TRENDNET®

WiFi Everywhere™ Powerline
1200 AV2 Wireless Kit

TPL-430APK

Contents

Product Overview

TPL-430AP   **TPL-430APK**

Package Contents

TPL-430AP package includes:

- TPL-430AP
- Quick Installation Guide
- Network cable (1.5 m / 5 ft.)

TPL-430APK package includes:

- TPL-430AP
- TPL-423E
- Quick Installation Guide
- 2 x network cables (1.5 m / 5 ft.)

If any package contents are missing or damaged, please contact the retail store, online retailer, or reseller/distributor from which the product was purchased.

Features

WiFi Everywhere™ Powerline 1200 AV2 Access Point **(TPL-430AP)**

TRENDnet's WiFi Everywhere™ Powerline 1200 AV2 Access Point, model TPL-430AP, uses an electrical outlet to create or expand a wireless network. Two Powerline adapters are needed to start a network. Connect one Powerline adapter to the router, and plug the TPL-430AP into a power outlet in another room where WiFi connectivity is needed. The WiFi Clone feature conveniently copies your existing wireless network settings to the TPL-430AP for faster network integration.

WiFi Everywhere™ Powerline 1200 AV2 Wireless Kit **(TPL-430APK)**

TRENDnet's WiFi Everywhere™ Powerline 1200 AV2 Wireless Kit, model TPL-430APK, uses an electrical outlet to create or expand a wireless network. Easily install the included TRENDnet Powerline adapters to create a high-speed powerline network. Connect the TPL-423E to the router and plug the TPL-430AP into a power outlet in another room where WiFi connectivity is needed. The WiFi Clone button conveniently copies your existing wireless network settings to the TPL-430AP for faster network integration.

Powerline

Sync Button

Press the Sync button to change existing Powerline encryption keys

Powerline 1200

Powerline 1200 networking over existing electrical lines using all three electrical wires: the live, neutral, and ground wires to achieve faster throughput speeds

Gigabit Ports

Convenient gigabit ports to hardwire computers, smart TVs, or other network enabled devices

Compatibility

Backward compatible with Powerline 600, 500, and 200 adapters

MIMO with Beamforming Technology

Enhanced performance and range

Multiple Adapters

Use up to 8 adapters on a single Powerline network

Easy Installation

TRENDnet adapters auto-connect out of the box

Wireless

Concurrent Dual Band

AC1200: concurrent 867Mbps WiFi AC + 300Mbps WiFi N bands

Wireless Coverage

Expand your wireless coverage with MIMO antenna technology

Pre-Encrypted

For your convenience, the wireless is pre-encrypted with a unique password

WiFi Clone

Use your router's WPS button and the TPL-430AP's WiFi Clone button to conveniently copy your existing wireless network name and password for quick network integration.

* Maximum wireless signal rates are referenced from IEEE 802.11 theoretical specifications. Actual data throughput and coverage will vary depending on interference, network traffic, building materials and other conditions

** 1200 Mbps is the maximum physical Powerline data rate. Data throughput may vary by circuit wire condition overheads. Maximum of 8 adapters (nodes) recommended for streaming video across your network.

*** Powerline networking is limited to the same electrical system. Power strips, GFCI outlets, and AFCI circuit breakers may degrade Powerline signals.
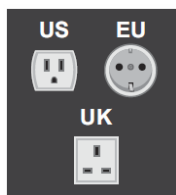
Product Hardware Features

TPL-430AP

Hardware

Power Prongs

Button	Action	Function
Sync	**Sync** Push then release	Initiate Sync/Connection and generate random network name/key (PL LED will start blinking). ***Note:*** *The secondary or additional Powerline adapter's Sync button must also be pushed within 2 minutes (120 sec) of pushing the Sync button on the first adapter in order to establish connectivity.*
Reset	**Reset** Push/Hold for 10 seconds, then release	Reset device to factory defaults (WLAN LED will go red). Note: Will reset to the factory default private network name "HomePlug AV".
WiFi Clone	**WPS** Push/Hold for 5 seconds, then release	Activates WiFi Clone. The 2.4 & 5 GHz LED will blink to indicate WiFI Clone has been successfully activated.

LED	Color	Sequence	Definition
Power	Green	Solid	Device powered on
	N/A	Off	Device powered off
2.4 GHz	Green	Solid	Wireless enabled, data transmitting/receiving
	Green	Blinking	WiFi Clone is enabled
	N/A	Off	Wireless disabled
5 GHz	Green	Solid	Wireless enabled, data transmitting/receiving
	Green	Blinking	WiFi Clone is enabled
	N/A	Off	Wireless disabled
DATA (Powerline)	Green	Solid	Powerline connected (Connection quality is Best)
		Blinking	Syncing or Powerline data transmitting/receiving (Connection quality is Best)
	Amber	Solid	Powerline connected (Connection quality is Better)
		Blinking	Powerline data transmitting/receiving (Connection quality is Better)
	Red	Solid	Powerline connected (Connection quality is Good)
		Blinking	Powerline data transmitting/receiving (Connection quality is Good)
	N/A	Off	Powerline is not synced or connected
LAN Ports (Ethernet Connection)	Green	Solid	10/20 Mbps, 100/200Mbps, Gigabit (Half/Full Duplex) connected
		Blinking	10/20 Mbps, 100/200Mbps, Gigabit (Half/Full Duplex) data transmitting/receiving
	N/A	Off	Port disconnected/no Ethernet link

TPL-423E

> **Important Note:** Please note that the TPL-423E powerline adapter will only be included when purchasing the WiFi Everywhere™ Powerline 1200 AV2 Wireless Kit, model TPL-430APK.

Front View

Network Port

Sync Button

LED Indicators

Link/Reset Button

Button	Action	Function
Link / Reset (see the section Using the Sync Button for instructions)	**Link** Push then release	Initiate Link/Connection and generate random network name/key (DATA LED will go off then return to solid after connection is made). *Note: The secondary or additional Powerline adapter's Link button must also be pushed within 2 minutes (120 sec) of pushing the Link button on the first adapter in order to establish connectivity.*
	Reset Push/Hold for 10 seconds, then release	Reset device to factory defaults (All LEDs will turn off and turn back on). Note: Will reset to the factory default private network name "HomePlug AV".

- **Power Prong** – Plugs into an available power outlet.

- **Diagnostic LEDs** – Indicates the device status and connectivity.

Note: The following factors may affect the Powerline network's connection quality:
- *Noise – Generated by appliances which use your electrical system (e.g. Microwaves, ovens, blow dryer, iron, dishwasher, etc.). The quality of your household electrical wiring may also cause additional noise on your electrical system.*
- *Distance – Long lengths of electrical wiring through your electrical system between connected Powerline adapters.*

Power Saving: The device will automatically reduce power usage when the connected device via Ethernet is powered off, unplugged or inactive for more than 5 minutes. The device will return to active mode when the connected device via Ethernet is powered on and the link is active.

Note: This device offers EU compliant Standby mode functionality. To turn off the device, flip the switch to the off position or unplug it from the power outlet.

LED	Color	Sequence	Definition
POWER	Green	On	Device powered on
	N/A	Off	Device powered off
LAN	Green	On	10/20 Mbps, 100/200Mbps, Gigabit (Half/Full Duplex) connected
	N/A	Off	Port disconnected/no Ethernet link
DATA (Powerline)	Green	On	Powerline connected
		Blinking	Syncing or Powerline data transmitting/receiving (Connection quality is Best)
	N/A	Off	Powerline is not synced or connected

Expanding a Powerline Network

What is a network?

A network is a group of computers or devices that can communicate with each other. A home network of more than one computer or device also typically includes Internet access, which requires a router.

A typical home network may include multiple computers, a media player/server, a printer, a modem, and a router. A large home network may also have a switch, additional routers, access points, and many Internet-capable media devices such as TVs, game consoles, and Internet cameras.

- **Modem** – Connects a computer or router to the Internet or ISP (Internet Service Provider).
- **Router** – Connects multiple devices to the Internet.
- **Switch** –Connect several wired network devices to your home network. Your router has a built-in network switch (the LAN port 1-4). If you have more wired network devices than available Ethernet ports on your router, you will need an additional switch to add more wired connections.

How to expand a home network

Wireless Access Points add or extend wireless connectivity to an existing network.

Integrated Powerline technology allows you to further extend your network using your existing electrical system in your home using multiple powerline adapters.

Where to find more help

In addition to this User's Guide, you can find help below:
- http://www.trendnet.com/support (documents, downloads, and FAQs are available from this Web page)

Basic Installation

Note: *It is recommended to plug the adapters into nearby outlets before installing the devices to the desired locations.*

Note: *If you are connecting the adapters to a third-party powerline device other than TRENDnet and encounter issues, please refer to the manufacturer's documentation for the appropriate sync button procedure.*

Note: *The sync button procedure steps below demonstrate using TRENDnet powerline model TPL-423E (included with the WiFi Everywhere™ Powerline 1200 AV2 Wireless Kit only) but the same procedure applies to TRENDnet powerline models TPL-406E / TPL-407E / TPL-420E / TPL-421E./ TPL-422E / TPL-423E*

Connecting the adapters using Powerline

① Connect a network cable from your router to the TPL-423E's network port.

② Plug the TPL-423E (Included in TPL-430APK) or other Homeplug AV powerline adapter.

③ Plug the TPL-430AP into the power outlet, and switch the power on.

Internet

ON
OFF

LAN
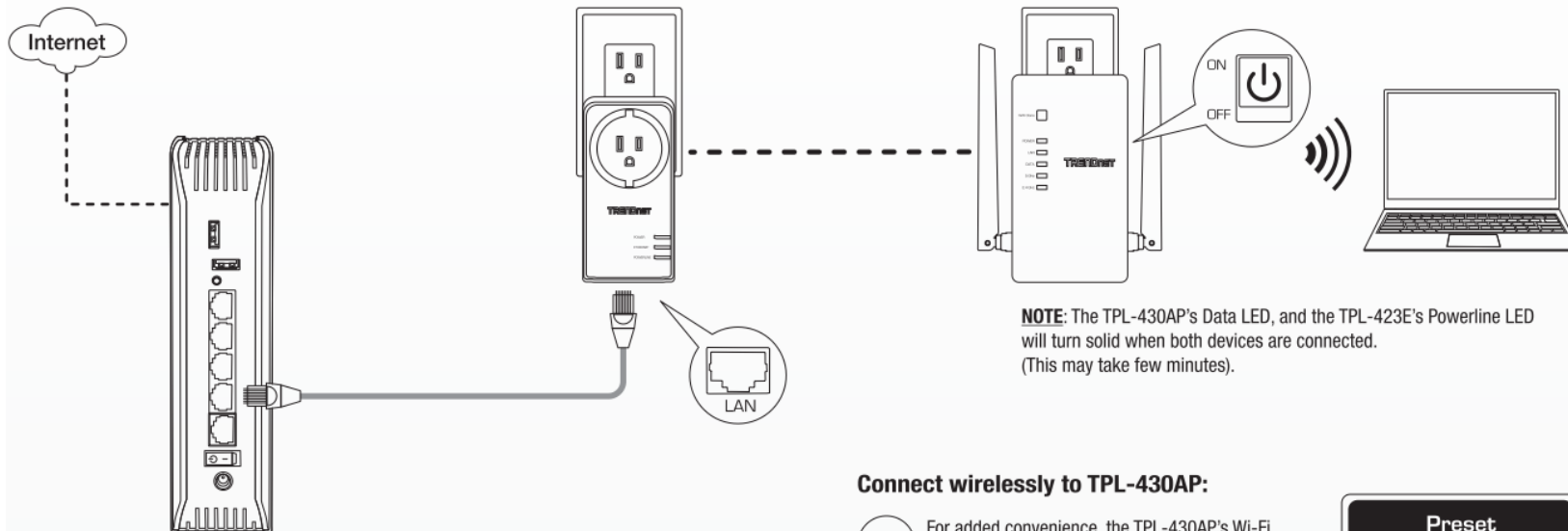
NOTE: The TPL-430AP's Data LED, and the TPL-423E's Powerline LED will turn solid when both devices are connected. (This may take few minutes).

Connect wirelessly to TPL-430AP:

4A For added convenience, the TPL-430AP's Wi-Fi network is pre-encrypted with its own unique Wi-Fi key. You can find the unique Wi-Fi key and pre-assigned network name (SSID) on the device label located on the back of the unit and sticker inside the packaging.

4B To copy your network configuration settings to your TPL-430AP, press the WPS button on your router, and then press and hold the WiFi clone button on your TPL-430AP for 10 seconds.

Preset Wireless Settings

Wi-Fi Name/SSID

(AC/N)
TRENDnet430_5GHz_NNNN

(N/B/G)
TRENDnet430_2.4GHz_NNNN

Wi-Fi Password
430XXXXXXXX

Management Login
http://tpl-430ap
username: admin
Password: xxxxxxxx

5. Once you have successfully connected the powerline adapters through the electrical system, you can move the TPL-430AP to the desired location to create or extend wireless connectivity to your existing network.

6. For added security the TPL-430AP has been pre-configured with a unique wireless network name (SSID) and wireless key which can be found on the Preset Wireless Settings sticker or device label. Use these settings to connect your wireless laptops, mobile devices, and other wireless network devices to your network.
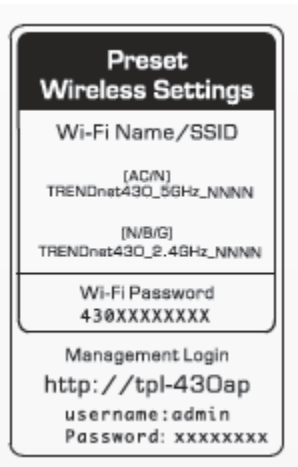

Move TPL-430AP to the desired location and connect your wireless network devices

Configure your Powerline Access Point

Access your access point management page

Note: Your access point management page default IP address http://192.168.10.1 (when the computer is connected directly to TPL-430AP's LAN port) is accessed through the use of your Internet web browser (e.g. Internet Explorer®, Firefox®, Chrome™, Safari®, Opera™) and will be referenced frequently in this User's Guide.

1. Plug the device into an available wall power outlet within reach of your computer's network cable.

2. Connect a network cable from your wireless access point network port into your computer's network port.
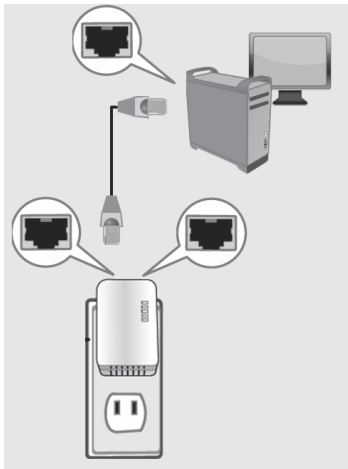
3. Assign a static IP address to your computer's network adapter in the subnet of 192.168.10.x (ex. 192.168.10.25) and a subnet mask of 255.255.255.0. (Please refer to the Appendix on page 55 on how to assign static IP address to your computer)

4. Open your web browser and go to IP address http://192.168.10.1 or *(when the computer is connected directly to TPL-430AP's LAN port)*. Your access point will prompt you for a user name and password.
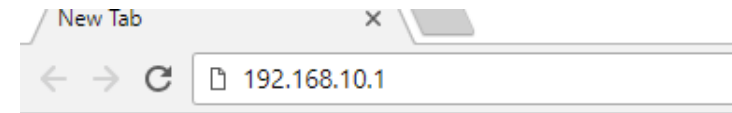
5. By default, the user name is *admin* and password is *located* on the Preset Wireless Setting Sticker. You can also find the **Password** on a sticker on the side of the access point and on the device label on the back of the access point. Enter your **Username** and **Password**, select your preferred language, and then click **Login**.

Note: If you have changed the password already such as in the Setup Wizard, you will need to login using the new password.

Default User Name: **admin**
Default Password:
Note: User Name and Password are case sensitive.

Setting up your TPL-430AP

Setup > Wireless

1. Log into your access point management page

Login to the TRENDnet TPL-430AP	
Username :	
Password :	
Language :	English ▼
	Login

2. Go to **Setup** and click on **Wireless**
3. TPL-430AP has pre-configured wireless settings. You can keep the default settings or change it to your own settings. Click **Save** to save your settings.

2.4 GHZ BAND SETTINGS

Enable 2.4 GHz wireless:	☑
Wireless network name:	Powerline
Wireless security mode:	WPA2-PSK AES(Recommended) ▼
Wireless password/key:	1234567890
	(The key should be between 8 and 64 characters consisting of letters, numbers, and/or punctuations)
Wireless channel:	Auto ▼

5 GHZ BAND SETTINGS

Enable 5 GHz wireless:	☑
Wireless network name:	Powerline3
Wireless security mode:	WPA2-PSK AES(Recommended) ▼
Wireless password/key:	1234567890
	(The key should be between 8 and 64 characters consisting of letters, numbers, and/or punctuations)
Wireless channel:	Auto ▼

Note: *Checking the **Use the same SSID and security settings for both 2.4 GHz and 5 GHz bands** box, will change the SSID, Wireless security mode, and wireless password on the 5 GHz band to match the exact same settings inputted on the 2.4 GHz band.*

☑ **Use the same Wireless network name and security settings for both 2.4 GHz and 5 GHz bands.**

4. Go to **System** and click on **Change password.**
5. Configure your own unique login password in the fields below.

Old password:	
New password:	
Confirm new password:	

Note: *As a precaution, it is highly recommended that you change your login password.*
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Wizard	**STEP 2: SETUP WIRELESS CONNECTION**
Wireless Setup	Through this page, you can configure the SSID, bandwidth etc.
PLC Setting	
LAN Setup	**WIRELESS NETWORK SETTINGS**
	Enable Wireless Interface ☑
	Wireless Network Name (SSID) : TRENDnet410_2.4GHz_1
	Visibility Status : ◉ Visible ○ Invisible
	Region : USA ▼
	802.11 Mode : Mixed 802.11b/g/n ▼
	Bandwidth : 20/40(AUTO) ▼
	Wireless Channel : Auto Scan(recommended) ▼
	Back Next Cancel

Connect wireless devices to your powerline access point

A variety of wireless network devices can connect to your wireless network such as:

- Gaming Consoles

- Internet enabled TVs

- Network media players

- Smart Phones

- Wireless Laptop computers

- Wireless IP cameras

Each device may have its own software utility for searching and connecting to available wireless networks, therefore, you must refer to the User's Manual/Guide of your wireless client device to determine how to search and connect to this access point's wireless network.

Connect wireless devices using WiFi Clone / WPS

WiFi Clone is a feature that makes it easy to setup your TPL-430AP to connect to your network. This feature allows your TPL-430AP to copy your router's existing settings (ex: Wireless SSID, Wireless Password etc.) to your TPL-430AP. If your router supports WPS, you can use WiFi Clone to easily connect your TPL-430AP to your router.

Note: WiFi Clone will only copy your router's 2.4GHz settings and apply it to both bands of your TPL-430AP.

WPS (Wi-Fi Protected Setup) is a feature that makes it easy to connect devices to your wireless network. If your wireless devices support WPS, you can use this feature to easily add wireless devices to your network.
Note: You will not be able to use WPS if you set the SSID Broadcast setting to Disabled or if you are using WEP or WPA security. Please note that WPS functionality will only be available when using WPA2 security.

There are two methods the WPS feature can easily connect your wireless devices to your network.

- Push Button Configuration (PBC) method
  - (RECOMMENDED) Hardware Push Button method–with an external button located physically on your access point and on your client device
  - WPS Software/Virtual Push Button - located in access point management page

Recommended WiFi Clone Method

- *Note:* It is recommended that a wireless key (passphrase or password) is created before connecting the TPL-430AP using the WiFi Clone method. By default, your access point is preconfigured with a wireless encryption key. If no wireless key is defined when connecting via PBC, the access point will automatically create an encryption key that is 64 characters long. This 64-character key will then have to be used if one has to connect computers to the access point using the traditional connection method.

PBC (Software/Virtual Push Button)

Advanced > WPS

In addition to the hardware push button located physically on your access point, the access point management page also has push button which is a software or virtual push button you can click to activate WPS on your access point.

1. Log into your powerline's access point management page.

2. Click on **Advanced**, and click on **WPS**.

3. Select **Enable WPS** to enable WPS on the given band (2.4 GHz or 5 GHz).

4. Click **WPS** under **Start** section to start pairing.

4. Within 2 minutes, push the WPS button on the wireless device (consult wireless device's User's Guide for length of time) you are connecting. The wireless connection between the wireless client device and your access point will automatically be established.

Setup

Wireless Security

Advanced > Wireless Security

How to choose the type of security for your wireless network

There are a few different wireless security types supported in wireless networking each having its own characteristics which may be more suitable for your wireless network taking into consideration compatibility, performance, as well as the security strength along with using older wireless networking hardware (also called legacy hardware).

It is strongly recommended to enable wireless security to prevent unwanted users from accessing your network and network resources (personal documents, media, etc.).

In general, it is recommended that you choose the security type with the highest strength and performance supported by the wireless computers and devices in your network. Please review the security types to determine which one you should use for your network.

Wireless Encryption Types

- **WPA:** This encryption is significantly more robust than the WEP technology. Much of the older 802.11g hardware was been upgraded (with firmware/driver upgrades) to support this encryption standard. Total wireless speeds under this encryption type however are limited to 54Mbps.
- **WPA2:** This is the most secure wireless encryption available today, similar to WPA encryption but more robust. This encryption standard also supports the highest connection speeds. TRENDnet recommends setting your access point to this encryption standard. If you find that one of your wireless network devices does not support WPA2 encryption, then set your access point to either WPA or WPA-Auto encryption.

  Note: *Check the specifications of your wireless network adapters and wireless appliances to verify the highest level of encryption supported.* Below is brief comparison chart of the wireless security types and the recommended configuration depending on which type you choose for your wireless network.

Security Standard	WPA	WPA2
Compatible Wireless Standards	IEEE 802.11b/g (802.11n devices will operate at 802.11g to connect using this standard)	IEEE 802.11b/g/n
Highest Performance Under This Setting	**Up to 54Mbps**	**Up to 300Mbps**
Encryption Strength	Medium	High
Additional Options	TKIP or AES, Preshared Key or RADIUS	TKIP or AES, Preshared Key or RADIUS
Recommended Configuration	TKIP Preshared Key 8-63 characters	AES Preshared Key 8-63 characters

Steps to improve wireless connection

There are a number of factors that can impact the range of wireless devices. Follow these tips to help improve your wireless connectivity:

1. Keep the number of obstructions to a minimum. Each obstruction can reduce the range of a wireless device. Position the wireless devices in a manner that will minimize the amount of obstructions between them.

    a. For the widest coverage area, install your access point near the center of your home, and near the ceiling, if possible.
    b. Avoid placing the access point on or near metal objects (such as file cabinets and metal furniture), reflective surfaces (such as glass or mirrors), and masonry walls.
    c. Any obstruction can weaken the wireless signal (even non-metallic objects), so the fewer obstructions between the access point and the wireless device, the better.
    d. Place the access point in a location away from other electronics, motors, and fluorescent lighting.
    e. Many environmental variables can affect the access point's performance, so if your wireless signal is weak, place the access point in several locations and test the signal strength to determine the ideal position.

2. Building materials can have a large impact on your wireless signal. In an indoor environment, try to position the wireless devices so that the signal passes through less dense material such as dry wall. Dense materials like metal, solid wood, glass or even furniture may block or degrade the signal.
3. Antenna orientation can also have a large impact on your wireless signal. Use the wireless adapter's site survey tool to determine the best antenna orientation for your wireless devices.
4. Interference from devices that produce RF (radio frequency) noise can also impact your signal. Position your wireless devices away from anything that generates RF noise, such as microwaves, radios and baby monitors.

If possible, upgrade wireless network interfaces (such as wireless cards in computers) from older wireless standards to 802.11n or 802.11ac. If a wirelessly networked device uses an older standard, the performance of the entire wireless network may be slower. If you are still experiencing low or no signal consider repositioning the wireless devices, installing additional access points or wireless extenders.

Advanced Wireless

Advanced > Wireless Settings

Advanced

These settings are advanced options that can be configured to change advanced wireless broadcast specifications. It is recommended that these settings remain set to their default values unless you are knowledgeable about the effects of changing these values. Changing these settings incorrectly can degrade performance.

1. Log into your powerline access point management page.

2. Click on **Advanced** and click on **Wireless Settings**.

3. Review the basic wireless settings and click **Apply** when finished.

- **Enable SSID –** Check the option to enable the wireless network/band or uncheck to disable. *Note: It is recommended to leave this setting checked.*

- **SSID:** Enter the wireless name (SSID) for your wireless network.
  This acronym stands for Service Set Identifier and is the name of your wireless network. It differentiates your wireless network from others around you. By default, the access point's wireless name is unique to the device. If you choose to change the SSID, change it to a name that you can easily remember.

- **User Isolation:** Enabling this option allows other clients to not see other clients on the same network.
- **WMM Advertise:** Enabling this option turns on QoS for your AP. By default, the option is enabled.
- **Wireless interface type:** If all of the wireless devices you want to connect with this Access Point can connect in the same transmission mode, you can improve performance slightly by choosing the appropriate mode. If you have some devices that use a different transmission mode, choose the appropriate mode.

2.4 GHz Wireless

- B/G/N mixed: Select this mode for the best compatibility. This mode allows older 802.11b and 802.11g wireless devices to connect to the access point in addition to newer 802.11n devices.
- B/G mixed: This mode only allows devices to connect to the access point using older and slow 802.11b or 802.11g technology and it thereby reduces the router's maximum speed to 54Mbps (typically not recommended).
- N only: This mode only allows newer 802.11n devices to connect to your access point. This mode does ensure the highest speed and security for your network, however, if you have older 802.11g wireless clients, they will no longer be able to connect to this router.
- Note: Please check the specifications on your wireless devices for the highest wireless capability supported first before applying these settings. If you are unsure, it is recommended that you keep the default setting (B/G/N mixed) for the best compatibility.

5 GHz Wireless

- A only: This mode only allows devices to connect to the access point using older and slower 802.11a technology (typically not recommended).
- A/N mixed: This mode only allows devices to connect to the access point using older and slower 802.11a or 802.11n technology and it thereby reduces the access point's maximum speed to 54Mbps (typically not recommended).
- A/N/AC mixed: Select this mode for the best compatibility. This mode allows older 802.11a and 802.11n wireless devices to connect to the access point in addition to newer 802.11ac devices.
- Note: Please check the specifications on your wireless devices for the highest wireless capability supported first before applying these settings. If you are unsure, it is recommended that you keep the default setting (A/N/AC mixed) for the best compatibility.

- **Band Width:** Select the channel width for the access point to operate on. By default, the access point is on 40 MHz.
- **Wireless Channels:** In North America, this access point can broadcast on 1 of 11 Channels for 2.4 GHz (13 in Europe and other countries). Selecting the Auto option enables the access point to automatically select the best Channel for wireless communication. To manually set the channel on which the router will broadcast, click the drop-down list and select the desired Channel for wireless communication. The goal is to select the Channel that is least used by neighboring wireless networks.
- **Transmit Power:** The wireless transmit power can be modified to lower the antenna strength setting from 100% to 20%, if necessary. Lowering the wireless transmit power may help to better stabilize the wireless connectivity and reduce the effects of wireless interference in areas where there are several 2.4 GHz and 5 GHz wireless devices. (Default: 100%)
- **Max Clients:** Select the maximum number of clients that can connect to your AP. By default, the max number of clients is set to 16 devices.

Network

Advanced > Network

Your TPL-430AP will automatically get its IP address when it is connected to your modem or router. This page will show you the current IP address of your unit.

LOCAL IP

Local IP:	192.168.10.21

1. Log into your powerline access point management page.

2. Click on **Advanced** and click on **Network**.

Security

Advanced > Wireless Security

Setting up wireless security is very important. Leaving your wireless network open and unsecure could expose your entire network and personal files to outsiders. TRENDnet recommends reading through this entire section and setting up wireless security on your new powerline access point. Refer to wireless basic sections on how to pick the right security option for your network.

SSID

Select SSID:	⊙ 2.4 GHz SSID: Powerline
	● 5 GHz SSID: Powerline3

WIRELESS SECURITY

We recommend that you use the default WPA2 setting as it's the most secure way of protecting your network. You should only change this setting if you have devices that don't support WPA2.

Security type:	WPA2-PSK AES(Recommended) ▼
Wireless network password/key:	1234567890

[Save] [Cancel]

1. Log into your powerline access point management page.

2. Click on **Advanced** and click on **Wireless security**.

3. Select the radio band that you want to set the wireless password. (i.e.: 2.4 GHz or 5 GHz)

4. Select the **Security Type** from the drop-down menu

5. Input the new wireless network password/key

6. Click **Save** to save your settings.

System

Device Management

System > Change Password

This section provides instructions on configuring the login credentials to the TPL-430AP's Interface.

Note: It is highly recommended that you configure the login password.

1. Log in to TPL-430AP.

2. Go to **System** and select the **Change password** menu.

3. In the **Old Password** field, enter the old password. By default, the password is admin)

4. Enter the **New Password**, and enter it again in the **Confirm Password** field to verify.

5. Click **Save** to save your settings.

Note: *If you change the access point login password, you will need to access the access point management page using the User Name "admin" and the new password.*

Restore

System > Restore

You may want to restart or restore your powerline access point if you are encountering difficulties with your access point and have attempted all other troubleshooting.

1. Log in to TPL-430AP.

2. Go to **System** and select the **Restore** menu.

3. Click **Restore** to reset the device back to factory default settings.

4. Click **OK** to confirm your selection.

5. Your TPL-430AP will take about 3 minutes to reset and reboot back to factory default settings.
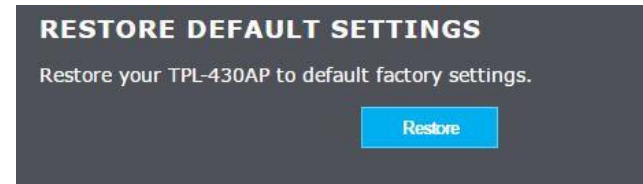
Administrator User Name	admin
Administrator Password	Please refer to sticker or device label
Access Point IP Address	http://tpl-430ap / 192.168.10.1
Access Point Subnet Mask	255.255.255.0
Wireless Interface	Enabled
Wireless Network Name/Encryption (WPA2-PSK AES)	Please refer to sticker or device label
Powerline Encryption Key	HomePlugAV

Firmware Update

System > Firmware update

TRENDnet may periodically release firmware upgrades that may add features or fix problems associated with your TRENDnet access point model and version. To check if there is a firmware upgrade available for your device, please check your TRENDnet model and version using the link. http://www.trendnet.com/downloads/

In addition, it is also important to verify if the latest firmware version is newer than the one your access point is currently running. To identify the firmware that is currently loaded on your access point, log in to the access point, click on the Administrator section and then on the Status. If there is a newer version available, also review the release notes to check if there were any new features you may want or if any problems were fixed that you may have been experiencing.

-If a firmware upgrade is available, download the firmware to your computer.

-Unzip the file to a folder on your computer.

Please note the following:
- Do not interrupt the firmware upgrade process. Do not turn off the device or press the Reset button during the upgrade.
- If you are upgrade the firmware using a laptop computer, ensure that the laptop is connected to a power source or ensure that the battery is fully charged.
- Disable sleep mode on your computer as this may interrupt the firmware upgrade process.
- Do not upgrade the firmware using a wireless connection, only using a wired network connection.
- Any interruptions during the firmware upgrade process may permanently damage your access point.

1. Log into your TPL-430AP's management page.
2. Click on **System** and click on **Firmware Update**
3. Depending on your web browser, under **Select File**, click **Browse** or **Choose File**.
4. Navigate to the folder on your computer where the unzipped firmware file (.img) is located and select it.
5. Click **Save**. If prompted, click **Yes** or **Ok**.

Firmware version :	1.0.0
Select file :	Choose File GPN2.BP147A-C-...D01-15263.img
☑ Clear Config	
	Save

Status

System > Information

You may want to check the system information of your access point such as IP address settings, access point mode, wireless and wired network settings, access point wireless MAC addresses, and firmware version.

SYSTEM INFORMATION	
Hardware version:	1.0.0
Firmware version:	1.0.0
Product name:	TRENDnet TPL-430AP
ETHERNET PORT	
MAC address:	00:1E:E3:DB:9B:16
WIRELESS PORTS	
2.4 GHz MAC address:	00:1E:E3:DB:9B:17
5 GHz MAC address:	00:1E:E3:DB:9B:18
POWERLINE PORT	
MAC address:	00:1E:E3:DB:9B:15

Clients

System > Clients

You may want to check to see what devices are currently connected to your TPL-430AP. This page will show the number of clients that are connected, their IP address and the clients' MAC address.

DEVICES		
#	IP Address	MAC Address
1	192.168.10.22	08:9E:01:F6:18:B3

1. Log into your TPL-430AP's management page.
2. Click on **System** and click on **Clients**

Installing your Powerline Adapters

Before you Install

1. Before you proceed with the installation, verify the following:

- You already have a router already installed.
- You already have Internet access through your existing network.
- An Ethernet port (also called LAN port) is available on your router.
- Verify that you have at least two Powerline adapters. You will need at least two Powerline adapters to create a Powerline network.

  Note: The TPL-430AP package only includes a single Powerline adapter. The TPL-430APK package includes TPL-423E and TPL-430AP to create your Powerline network. Please ensure that your other Powerline adapter is HomePlug® AV or IEEE 1901 compliant (e.g. TRENDnet models TPL-406E, TPL-407E, TPL-408E, TPL-410AP, TPL-420E, TPL-421E, TPL-422E, TPL-423E, or another TPL-430AP.)

2. Plan the location of where you will install your Powerline adapters.

- Avoid plugging the adapters into power strips, extension cords, or surge protectors as this may prevent the adapter from functioning correctly or degrade performance.
- Avoid plugging the adapters into wall power outlets that are controlled by a light switch to prevent the Powerline adapter from being turned off accidentally.
- Avoid plugging the adapters into wall power outlets that are located near appliances that consume a lot of power (e.g. refrigerators, washers, dryers) as this may degrade performance.
- Make sure there is an available wall power outlet in the room where the router is installed and also near the router.
- Make sure there is an available wall power outlet in the room where you want to extend network connectivity.
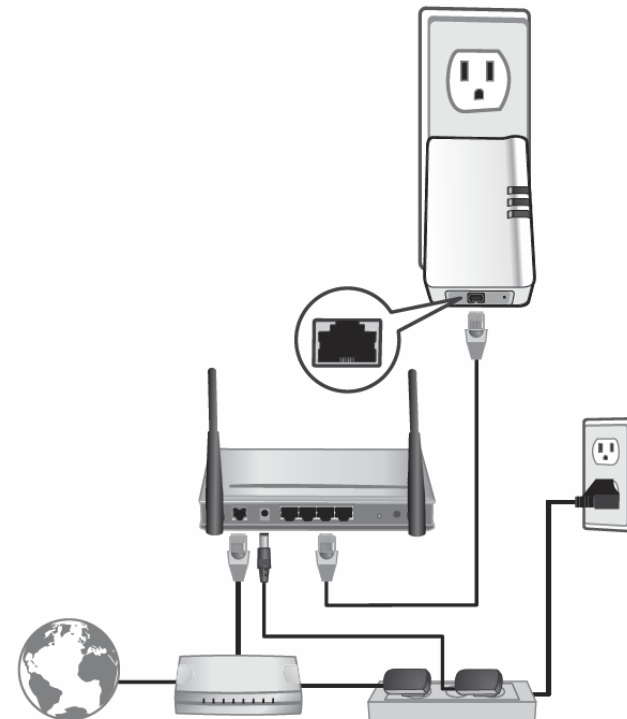
Connect a Powerline adapter to your router

1. Plug the Powerline adapter into an available wall power outlet near your router.

Note: This will allow devices connected to your Powerline network to access the Internet and other devices connected to your network.

2. Connect the included Ethernet cable (also called network cable) from the Ethernet port (also called network port) of your Powerline adapter to an available Ethernet port (also called LAN port) on your router.

3. Once the Powerline adapter is installed and connected to your router, verify that the **Power LED** is on or blinking and the **Ethernet LED** is on or blinking.

Add adapters to your network

Once you have installed and connected the first Powerline adapter to your router, you can easily extend your network to other rooms by adding additional Powerline adapters.

To extend your network using an additional Powerline adapter:

1. First, make sure the first Powerline adapter is installed and connected to your router.
Note: This will allow devices connected to your Powerline network to access the Internet and other devices connected to your network.

2. Plug the additional Powerline adapter into an available wall power outlet in another room near a computer or network device (e.g. game consoles, network-enabled TVs, network attached storage, network media server/players, etc.) that you would like to connect to your network.

3. Connect the included Ethernet cable from the Ethernet port on your Powerline adapter to the to the Ethernet port of your computers or network devices.

4. After the additional Powerline adapter is connected and installed to your computer or network device, wait for the **DATA LED** to turn on. After the **DATA LED** turns on, verify that the **Power LED** is on, the **DATA LED** is on or blinking, and the **Ethernet LED** is on or blinking.

Note: To verify that your Powerline adapters are connected successfully to your network, you can check if the computer(s) or network device(s) can access the Internet through your Powerline network.

To install additional Powerline adapters in other rooms, repeat the steps above for each adapter.

Securing your Powerline Network

Powerline networks consist of two or more Powerline devices connected together using the same encryption key. TRENDnet Powerline adapters automatically connect to each other over a secure encrypted signal and share the same encryption key (Default encryption key: HomePlugAV).

In order for your Powerline devices to connect to the same Powerline network, the same encryption key must be assigned to all Powerline devices in that network. Powerline devices that are not assigned the same encryption key will not be able to connect to the Powerline network.

For additional security, TRENDnet recommends changing adapter default encryption key to prevent a neighbor with a Powerline adapter and the same default encryption key from gaining access to your network.

Note: After the default encryption key has been changed and the Powerline adapters have been connected using a new encryption key, the Powerline adapters will retain their security settings when they are unplugged and moved to a new location. No additional reconfiguration of the Powerline adapters is needed after the default encryption has been changed.

To change the default encryption key:

- Use the physical **Sync/Link** button on your Powerline adapter to generate a random encryption key.
  ****Recommended method****

Troubleshooting

Q: I typed http://TPL-430AP in my Internet Browser Address Bar, but an error message says "The page cannot be displayed." How can I access the access point management page?
Answer:
Assign your computer a static IP address in the subnet of 192.168.10.x (ex. 192.168.10.25) and access the access point using the default IP address 192.168.10.1. http://192.168.10.1

Q: I typed http://192.168.10.1 in my Internet Browser Address Bar, but an error message says "The page cannot be displayed." How can I access the access point management page?
Answer:
1. Check your hardware settings again.
2. Make sure the LAN port you are connected to is on.
3. Make sure your network adapter TCP/IP settings are set to _Obtain an IP address automatically_ or _DHCP_ (see the steps below).
4. Make sure your computer is connected to one of the access point's LAN ports
5. Press on the factory reset button for 15 seconds, the release.
Windows 7/8/8.1/10

    a. Go into the **Control Panel**, click **Network and Sharing Center**.

    b. Click **Change Adapter Settings**, right-click the **Local Area Connection** icon.

    c. Then click **Properties** and click **Internet Protocol Version 4 (TCP/IPv4)**.

    d. Then click **Obtain an IP address automatically** and click **OK**.

Windows Vista

    a. Go into the **Control Panel**, click **Network and Internet**.
    b. Click **Manage Network Connections,** right-click the **Local Area Connection** icon and click **Properties**.
    c. Click **Internet Protocol Version (TCP/IPv4)** and then click **Properties**.
    d. Then click **Obtain an IP address automatically** and click **OK**.
Windows XP/2000

    a. Go into the **Control Panel**, double-click the **Network Connections** icon
    b. Right-click the **Local Area Connection** icon and the click **Properties**.
    c. Click **Internet Protocol (TCP/IP)** and click **Properties**.
    d. Then click **Obtain an IP address automatically** and click **OK**.

Note: _If you are experiencing difficulties, please contact your computer or operating system manufacturer for assistance._

Q: The Wizard does not appear when I access the access point. What should I do?
Answer:
1. Click on Main and Wizard on the left-hand side.
2. Near the top of the browser, "Pop-up blocked" message may appear. Right click on the message and select Always Allow Pop-ups from This Site.
3. Disable your browser's pop up blocker.

Q: I cannot connect wirelessly to the access point. What should I do?
Answer:
1. Double check that the Wireless LED on the access point is on.
2. Power cycle the router. Unplug the power to the access point. Wait 15 seconds, then plug the power back in to the access point.
3. Contact the manufacturer of your wireless network adapter and make sure the wireless network adapter is configured with the proper SSID. The default predefined SSID is printed on the device label on the bottom or on the sticker on the side of the unit.
4. To verify whether or not wireless is enabled, login to the access point management page, click on _Basic and Wireless_.

Please reference the items below if you continue to experience difficulty with installing and using your Powerline adapters.

- Do not plug the Powerline adapters into a power strip. Make sure to plug the adapters directly into a power outlet and not through power strip. Using adapters through a power strip may negatively affect Powerline connectivity and performance.
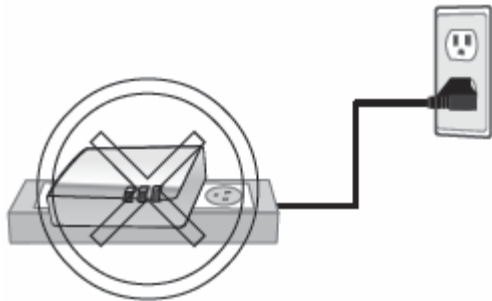
- Do not use the Sync button for more than 2 Powerline adapters to connect simultaneously. Wait for each Powerline adapter to connect to your Powerline network one at a time before connecting the next adapter. Using more than one adapter to Sync simultaneously may cause some of your adapters not to Sync and establish connection to your Powerline network.

- Power-cycle the Powerline adapters by disconnecting them from their power outlets for 15 seconds and then reconnect them.

- If the Powerline (PL) LED is red, try plugging the Powerline adapter into another available power outlet. The quality of the connection may be better in a different power outlet.

- If you are having issues connecting the Powerline adapters after changing the encryption key using the Sync button or Powerline utility, reset the Powerline adapters to defaults using the physical Reset button.

- Using a pin or paperclip; press and hold the Reset button for 1 second on each Powerline adapter. All LEDs will turn off then turn back on. This will reset the Powerline adapters to their default settings. The default encryption key is HomePlugAV.

- The Powerline adapters can provide better connectivity and performance when plugged directly into a power outlet. Connecting the Powerline adapters to a power strip or surge protector may degrade or block Powerline signals.

- Avoid using the Powerline adapters on GFI protected outlets and electrical systems with AFCI circuit breakers. They may degrade or block Powerline signals.
- The Powerline adapters should not be used in areas with excessive heat.
- Florescent and incandescent lighting can generate significant Powerline interference.
- If your building has more than one circuit breaker box, the Powerline adapter may not be able to establish connectivity between them. In this case, connect a Powerline adapter into a power outlet located on each of the circuit breaker boxes. Then connect an Ethernet cable between the Powerline adapters to bridge the two circuits together.

In addition to this User's Guide, you can find help below:

- http://www.trendnet.com/support
  (documentation, downloads, FAQs, how to contact technical support)

- Autorun CD (Quick Installation Guide)

Technical Specifications

TPL-430AP

Standards

- IEEE 802.3
- IEEE 802.3u
- IEEE 802.3x
- IEEE 802.3ab
- IEEE 802.11a
- IEEE 802.11b
- IEEE 802.11g
- IEEE 802.11n (up to 300Mbps)
- IEEE 802.11ac (up to 867Mbps)
- IEEE 1901

Device Interfaces

- 3 x Gigabit LAN ports
- WiFi Clone button
- Reset button
- Sync button
- Power switch
- LED indicators
- Power plug
- Type B (NEMA 5–15)

Frequency Band

- 2–67MHz

Modulation/Protocol

- OFDM Symbol Modulation on link synchronization, 4096/1024/256/64/8 - QAM, QPSK, BPSK, ROBO Carrier
- CSMA/CA

Networking Distance

- Powerline: Up to 300m (984 ft.) linear distance over electrical power lines***

Encryption

- Wireless: WPA2-PSK
- Powerline: 128-bit AES (Advanced Encryption Standard)

Powerline Nodes

- Up to 8 (max.)

Overlapping Powerline Networks

- Up to 4 (per electrical system)

Special Features

- Auto-connects to other TRENDnet Powerline adapters
- Additional Ethernet ports for wired connectivity
- Automatically clones the SSID and password of your WiFi network
- IPv6 support
- QoS Management
- IGMP / MLDv2 Streams

Antenna Gain

- 2.4GHz: 2 x 3.31dBi
- 5GHz: 2 x 4.51dBi

Wireless Output Power/Receiving Sensitivity

- 802.11a: 16dBm (typical) / -65dBm (typical) @ 54Mbps
- 802.11b: 20dBm (typical) / -88dBm (typical) @ 11Mbps
- 802.11g: 15dBm (typical) / -76dBm (typical) @ 54Mbps
- 802.11n (2.4GHz): 13dBm (typical) / -73dBm (typical) @ 300Mbps
- 802.11n (5GHz): 16dBm (typical) / -70dBm (typical) @ 300Mbps
- 802.11ac: 15dBm (typical) / -60dBm (typical) @ 867Mbps

Power

- Input: 100 – 240V AC, 50/60Hz, 0.2A
- Max. consumption 12W

Operating Temperature

- 0° – 40° C (32° – 104° F)

Operating Humidity

- Max. 90% non-condensing

Certifications

- FCC
- IC

Dimensions

- 255 x 130 x 75mm (10.04 x 5.11 x 2.95in.)

Weight

- 332g (11.7 oz.)

Warranty

- 3 year

TPL-423E

Standards

- IEEE 802.3
- IEEE 802.3u
- IEEE 802.3x
- IEEE 802.3ab
- IEEE 1901

Device Interfaces

- 1 x Gigabit LAN ports
- Sync button
- Reset button
- LED indicators
- Power plug
- Type B (NEMA 5–15) (10A max. @ 120V AC)

Frequency Band

- 2 – 67.5MHz

Data PHY Rate

- Up to 1200Mbps

Networking Distance

- Powerline: Up to 300m (984 ft.) linear distance over electrical power lines***

Encryption

- Powerline: 128-bit AES (Advanced Encryption Standard)

Powerline Nodes

- Up to 8 (max.)

Overlapping Powerline Networks

- Up to 4 (per electrical system)

Special Features

- Built-in power socket
- Auto-connects to other TRENDnet Powerline adapters
- IPv6 support
- IGMP / MLDv2 Streams

Power

- Input: 100 – 240V AC, 50/60Hz, 0.2A
- Max. consumption: Active mode: 4W; Standby mode: 0.5W

Operating Temperature

- 0° – 50° C (32° – 122° F)

Operating Humidity

- Max. 90% non-condensing

Certifications

- FCC
- IC

Dimensions

- 120 x 60 x 65mm (4.73 x 2.4 x 2.6 in.)

Weight

- 176g (6.2 oz.)

Warranty

- 3 year

Package contents

- TPL-430AP

- TPL-423E

- Quick Installation Guide

- 2 x Network cable (1.5m / 5 ft.)

Appendix

How to find your IP address?

Note: Please note that although the following procedures provided to follow for your operating system on configuring your network settings can be used as general guidelines, however, it is strongly recommended that you consult your computer or operating system manufacturer directly for assistance on the proper procedure for configuring network settings.

Command Prompt Method

Windows® 2000/XP/Vista/7/8/8.1/10

1. On your keyboard, press **Windows Logo+R** keys simultaneously to bring up the Run dialog box.

2. In the dialog box, type *cmd* to bring up the command prompt.

3. In the command prompt, type *ipconfig /all* to display your IP address settings.

MAC OS® X

1. Navigate to your **Applications** folder and open **Utilities**.

2. Double-click on **Terminal** to launch the command prompt.

3. In the command prompt, type *ipconfig getifaddr <en0 or en1>* to display the wired or wireless IP address settings.

*Note: en0 is typically the wired Ethernet and **en1** is typically the wireless Airport interface.*

Graphical Method

MAC OS® 10.6/10.5
1. From the Apple menu, select **System Preferences**.
2. In System Preferences, from the **View** menu, select **Network**.
3. In the Network preference window, click a network port (e.g., Ethernet, AirPort, modem). If you are connected, you'll see your IP address settings under "Status:"

MAC OS® 10.4
1. From the Apple menu, select **Location**, and then **Network Preferences**.
2. In the Network Preference window, next to "Show:", select **Network Status**. You'll see your network status and your IP address settings displayed.

Note: If you are experiencing difficulties, please contact your computer or operating system manufacturer for assistance.

How to configure your network settings to obtain an IP address automatically or use DHCP?

Note: Please note that although the following procedures provided to follow for your operating system on configuring your network settings can be used as general guidelines, however, it is strongly recommended that you consult your computer or operating system manufacturer directly for assistance on the proper procedure for configuring network settings.

Windows® 7/8/8.1/10
     a. Go into the **Control Panel**, click **Network and Sharing Center**.

     b. Click **Change Adapter Settings**, right-click the **Local Area Connection** icon.

     c. Then click **Properties** and click **Internet Protocol Version 4 (TCP/IPv4)**.

     d. Then click **Obtain an IP address automatically** and click **OK**.

Windows® Vista
     a. Go into the **Control Panel**, click **Network and Internet**.
     b. Click **Manage Network Connections,** right-click the **Local Area Connection** icon and click **Properties**.
     c. Click **Internet Protocol Version (TCP/IPv4)** and then click **Properties**.
     d. Then click **Obtain an IP address automatically** and click **OK**.

Windows® XP/2000
     a. Go into the **Control Panel**, double-click the **Network Connections** icon
     b. Right-click the **Local Area Connection** icon and the click **Properties**.
     c. Click **Internet Protocol (TCP/IP)** and click **Properties**.

     d. Then click **Obtain an IP address automatically** and click **OK**.

MAC OS 10.4/10.5/10.6
     a. From the **Apple**, drop-down list, select **System Preferences**.
     b. Click the **Network** icon.
     c. From the **Location** drop-down list, select **Automatic**.
     d. Select and view your Ethernet connection.
          In MAC OS 10.4, from the **Show** drop-down list, select **Built-in Ethernet** and select the **TCP/IP** tab.
          In MAC OS 10.5/10.6, in the left column, select **Ethernet**.
     e. Configure TCP/IP to use DHCP.

In MAC 10.4, from the **Configure IPv4**, drop-down list, select **Using DHCP** and click the **Apply Now** button.
In MAC 10.5, from the **Configure** drop-down list, select **Using DHCP** and click the **Apply** button.
In MAC 10.6, from the **Configure** drop-down list, select **Using DHCP** and click the **Apply** button.
f. Restart your computer.

Note: If you are experiencing difficulties, please contact your computer or operating system manufacturer for assistance.

How to configure your network settings to use a static IP address?

Note: Please note that although the following procedures provided to follow for your operating system on configuring your network settings can be used as general guidelines, however, it is strongly recommended that you consult your computer or operating system manufacturer directly for assistance on the proper procedure for configuring network settings.

Windows® 7/8/8.1/10

a. Go into the **Control Panel**, click **Network and Sharing Center**.

b. Click **Change Adapter Settings**, right-click the **Local Area Connection** icon.

c. Then click **Properties** and click **Internet Protocol Version 4 (TCP/IPv4)**.

d. Then click **Use the following IP address,** and assign your network adapter a static IP address. Click **OK**

Windows® Vista

a. Go into the **Control Panel**, click **Network and Internet**.
b. Click **Manage Network Connections,** right-click the **Local Area Connection** icon and click **Properties**.
c. Click **Internet Protocol Version (TCP/IPv4)** and then click **Properties**.

d. Then click **Use the following IP address,** and assign your network adapter a static IP address. Click **OK**

Windows® XP/2000

a. Go into the **Control Panel**, double-click the **Network Connections** icon
b. Right-click the **Local Area Connection** icon and the click **Properties**.
c. Click **Internet Protocol (TCP/IP)** and click **Properties**.

d. Then click **Use the following IP address,** and assign your network adapter a static IP address. Click **OK**

MAC OS® 10.4/10.5/10.6

a. From the **Apple**, drop-down list, select **System Preferences**.
b. Click the **Network** icon.
c. From the **Location** drop-down list, select **Automatic**.
d. Select and view your Ethernet connection.

How to find your MAC address?

In Windows 2000/XP/Vista/7/8,

Your computer MAC addresses are also displayed in this window, however, you can type ***getmac –v*** to display the MAC addresses only.

In MAC OS 10.4,

1. **Apple Menu > System Preferences > Network**

2. From the **Show** menu, select **Built-in Ethernet**.

3. On the **Ethernet** tab, the **Ethernet ID** is your MAC Address.

In MAC OS 10.5/10.6,

1. **Apple Menu > System Preferences > Network**

2. Select **Ethernet** from the list on the left.

3. Click the **Advanced** button.

3. On the **Ethernet** tab, the **Ethernet ID** is your MAC Address.

How to connect to a wireless network using the built-in Windows utility?

Note: Please note that although the following procedures provided to follow for your operating system on configuring your network settings can be used as general guidelines, however, it is strongly recommended that you consult your computer or operating system manufacturer directly for assistance on the proper procedure for connecting to a wireless network using the built-in utility.

Windows® 7/8/8.1/10

1. Open Connect to a Network by clicking the network icon (	or 	) in the notification area.

2. In the list of available wireless networks, click the wireless network you would like to connect to, then click **Connect.**

4. You may be prompted to enter a security key in order to connect to the network.

5. Enter in the security key corresponding to the wireless network, and click **OK**.

Windows® Vista

1. Open Connect to a Network by clicking the **Start Button**. 	 and then click **Connect To.**

2. In the **Show** list, click **Wireless**.

3. In the list of available wireless networks, click the wireless network you would like to connect to, then click **Connect.**

4. You may be prompted to enter a security key in order to connect to the network.

5. Enter in the security key corresponding to the wireless network, and click **OK**.

Windows® XP

1. Right-click the network icon in the notification area, then click **View Available Wireless Networks**.

2. In **Connect to a Network**, under **Available Networks**, click the wireless network you would like to connect to.

3. You may be prompted to enter a security key in order to connect to the network.

4. Enter in the security key corresponding to the wireless network, and click **Connect**.

Overlapping Powerline networks

It is possible to create multiple Powerline networks on the same electrical system separated and grouped by different network encryption keys. The Powerline networks will work and communicate independently of each other which can provide security between different groups of Powerline adapters. For example, if you have five powerline adapters (Adapter A, Adapter B, Adapter C, Adapter D, Adapter E), you can group Adapters A, B, and C together on one powerline network and group Adapters D and E on a different Powerline network. Each group will use a different encryption key.

Note: It is recommended that only a maximum of up to 4 Powerline networks can be created per electrical system. Any additional Powerline networks above the recommended may result in significant degradation in Powerline performance.
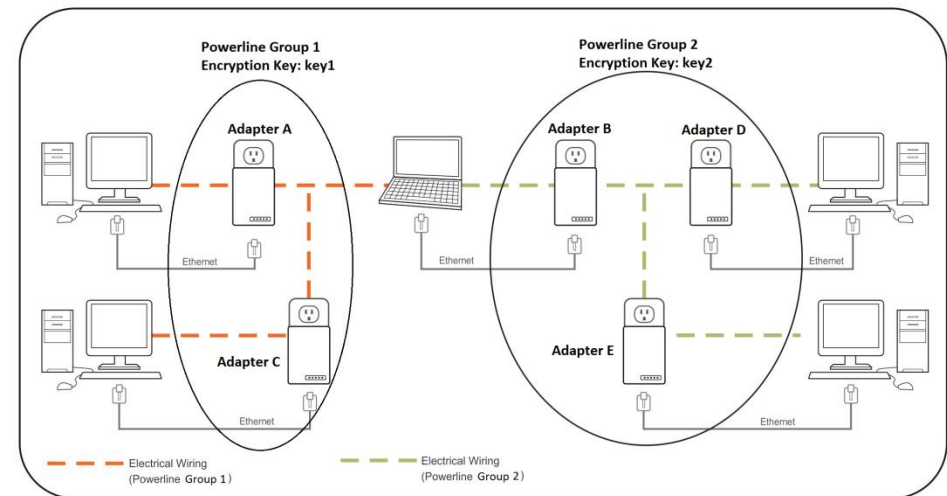
Federal Communication Commission Interference Statement

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 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.

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

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.

For product, available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

This device and its antennas(s) must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with FCC multi-transmitter product procedures.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

RoHS

This product is RoHS compliant.

Europe – EU Declaration of Conformity

This device complies with the essential requirements of the RED Directive 2014/53/EU, EMC Directive 2014/30/EU, WEEE Directive 2012/65/EU, REACH Directive 1907/2006/EC, Low Voltage Directive 2014/35/EU, and Ecodesign Directive 2009/125/EC

Regulation (EC) No. 1275/2008
EN 55022: 2010/AC: 2011
EN 55024: 2010
EN 50412-2-1: 2005/AC: 2009
EN60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011 +A2:2013

Safety of Information Technology Equipment

EN 50385: 2002
Product standard to demonstrate the compliance of radio base stations and fixed terminal stations for wireless telecommunication systems with the basic restrictions or the reference levels related to human exposure to radio frequency electromagnetic fields (110MHz - 40 GHz) - General public
EN 301 489-1 V1.9.2: (2011-09)
Electromagnetic compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements
EN 301 489-17 V2.2.1: (2012-09)
Electromagnetic compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment; Part 17: Specific conditions for 2,4 GHz wideband transmission systems, 5 GHz high performance RLAN equipment and 5,8 GHz Broadband Data Transmitting Systems

In Italy, the end-user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.

This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10 mW EIRP in the frequency range of 2454 – 2483.5 MHz. For detailed information, the end-user should contact the national spectrum authority in France.

cs Česky [Czech]	TRENDnet tímto prohlašuje, že tento TPL-406E je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 2004/108/ES.		mt Malti [Maltese]	Hawnhekk, TRENDnet, jiddikjara li dan TPL-406E jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 2004/108/EC.
da Dansk [Danish]	Undertegnede TRENDnet erklærer herved, at følgende udstyr TPL-406E overholder de væsentlige krav og øvrige relevante krav i direktiv 2004/108/EF.		hu Magyar [Hungarian]	Alulírott, TRENDnet nyilatkozom, hogy a TPL-406E megfelel a vonatkozó alapvetõ követelményeknek és az 2004/108/EC irányelv egyéb elõírásainak.
de Deutsch [German]	Hiermit erklärt TRENDnet, dass sich das Gerät TPL-406E in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 2004/108/EG befindet.		pl Polski [Polish]	Niniejszym TRENDnet oświadcza, że TPL-406E jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 2004/108/EC.
et Eesti [Estonian]	Käesolevaga kinnitab TRENDnet seadme TPL-406E vastavust direktiivi 2004/108/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.		pt Português [Portuguese]	TRENDnet declara que este TPL-406E está conforme com os requisitos essenciais e outras disposições da Directiva 2004/108/CE.
en English	Hereby, TRENDnet, declares that this TPL-406E is in compliance with the essential requirements and other relevant provisions of Directive 2004/108/EC.		sl Slovensko [Slovenian]	TRENDnet izjavlja, da je ta TPL-406E v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 2004/108/ES.
es Español [Spanish]	Por medio de la presente TRENDnet declara que el TPL-406E cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 2004/108/CE.		Slovensky [Slovak]	TRENDnet týmto vyhlasuje, že TPL-406E spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 2004/108/ES.
el Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ TRENDnet ΔΗΛΩΝΕΙ ΟΤΙ TPL-406E ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 2004/108/ΕΚ.		fi Suomi [Finnish]	TRENDnet vakuuttaa täten että TPL-406E tyyppinen laite on direktiivin 2004/108/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
fr Français [French]	Par la présente TRENDnet déclare que l'appareil TPL-406E est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 2004/108/CE.		sv Svenska [Swedish]	Härmed intygar TRENDnet att denna TPL-406E står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 2004/108/EG.
it Italiano [Italian]	Con la presente TRENDnet dichiara che questo TPL-406E è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 2004/108/CE.			
Latviski [Latvian]	Ar šo TRENDnet deklarē, ka TPL-406E atbilst Direktīvas 2004/108/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.			
Lietuvių [Lithuanian]	Šiuo TRENDnet deklaruoja, kad šis TPL-406E atitinka esminius reikalavimus ir kitas 2004/108/EB Direktyvos nuostatas.			
nl Nederlands [Dutch]	Hierbij verklaart TRENDnet dat het toestel TPL-406E in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 2004/108/EG.			

Industry Canada Statement

This device complies with Industry Canada license-exempt RSS standard(s).Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device. The digital apparatus complies with Canadian CAN ICES-3 (B)/NMB-3(B).

Le présentappareilestconforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitationestautorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareildoit accepter tout brouillageradioélectriquesubi, mêmesi le brouillageest susceptible d'encompromettre le fonctionnement.

This radio transmitter (ISED certification number: 9976A-09) has been approved by Industry Canada to operate with the antenna types listed with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le présentémetteur radio (ISED certification number: 9976A-09) aétéapprouvé par Industrie Canada pour fonctionner avecles types d'antenneénumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclusdanscetteliste, etdont le gain estsupérieur au gain maximal indiqué, sontstrictementinterdits pour l'exploitation de l'émetteur.

IC Radiation Exposure Statement:

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cetéquipementestconforme Canada limitesd'exposition aux radiations dans un environnement non contrôlé. Cetéquipementdoitêtreinstallé et utilisé à distance minimum de 20cm entre le radiateur et votre corps.

Caution:

The device for operation in the band 5180–5240MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems

Avertissement:

Les dispositifsfonctionnantdans la bande de 5180 à 5240MHz sontréservésuniquement pour uneutilisation à l'intérieurafin de réduire les risques de brouillagepréjudiciable aux systèmes de satellites mobiles utilisant les mêmescanaux.

Limited Warranty

TRENDnet warrants its products against defects in material and workmanship, under normal use and service, for the following lengths of time from the date of purchase.

TPL-430AP / TPL-430APK – 3 Years Warranty

AC/DC Power Adapter, Cooling Fan, and Power Supply carry 1 year warranty.

If a product does not operate as warranted during the applicable warranty period, TRENDnet shall reserve the right, at its expense, to repair or replace the defective product or part and deliver an equivalent product or part to the customer. The repair/replacement unit's warranty continues from the original date of purchase. All products that are replaced become the property of TRENDnet. Replacement products may be new or reconditioned. TRENDnet does not issue refunds or credit. Please contact the point-of-purchase for their return policies.

TRENDnet shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to TRENDnet pursuant to any warranty.

There are no user serviceable parts inside the product. Do not remove or attempt to service the product by any unauthorized service center. This warranty is voided if (i) the product has been modified or repaired by any unauthorized service center, (ii) the product was subject to accident, abuse, or improper use (iii) the product was subject to conditions more severe than those specified in the manual.

Warranty service may be obtained by contacting TRENDnet within the applicable warranty period and providing a copy of the dated proof of the purchase. Upon proper submission of required documentation, a Return Material Authorization (RMA) number will be issued. An RMA number is required in order to initiate warranty service support for all TRENDnet products. Products that are sent to TRENDnet for RMA service must have the RMA number marked on the outside of return packages and sent to TRENDnet prepaid, insured and packaged appropriately for safe shipment. Customers shipping from outside of the USA and Canada are responsible for return shipping fees. Customers shipping from outside of the USA are responsible for custom charges, including but not limited to, duty, tax, and other fees.

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Please ensure your switch's firmware version is V2.10.010 or newer
for Layer 2+ management features. See the Firmware Upgrade section in this document
for additional information regarding the firmware upgrade procedure.

Product Warranty Registration

Please take a moment to register your product online.
Go to TRENDnet's website at http://www.trendnet.com/register

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