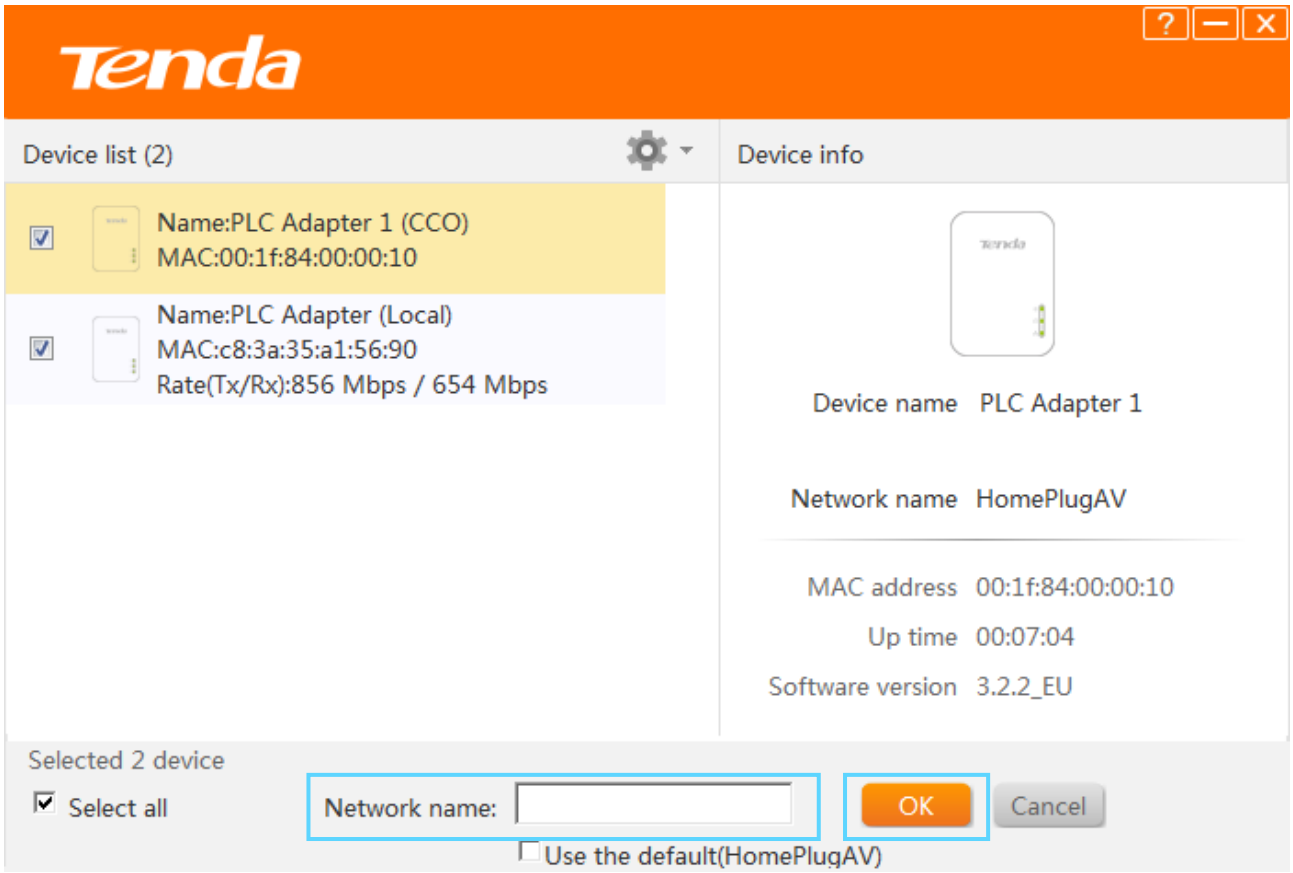


3 Select all adapters whose name you want to change.

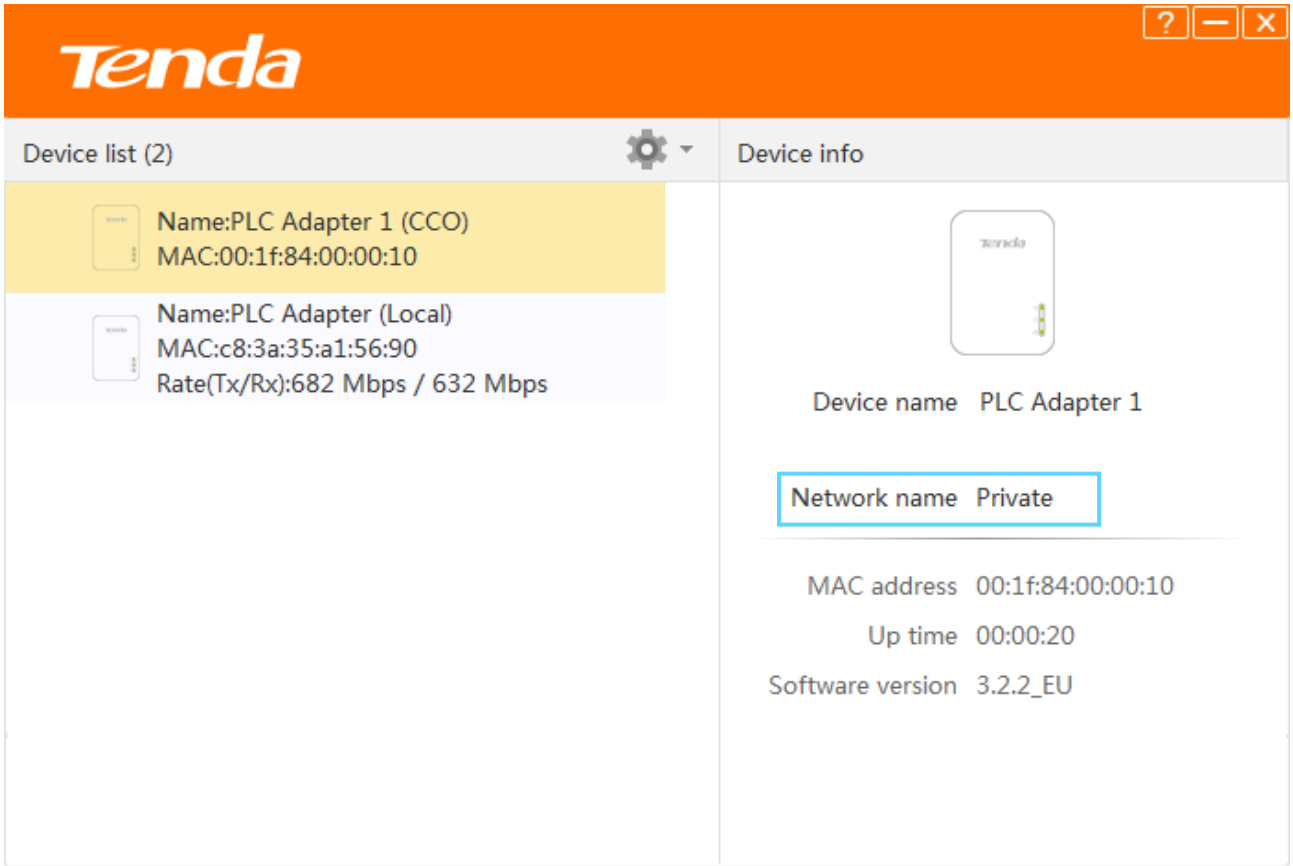


4 Type a new network name in **Network Name** edit box.

5 Click **OK** to activate the settings.



After successful network name configuration, the Network Name will be changed from "HomPlugAV" into "Private", which means it is a private and encrypted network.



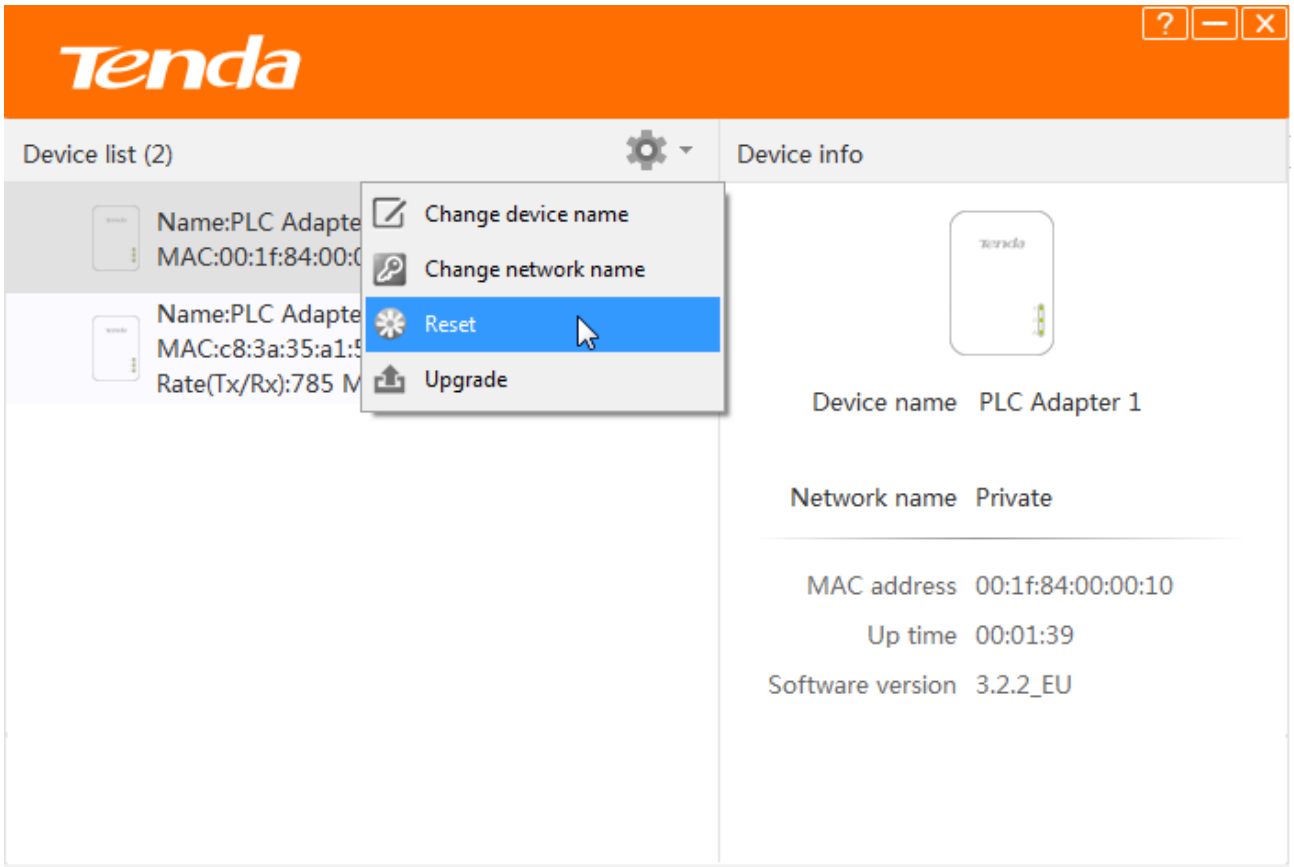
5 Reset

Device name will be PLC Adapter, and network name will be HomeplugAV once the device resets to factory default. You can reset the adapters here, or use the hardware button **Pair** button on the device.

To reset the adapters:

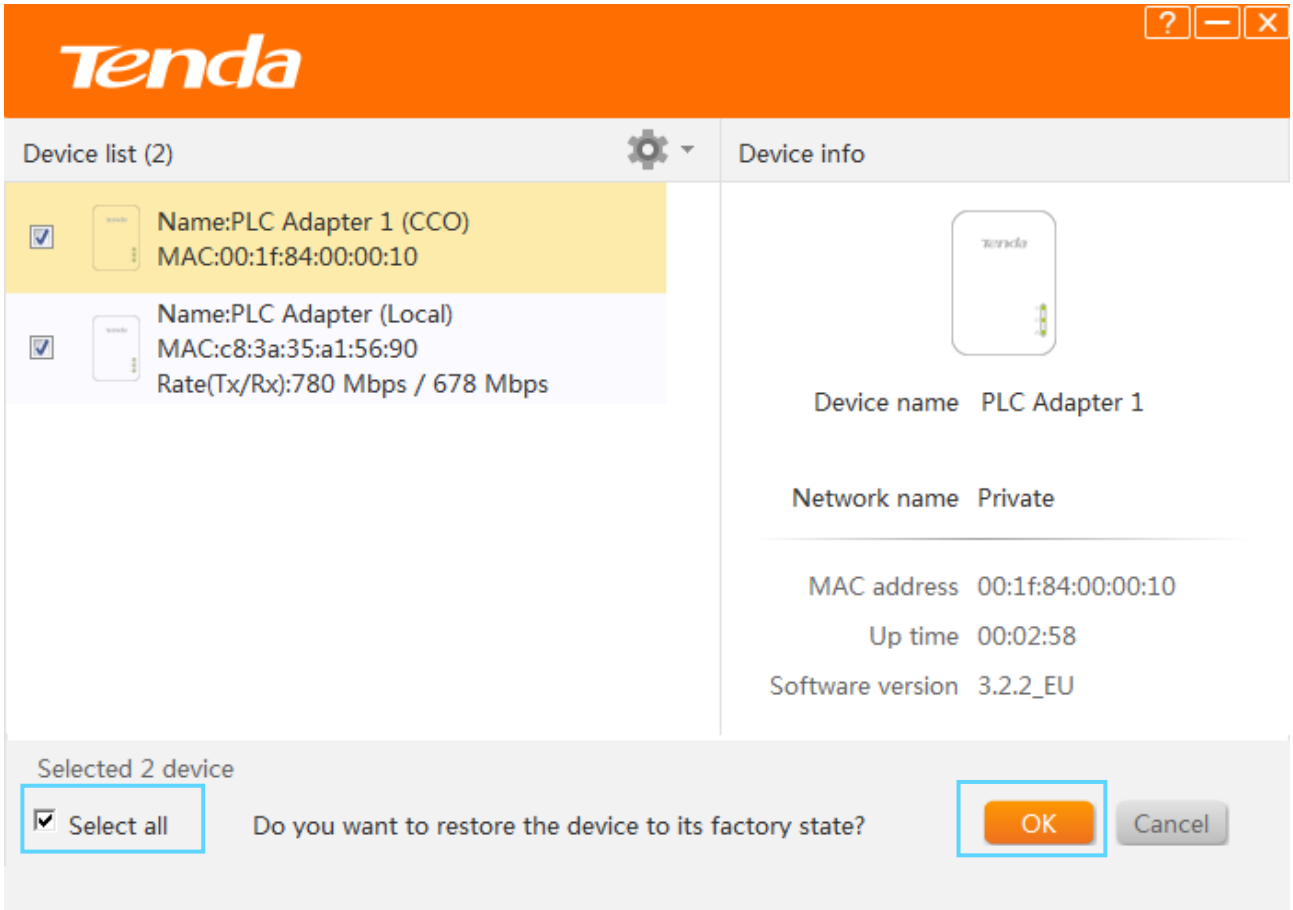
1. **Click** to start configuration.

2. Select **Reset**.



3. Select the adapter you want to reset or you can click **Select All**.

4. Click **OK** to activate the settings.



Tips

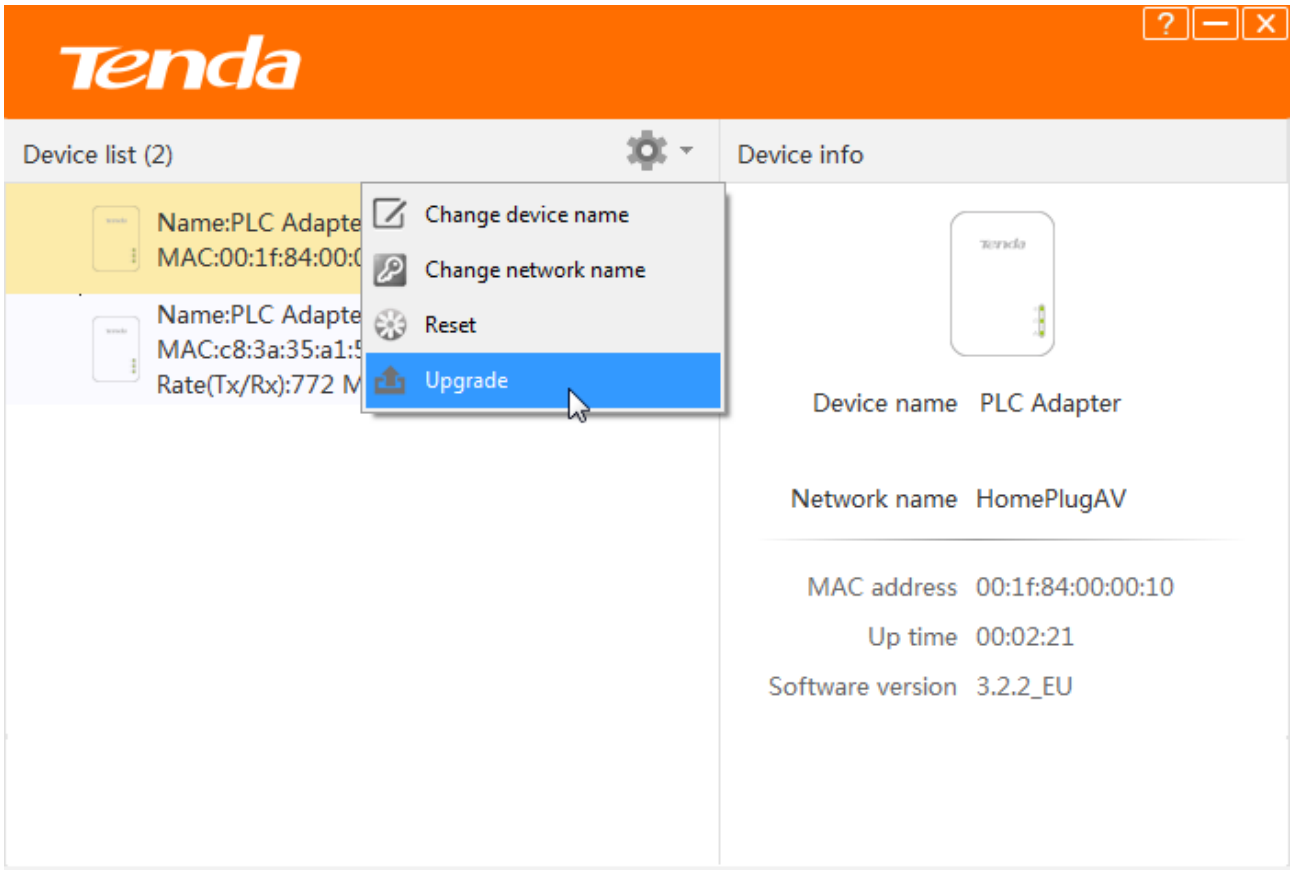
If it is a private network before, the adapter you select to restore to factory default won't display in **Device list** any more. But if the adapter you reset is connected to the configuration PC via an Ethernet cable, other adapters with different network name will disappear from the list. If you want to add the adapter which you reset to the Powerline network again, you need to use the pair button, or reset all of other adapters to factory default.

6 Upgrade

Upgrading the adapters' software may get more stable performance. Please go to Tenda website (http://www.tendacn.com) to download upgrade file.

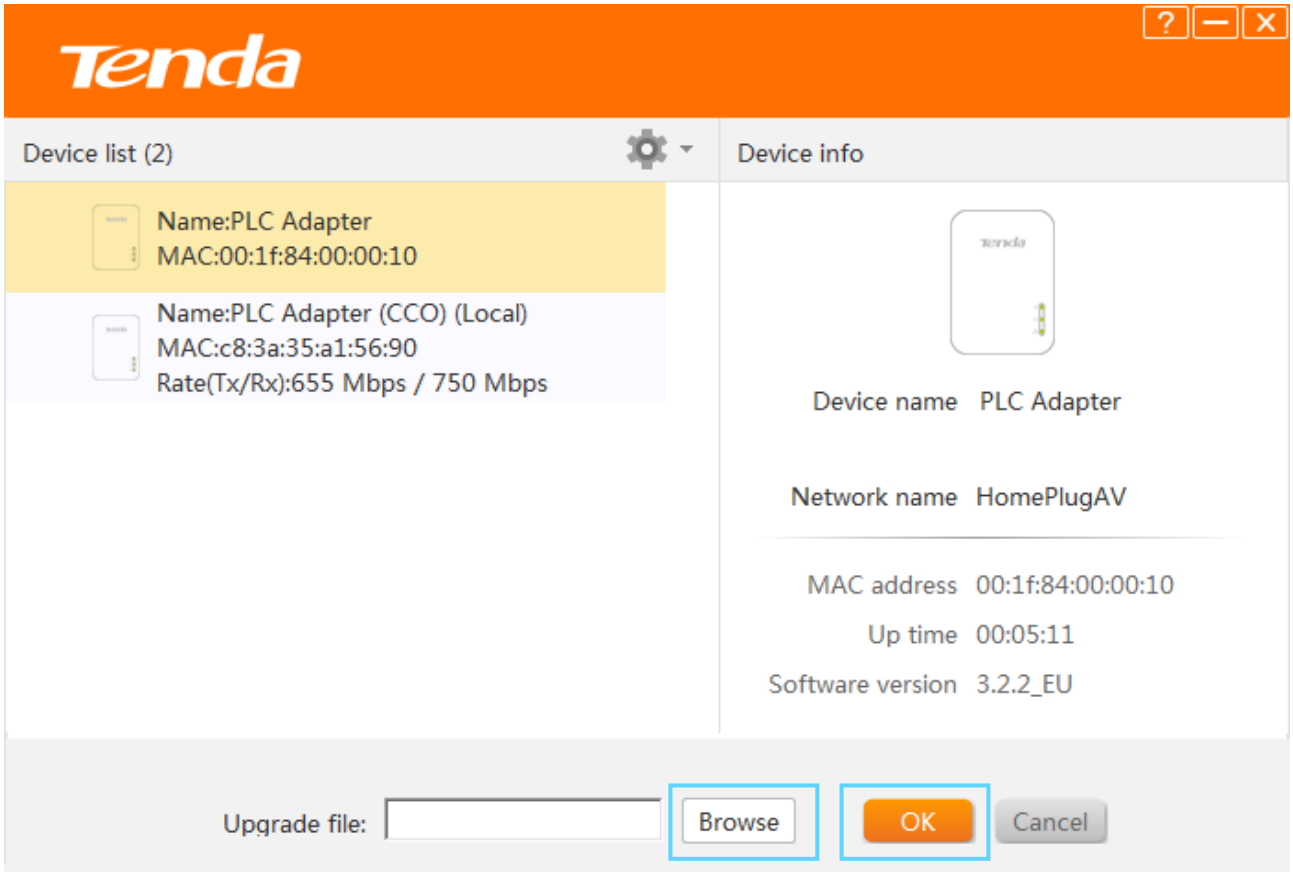
To upgrade the adapters:

1. Click to start configuration.
2. Select **Upgrade**.



3 Click **Browse** to locate and upload the upgrade file you have downloaded.

4 Click **OK** to start upgrading.



Appendix

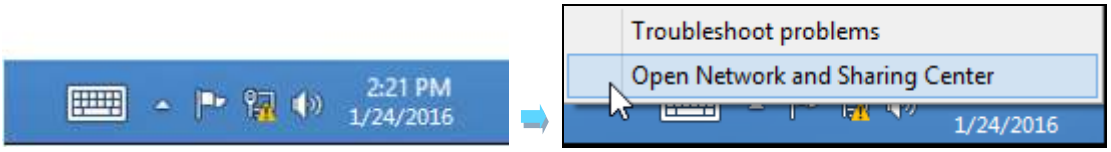
This Chapter provides you with more information about how to configure your computer, common questions and answers, and etc.

1 Configure Your Computer

We take Windows 8, Windows 7, and Windows XP as examples here.

Windows 8

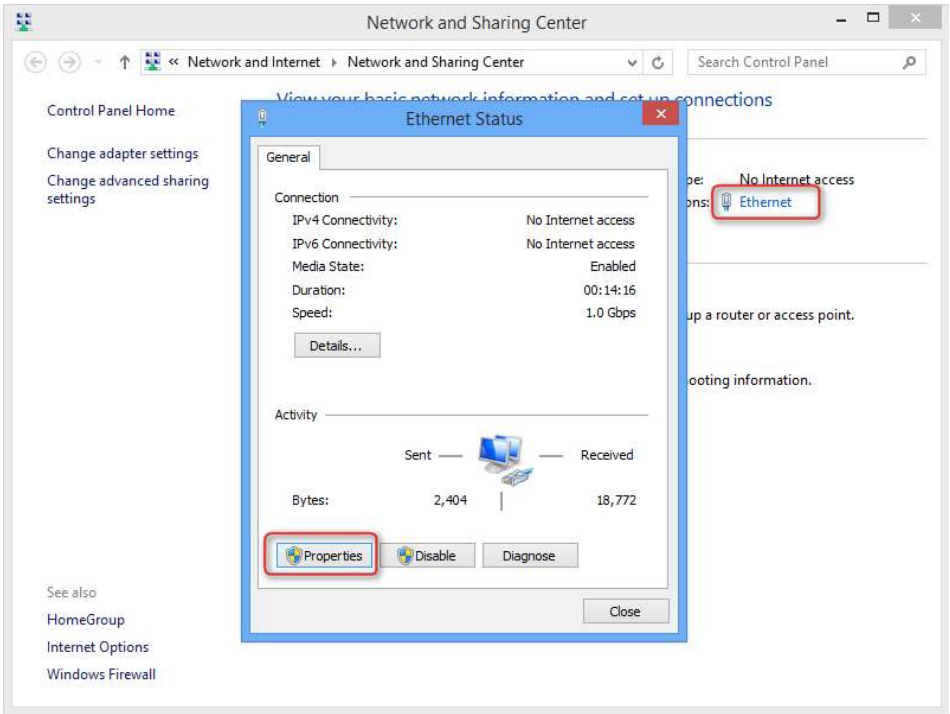
❶ Right click the icon on the bottom right corner of your desktop. Click **Open Network and Sharing Center**.



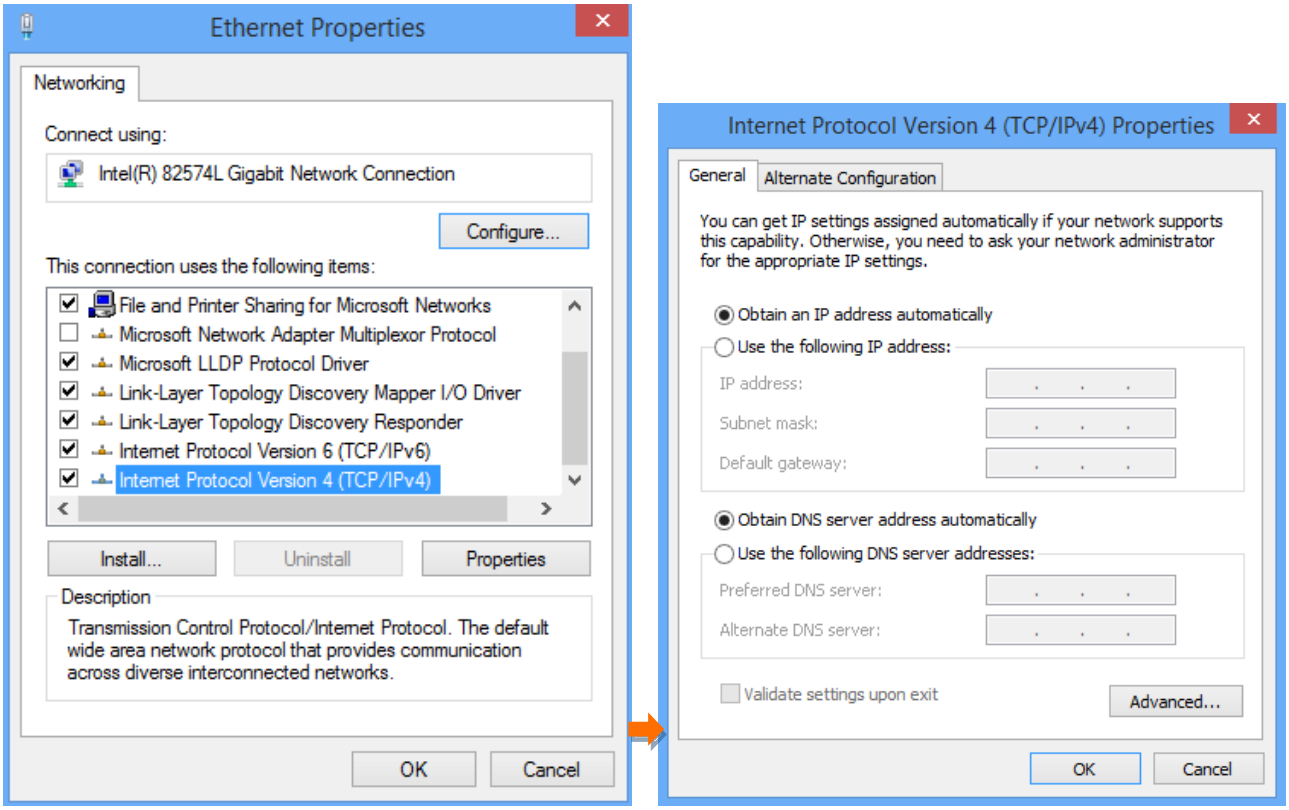
Tips

If you cannot find the icon , please move your cursor to the top right corner of your desktop, select **Settings > Control Panel > Network and Internet > Network and Sharing**.

❷ Click **Ethernet > Properties**.



❸ Find and double click **Internet Protocol Version 4(TCP/IPv4)**. Select **Obtain an IP address automatically** and **Obtain DNS server address automatically** and click **OK**.



❹ Click **OK** on the **Ethernet Properties** window (see ❸ for the screenshot).

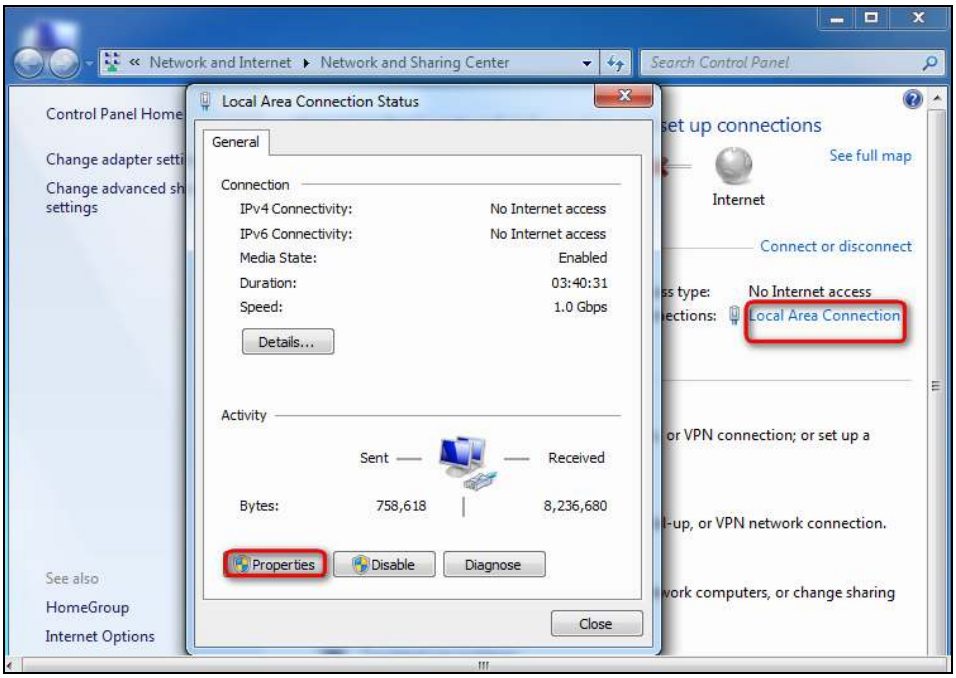
Windows 7

❶ Click the icon on the bottom right corner of your desktop. Click **Open Network and Sharing Center**.

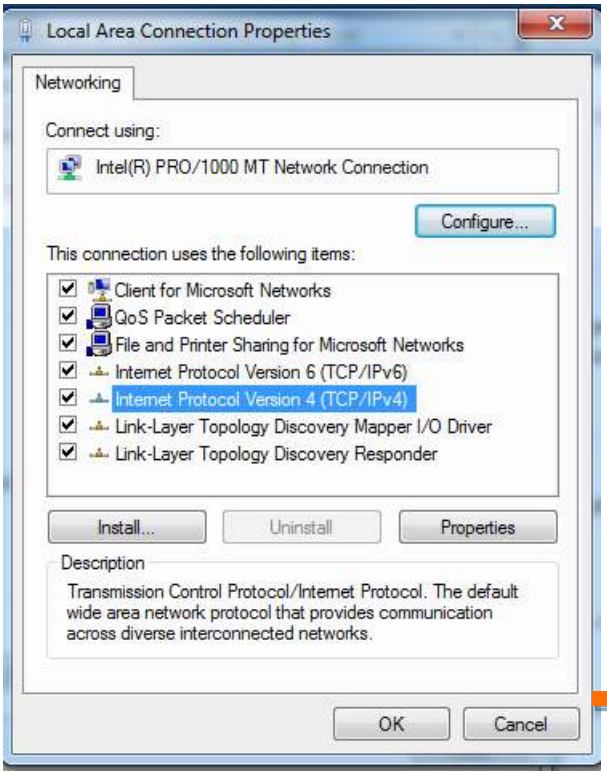
Tips

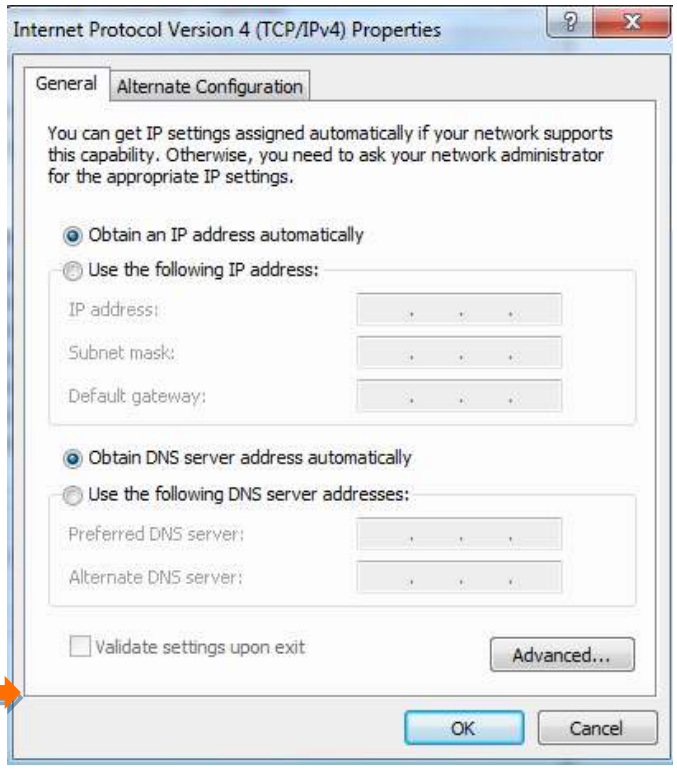
If you cannot find the icon on the bottom right corner of your desktop, follow steps below: Click **Start > Control Panel > Network and Internet > Network and Sharing Center**.

❷ Click **Local Area Connection > Properties**.



❸ Find and double click **Internet Protocol Version 4(TCP/IPv4)**. Select **Obtain an IP address automatically** and **Obtain DNS server address automatically** and click **OK**.

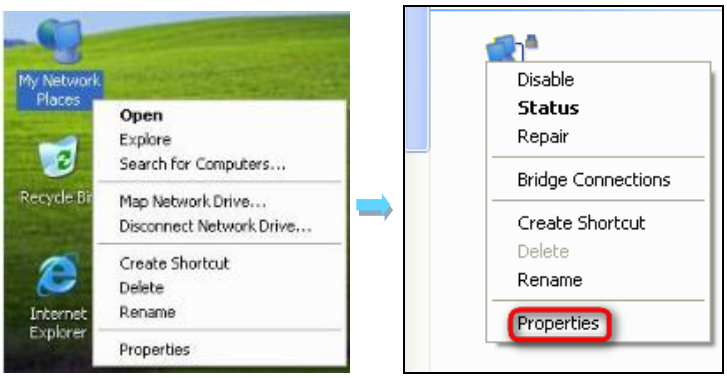




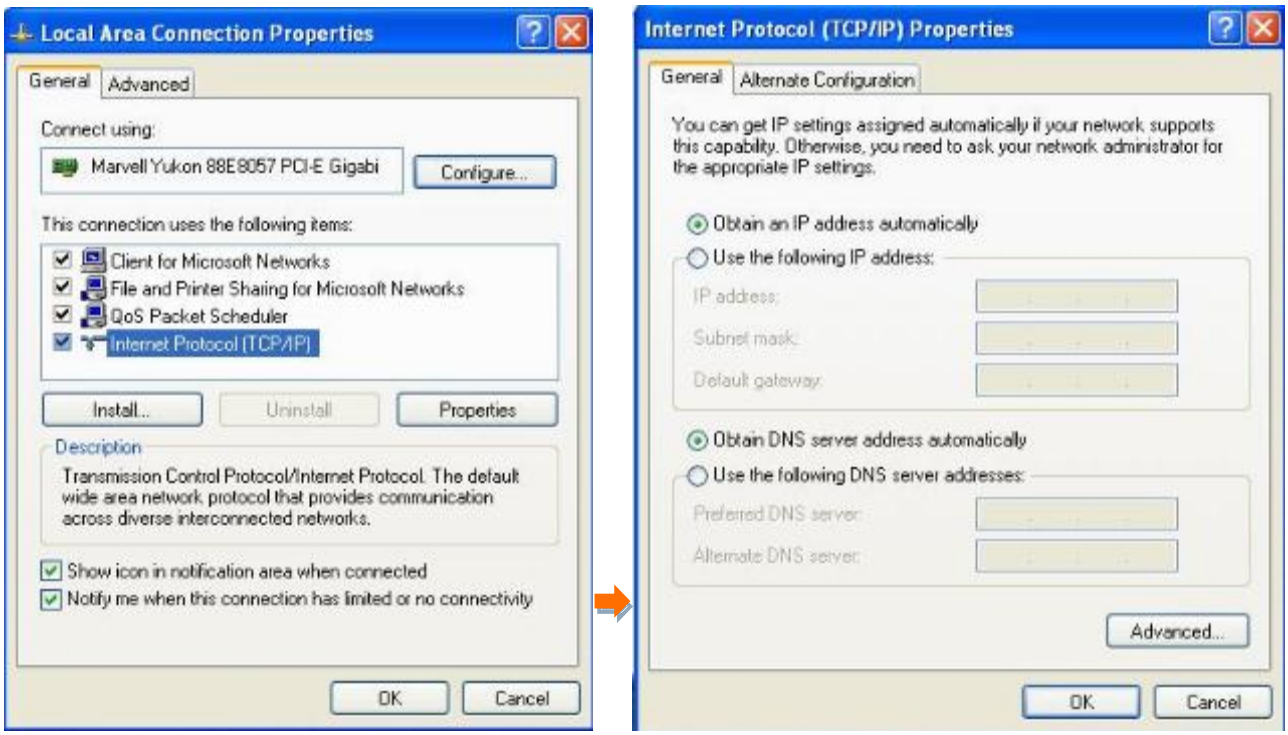
❹ Click **OK** on the **Local Area Connection Properties** window (see ❸ for the screenshot).

Windows XP

❶ Right click **My Network Places** on your desktop and select **Properties**. Right click **Local Area Connection** and select **Properties**.



❷ Scroll down to find and double click **Internet Protocol (TCP/IP)**. Select **Obtain an IP address automatically** and **Obtain DNS server address automatically** and click **OK**.



❸ Click **OK** on the **Local Area Connection Properties** window (see ❷ for the screenshot).

2 FAQs

Here some questions come with solutions. If your problem is still unsolved, please go to our website (www.tendacn.com) for help or mail your questions to our support (support@tenda.com.cn).

Q1: I cannot access the Internet after finishing the installation in **Plug and Play**, what should I do?

A1: Please follow the instructions below step by step to troubleshoot.

a. Verify that your wireless router and the adapters are well-connected.

b. Verify that you can access the Internet normally by connecting your computer directly to the router or modem.

c. Verify that your computer has been set to obtain an IP address automatically. Please refer to Configure Your Computer for details.

d. Verify that the PLC LEDs on the adapters are solid green. If they are not, reset all adapters and then observe the PLC LEDs again.

e. Verify that all powerline adapters are on the same electrical circuit.

Q2: I cannot access the Internet after finishing the operations in **Secure Your Powerline Network**, what should I do?

A2: Please follow the instructions below step by step to troubleshoot.

a. Check if you can access the Internet before use the **Pair** button to secure your powerline network.

b. Verify that the PLC LEDs on the adapters are solid green. If they are not, reset all adapters and then use the **Pair** button to pair the adapters again.

c. Verify that all powerline adapters are on the same electrical circuit.

Q3: The adapter failed to connect to the powerline network after I moved it to a new location, what should I do?

A3: Please follow the instructions below step by step to troubleshoot.

a. Verify that all powerline adapters are on the same electrical circuit.

b. Verify that the PLC LED on the adapter is solid green before you move it to a new location.

c. Use the **Pair** button to pair it with one of the adapters in the powerline network again.

d. Observe the PLC LED on the adapter, if it is solid red, move it to another location until the PLC LED turns to solid green again.

Q4: Can I just plug one powerline adapter into a wall outlet to access the Internet?

A4: Sorry, you cannot. You must connect one more such adapter to an Internet-enabled ADSL Modem or Router, and another one to a computer. When the two adapters interconnect successfully, you can access the Internet.

Q5: Do I need to install a utility to use the device?

A5: No. PH3 are plug-and-play powerline adapters. Two such devices connected to the same electricity meter are able to interconnect automatically, no configuration required. Yet, there is still an included utility for advanced features such as Upgrade, private network, etc. See Manage Your Adapters for details.

Q6: How many powerline adapters at most can be included under a single electricity meter?

A6: Up to 8 adapters. However, you can create numerous private networks under the same electrical circuit.

Q7: Can powerline devices of different brands communicate with each other?

A7: Yes. PH3 complies with HomePlugAV standard and thus can communicate with other manufacturers' HomePlugAV- compliant powerline devices.

3 Technical Support

If you still have some problems, please contact our technical support.

Country	Hotline
Global Hotline	(86) 755-27657180
United States	1-800-570-5892
HongKong	00852-81931998
Canada Hotline	1-888-998-8966

Type	Details
Skype	Tendasz
Website	http:// www.tendacn.com
E-mail	support@tenda.com.cn

4 Technical Specifications

Hardware Specifications		
Standards		RJ45: IEEE 802.3, IEEE 802.3u; IEEE 802.3ab PLC: HomePlugAV2
Button		1*Pair Button
LEDs		1*Power LED: Green Indicator 1*PLC LED: Green Indicator (PLC is in good condition); Red Indicator (PLC is in poor condition) 1*LAN LED: Green Indicator
Input Power		AC 100V-240V 50/60Hz
Dimensions	**L (mm)**	82
	W (mm)	60
	H (mm)	32
Electrical Security		128-bit AES encryption

Operating Temperature	0℃~40℃
Storage Temperature	-40℃~70℃
Operating Humidity	10%~90%RH Non-condensing
Storage Humidity	10% - 90%RH (non-condensing)

5 Safety and Emission Statement

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.

-For PLUGGABLE EQUIPMENT,

the socket-outlet shall be installed near the equipment and shall be easily accessible.

NOTE: (1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable.

FCC Statement

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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 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.

Caution!

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

NOTE: (1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable.