

# **User Guide**

AX1800 Dual Band Wi-Fi 6 Router

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## **About This Guide**

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

Note: Features available in the router may vary by model and software version. Router availability may also vary by region or ISP. All images, steps, and descriptions in this guide are only examples and may not reflect your actual Router experience.

#### Conventions

Convention	Description
Underlined	Underlined words or phrases are hyperlinks. You can click to redirect to a website or a specific section.
Teal	Contents to be emphasized and texts on the web page are in teal, including the menus, items, buttons, etc.
>	The menu structures to show the path to load the corresponding page. For example, Advanced > System > Firmware Update means the Firmware Update page is under the System menu that is located in the Advanced tab.
Note:	Ignoring this type of note might result in a malfunction or damage to the device.
<i>©</i> Tips:	Indicates important information that helps you make better use of your device.
Symbols on the web page	<ul> <li>Click to edit the corresponding entry.</li> <li>Click to delete the corresponding entry.</li> <li>click to enable or disable the corresponding entry.</li> <li>Click to view more information about items on the page.</li> </ul>

In this guide the following conventions are used:

#### More Info

The latest software, management app and utility can be found at Download Center at <a href="https://www.tp-link.com/support/download">https://www.tp-link.com/support/download</a>.

The Quick Installation Guide can be found where you find this guide or inside the package of the router.

Specifications can be found on the product page at <u>https://www.tp-link.com</u>.

TP-Link Community is provided for you to discuss our products and share knowledge at <a href="https://community.tp-link.com">https://community.tp-link.com</a>.

Our Technical Support contact information can be found at the Contact Technical Support page at <a href="https://www.tp-link.com/support">https://www.tp-link.com/support</a>.

<sup>†</sup>Maximum wireless signal rates are the physical rates derived from IEEE Standard 802.11 specifications. Actual wireless data throughput, wireless coverage and number of connected devices are not guaranteed and will vary as a result of network conditions, client limitations, and environmental factors, including building materials, obstacles, volume and density of traffic, and client location.

<sup>‡</sup>Use of 802.11ax (Wi-Fi 6), and features including OFDMA and 1024-QAM requires clients to also support corresponding features.

<sup>§</sup>The 802.11ax white paper defines standardized modifications to both the IEEE 802.11 physical layers (PHY) and the IEEE 802.11 Medium Access Control (MAC) layer as enabling at least one mode of operation capable of supporting improvement of at least four times the average throughput per station (measured at the MAC data service access point) in a dense deployment scenario.

△1,000 Mbps internet speeds require compatible service plans and equipment.

\*Use of WPA3 requires clients to also support WPA3.

\*\*This router may not support all the mandatory features as ratified in the IEEE 802.11AX specification.

\*\*\*Further software upgrades for feature availability may be required.

\*\*\*\* This product is compatible with standardized EasyMesh technology but has not obtained the Wi-Fi EasyMeshTM certification. TP-Link EasyMesh-compatible products can network with other devices that use EasyMesh. Failed connections may be due to firmware conflicts of different vendors. The EasyMesh-Compatible function is still being developed on some models and will be supported in subsequent software updates.

Actual network speed may be limited by the rate of the product's Ethernet WAN or LAN port, the rate supported by the network cable, Internet service provider factors and other environmental conditions.

## Chapter 1

## Get to Know About Your Router

This chapter introduces what the router can do and shows its appearance. It chapter contains the following sections:

- Product Overview
- Appearance

## 1.1. Product Overview

TP-Link AX router, with next-generation 802.11ax Wi-Fi Technology, achieves Wi-Fi performance at its ultimate level. The revolutionary combination of OFDMA and 1024QAM improve throughput by 4 times and dramatically increase the whole network capacity and efficiency. It's also backwards compatible with 802.11a/b/g/n/ac.

Moreover, it is simple and convenient to set up and use the TP-Link router due to its intuitive web interface and the powerful Tether app.

## 1.2. Appearance

#### 1. 2. 1. Top Panel



The router's LEDs (view from left to right) are located on the front. You can check the router's working status by following the LED Explanation table.

Name	Status	Indication
(Power)	On	The system has started up successfully.
	Flashing	The system is starting up or the firmware is being upgraded. Do not disconnect or power off your router.
	Off	Power is off.
<u>(</u> ;	On	The 2.4 GHz wireless band is enabled.
(2.4 GHz Wireless)	Off	The 2.4 GHz wireless band is disabled.

#### **LED** Explanation

Name	Status	Indication
	On	The 5 GHz wireless band is enabled.
(5 GHz Wireless)	Off	The 5 GHz wireless band is disabled.
	Green On	Internet service is available.
(Internet) Orange On is r	The router's Internet port is connected, but the internet service is not available.	
	Off	The router's Internet port is unplugged.
Ū	On	At least one powered-on device is connected to the router's Ethernet port.
(Ethernet)	Off	No powered-on device is connected to the router's Ethernet port.
Cn/Off	This light remains on for 5 minutes when a WPS connection is established, then turns off.	
(WPS)	Blinking	WPS connection is in progress. This may take up to 2 minutes.

#### 1. 2. 2. Back Panel



The following parts (view from left to right) are located on the back panel.

Item	Description
WPS/Wi-Fi Button Press and hold	Press this button for 1 second, and immediately press the WPS button on your client device to start the WPS process.
	Press and hold this button for more than 2 seconds to turn on or off the wireless function of your router.
Reset Button	Press and hold the button for about 6 seconds until the Power LED blinks to reset the router to its factory default settings.

ltem	Description
WAN Port	For connecting to a modem or an Ethernet outlet.
LAN Port (1-4)	For connecting your PC or other wired devices to the router.
Power On/Off Button	Press this button to power on or off the router.
Power Port	For connecting the router to a power socket via the provided power adapter.
Antennas	Used for wireless operation and data transmit.

## Chapter 2

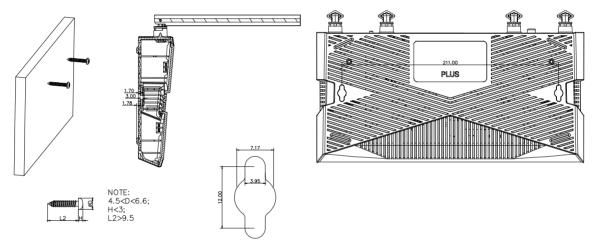
## **Connect the Hardware**

This chapter contains the following sections:

- Position Your Router
- <u>Connect Your Router</u>

## 2.1. Position Your Router

- The product should not be located in a place where it will be exposed to moisture or excessive heat.
- Place the router in a location where it can be connected to multiple devices as well as to a power source.
- Make sure the cables and power cord are safely placed out of the way so they do not create a tripping hazard.
- The router can be placed on a shelf or desktop.
- Keep the router away from devices with strong electromagnetic interference, such as Bluetooth devices, cordless phones and microwaves.
- Generally, the router is placed on a horizontal surface, such as on a shelf or desktop. The device also can be mounted on the wall as shown in the following figure.



#### Note:

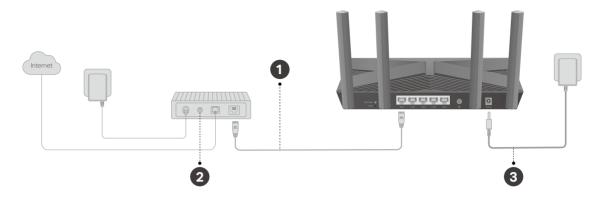
The diameter of the screw head, 4.5mm < D < 6.6mm, and the distance of two screws is 211mm. The screw that project from the wall need around 6.48 mm based, and the length of the screw need to be at least 9.5mm to withstand the weight of the product.

## 2.2. Connect Your Router

#### Before you start:

- 1) Turn off your modem, if any, and remove the backup battery if it has one.
- 2) Place the router horizontally and orient the antennas vertically.

If your internet comes from an Ethernet outlet instead of a DSL / Cable / Satellite modem, connect the router's WAN port to it, then follow steps 3 and 4 to complete the hardware connection.



- 1. Connect the **powered-off modem** to the router's **WAN port** with an Ethernet cable.
- 2. Turn on the modem, and then wait about 2 minutes for it to restart.
- 3. Connect the power adapter to the router and turn on the router.
- 4. Verify that the hardware connection is correct by checking the following LEDs. Note:

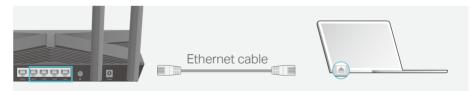
If the 2.4GHz LED and 5GHz LED are off, press and hold the WPS/Wi-Fi button on the back for more than 2 seconds, then release the button. Both the LEDs should turn solid on.



5. Connect your computer to the router.

#### • Method 1: Wired

Turn off the Wi-Fi on your computer and connect the devices as shown below.



#### • Method 2: Wirelessly

- 1) Find the SSID (Network Name) and Wireless Password printed on the label at the bottom of the router.
- 2) Click the network icon of your computer or go to Wi-Fi Settings of your smart device, and then select the SSID to join the network.

Computer		Smart Device	
Connections are available		< Settings Wi-Fi	
Wireless Network Connection		Wi-Fi	
TP-Link_XXXX		CHOOSE A NETWORK	
TP-Link_XXX_5G	OR	TP-Link_XXXX	🔒 🤶 (j)
Connect automatically Connect		TP-Link_XXXX_5G	â 🤶 (j)
		Other	

#### • Method 3: Use the WPS button

Wireless devices that support WPS, including Android phones, tablets, and most USB network cards, can be connected to your router through this method.

Note:

- WPS is not supported by iOS devices.
- The WPS function cannot be configured if the wireless function of the router is disabled. Also, the WPS function will be disabled if your wireless encryption is WEP. Please make sure the wireless function is enabled and is configured with the appropriate encryption before configuring the WPS.
  - 1) Tap the WPS icon on the device's screen. Here we take an Android phone for instance.
  - 2) Within two minutes, press the WPS/Wi-Fi button on your router for 1 second.



Chapter 3

## Log In to Your Router

With a web-based utility, it is easy to configure and manage the router. The web-based utility can be used on any Windows, Mac OS or UNIX OS with a Web browser, such as Microsoft Internet Explorer, Mozilla Firefox or Apple Safari.

Follow the steps below to log in to your router.

- 1. Set up the TCP/IP Protocol in Obtain an IP address automatically mode on your computer.
- 2. Visit <u>http://tplinkwifi.net</u>, and create a login password for secure management purposes. Then click Let's Get Started to log in.

**Note:** If the login window does not appear, please refer to the <u>FAQ</u> Section.

## Chapter 4

## **Set Up Internet Connection**

This chapter introduces how to connect your router to the internet. The router is equipped with a web-based Quick Setup wizard. It has necessary ISP information built in, automates many of the steps and verifies that those steps have been successfully completed. Furthermore, you can also set up an IPv6 connection if your ISP provides IPv6 service.

It contains the following sections:

- Use Quick Setup Wizard
- Quick Setup Via TP-Link Tether App
- <u>Manually Set Up Your Internet Connection</u>
- <u>Set Up the Router as an Access Point</u>
- <u>Set Up an IPv6 Internet Connection</u>

## 4.1. Use Quick Setup Wizard

The Quick Setup Wizard will guide you to set up your router.

Ø Tips:

If you need the IPv6 internet connection, please refer to the section of Set Up an IPv6 Internet Connection.

Follow the steps below to set up your router.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- Follow the step-by-step instructions to complete Quick Setup configuration or go to Advanced > Quick Setup for configuration to connect your router to the internet. Then follow the step-by-step instructions to connect your router to the internet.
- 3. To enjoy a more complete service from TP-Link (remote management, TP-Link DDNS, and more.), log in with your TP-Link ID or click Sign Up Now to get one. Then follow the instructions to bind the cloud router to your TP-Link ID.

Get TP-Link	Cloud Servic	e
e Tether app, get n	P-Link ID. You can mar otified of the latest firm more.	
TP-Link ID (Ema	il):	
Password:		
	LOG IN	
Sign Up Now	Forgot Password?	

Note:

- To learn more about the TP-Link Cloud service, please refer to the <u>TP-Link Cloud Service</u> section.
- If you do not want to register a TP-Link ID now, you may click Skip to proceed.
- If you have changed the preset wireless network name (SSID) and wireless password during the Quick Setup process, all your wireless devices must use the new SSID and password to connect to the router.

## 4.2. Quick Setup Via TP-Link Tether App

The Tether app runs on iOS and Android devices, such as smartphones and tablets.

1. Launch the Apple App Store or Google Play store and search "TP-Link Tether" or simply scan the QR code to download and install the app.



2. Launch the Tether app and log in with your TP-Link ID. Note: If you don't have a TP-Link ID, create one first.

3. Tap the + button, and select Add a Router. Follow the steps to complete the setup and connect to the internet.

Note: Due to Tether app updates, your actual user interface and pathway may differ from those described here.

4. Connect your devices to the newly configured wireless networks of the router and enjoy the internet!

## 4.3. Manually Set Up Your Internet Connection

In this part, you can check your current internet connection settings. You can also modify the settings according to the service information provided by your ISP.

Follow the steps below to check or modify your internet connection settings.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Internet.
- 3. Select your internet connection type from the drop-down list.

Internet		
Set up an internet connection with t	he service information provided by your I	SP (internet service provider).
Internet Connection Type:	Dynamic IP	~
	Select this type if your ISP does information for internet connection	n't provide any on.

- 4. Follow the instructions on the page to continue the configuration. Parameters on the figures are just used for demonstration.
  - 1) If you choose Dynamic IP, you need to select whether to clone the MAC address. Dynamic IP users are usually equipped with a cable TV or fiber cable.

Internet		
Set up an internet connection with	the service information provided by your ISP (internet service provider).	
Internet Connection Type:	Dynamic IP 🗸	
	Select this type if your ISP doesn't provide any information for internet connection.	
MAC Clone Set the MAC address of your router. Use the default address unless your ISP allows internet access from only a specific MAC address.		
Router MAC Address:	Use Default MAC Address ~ 00 - 0A - EB - 13 - 7B - 01	

2) If you choose Static IP, enter the information provided by your ISP in the corresponding fields.

Internet Set up an internet connection with the service information provided by your ISP (internet service provider).		
Internet Connection Type:	Static IP	~
	Select this type if your ISP provides specific IP parameters.	
IP Address:		
Subnet Mask:	255.255.255.0	
Default Gateway:		
Primary DNS:	172.29.1.1	
Secondary DNS:	172.29.1.2	(Optional)

3) If you choose PPPoE, enter the username and password provided by your ISP. PPPoE users usually have DSL cable modems.

Internet Set up an internet connection wi	th the service information provided by your ISP	(internet
Internet Connection Type:	PPPoE	~
	Select this type if your ISP only provides username and password.	а
Username:		
Password:		Ø

4) If you choose L2TP, enter the username and password and choose the Secondary Connection provided by your ISP. Different parameters are needed according to the Secondary Connection you have chosen.

Internet	
Set up an internet connection with	the service information provided by your ISP (internet
Internet Connection Type:	L2TP ~
	Select this type if your ISP provides L2TP VPN server information and an account. Some ISPs also provide specific IP parameters.
Username:	
Password:	Ø
	Oynamic IP
	<ul> <li>Static IP</li> </ul>
VPN Server IP/Domain Name:	

5) If you choose PPTP, enter the username and password, and choose the Secondary Connection provided by your ISP. Different parameters are needed according to the Secondary Connection you have chosen.

Internet Set up an internet connection with the service information provided by your ISP (internet service provider).		
Internet Connection Type:	РРТР	
	Select this type if your ISP provides PPTP VPN server information and an account. Some ISPs also provide specific IP parameters.	
Username:		
Password:	(	5
	Oynamic IP	
	Static IP	
VPN Server IP/Domain Name:		

#### 5. Click SAVE.

Ø Tips:

- If you use Dynamic IP and PPPoE and you are provided with any other parameters that are not required on the page, please go to Advanced > Network > Internet to complete the configuration.
- If you still cannot access the internet, refer to the FAQ section for further instructions.

### 4.4. Set Up the Router as an Access Point

The router can work as an access point, transforming your existing wired network to a wireless one.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Operation Mode, select Access Point Mode and click SAVE. The router will reboot and switch to Access Point mode.

Operation Mode
Select an operation mode according to your needs.
◯ Wireless Router Mode (Current)
In this mode, the router can provide internet access for multiple wired and wireless devices. This mode is required most commonly.
Access Point Mode In this mode, the router changes an existing wired (Ethernet) network into a wireless one.

- 3. After rebooting, connect the router to your existing wired router via an Ethernet cable.
- 4. Log in again to the web management page <a href="http://tplinkwifi.net">http://tplinkwifi.net</a>, and go to Advanced <a href="http://tplinkwifi.net">Advanced</a> <a href="http://tplinkwifi.net">Quick Setup</a>.
- 5. Configure your wireless settings and click NEXT.
- 6. Confirm the information and click SAVE. Now, you can enjoy Wi-Fi.
- Ø Tips:

• Functions, such as Parental Controls, QoS and NAT Forwarding, are not supported in the Access Point mode.

• Functions, such as Guest Network, are the same as those in the Router mode.

## 4.5. Set Up an IPv6 Internet Connection

Your ISP provides information about one of the following IPv6 internet connection types: PPPoE, Dynamic IP(SLAAC/DHCPv6), Static IP, 6to4 tunnel, Pass-Through (Bridge). After setting up the IPv6 internet connection, you can add IPv6 firewall rules to protect your IPv6 network.

- Set up an IPv6 Internet Connection
- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > IPv6.
- 3. Enable IPv6 and select the internet connection type provided by your ISP.

Ø Tips:

If you do not know what your internet connection type is, contact your ISP or judge according to the already known information provided by your ISP.

- 4. Fill in information as required by different connection types.
  - 1) Static IP: Fill in blanks and click SAVE.

IPv6 Internet			
Set up an IPv6 internet connection using the information provided by your ISP (internet service provider).			
IPv6:			
Internet Connection Type:	Static IP	~	
IPv6 Address:			
Default Gateway:			
Primary DNS:			
Secondary DNS:			
MTU Size:	1500	bytes	

 Dynamic IP(SLAAC/DHCPv6): Click Advanced to input further information if your ISP requires. Click SAVE and then click RENEW.

IPv6 Internet	
Set up an IPv6 internet conn provider).	ection using the information provided by your ISP (internet service
IPv6:	
Internet Connection Type:	Dynamic IP(SLAAC/DHCPv6) V
IPv6 Address:	
Primary DNS:	••
Secondary DNS:	::
	RENEW
	RELEASE
Advanced Settings	

3) PPPoE: By default, the router uses the IPv4 account to connect to the IPv6 server. Click Advanced Settings to input further information if your ISP requires. Click SAVE and then click CONNECT.

Note:

If your ISP provides two separate accounts for the IPv4 and IPv6 connections, manually enter the username and password for the IPv6 connection.

IPv6 Internet		
Set up an IPv6 internet conn provider).	ection using the information provided by	your ISP (internet service
IPv6:		
Internet Connection Type:	PPPoE ~	
	Share the same PPPoE session with IPv4	
Username:		
Password:	Ø	
IPv6 Address:		
Advanced Settings		
	CONNECT	
	DISCONNECT	

4) 6to4 Tunnel: An IPv4 internet connection type is a prerequisite for this connection type (Manually Set Up Your Internet Connection). Click Advanced Settings to input further information if your ISP requires. Click SAVE and then click CONNECT.

IPv6 Internet	
Set up an IPv6 internet conn provider).	ection using the information provided by your ISP (internet service
IPv6:	
Internet Connection Type:	6to4 Tunnel 🗸
IPv4 Address:	0.0.0.0
IPv4 Subnet Mask:	0.0.0.0
IPv4 Default Gateway:	0.0.0.0
Tunnel Address:	
Advanced Settings	
	CONNECT
	DISCONNECT

5) Pass-Through (Bridge): Click SAVE and skip to Step 6.

IPv6 Internet		
Set up an IPv6 internet connection using the information provided by your ISP (internet service provider).		
IPv6:		
Internet Connection Type:	Pass-Through (Bridge)	

5. Configure LAN ports. Windows users are recommended to choose from DHCPv6 and SLAAC+Stateless DHCP. Fill in Address Prefix provided by your ISP, and click SAVE.

IPv6 LAN Configure the LAN IPv6 address of the router and set the configuration type to assign IPv6 addresses to the clients.		
Assigned Type:	<ul> <li>ND Proxy</li> <li>DHCPv6</li> <li>SLAAC+Stateless DHCP</li> <li>SLAAC+RDNSS</li> </ul>	
Address Prefix:	/64	
Address:	FE80::20A:EBFF:FE13:7B00/64	

6. In **MAC Clone** section, set the MAC address of your router. Use the default address unless your ISP allows internet access from only a specific MAC address.

MAC Clone	
Set the MAC address of yo from only a specific MAC a	ur router. Use the default address unless your ISP allows internet acces ddress.
Router MAC Address:	Use Default MAC Address

7. Click Status to check whether you have successfully set up an IPv6 connection.

#### Ø Tips:

Visit the  $\underline{\mathsf{FAQ}}$  section if there is no internet connection.

## Chapter 5

## **TP-Link Cloud Service**

TP-Link Cloud service provides a better way to manage your cloud devices. Log in to your router with a TP-Link ID, and you can easily monitor and manage your home network when you are out and about via the Tether app. To ensure that your router stays new and gets better over time, the TP-Link Cloud will notify you when an important firmware upgrade is available. Surely you can also manage multiple TP-Link Cloud devices with a single TP-Link ID.

This chapter introduces how to register a new TP-Link ID, bind or unbind TP-Link IDs to manage your router, and the Tether app with which you can manage your home network no matter where you may find yourself.

It contains the following sections:

- Register a TP-Link ID
- <u>Change Your TP-Link ID Information</u>
- Manage the User TP-Link IDs
- Manage the Router via the TP-Link Tether App

## 5.1. Register a TP-Link ID

If you have skipped the registration during the Quick Setup process, you can:

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > TP-Link ID or click TP-Link ID on the very top of the page.
- 3. Click Sign Up and follow the instructions to register a TP-Link ID.

Create a TP-Link	ID		Remote Control	
Select Country or Region	~		Access and control yo remotely	ur network
Email Address			Smart Home	
Password	ø		Support Amazon Alexa Assistant	a and Google
Confirm Password	ø			
I have fully read and accepte Privacy Policy and Terms of Subscribe to the TP-Link new	Use.		HomeShield Get full protection on y security	our network
be the first to know about am deals, VIP giveaways, new p so much more.	nazing			
		言語	Googl	e Play

4. After activating your TP-Link ID, come back to the TP-Link ID page to log in. The TP-Link ID used to log in to the router for the first time will be automatically bound as an Admin.

		Remote Control
TP-Link ID (Email):		Access and control your network remotely
Password:		Smart Home
	ø	Support Amazon Alexa and Google Assistant
LOG	IN	HomeShield
SIGN		Get full protection on your network security
Forgot Pa	ssword?	

#### Note:

- To learn more about the Admin and User TP-Link ID, refer to Manage the User TP-Link IDs.
- Once you have registered a TP-Link ID on the web management page, you can only register another TP-Link ID via the Tether APP. Please refer to Manage the Router via the TP-Link Tether App to install the app.
- If you want to unbind the admin TP-Link ID from your router, please go to Advanced > TP-Link ID, an click Unbind in the Device Information section.

### 5.2. Change Your TP-Link ID Information

Follow the steps below to change your email address and password of your TP-Link ID as needed.

- 1. Visit http://tplinkwifi.net, and log in with your TP-Link ID.
- 2. Go to Advanced > TP-Link ID, and focus on the Account Information section.

#### To change your email address:

1. Click 🥂 behind the Email.

2. Enter the password of your TP-Link ID, then a new email address. And click SAVE.

Change Email		×
Current Password:	Ø	
New Email:		
Note: New email or password may not sync to client devi your device is connected to the Internet to update account		og in again when
	CANCEL	SAVE

#### • To change your password:

1. Click 🗹 behind the Password.

2. Enter the current password, then a new password twice. And click SAVE.

Change Password	×
Current Password:	Ø
New Password:	ø
Note: New email or password may not your device is connected to the Internet	sync to client devices immediately. Please log in again when to update account information.
	CANCEL SAVE

## 5.3. Manage the User TP-Link IDs

The TP-Link ID used to log in to the router for the first time will be automatically bound as the Admin account. An admin account can add or remove other TP-Link IDs to or from the same router as Users. All accounts can monitor and manage the router locally or remotely, but user accounts cannot:

- Reset the router to its factory default settings either on the web management page or in the Tether app.
- Add/remove other TP-Link IDs to/from the router.

#### 5. 3. 1. Add TP-Link ID to Manage the Router

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID.
- 2. Go to Advanced > TP-Link ID, and focus on the Bound Accounts section.
- 3. Click 🕂 Bind , enter another TP-Link ID as needed and click SAVE.

**Note:** If you need another TP-Link ID, please register a new one via the Tether app. Refer to <u>Manage the Router via the</u> <u>TP-Link Tether App</u> to install the app and register a new TP-Link ID.

Bind TP-Link ID	×	
TP-Link ID (Email):		
	CANCEL Bind	

4. The new TP-Link ID will be displayed in the Bound Accounts table as a User.

Bind or unbind TP-Link IDs to control who can manage this device.	
Owner	Unbind
Com	Unbind
Com Com	Unbind

#### 5. 3. 2. Remove TP-Link ID(s) from Managing the Router

1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID.

2. Go to Advanced > TP-Link ID, and focus on the Bound Accounts section.

3. Tick the checkbox(es) of the TP-Link ID(s) you want to remove and click Unbind.

	Unbind	
Unbind this TP-Link ID?		
	CANCEL	ОК

## 5.4. Manage the Router via the TP-Link Tether App

The Tether app runs on iOS and Android devices, such as smartphones and tablets.

1. Launch the Apple App Store or Google Play store and search "TP-Link Tether" or simply scan the QR code to download and install the app.



2. Launch the Tether app and log in with your TP-Link ID.

**Note:** If you don't have a TP-Link ID, create one first.

- 3. Connect your device to the router's wireless network.
- 4. Go back to the Tether app, select the model of your router and log in with the password you set for the router.

#### 5. Manage your router as needed.

**Note:** If you need to remotely access your router from your smart devices, you need to:

- Log in with your TP-Link ID. If you don't have one, refer to Register a TP-Link ID.
- Make sure your smartphone or tablet can access the internet with cellular data or a Wi-Fi network.

## Chapter 6

## **Wireless Settings**

This chapter guides you on how to configure the wireless settings.

It contains the following sections:

- <u>Specify Wireless Settings</u>
- <u>Schedule Your Wireless Function</u>
- Use WPS for Wireless Connection
- Advanced Wireless Settings

## 6.1. Specify Wireless Settings

The router's wireless network name (SSID) and password, and security option are preset in the factory. The preset SSID and password can be found on the label of the router. You can customize the wireless settings according to your needs.

1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.

2. (	Go to	Wireless or	Advanced >	>	Wireless >	Wireless	Settings.
------	-------	-------------	------------	---	------------	----------	-----------

Wireless Settings Personalize settings for each band or enable Smart Connect to configure the same settings for 2.4 GHz and 5 GHz bands.				
OFDMA:	Enabled 🕜			
TWT:	Enabled ?			
Smart Connect:	Enabled ?			
2.4 GHz / 5 GHz:	Enabled	Share Network		
Network Name (SSID):	TP-Link_7B00	Hide SSID		
Security:	WPA2-PSK[AES]			
Password:	03717660			
▼ 2.4 GHz / 5 GHz Advanced Settings				
Transmit Power:	High ~			
2.4 GHz Channel Width:	20/40 MHz ~			
2.4 GHz Channel:	Auto			
5 GHz Channel Width:	20/40/80 MHz			
5 GHz Channel:	Auto			

#### • To enable or disable TWT:

TWT (Target Wake Time) allows 802.11ax routers and clients to negotiate their periods to transmit and receive data packets. Clients only wake up at TWT sessions and remain in sleep mode for the rest of the time, which significantly extend their battery life. It is disabled by default.

- 1. 1. Go to Advanced > Wireless > Wireless Settings.
- 1. 2. Enable TWT.
- To use the Smart Connect function:

The Smart Connect function lets you enjoy a more high-speed network by assigning your devices to best wireless bands based on actual conditions to balance network demands.

1. Go to Advanced > Wireless > Wireless Settings.

- 2. Enable Smart Connect.
- 3. Keep the default values or set a new SSID and password, and click SAVE. This SSID and password will be applied for the 2.4GHz and 5GHz wireless networks. If you want to configure the wireless settings separately for each band, untick the checkbox to disable this feature.
- To enable or disable the wireless function:
- 1. Go to Wireless or Advanced > Wireless > Wireless Settings.
- 2. The wireless function is enabled by default. If you want to disable the wireless function of the router, just untick the Enable checkbox of each wireless network. In this case, all the wireless settings will be invalid.
- To change the wireless network name (SSID) and wireless password:
- 1. Go to Wireless or Advanced > Wireless > Wireless Settings.
- 2. Create a new SSID in Network Name (SSID) and customize the password for the network in Password. The value is case-sensitive.

**Note:** If you change the wireless settings with a wireless device, you will be disconnected when the settings are effective. Please write down the new SSID and password for future use.

#### • To hide SSID:

- 1. Go to Wireless or Advanced > Wireless > Wireless Settings.
- 2. Select Hide SSID, and your SSID won't display when you scan for local wireless networks on your wireless device and you need to manually join the network.

#### • To change the security option:

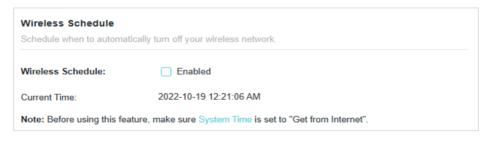
- 1. Go to Advanced > Wireless > Wireless Settings.
- 2. Select an option from the Security drop-down list: None, WPA/WPA2-Personal, WPA2/WPA3-Personal, WPA/WPA2-Enterprise. We recommend you don't change the default settings unless necessary.
- To change the transmit power and channel settings:
- 1. Go to Advanced > Wireless > Wireless Settings.
- 2. Select an option from the Transmit Power drop-down list: High, Middle or Low. The default and recommended setting is High.
- 3. If Smart Connect is disabled, you can also change the following settings:
  - Channel Width Select a channel width (bandwidth) for the wireless network.

- Channel Select an operating channel for the wireless network. It is recommended to leave the channel to Auto, if you are not experiencing the intermittent wireless connection issue.
- Mode Select a transmission mode according to your wireless client devices. It is recommended to just leave it as default.

### 6.2. Schedule Your Wireless Function

The wireless network can be automatically off at a specific time when you do not need the wireless connection.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Wireless > Wireless Schedule.
- 3. Enable the Wireless Schedule feature.



4. Click Add to add a shedule.



5. Specify a wireless off period during which you need the wireless off automatically, and click SAVE.

Add Schedule				×
Wireless Off Time:	From	11 ~	PM v	
	То	7 ~	AM ~	(next day)
Repeat:	S M			
			CANCEL	SAVE

#### Note:

- The Effective Time Schedule is based on the time of the router. You can go to Advanced > System > Time & Language to modify the time.
- The wireless network will be automatically turned on after the time period you set.

## 6.3. Use WPS for Wireless Connection

Wi-Fi Protected Setup (WPS) provides an easier approach to set up a security-protected Wi-Fi connection.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Make sure the Wi-Fi of your router is on and go to Advanced > Wireless > WPS.

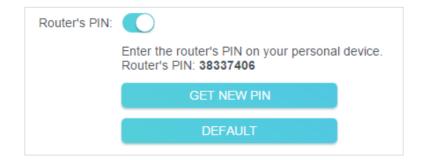
#### 6. 3. 1. Connect via the Client's PIN

Enter the PIN of your device and click Connect. Then your device will get connected to the router.

WPS:	
Method 1:	Using a PIN
	Client's PIN
	O Router's PIN
	Enter your personal device's PIN here and click <b>CONNECT</b>
	CONNECT

#### 6. 3. 2. Connect via the Router's PIN

Select Router's PIN in Method 1 to enable Router's PIN. You can use the default PIN or generate a new one.

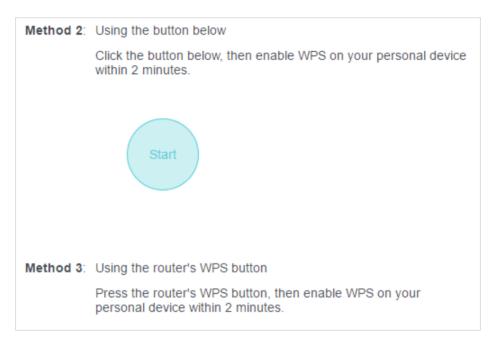


Note:

PIN (Personal Identification Number) is an eight-character identification number preset to each router. WPS supported devices can connect to your router with the PIN. The default PIN is printed on the label of the router.

#### 6. 3. 3. Push the WPS Button

Click Start on the screen or directly press the router's WPS button. Within two minutes, enable WPS on your personal device. Success will appear on the screen and the WPS LED of the router should change from flashing to solid on, indicating successful WPS connection.



### 6.4. Advanced Wireless Settings

Check advanced wireless settings for your device.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Wireless > Additional Settings.
- 3. Configure advanced wireless settings.

Additional Settings Check advanced wireless settin	gs for your device.	
WMM:	Enabled	
AP Isolation:	Enabled	
Airtime Fairness:	Enabled	
Beacon Interval:	100	
RTS Threshold:	2346	
DTIM Interval:	1	
Group Key Update Period:	<b>0</b> s	

- WMM WMM function can guarantee the packets with high-priority messages being transmitted preferentially.
- AP Isolation This function isolates all connected wireless stations so that wireless stations cannot access each other through WLAN.
- Airtime Fairness This function can improve the overall network performance by sacrificing a little bit of network time on your slow devices.
- Beacon Interval Enter a value between 40 and 1000 in milliseconds to determine the duration between beacon packets that are broadcasted by the router to synchronize the wireless network. The default value is 100 milliseconds.
- RTS Threshold- Enter a value between 1 and 2346 to determine the packet size of data transmission through the router. By default, the RTS (Request to Send) Threshold size is 2346. If the packet size is greater than the preset threshold, the router will send RTS frames to a particular receiving station and negotiate the sending of a data frame.
- DTIM Interval The value determines the interval of DTIM (Delivery Traffic Indication Message). Enter a value between 1 and 15 intervals. The default value is 1, which indicates the DTIM Interval is the same as Beacon Interval.
- Group Key Update Period Enter a number of seconds (minimum 30) to control the time interval for the encryption key automatic renewal. The default value is 0, meaning no key renewal.

# **Guest Network**

This function allows you to provide Wi-Fi access for guests without disclosing your main network. When you have guests in your house, apartment, or workplace, you can create a guest network for them. In addition, you can customize guest network options to ensure network security and privacy.

It contains the following sections:

- <u>Create a Network for Guests</u>
- <u>Customize Guest Network Options</u>

## 7.1. Create a Network for Guests

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Wireless > Guest Network or click Wireless on the top page. Locate the Guest Network section.
- 3. Create a guest network as needed.
  - 1) Tick the Enable checkbox for the 2.4GHz or 5 GHz wireless network.
  - 2) Customize the SSID. Don't select Hide SSID unless you want your guests to manually input the SSID for guest network access.
  - 3) Enable Bandwidth Control if you want to limit the network speed of your guests. Then enter the limited bandwidth value.
  - 4) Set the effective time to keep the guest network.
  - 5) Select the Security type and customize your own password. If No security is selected, no password is needed to access your guest network.

Guest Network Enable the wireless bands you w	ant your guests to use and complete the rel	ated information.
2.4 GHz:	Enabled	Share Network
Network Name (SSID):	TP-Link_Guest_7B00	Hide SSID
Bandwidth Control:	Enabled	
5 GHz:	Enabled	Share Network
Network Name (SSID):	TP-Link_Guest_7B00_5G	Hide SSID
Bandwidth Control:	Enabled	
Effective Time:	No Limit 🗸	
Security:	Open ~	
	This security type is not considered secure secure encryption.	. Consider selecting a more

- 4. Click SAVE. Now your guests can access your guest network using the SSID and password you set!
- 5. You can also click Share Network to share the SSID and password to your guests.

Guest Network		
Enable the wireless bands yo	u want your guests to us	and complete the related information.
2.4 GHz:	Enabled	Share Network
Network Name (SSID):	TP-Link_Gu	SSID:
Bandwidth Control:	Enabled	281
Download Bandwidth:	1000	No Password
Upload Bandwidth:	1000	Save Picture

Ø Tips:

To view guest network information, go to Network Map and locate the Guest Network section. You can turn on or off the guest network function conveniently.

## 7.2. Customize Guest Network Options

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Wireless > Guest Network. Locate the Guest Permissions section.
- 3. Customize guest network options according to your needs.

<b>Guest Permissions</b>		
Control the data that guests	can access.	
	Allow guests to see each other	
	Allow guests to access your local network	

Allow guests to see each other

Tick this checkbox if you want to allow the wireless clients on your guest network to communicate with each other via methods such as network neighbors and Ping.

Allow guests to access your local network

Tick this checkbox if you want to allow the wireless clients on your guest network to communicate with the devices connected to your router's LAN ports or main network via methods such as network neighbors and Ping.

4. Click SAVE. Now you can ensure network security and privacy!

# **Parental Controls**

Parental Controls allows you to set up unique restrictions on internet access for each member of your family. You can block inappropriate, explicit and malicious websites, and control access to specified websites at specified time.

It contains the following sections:

- Setting Up Access Restrictions
- <u>Monitoring Internet Usage</u>

## 8.1. Setting Up Access Restrictions

### I want to:

Block access to inappropriate online content for my kids' devices, limit when and how long they can access the internet.

### How can I do that?

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Parental Controls.
- 3. Click Add to create a profile for a family member.
- 4. Add basic profile information.

Create Profile		×
0	2	3
Basic Info	Content Filter	Time Controls
Basic Info		
Name the profile and add device	s to it.	
Profile Name:		
Devices:		
+ Add Devices		
	C	ANCEL

- 1) Enter a Name for the profile to make it easier to identify.
- 2) Under Devices, click Add Devices.
- 3) Select the devices that belong to this family member. Access restrictions will be applied to these devices. Click ADD when finished.

Note: Only devices that have previously been connected to your router's network are listed here. If you are unable to find the device you want to add, connect it to your network and then try again.

- 4) Click NEXT.
- 5. Customize the Content Filter for this profile according to your needs.

Create Profile		×
⊘	2	
Basic Info	Content Filter	Time Controls
Content Filter		
Customize content filtering settin	gs for the profile.	
Filter Rule Select deny list or allow list to ma	anage content.	
<ul> <li>Deny List</li> </ul>		
<ul> <li>Allow List</li> </ul>		
Deny List Block all websites that contain a	specific keyword.	
Enter a keyword or URL	Add	
		BACK

- 1) Select Deny List or Allow List as the Filter Rule, enter a keyword (for example, "Facebook") or a URL (for example, "www.facebook.com"), then click ADD.
- Deny List: All websites containing the specified keywords will be blocked.
- Allow List: Only websites that contain the specified keywords will be allowed.
- 2) Click NEXT.
- 6. Set time restrictions on internet access.

Create Profile		×
Basic Info	Content Filter	3 Time Controls
Time Controls Set internet access time for the pr	ofile.	
Internet Allowed Time Set the time period when internet a + Edit Time	access is allowed.	
Time Limits Set daily limits for the total time sp	ent online.	
Mon-Fri:		No time limits
Sat-Sun:		No time limits
		BACK SAVE

1) Click Edit Time to select the Internet Allowed Time, devices under this profile can only access internet during the specified period.

Edit Int	ernet All	owed Tim	e							×
Click or (	drag to sel	ect timeslot	э.							
	Sun	Mon	Tue	Wed	Thu	Fri	Sat			
12 AM 1 AM										
2 AM										
3 AM										
4 AM										
5 AM										
6 AM 7 AM										
8 AM										
9 AM										
10 AM										
11 AM										
12 PM 1 PM										
2 PM										
3 PM										
4 PM										
5 PM										
6 PM 7 PM										
8 PM										
9 PM										
10 PM										
11 PM										
12 AM										
	Select	ss Allowed	evert	ess Denied						
	Otiecti		oron							
								CANCEL	SAVE	
								CANCEL	SAVE	

2) Enable Time Limits on Monday to Friday and Saturday & Sunday, and set the total time limit for the profile each day.

Time Limits		
Set daily limits for the total time spent online.		
Mon-Fri: 30min 30min Sat-Sun:	8h	
30min 30min	8h	
	BACK SAVE	

3) Save the settings.

### Done!

The amount of time your child spends online is controlled and inappropriate content is blocked on their devices.

## 8.2. Monitoring Internet Usage

Parental Controls allows you to easily monitor the internet usage of you kids, you can pause the internet at any time, and check which websites your kids have visited and how much time they have spent online recently, then you can configure parental controls rules accordingly to protect your kids from malicious content.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Parental Controls, locate the Profiles area, you can see how much time each profile has spent.

Note: If you have not set up a profile for your child yet, add a profile by referring to Setting Up Access Restrictions.

Profiles	e devices of family members		
	e devices of family members	2.	
			Add
Profile Name	Time Online/Limit	Internet Access	Action
Social Media	0 / 1h	Access Allowed	. ☑ ☑ 🗊
Gaming	2min / 30min	Access Allowed	

- Click (1)/ () to pause/resume internet access for a profile at any time as you like.
- Click to edit the profile like adding devices, filtering content and changing time limits.
- Click A to view the detailed reports of internet usage like time spend online and most visited websites.

Tir	me Spent Online	Most Visit	ed Website
Daily	~	Today	\ \
50min			
30min			

Click the integration to delete this profile.

# QoS

QoS (Quality of Service) allows you to prioritize the internet traffic of specific devices to guarantee a faster connection when you need it the most. Devices set as high priority will be allocated more bandwidth even when there is heavy traffic on the network.

### I want to:

Ensure a fast connection for a device when I need it the most.

### How can I do that?

- 1. Visit<u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > QoS.
- 3. Configure global QoS settings.

Global Settings Prioritize the Internet traffic of specific device to guarantee a faster connection.			
QoS:	Enabled		
Download Bandwidth:	1000	Mbps	~
Upload Bandwidth:	1000	Mbps	~

- 1) Enable QoS.
- 2) Enter the maximum upload and download bandwidth provided by your internet service provider.
- 3) Save the settings.
- 4. Set the device priority.
  - 1) In the Device Priority section, find your desired device and toggle on Priority.
  - 2) Set Timing according to your needs.

Device Priority				
Device Info	Real-time Rate	Traffic Usage	High Priority	Timing
My Phone	↑ 2.7 Kbps ↓ 0 Kbps	3.4 MB		Always 🗸
BG (Wired)	↑ 0.55 Kbps ↓ 0 Kbps	8.5 MB		

- To prioritize your device at any time, click the entry in the Timing column and choose Always.
- To prioritize your device for next few hours, click the entry in the Timing column and choose the desired duration (like 2 hours).

**Done!** You can now enjoy using your device when you need it the most.

# EasyMesh with Seamless Roaming

This product is compatible with EasyMesh. You can experience strong, stable, and seamless wireless connections throughout your home with EasyMesh. This chapter introduces the EasyMesh feature. It contains the following sections:

- Add a Router as a Satellite Device
- Add a Range Extender as a Satellite Device
- Manage Devices in the EasyMesh Network

## 10. 1. Add a Router as a Satellite Device

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > EasyMesh, and enable EasyMesh.

EasyMesh	
Connect EasyMesh and O management.	neMesh devices to create a mesh network for seamless Wi-Fi coverage and centralized
EasyMesh:	
What's EasyMesh?	
EasyMesh Network	
Set up and manage your E	EasyMesh network.
Current Mode:	Main Router 👍 Change Mode
In this mode, you can add	EasyMesh and OneMesh devices to boost Wi-Fi coverage.
	ADD SATELLITE DEVICES

3. Click ADD SATELLITE DEVICES, select TP-Link Router, then click NEXT.

Add Satellite Devices		×
Which type of satellite devices do you want to add?		
TP-Link Router (Includes TP-Link EasyMesh and OneMesh routers)		
TP-Link Extender (Includes TP-Link EasyMesh and OneMesh extenders)		
Others (Includes EasyMesh devices of other brands)		
	CANCEL	NEXT

4. Follow the page instructions to prepare your satellite router, then click DONE.

Prepare your TP-Link satellite routers:
1. Make sure your routers support EasyMesh or OneMesh. A firmware update may be required for earlier OneMesh models to support router-router networking.
2. Plug in the routers near your main router.
3. Reset them to their factory settings or change them to Satellite Router mode.
DONE

5. Click ADD. When prompted "This device has been added successfully", click OK, then click FINISH.

## 10.2. Add a Range Extender as a Satellite Device

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > EasyMesh. Locate EasyMesh Network section.

EasyMesh	
Connect EasyMesh and O management.	neMesh devices to create a mesh network for seamless Wi-Fi coverage and centralized
EasyMesh:	
What's EasyMesh?	
EasyMesh Network	
Set up and manage your E	asyMesh network.
Current Mode:	Main Router 🗧 🖨 Change Mode
In this mode, you can add	EasyMesh and OneMesh devices to boost Wi-Fi coverage.
	ADD SATELLITE DEVICES

- 3. Plug in the extender next to the main router.
- 4. With in 2 minutes, press the WPS button on main router and on the extender. Wait until the WPS process is complete.
- 5. Done! You can check the mesh device on the router's web page too.

## 10. 3. Manage Devices in the EasyMesh Network

In an EasyMesh network, you can manage all mesh devices and connected clients on your main router's web page.

- To view mesh devices and connected clients in the network:
- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Network Map.

- 3. Click  $\stackrel{\checkmark}{=}$  to view all mesh devices, and click  $\stackrel{\frown}{=}$  to view all connected clients.
- To manage an EasyMesh device in the network:
- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > EasyMesh. Locate EasyMesh Network section.

			<b>•</b> A
Location	Clients	Connection	Modify
Not set	1		Ø
Not set	0	all	00t
Not set	1	aff	00t
	Not set	Not set 1 Not set 0	Not set 1 Not set 0 all

3. Click the Modify button to view detailed information and change its settings.

Archer AX10	Clients
Archer AX10	
192.168.0.192	
00-FE-00-29-20-FF	F
atl	
Enabled	
e device doesn't supp es.	port LED Control, please stay tuned for
0 (2.4 GHz)	
1200 Mbps (5 GHz	z)
Hallway	~
	CANCEL
	e device doesn't suppris. 0 (2.4 GHz) 1200 Mbps (5 GHz)

• Change device information.

# **Network Security**

This chapter guides you on how to protect your home network from cyber attacks and unauthorized users by implementing these three network security functions. You can protect your home network from cyber attacks, block or allow specific client devices to access your network using Access Control, or you can prevent ARP spoofing and ARP attacks using IP & MAC Binding.

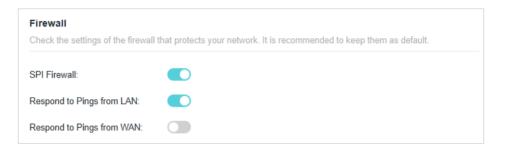
It contains the following sections:

- Protect the Network from Cyber Attacks
- <u>Access Control</u>
- IP & MAC Binding

## 11.1. Protect the Network from Cyber Attacks

The SPI (Stateful Packet Inspection) Firewall protects the router from cyber attacks and validate the traffic that is passing through the router based on the protocol. This function is enabled by default.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Security > Firewall. It's recommended to keep the default settings.



## 11.2. Access Control

Access Control is used to block or allow specific client devices to access your network (via wired or wireless) based on a list of blocked devices (Deny List) or a list of allowed devices (Allow List).

#### I want to:

Block or allow specific client devices to access my network (via wired or wireless).

### How can I do that?

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Security > Access Control.
- **3.** Click Change Mode, and select the access mode to either block (recommended) or allow the device(s) in the list.

#### To block specific device(s):

1) Make sure your current Access Control mode is Deny List. If not, click Change Mode, select Deny List and, click CHANGE.

Access Control			
Control the access to your	r network from the speci	fied devices.	
Access Control:			
Current Mode:	Dony List	➡ Change Mode	
Current mode.	Delly List =		
			🔂 Add
Device Type	Device Name	MAC Address	Modify
There is no entry!			

- 2) Click 🚹 Add and select devices you want to be blocked and Click ADD.
- 3) The Operation Succeeded message will appear on the screen, which means the selected devices have been successfully added to the Deny List.

A	dd Devi	ces				×
	Select Add Ma		evice List			
		Туре	Device Name	IP	MAC	
		ŗ	19233109-BG	192.168.1.161	۷	
			My Phone	192.168.1.132	7	
				CANC	EL ADD	

#### To allow specific device(s):

1) click Change Mode, select Allow List, and click CHANGE.

Change Mode		×
O Deny List Configure a deny list to only block access to your ne	twork from the specified	devices.
<ul> <li>Allow List Configure a allow list to only allow access to your ne</li> </ul>	twork from the specified	devices.
	CANCEL	CHANGE

2) Your own device is in the allow list by default and cannot be deleted. Click 🕒 Add to add other devices to the allow list.

			🔂 Add
Device Type	Device Name	MAC Address	Modify
···	My Phone	72-FA-9B-20-4C-29	⑪
<b>e</b>	19233109-BG	40-ED-00-22-05-93	Ū

- Add connected devices
- 1) Click Select From Device List.
- 2) Select the devices you want to be allowed and click ADD.

Ad	ld Dev	ices				×
•		t From De Nanually	evice List			
		Туре	Device Name	IP	MAC	
		Ę	19233109-BG	192.168.1.161	4	
		····	My Phone	192.168.1.132	7 .	
				CANC	EL ADD	

- 3) The Operation Succeeded message will appear on the screen, which means the selected devices have been successfully added to the allow list.
- Add unconnected devices
- 1) Click Add Manually.
- 2) Enter the Device Name and MAC Address of the device you want to be allowed and click ADD.

Add Devices		×
<ul> <li>Select From Device List</li> <li>Add Manually</li> </ul>		
Device Name:		
MAC Address:		
	CANCEL	ADD

3) The Operation Succeeded message will appear on the screen, which means the device has been successfully added to the allow list.

#### Done!

Now you can block or allow specific client devices to access your network (via wired or wireless) using the Deny List or Allow List.

## 11.3. IP & MAC Binding

IP & MAC Binding, namely, ARP (Address Resolution Protocol) Binding, is used to bind network device's IP address to its MAC address. This will prevent ARP Spoofing and other ARP attacks by denying network access to an device with matching IP address in the Binding list, but unrecognized MAC address.

#### I want to:

Prevent ARP spoofing and ARP attacks.

#### How can I do that?

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Security > IP & MAC Binding.
- **3.** Enable IP & MAC Binding.

IP & MAC Binding		
Bind the MAC and IP addr	sses of devices to prevent ARP spoofing and attacks.	
IP & MAC Binding:		

4. Bind your device(s) according to your need.

To bind the connected device(s):

### 1) Click 😌 Add in the Binding List section.

Binding List			
Add or delete binding entries.			
			🔂 Add
Device Name	MAC Address	IP Address	Modify
There is no entry!			

2) Click VIEW CONNECTED DEVICES and select the device you want to bind. The MAC Address and IP Address fields will be automatically filled in.

Add Binding Entry		×
MAC Address:		
IP Address:	VIEW CONNECTED DEVICES	
	CANCEL SAVE	

3) Click SAVE.

#### To bind the unconnected device:

1) Click 😌 Add in the Binding List section.

Add Binding Entry		×
MAC Address:		
	VIEW CONNECTED DEVICES	
IP Address:		
	CANCEL SAVE	

- 2) Enter the MAC Address and IP Address that you want to bind.
- 3) Click SAVE.

### Done!

Now you don't need to worry about ARP spoofing and ARP attacks!

# 11.4. ALG

ALG allows customized NAT traversal filters to be plugged into the gateway to support address and port translation for certain application layer "control/data" protocols such as FTP, TFTP, H323 etc. It is recommended to keep the default settings.

You may need to disable SIP ALG when you are using voice and video applications to create and accept a call through the router, since some voice and video communication applications do not work well with SIP ALG.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
  - ALG Check the ALG (Application Layer Gateway) settings. It is recommended to keep them as default. PPTP Passthrough: L2TP Passthrough: IPSec Passthrough: FTP ALG: TFTP ALG: RTSP ALG: H323 ALG: SIP ALG:
- 2. Go to Advanced > Security > ALG.

# **NAT Forwarding**

The router's NAT (Network Address Translation) feature makes devices on the LAN use the same public IP address to communicate with devices on the internet, which protects the local network by hiding IP addresses of the devices. However, it also brings about the problem that an external host cannot initiatively communicate with a specified device on the local network.

With the forwarding feature the router can penetrate the isolation of NAT and allows devices on the internet to initiatively communicate with devices on the local network, thus realizing some special functions.

The TP-Link router supports four forwarding rules. If two or more rules are set, the priority of implementation from high to low is Port Forwarding, Port Triggering, UPNP and DMZ.

It contains the following sections:

- Share Local Resources on the Internet by Port Forwarding
- Open Ports Dynamically by Port Triggering
- <u>Make Applications Free from Port Restriction by DMZ</u>
- Make Xbox Online Games Run Smoothly by UPnP

## 12.1. Share Local Resources on the Internet by Port Forwarding

When you build up a server on the local network and want to share it on the internet, Port Forwarding can realize the service and provide it to internet users. At the same time Port Forwarding can keep the local network safe as other services are still invisible from the internet.

Port Forwarding can be used for setting up public services on your local network, such as HTTP, FTP, DNS, POP3/SMTP and Telnet. Different services use different service ports. Port 80 is used in HTTP service, port 21 in FTP service, port 25 in SMTP service and port 110 in POP3 service. Please verify the service port number before the configuration.

## I want to:

Share my personal website I've built in local network with my friends through the internet.

For example, the personal website has been built on my home PC (192.168.0.100). I hope that my friends on the internet can visit my website in some way. The PC is connected to the router with the WAN IP address 218.18.232.154.



## How can I do that?

- 1. Assign a static IP address to your PC, for example 192.168.0.100.
- 2. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 3. Go to Advanced > NAT Forwarding > Port Forwarding.
- 4. Click 🔂 Add.

Port Forwar Specify ports f	r <b>ding</b> to make specific d	evices or servic	es on your lo	cal network ad	ccessible ove	er the internet.
Service Name	Device IP Address	External Port	Internal Port	Protocol	Status	Add Modify
There is	no entry!					

- 5. Click VIEW COMMON SERVICES and select HTTP. The External Port, Internal Port and Protocol will be automatically filled in.
- 6. Click VIEW CONNECTED DEVICES and select your home PC. The Device IP Address will be automatically filled in. Or enter the PC's IP address 192.168.0.100 manually in the Device IP Address field.
- 7. Click SAVE.

Add a Port Forwarding E	ntry	×	
Note: Add a rule for an individ 100 and 200), add multiple rul	ual external port or port range. For non es. For more info, refer to Port Forward	consecutive ports (example: ing FAQ.	
Service Name:	HTTP		
	VIEW COMMON SERVICES		
Device IP Address:	192.168.0.63		
	VIEW CONNECTED DEVICES		
External Port:	<ul> <li>Individual Port</li> <li>Port Range</li> </ul>		
	80		
Internal Port:	80	(Optional)	
Protocol:	TCP ~		
Enable This Entry:	Enabled		
	CAN	SAVE	

Ø Tips:

- It is recommended to keep the default settings of Internal Port and Protocol if you are not clear about which port and protocol to use.
- If the service you want to use is not in the common services list, you can enter the corresponding parameters manually. You should verify the port number that the service needs.

• You can add multiple port forwarding rules if you want to provide several services in a router. Please note that the External Port should not be overlapped.

### Done!

Users on the internet can enter http:// WAN IP (in this example: http:// 218.18.232.154) to visit your personal website.

Ø Tips:

- The WAN IP should be a public IP address. For the WAN IP is assigned dynamically by the ISP, it is recommended to apply and register a domain name for the WAN referring to <u>Set Up a Dynamic DNS Service Account</u>. Then users on the internet can use http:// domain name to visit the website.
- If you have changed the default External Port, you should use http:// WAN IP: External Port or http:// domain name: External Port to visit the website.

## 12.2. Open Ports Dynamically by Port Triggering

Port Triggering can specify a triggering port and its corresponding external ports. When a host on the local network initiates a connection to the triggering port, all the external ports will be opened for subsequent connections. The router can record the IP address of the host. When the data from the internet return to the external ports, the router can forward them to the corresponding host. Port Triggering is mainly applied to online games, VoIPs, video players and common applications including MSN Gaming Zone, Dialpad and Quick Time 4 players, etc.

Follow the steps below to configure the Port Triggering rules:

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > NAT Forwarding > Port Triggering and click 😌 Add.

Port Tri	ggerir	ng					
		allow devices on yo et) to the device that		k to dynamically	open specific ex	ternal ports and	d forward packets
							🔂 Add
Ser Nan	vice ne	Triggering Port	Triggering Protocol	External Port	External Protocol	Status	Modify
Th	ere is r	io entry!					

3. Click VIEW COMMON SERVICES, and select the desired application. The Triggering Port, Triggering Protocol and External Port will be automatically filled in. The following picture takes application MSN Gaming Zone as an example.

Add a Port Triggering En	try	×
Service Name:	MSN Gaming Zone	
	VIEW COMMON SERVICES	
Triggering Port:	47624	
Triggering Protocol:	All	
External Port:	2300-2400,28800-29000	
External Protocol:	All	
Enable This Entry:	Enabled	
	CANCEL SAVE	

#### 4. Click SAVE.

- Ø Tips:
- You can add multiple port triggering rules according to your network need.
- The triggering ports can not be overlapped.
- If the application you need is not listed in the Existing Applications list, please enter the parameters manually. You should verify the external ports the application uses first and enter them into External Port field according to the format the page displays.

# 12.3. Make Applications Free from Port Restriction by DMZ

When a PC is set to be a DMZ (Demilitarized Zone) host on the local network, it is totally exposed to the internet, which can realize the unlimited bidirectional communication between internal hosts and external hosts. The DMZ host becomes a virtual server with all ports opened. When you are not clear about which ports to open in some special applications, such as IP camera and database software, you can set the PC to be a DMZ host.

Note:

When DMZ is enabled, the DMZ host is totally exposed to the internet, which may bring some potential safety hazards. If DMZ is not in use, please disable it in time.

#### I want to:

Make the home PC join the internet online game without port restriction.

For example, due to some port restriction, when playing the online games, you can log in normally but cannot join a team with other players. To solve this problem, set your PC as a DMZ host with all ports open.

#### How can I do that?

- 1. Assign a static IP address to your PC, for example 192.168.0.100.
- 2. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 3. Go to Advanced > NAT Forwarding > DMZ and tick to enable DMZ.
- 4. Click VIEW CONNECTED DEVICES and select your PC. The Device IP Address will be automatically filled in. Or enter the PC's IP address 192.168.0.100 manually in the DMZ Host IP Address field.

DMZ	
Expose a specific device in yo communications.	our local network to the internet for applications such as online gaming and real-time
DMZ:	Enabled
DMZ Host IP Address:	
	VIEW CONNECTED DEVICES

#### 5. Click SAVE.

### Done!

The configuration is completed. You've set your PC to a DMZ host and now you can make a team to game with other players.

# 12.4. Make Xbox Online Games Run Smoothly by UPnP

The UPnP (Universal Plug and Play) protocol allows applications or host devices to automatically find the front-end NAT device and send request to it to open the corresponding ports. With UPnP enabled, the applications or host devices on the local network and the internet can freely communicate with each other thus realizing the seamless connection of the network. You may need to enable the UPnP if you want to use applications for multiplayer gaming, peer-to-peer connections, real-time communication (such as VoIP or telephone conference) or remote assistance, etc.

Tips:

- UPnP is enabled by default in this router.
- Only the application supporting UPnP protocol can use this feature.
- UPnP feature needs the support of operating system (e.g. Windows Vista/ Windows 7/ Windows 8, etc. Some of
  operating system need to install the UPnP components).

For example, when you connect your Xbox to the router which has connected to the internet to play online games, UPnP will send request to the router to open the corresponding ports allowing the following data penetrating the NAT to transmit. Therefore, you can play Xbox online games without a hitch.



If necessary, you can follow the steps to change the status of UPnP.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > NAT Forwarding > UPnP and toggle on or off according to your needs.

UPnP	
	sal Plug and Play) to allow devices on your local network to dynamically open ports for nultiplayer gaming and real-time communications.
UPnP:	

# **VPN Server & Client**

The router offers several ways to set up VPN connections:

**VPN Server** allows remote devices to access your home network in a secured way through the internet. The router supports three types of VPN Server:

**OpenVPN** is somewhat complex but with higher security and more stability, suitable for restricted environments such as campus network and company intranet.

**PPTP VPN** is easy to use with the built-in VPN software of computers and mobile devices, but it is vulnerable and may be blocked by some ISPs.

**L2TP/IPSec VPN** is more secure but slower than PPTP VPN, and may have trouble getting around firewalls.

**WireGuard VPN** is a secure, fast and modern VPN protocol. It is based on the UDP protocol and uses modern encryption algorithms to improve work efficiency.

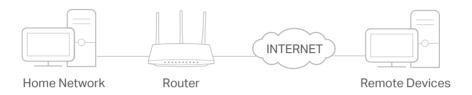
**VPN Client** allows devices in your home network to access remote VPN servers, without the need to install VPN software on each device.

This chapter contains the following sections:

- <u>Use OpenVPN to Access Your Home Network</u>
- Use PPTP VPN to Access Your Home Network
- Use L2TP/IPSec VPN to Access Your Home Network
- <u>Use WireGuard VPN to Access Your Home Network</u>
- <u>Use VPN Client to Access a Remote VPN Server</u>

## 13. 1. Use OpenVPN to Access Your Home Network

In the OpenVPN connection, the home network can act as a server, and the remote device can access the server through the router which acts as an OpenVPN Server gateway. To use the VPN feature, you should enable OpenVPN Server on your router, and install and run VPN client software on the remote device. Please follow the steps below to set up an OpenVPN connection.



#### Step1. Set up OpenVPN Server on Your Router

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > VPN Server > OpenVPN, and tick the Enable box of OpenVPN.

OpenVPN		
Set up an OpenVPN for set	ecure, remote access to your network.	
Note: No certificate has b	een created. Generate one below before enabling	OpenVP
OpenVPN:	Enabled	
Service Type:	O UDP	
	O TCP	
Interface Type:	TUN	~
Service Port:	1194	
VPN Subnet:	10.8.0.0	
Netmask:	255.255.255.0	
Client Access:	Home Network Only	~

#### Note:

- Before you enable VPN Server, we recommend you configure Dynamic DNS Service (recommended) or assign a static IP address for router's WAN port and synchronize your System Time with internet.
- The first time you configure the OpenVPN Server, you may need to Generate a certificate before you enable the VPN Server.
- 3. Select the Service Type (communication protocol) for OpenVPN Server: UDP, TCP.
- 4. Enter a VPN Service Port to which a VPN device connects, and the port number should be between 1024 and 65535.
- 5. In the VPN Subnet/Netmask fields, enter the range of IP addresses that can be leased to the device by the OpenVPN server.

- 6. Select your Client Access type. Select Home Network Only if you only want the remote device to access your home network; select Internet and Home Network if you also want the remote device to access internet through the VPN Server.
- 7. Click SAVE.
- 8. Click GENERATE to get a new certificate.

Certificate		
Generate the certificate.		
	GENERATE	

Note: If you have already generated one, please skip this step, or click GENERATE to update the certificate.

9. Click EXPORT to save the OpenVPN configuration file which will be used by the remote device to access your router.

port the configuration file.		
	EXPORT	

#### Step 2. Configure OpenVPN Connection on Your Remote Device

1. Visit <u>http://openvpn.net/index.php/download/community-downloads.html</u> to download the OpenVPN software, and install it on your device where you want to run the OpenVPN client utility.

**Note:** You need to install the OpenVPN client utility on each device that you plan to apply the VPN function to access your router. Mobile devices should download a third-party app from Google Play or Apple App Store.

- 2. After the installation, copy the file exported from your router to the OpenVPN client utility's "config" folder (for example, C:\Program Files\OpenVPN\config on Windows). The path depends on where the OpenVPN client utility is installed.
- 3. Run the OpenVPN client utility and connect it to OpenVPN Server.

## 13.2. Use PPTP VPN to Access Your Home Network

PPTP VPN Server is used to create a VPN connection for remote device. To use the VPN feature, you should enable PPTP VPN Server on your router, and configure the PPTP connection on the remote device. Please follow the steps below to set up a PPTP VPN connection.

#### Step 1. Set up PPTP VPN Server on Your Router

1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.

#### 2. Go to Advanced > VPN Server > PPTP, and tick the Enable box of PPTP.

PPTP	
Set up a PPTP VPN and ac	counts for quick, remote access to your network.
PPTP:	Enabled
Client IP Address:	10.0.0.11 - 10.0.0.20
	Allow Samba (Network Place) access
	Allow NetBIOS passthrough
	Allow Unencrypted connections

Note: Before you enable VPN Server, we recommend you configure Dynamic DNS Service (recommended) or assign a static IP address for router's WAN port and synchronize your System Time with internet.

- 3. In the Client IP Address field, enter the range of IP addresses (up to 10) that can be leased to the devices by the PPTP VPN server.
- 4. Set the PPTP connection permission according to your needs.
  - Select Allow Samba (Network Place) access to allow your VPN device to access your local Samba server.
  - Select Allow NetBIOS passthrough to allow your VPN device to access your Samba server using NetBIOS name.
  - Select Allow Unencrypted connections to allow unencrypted connections to your VPN server.
- 5. Click SAVE.
- 6. Configure the PPTP VPN connection account for the remote device. You can create up to 16 accounts.

Account List Configure accounts (up to 16) that can be used by remote clients to connect to the VPN server.			
			🔂 Ado
Username	Password		Modify
admin		Ø	C 🛈

- 1) Click 🔂 Add.
- 2) Enter the Username and Password to authenticate devices to the PPTP VPN Server.

Add Account			×
Username:			
Password:		Ø	
	(	CANCEL	ADD

3) Click ADD.

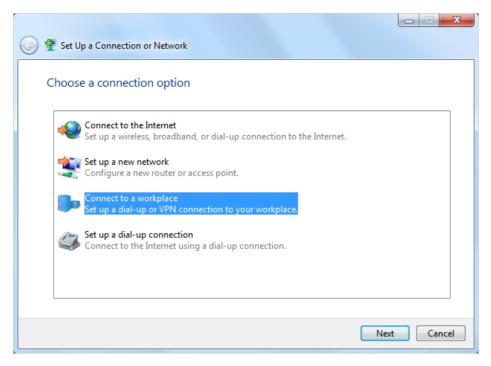
### Step 2. Configure PPTP VPN Connection on Your Remote Device

The remote device can use the Windows built-in PPTP software or a third-party PPTP software to connect to PPTP Server. Here we use the Windows built-in PPTP software as an example.

- 1. Go to Start > Control Panel > Network and Internet > Network and Sharing Center.
- 2. Select Set up a new connection or network.

Network and Sharing Cent	×		
For quick access, place your bookma			٦
🚱 🗢 🖳 🕨 Control Panel 🕨	Network and Internet   Network and Sharing Center	ter 🗸 😽 Search Control 🕽	ρ
Control Panel Home Change adapter settings Change advanced sharing	View your basic network information a	and set up connections	0
settings	WIN7-PC Netw (This computer)	work Internet	
	View your active networks	Connect or disconnect	
	Network Work network	Access type: Internet Connections: Q Local Area Connection	
	Change your networking settings Set up a new connection or network Set up a wireless, broadband, dial-up, ac	ad hoc, or VPN connection; or set up a router or access point.	
	Connect to a network Connect or reconnect to a wireless, wire	red, dial-up, or VPN network connection.	
	Choose homegroup and sharing options	ns her network computers, or change sharing settings.	
See also		ter network computers, or change sharing settings.	
HomeGroup Internet Options	Troubleshoot problems Diagnose and repair network problems,	s, or get troubleshooting information.	
Windows Firewall			

3. Select Connect to a workplace and click Next.



4. Select Use my Internet connection (VPN).

🚱 🌆 Connect to a Workplace	
How do you want to connect?	
Use my Internet connection (VPN) Connect using a virtual private network (VPN) connection through the Internet.	
🧶 — 🎱 — 🕪	
Dial directly Connect directly to a phone number without going through the Internet.	
ing	
What is a VPN connection?	
	Cancel

5. Enter the internet IP address of the router (for example: 218.18.1.73) in the Internet address field. Click Next.

🚱 🌆	Connect to a Workplace		
Тур	e the Internet addre	ess to connect to	
Υοι	r network administrator c	an give you this address.	
Inte	rnet address:	218.18.1.73	
Des	tination name:	VPN Connection	
	Use a smart card		
۲	Allow other people to This option allows any	use this connection yone with access to this computer to use this connection.	
	🔲 Don't connect now; ju	ist set it up so I can connect later	
		Nex	t Cancel

6. Enter the User name and Password you have set for the PPTP VPN server on your router, and click Connect.

ſ		
🚱 🌆 Connect to a Workplace	e	
Type your user name	e and password	
User name:	admin	]
Password:	••••	]
	Show characters Remember this password	
Domain (optional):		]
		Connect Cancel

7. The PPTP VPN connection is created and ready to use.

🧼 🌆 Connect to a Workplace	
The connection is ready to use	
ing ing ing	
Connect now	
	Close

# 13.3. Use L2TP/IPSec VPN to Access Your Home Network

L2TP/IPSec VPN Server is used to create a L2TP/IPSec VPN connection for remote devices to access your home network.

To use the VPN feature, you need to set up L2TP/IPSec VPN Server on your router, and configure the L2TP/IPSec connection on remote devices. Please follow the steps below to set up the L2TP/IPSec VPN connection.

\*Image may differ from your actual product.



Home Network

Router (VPN Server)

Remote Devices

### Step 1. Set up L2TP/IPSec VPN Server on Your Router

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > VPN Server > L2TP/IPSec, and enable L2TP/IPSec.

#### Note:

- Firmware update may be required to support L2TP/IPSec VPN Server.
- Before you enable VPN Server, we recommend you configure Dynamic DNS Service (recommended) or assign a static IP address for router's WAN port and synchronize your System Time with internet.

L2TP/IPSec	
	d accounts for quick, remote access to your network.
L2TP/IPSec:	
Client IP Address:	10.9.0.11 - 10.9.0.20
IPSec Encryption:	Encrypted ~
IPSec Pre-Shared Key:	admin
	Allow NetBIOS passthrough

- 3. In the Client IP Address field, enter the range of IP addresses (up to 10) that can be leased to the devices by the L2TP/IPSec VPN server.
- 4. Keep IPSec Encryption as Encrypted and create an IPSec Pre-Shared Key.

Note: Enable NetBIOS Passthrough function to allow NetBIOS packets to be broadcasted through VPN tunnel.

- 5. Click SAVE.
- 6. Configure the L2TP/IPSec VPN connection account for the remote device. You can create up to 16 accounts.

Account List		
Configure accounts (up to 16)	) that can be used by remote clients to connect to	the VPN server.
		🔂 Add
Username	Password	Modify
admin	admin	131 日

- 4) Click Add.
- 5) Enter the Username and Password to authenticate devices to the L2TP/IPSec VPN Server.

Add Account		×
Username:		
Password:	Ø	
	CANC	EL ADD

6) Click ADD.

### Step 2. Configure L2TP/IPSec VPN Connection on Your Remote Device

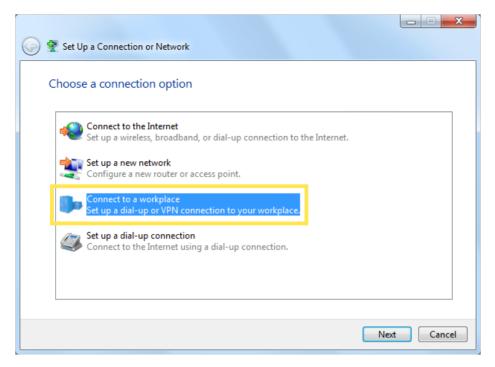
The remote device can use the Windows or Mac OS built-in L2TP/IPSec software or a third-party L2TP/IPSec software to connect to L2TP/IPSec Server. Here we use the Windows built-in L2TP/IPSec software as an example.

1. Go to Start > Control Panel > Network and Internet > Network and Sharing Center.

2. Select Set up a new connection or network.

Network and Sharing Cent	×	
For quick access, place your bookma	rks here on the bookmarks bar.	
🚱 🔍 🖳 🕨 Control Panel 🕨	Network and Internet      Network and Sharing Center	- 😽 Search Control 🔎
Control Panel Home Change adapter settings Change advanced sharing settings	View your basic network information an WENT-PC (This computer) View your active networks Network	K     Connect or disconnect     Access type: Internet
See also HomeGroup Internet Options Windows Firewall	Connect to a network Connect or reconnect to a wireless, wired, Choose homegroup and sharing options	network computers, or change sharing settings.

3. Select Connect to a workplace and click Next.



4. Select Use my Internet connection (VPN).

🕝 🌆 Connect to a Workplace	
How do you want to connect?	
<ul> <li>Use my Internet connection (VPN) Connect using a virtual private network (VPN) connection through the Internet.</li> </ul>	
i - 🧶 — 🥼	
Dial directly Connect directly to a phone number without going through the Internet.	
🔍 — 🧊	
What is a VPN connection?	
	Cancel

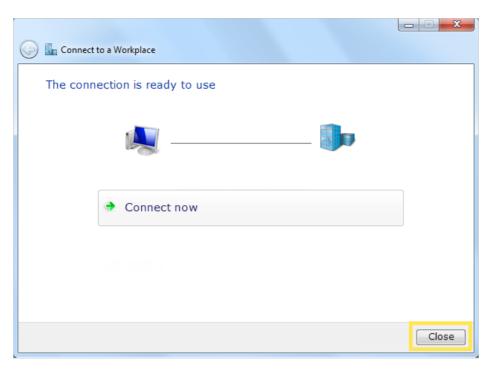
5. Enter the internet IP address of the router (for example: 218.18.1.73) in the Internet address field, and select the checkbox Don't connect now; just set it up so I can connect later. Click Next.

0	🔚 Connect to a Workplace		
	Type the Internet addre	ess to connect to	
	Your network administrator c	an give you this address.	
	Internet address:	218.18.1.73	
	Destination name:	VPN Connection	
		use this connection yone with access to this computer to use this connection. ust set it up so I can connect later	
		Nex	t Cancel

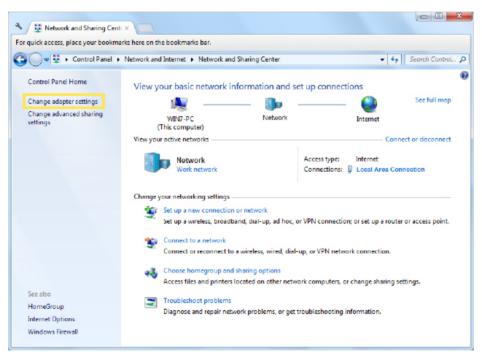
6. Enter the User name and Password you have set for the L2TP/IPSec VPN server on your router, and click Connect.

G	Connect to a Workplace		
	Type your user name	and password	
	User name:	100000	
	Password:	•••••	
	Domain (optional):	Show characters Remember this password	
			Connect Cancel

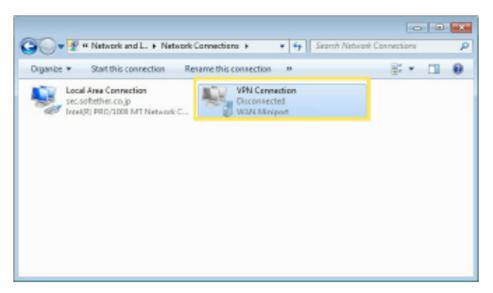
7. Click Close when the VPN connection is ready to use



8. Go to Network and Sharing Center and click Change adapter settings.



9. Find the VPN connection you created, then double-click it.



10. Enter the User name and Password you have set for the L2TP/IPSec VPN server on your router, and click Properties.

Second Connection
Libername:
Parsword:
Dogain:
Seve this user name and passward for the following users:     Be agy     Seve this uses this computer
Connect Cancel Progenties Help

11. Switch to the Security tab, select Layer 2 Tunneling Protocol with IPsec (L2TP/ IPSec) and click Advanced settings.

VPN Connection Properties
General Options Security Networking Sharing
Lipe of VPN:
Layer 2 Tunneling Protocol with IPsec (L2TP/IPSec) *
Quita encryption:
Require encryption (disconnect if server declines)
Poperies     Alow these grotocols
Lyhencrypted password (FAP)     Dratenge Handshake Authentication Protocol (CHAP)     Monsot E HAP Version 2 (MS CHAP v2)     Educated by use my Windows logon same and     password (and denait, if any)
0K Canoel

12. Select Use preshared key for authentication and enter the IPSec Pre-Shared Key you have set for the L2TP/IPSec VPN server on your router. Then click OK.

2TP	roperties	
O Use pr	reshared key for authentication	
Key:		
	ertificate for authentication	
V Ve	rify the Name and Usage attributes of the server's certificat	
<u>V</u> e	rify the Name and Usage attributes of the server's certifical	-
<u>₩</u>	rify the Name and Usage attributes of the server's certifical	
<u>[v]</u> ⊻e	rify the Name and Usage attributes of the server's certifical	

Done! Click Connect to start VPN connection.

St Connect/PP	N Connection
gerrare:	-
Saward.	75 Juny To and cannot do that
Dogan.	
Z See this of	ernane and passwortfor the following uses:
🔅 He ab	
S C Ansona	who uses this computer
Connect	Centel Digsetter Lbb

# 13.4. Use WireGuard VPN to Access Your Home Network

WireGuard VPN Server is used to create a Wire Guard VPN connection for remote devices to access your home network.

### Step 1. Set up WireGuard VPN Server on Your Router

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > VPN Server > WireGuard, and tick the Enable box of WireGuard.

WireGuard Set up a WireGuard VPN ar	d accounts for quick, remote and secure access to your network.
WireGuard:	Enabled
Tunnel IP Address:	10.5.5.1/32
Listen Port:	51820
Client Access:	Internet and Home Network $\checkmark$
<ul> <li>Advanced Settings</li> </ul>	
DNS:	Enabled
Persistent Keepalive:	25
Private Key:	IKpwcr8Nztv0tkVAHviwaAArxpVH6iDwx6eMj XaQC1I=
Public Key:	xj9bP0sYrxa4rKBRdhx2qNBWY5uJjTg3YbQ kuXrlj0M=
	RENEW KEY

- 3. Set the Tunnel IP Address and Listen Port. Do NOT change it unless necessary.
- 4. Select your Client Access type. Select Home Network Only if you only want the remote device to access your home network; select Internet and Home Network if you also want the remote device to access internet through the VPN Server.
- 5. (Optional) Click Advanced Settings to display more settings. If DNS is turned on, the router will become the DNS server of the VPN client that establishes a connection with it. Change the Persistent Keepalive time (25 seconds by default) to send out heartbeat regularly, you can also click RENEW KEY to update the private key and public key.

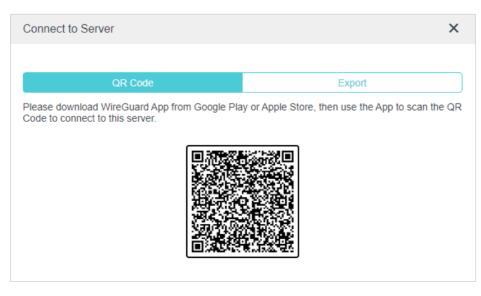
# Step 2. Create accounts that can be used by remote clients to connect to the VPN server.

1. Locate the Account List section. Click Add to create an account.

Add			×
Username:			
Address:	10.5.5.2/32		
Allowed IPs (Client):	0.0.0/0		
Allowed IPs (Server):	10.5.5.2/32		
Pre-shared Key (Secret):	Enabled		
		CANCEL	SAVE

- 2. Give a Username to this account.
- 3. View the Address of the virtual interface assigned to this account. Do NOT change it unless necessary.
- 4. Traffic sent from the WireGard VPN client to the allowed IPs (client) will be transmitted through the tunnel. By default, all network traffic from clients will be transmitted through the tunnel. Do NOT change it unless necessary.
- 5. Traffic sent from the WireGard VPN server to the allowed IPs (server) will be transmitted through the tunnel. Do NOT change it unless necessary.
- 6. Enable or disable Pre-shared Key.
- 7. Click SAVE.

Note: One account can only be used by one WireGuard VPN client at the same time to connect to the WireGuard VPN server.



8. Connect to the WireGuard server.

- For mobile phones, download WireGuard App from Google Play or Apple Store, then use the App to scan the QR Code to connect to this server.
- For other devices (e.g. TP-Link WireGuard VPN client), Click EXPORT to save the WireGuard VPN configuration file which will be used by the remote device to access your router.

Connect to Server	×
QR Code	Export
Please use the following configuration to set up yo	ur WireGuard client.
EXP	ORT
[Interface] PrivateKey = UJOn+XkyxT6xft/+nHIwNHZAh1A6 Address = 10.5.5.3/32 [Peer] PublicKey = jfy1EJOegKql6DOJzl1pwTTj7U1IEy AllowedIPs = 0.0.0.0/1,128.0.0.0/1 Endpoint = 0.0.0.051820 PersistentKeepalive = 25	
	DONE

9. On the account list, you can click the button to modify the VPN server settings, connect to the server, or delete the account.

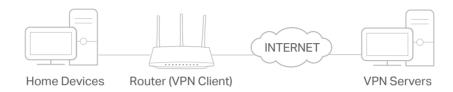
figure accounts (up to 16)	that can be used by remote clients to connect to	o the VPN server.
		<b>•</b> A
Username	Allowed IPs	Modify
Test	0.0.0.0/1,128.0.0.0/1	C & D
ADMIN	0.0.0.0/1,128.0.0.0/1	回の団

# 13.5. Use VPN Client to Access a Remote VPN Server

VPN Client is used to create VPN connections for devices in your home network to access a remote VPN server.

To use the VPN feature, simply configure a VPN connection and choose your desired devices on your router, then these devices can access the remote VPN server. Please follow the steps below:

\*Image may differ from your actual product.



- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > VPN Client.

Note: Firmware update may be required to support VPN Client.

3. Enable VPN Client, then save the settings.

VPN Client			
Set up profiles for clien	ts that will use the VPN fun	ction.	
VPN Client:			
VI II Chent.			

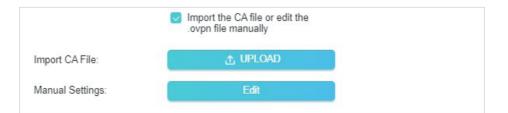
- 4. Add VPN servers, and enable the one you need.
  - 1) In the Server List section, click Add.
  - 2) Specify a Description for the VPN, and choose the VPN Type.

Add Profile		×
Description:		
VPN Type:	WireGuard	
Import from Config File: NAT:	OpenVPN PPTP L2TP/IPSec	
Interface	WireGuard	
Peer		
	CANCEL	SAVE

- 3) Enter the VPN information provided by your VPN provider.
- OpenVPN: Enter the VPN username and password if required by your VPN provider, otherwise simply leave them empty. Then import the configuration file provided by your VPN provider.

Add Profile		×
Description:	VPN1	
VPN Type:	OpenVPN ~	
Username:	Ζ	(Optional)
Password:	····· Ø	(Optional)
Import .ovpn File:	① UPLOAD	
	Import the CA file or edit the .ovpn file manually	
	CAN	SAVE

Note: You can also check the box of Import the CA file or edit the . ovpn file manually, then upload the CA file or manually configure the settings.



• PPTP: Enter the VPN server address (for example: 218.18.1.73) and the VPN username and password provided by your VPN provider.

Add Profile		×
Description:	VPN1	
VPN Type:	PPTP ~	
VPN Server:		
Username:		
Password:	Ø	
Encryption:	Auto	
	CANCEL	

 L2TP/IPSec VPN: Enter the VPN server address (for example: 218.18.1.73), VPN username and password, and IPSec pre-shared key provided by your VPN provider.

Add Profile		×
Description:	VPN1	
VPN Type:	L2TP/IPSec v	
VPN Server:		
Username:		
Password:	Ø	
IPSec Pre-Shared Key:		
	CANCEL	SAVE

• WireGuard VPN: Give a description, and click BROWSE to import the WireGuard VPN server configuration. Then you will see the detailed parameters. Do NOT change the parameters unless necessary.

Add Profile		×
Description:	VPN1	
VPN Type:	WireGuard	
Import from Config File:	企 UPLOAD	1
NAT:	Enabled	
▼ Interface		
Private Key:		
Address:		
DNS Server 1:		(Optional)
DNS Server 2:		(Optional)
MTU Size:	1420 bytes	(Optional)
V Peer		
Public Key:		
Pre-Shared Key:		(Optional)
Allowed IPs:		
Endpoint Address:		
Endpoint Port:		
Persistent Keepalive:	25	(Optional)
	CAN	ICEL SAVE

- 4) Save the settings.
- 5) In the server list, enable the VPN server you need.

d or edit VPN serv	er. Up to 6 VPN serve	rs can be added.		
				🔂 Ad
Description	VPN Type	Status	ENABLE	Modify
vpn3	L2TP/IPSec	Disconnected		0
vpn2	PPTP	Disconnected	$\bigcirc$	00
vpn1	OpenVPN	Disconnected	$\bigcirc$	00
vpn4	WireGuard	Disconnected		01

- 5. Add and manage the devices that will use the VPN function.
  - 1) In the Device List section, click Add.
  - 2) Choose and add the devices that will access the VPN server you have configured.

Add Profile		×
Description:		
VPN Type:	WireGuard ~	
Import from Config File:	OpenVPN	
NAT:	PPTP L2TP/IPSec	
Interface	WireGuard	
Peer		
	CAN	CEL SAVE

6. Save the settings.

Device List Manage devices that will use the VPN function.				
				🕂 Add
Туре	Device Name	MAC Address	VPN Access	Modify
•••	1000	FC:AA:14:55:FB:5D		莭
•••	Mp.Phane	86:D2:DE:B9:18:62		Ū

Done! Now the devices you specified can access the VPN server you enabled.

# Chapter 14

# **Customize Your Network Settings**

This chapter guides you on how to configure advanced network features.

It contains the following sections:

- <u>Change the LAN Settings</u>
- <u>Set Up Link Aggregation</u>
- Flow Controller
- <u>Configure to Support IPTV Service</u>
- Specify DHCP Server Settings
- <u>Set Up a Dynamic DNS Service Account</u>
- <u>Create Static Routes</u>

# 14.1. Change the LAN Settings

The router is preset with a default LAN IP 192.168.0.1, which you can use to log in to its web management page. The LAN IP address together with the Subnet Mask also defines the subnet that the connected devices are on. If the IP address conflicts with another device on your local network or your network requires a specific IP subnet, you can change it.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Network > LAN.
- 3. Type in a new IP Address appropriate to your needs. And leave the Subnet Mask as the default settings.

LAN		
View and configure LAN settings.		
MAC Address:	98-DA-C4-B4-01-D8	
IP Address:	192.168.0.1	
Subnet Mask:	255.255.255.0	

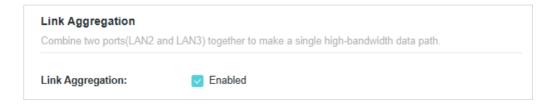
### 4. Click SAVE.

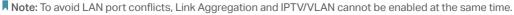
**Note:** If you have set the Port Forwarding, DMZ or DHCP address reservation, and the new LAN IP address is not in the same subnet with the old one, then you should reconfigure these features.

# 14.2. Set Up Link Aggregation

The Link Aggregation feature combines two ports (LAN2 & LAN3) together to make a single highbandwidth data path, thus sustaining a higher-speed and more stable wired network.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Network > LAN, and locate the Link Aggregation section.
- 3. Enable Link Aggregation.





# 14.3. Flow Controller

With Flow Controller enabled, when a device gets overloaded it will send a PAUSE frame to notify the peer device to stop sending data for a specified period of time, thus avoiding the packet loss caused by congestion.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Network > LAN, and locate the Flow Controller section.
- 3. Flow Controller is enabled by default. Please note that enable Flow Controller may cause internet drop with some devices.

Flow Controller	
Flow Controller	
	d, when a device gets overloaded it will send a PAUSE frame to notify the peer data for a specified period of time, thus avoiding the packet loss caused by
Flow Control:	RX Enabled
	TX Enabled
Note: Enable this optio	n may cause internet drop with some devices.

# 14.4. Configure to Support IPTV Service

### I want to:

Configure IPTV setup to enable Internet/IPTV/Phone service provided by my internet service provider (ISP).

### How can I do that?

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Network > IPTV/VLAN.
- **3.** If your ISP provides the networking service based on IGMP technology, e.g., British Telecom(BT) and Talk Talk in UK:
  - 1) Tick the IGMP Proxy and IGMP Snooping checkbox, then select the IGMP Version, either V2 or V3, as required by your ISP.

IGMP		
Check the multicast setti	gs. It is recommended to keep them as default.	
IGMP Proxy:	Enabled	
IGMP Snooping:	Enabled	
IGMP Version:	V2 ~	

- 2) Click SAVE.
- 3) After configuring IGMP proxy, IPTV can work behind your router now. You can connect your set-top box to any of the router's Ethernet port.

If IGMP is not the technology your ISP applies to provide IPTV service:

- 1) Tick Enable IPTV/VLAN.
- 2) Select the appropriate Mode according to your ISP.
  - Select Bridge if your ISP is not listed and no other parameters are required.
  - Select Custom if your ISP is not listed but provides necessary parameters.

IPTV/VLAN Configure IPTV/VLAN s	attings if you want to enjoy IPTV or VoIP service, or if your ISP requires VLAN t	tags.
IPTV/VLAN:	Enabled	
Mode:	Bridge	
LAN 1:	Internet	
LAN 2:	Internet ~	
LAN 3:	IPTV ~	
LAN 4:	IPTV ~	

- 3) After you have selected a mode, the necessary parameters, including the LAN port for IPTV connection, are predetermined. If not, select the LAN type to determine which port is used to support IPTV service.
- 4) Click SAVE.
- 5) Connect the set-top box to the corresponding LAN port which is predetermined or you have specified in Step 3.

### Done!

Your IPTV setup is done now! You may need to configure your set-top box before enjoying your TV.

# 14.5. Specify DHCP Server Settings

By default, the DHCP (Dynamic Host Configuration Protocol) Server is enabled and the router acts as a DHCP server; it dynamically assigns TCP/IP parameters to client devices from the IP Address Pool. You can change the settings of the DHCP Server if necessary, and you can reserve LAN IP addresses for specified client devices.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Network > DHCP Server.
- To specify the IP address that the router assigns:

DHCP Server Dynamically assign IP addresses to the devices connected to the router.				
DHCP Server:	Enabled			
IP Address Pool:	192.168.1.2	- 192.168.1.25	53	
Address Lease Time:	120	minutes		
Default Gateway:	192.168.1.1		(Optiona	
Primary DNS:			(Optiona	
Secondary DNS:			(Optiona	

- 1. Tick the Enable checkbox.
- 2. Enter the starting and ending IP addresses in the IP Address Pool.
- 3. Enter other parameters if the ISP offers. The Default Gateway is automatically filled in and is the same as the LAN IP address of the router.
- 4. Click SAVE.
- To reserve an IP address for a specified client device:
- 1. Click Add in the Address Reservation section.

Address Reservation	n			
Reserve IP addresses for	r specific devices connect	ed to the router.		
				🔂 Ad
Device Name	MAC Address	Reserved IP Address	Status	Modify
There is no entry!				

2. Click VIEW CONNECTED DEVICES and select the you device you want to reserve an IP for. Then the MAC Address will be automatically filled in. Or enter the MAC address of the client device manually.

Add a Reservation Entry		×
MAC Address:		
	VIEW CONNECTED DEVICES	
IP Address:		
	CANCEL SAVE	

- 3. Enter the IP address to reserve for the client device.
- 4. Click SAVE.

## 14.6. Set Up a Dynamic DNS Service Account

Most ISPs assign a dynamic IP address to the router and you can use this IP address to access your router remotely. However, the IP address can change from time to time and you don't know when it changes. In this case, you might apply the DDNS (Dynamic Domain Name Server) feature on the router to allow you and your friends to access your router and local servers (FTP, HTTP, etc.) using a domain name without checking and remembering the IP address.

Note: DDNS does not work if the ISP assigns a private WAN IP address (such as 192.168.1.x) to the router.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > Network > Dynamic DNS.
- 3. Select the DDNS Service Provider: TP-Link, NO-IP or DynDNS. It is recommended to select TP-Link so that you can enjoy TP-Link's superior DDNS service. Otherwise, please select NO-IP or DynDNS. If you don't have a DDNS account, you have to register first by clicking Register Now.

Dynamic DNS		
Assign a fixed host name router.	(domain name) for remote ac	ccess to your device, website, or server behind the
Service Provider:	TP-Link	~

Note: To enjoy TP-Link's DDNS service, you have to log in with a TP-Link ID. If you have not logged in with one, click log in.

4. Click Register in the Domain Name List if you have selected TP-Link, and enter the Domain Name as needed.

Dynamic DNS				
Assign a fixed host name router.	e (domain name) for	r remote access	to your device, website, or se	erver behind the
Se	ervice Provider: T	P-Link	~	
Current	Domain Name:			
Domain Name List				
				Register
Domain Name	Registered Date	Status	Operation	Delete
No Entries				

If you have selected NO-IP or DynDNS, enter the username, password and domain name of your account.

Service Provider:	NO-IP v	Register Now
Username:		
Password:	Ø	
Domain Name:		
WAN IP binding:	Enabled	
Status:	Not launching	
	LOGIN AND SAVE	
	LOGOUT	

### 5. Click LOGIN AND SAVE.

@ Tips: If you want to use a new DDNS account, please click Logout first, and then log in with a new account.

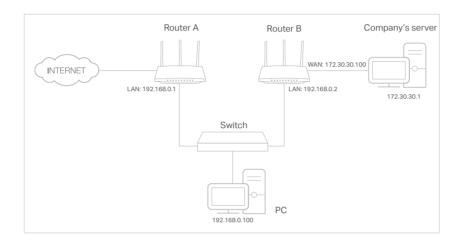
## 14.7. Create Static Routes

Static routing is a form of routing that is configured manually by a network administrator or a user by adding entries into a routing table. The manually-configured routing information guides the router in forwarding data packets to the specific destination.

### I want to:

Visit multiple networks and servers at the same time.

For example, in a small office, my PC can surf the internet through Router A, but I also want to visit my company's network. Now I have a switch and Router B. I connect the devices as shown in the following figure so that the physical connection between my PC and my company's server is established. To surf the internet and visit my company's network at the same time, I need to configure the static routing.



### How can I do that?

- 1. Change the routers' LAN IP addresses to two different IP addresses on the same subnet. Disable Router B's DHCP function.
- 2. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for Router A.
- 1. Go to Advanced > Network > Routing.

Static Routing						
Predetermine a fixed route for network packets to reach a specific host or network.						
						🔂 Add
Network Destination	Subnet Mask	Default Gateway	Interface	Description	Status	Modify
There is no e	entry!					

2. Click Add and finish the settings according to the following explanations:

Add a Routing Entry		×
Network Destination:		
Subnet Mask:		
Default Gateway:		
Interface:	- Please Select - V	
Description:		
	CANCEL SAVE	

Network Destination: The destination IP address that you want to assign to a static route. This IP address cannot be on the same subnet with the WAN IP or LAN IP of Router A. In the example, the IP address of the company network is the destination IP address, so here enter 172.30.30.1.

Subnet Mask: Determines the destination network with the destination IP address. If the destination is a single IP address, enter 255.255.255.255; otherwise, enter the subnet mask of the corresponding network IP. In the example, the destination network is a single IP, so here enter 255.255.255.255.

Default Gateway: The IP address of the gateway device to which the data packets will be sent. This IP address must be on the same subnet with the router's IP which sends out data. In the example, the data packets will be sent to the LAN port of Router B and then to the Server, so the default gateway should be 192.168.0.2.

Interface: Determined by the port (WAN/LAN) that sends out data packets. In the example, the data are sent to the gateway through the LAN port of Router A, so LAN/WLAN should be selected.

Description: Enter a description for this static routing entry.

- 3. Click SAVE.
- 4. Check the Routing Table below. If you can find the entry you've set, the static routing is set successfully.

Routing Table View all valid routing entries that are currently in use.				
Active Route Number: 3				
Network Destination	Subnet Mask	Gateway	Interface	
0.0.0.0	0.0.0.0	192.168.0.1	WAN	
192.168.0.0	255.255.255.0	0.0.0.0	WAN	
192.168.1.0	255.255.255.0	0.0.0.0	LAN	

### Done!

Open a web browser on your PC. Enter the company server's IP address to visit the company network.

# Chapter 15

# **Manage the Router**

This chapter will show you the configuration for managing and maintaining your router. It contains the following sections:

- Update the Firmware
- Backup and Restore Configuration Settings
- <u>Change the Login Password</u>
- Password Recovery
- Local Management
- <u>Remote Management</u>
- <u>System Log</u>
- <u>Test the Network Connectivity</u>
- Set System Time and Language
- Set the Router to Reboot Regularly
- <u>Control the LED</u>

# 15.1. Update the Firmware

TP-Link aims at providing better network experience for users.

We will inform you through the web management page if there's any new firmware available for your router. Also, the latest firmware will be released at the TP-Link official website <u>www.tp-link.com</u>, and you can download it from the <u>Support</u> page for free.

Note:

- Back up your router's configurations before firmware update.
- Do NOT turn off the router during the firmware update.

### 15.1.1. Online Update

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. When the latest firmware is available for your router, the update icon of will display in the top-right corner of the page. Click the icon to go to the Firmware Update page.

Alternatively, you can go to Advanced > System > Firmware Update, and click CHECK FOR UPDATES to see whether the latest firmware is released.

Online Update	
Update firmware over the internet.	
Firmware Version:	
Hardware Version: Archer AX	
CHECK FOR UPDATES	

3. Focus on the Online Update section, and click UPDATE if there is new firmware.

Online Update	
Update firmware over the internet.	
Firmware Version:	
Hardware Version: Archer AX	What's New
Latest Himware version.	
UPD	ATE

### 4. Wait a few minutes for the update and reboot to complete.

*Tips:* If there's a new and important firmware update for your router, you will see the prompt notification on your computer as long as a web browser is opened. Click to update, and log in to the web management page with the username and password you set for the router. You will see the Firmware Update page.

### 15.1.2. Local Update

- 1. Download the latest firmware file for the router from <u>www.tp-link.com</u>.
- 2. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 3. Go to Advanced > System > Firmware Update.
- 4. Focus on the Local Update section. Click BROWSE to locate the downloaded new firmware file, and click UPDATE.



### 5. Wait a few minutes for the update and reboot to complete.

Note: If you fail to update the firmware for the router, please contact our Technical Support.

# 15.2. Backup and Restore Configuration Settings

The configuration settings are stored as a configuration file in the router. You can backup the configuration file to your computer for future use and restore the router to a previous settings from the backup file when needed. Moreover, if necessary you can erase the current settings and reset the router to the default factory settings.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System Tools > Backup & Restore.

### • To backup configuration settings:

Click BACK UP to save a copy of the current settings to your local computer. A '.bin' file of the current settings will be stored to your computer.

Backup		
Save current router settings to a file.		
	BACK UP	

- To restore configuration settings:
- 1. Click BROWSE to locate the backup configuration file stored on your computer, and click RESTORE.

Restore		
Restore settings from a backup file.		
File:	企 UPLOAD	
	RESTORE	

### 2. Wait a few minutes for the restoring and rebooting.

Note: During the restoring process, do not turn off or reset the router.

• To reset the router except your login password and TP-Link ID:

### 1. In the Factory Default Restore section, click RESTORE.

ocuren	4	U Reliesh	
2025-01-22 16:13	3:23 Time Settings INFO [3519] Serv	vice restart	
	9:48 Led Controller INFO [1209] Star		
2022-10-19 01:0	9:48 Led Controller INFO [1209] Star	rt to run WAN0_OFF	

### 2. Wait a few minutes for the resetting and rebooting.

#### Note:

- During the resetting process, do not turn off the router.
- After reset, you can still use the current login password or the TP-Link ID to log in to the web management page.

### • To reset the router to factory default settings:

1. Click FACTORY RESTORE to reset the router.

2022-10-19 01:09:48 Led Controller INFO [1209] Start to run LAN ON
2022-10-19 01:09:19 Led Controller INFO [1209] Start to run WAN1_ON
2022-10-19 01:09:19 Led Controller INFO [1209] Start to run WAN0_OFF
2022-10-19 01:09:19 Led Controller INFO [1209] Start to run LAN_OFF
2022-10-19 01:08:49 Led Controller INFO [1209] Start to run WAN1 OFF

### 2. Wait a few minutes for the resetting and rebooting.

Note:

- During the resetting process, do not turn off or reset the router.
- We strongly recommend you backup the current configuration settings before resetting the router.

# 15.3. Change the Login Password

# The account management feature allows you to change your login password of the web management page.

**Note:** If you are using a TP-Link ID to log in to the web management page, the account management feature will be disabled. To manage the TP-Link ID, go to Advanced > TP-Link ID.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > System > Administration and focus on the Change Password section.

Change Password		
Change the router's local management password.		
Old Password:		Ø
New Password:		Ø
Confirm New Password:		Ø)

- 3. Enter the old password, then a new password twice (both case-sensitive). Click SAVE.
- 4. Use the new password for future logins.

## 15.4. Password Recovery

This feature allows you to recover the login password you set for you router in case you forget it.

**Note:** If you are using a TP-Link ID to log in to the web management page, the Password Recovery feature will be disabled. To manage the TP-Link ID, go to Advanced > TP-Link ID.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > System > Administration and focus on the Password Recovery section.
- 3. Tick the Enable box of Password Recovery.

Password	Recovery
----------	----------

Reset local management password via preset questions and answers.		
Password Recovery:	Enabled	
From:		
To:		
SMTP Server:		
Authentication:	Enabled	

4. Specify a mailbox (From) for sending the recovery letter and enter its SMTP Server address. Specify a mailbox (To) for receiving the recovery letter. If the mailbox (From) to send the recovery letter requires encryption, Tick the Enable box of Authentication and enter its username and password.

Tips:

- SMTP server is available for users in most webmail systems. For example, the SMTP server address of Gmail is smtp.gmail.com.
- Generally, Authentication should be enabled if the login of the mailbox requires username and password.

### 5. Click SAVE.

To recover the login password, please visit <u>http://tplinkwifi.net</u>, click Forgot Password? on the login page and follow the instructions to set a new password.

# 15.5. Local Management

This feature allows you to limit the number of client devices on your LAN from accessing the router by using the MAC address-based authentication.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Administration and complete the settings In Local Management section as needed.
- Access the router via HTTPS and HTTP:

Tick the Enable box of Local Management via HTTPS to access the router via HTTPS and HTTP, or keep it disabled to access the router only via HTTP.

Local Management		
Access and manage the ro	uter from local network devices	).
Local Management via HTTPS:	Enabled	
Local Managers:	All Devices	$\sim$

• Allow all LAN connected devices to manage the router:

Select All Devices for Local Managers.

Local Management		
Access and manage the router from local network devices.		
Local Management via HTTPS:	Enabled	
Local Managers:	All Devices	~

- Allow specific devices to manage the router:
- 1. Select All Devices for Local Managers and click SAVE.

Local Management		
Access and manage the router fro	om local network devices.	
Local Management via HTTPS:	Enabled	
Local Managers:	Specified Devices ~	
		Add Device
Description	MAC Address	Modify
There is no entry!		

2. Click Add Device.

Add Device	×	<
Description:	(Optional)	
	VIEW CONNECTED DEVICES	
MAC Address:		
	CANCEL SAVE	

- 3. Click VIEW CONNECTED DEVICES and select the device to manage the router from the Connected Devices list, or enter the MAC address of the device manually.
- 4. Specify a Description for this entry.
- 5. Click SAVE.

### 15.6. Remote Management

This feature allows you to control remote devices' authority to manage the router.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Administration and complete the settings in Remote Management section as needed.
- Forbid all devices to manage the router remotely:

Do not tick the Enable checkbox of Remote Management.

Remote Management Access and manage the rou	iter over the internet.
	t is not supported when you are connected to the internet only via IPv6. If you ement, please make sure you have set up an IPv4 connection first.

Allow all devices to manage the router remotely:

Remote Management Access and manage the router over the internet.			
Note: Remote Management is not supported when you are connected to the internet only via IPv6. If you want to use Remote Management, please make sure you have set up an IPv4 connection first.			
Remote Management:	Enabled		
HTTPS Port:	443		
Web Address for Management:	https://192.168.0.101:443		
Remote Managers:	All Devices $\lor$		

- 1. Tick the Enable checkbox of Remote Management.
- 2. Keep the HTTPS and HTTP port as default settings (recommended) or enter a value between 1024 and 65535.
- 3. Select All Devices for Remote Managers.

### 4. Click SAVE.

Devices on the internet can log in to <u>http://Router's WAN IP address:port number</u> (such as <u>http://113.116.60.229:1024</u>) to manage the router.

Ø Tips:

- You can find the WAN IP address of the router on Network Map > Internet.
- The router's WAN IP is usually a dynamic IP. Please refer to <u>Set Up a Dynamic DNS Service Account</u> if you want to log in to the router through a domain name.
- Allow a specific device to manage the router remotely:

Remote Management Access and manage the router of	ver the internet.	
	ot supported when you are connected to ti nt, please make sure you have set up an l	
Remote Management:	Enabled	
HTTPS Port:	443	
Web Address for Management:	https://192.168.0.101:443	
Remote Managers:	Specified Device V	
-		
Only this IP Address:		

- 1. Tick the Enable checkbox of Remote Management.
- 2. Keep the HTTPS and HTTP port as default settings (recommended) or enter a value between 1024 and 65535.
- 3. Select Specified Device for Remote Managers.
- 4. In the Only this IP Address field, enter the IP address of the remote device to manage the router.
- 5. Click SAVE.

Devices using this WAN IP can manage the router by logging in to <u>http://Router's WAN</u> IP:port number (such as <u>http://113.116.60.229:1024</u>).

Tips: The router's WAN IP is usually a dynamic IP. Please refer to <u>Set Up a Dynamic DNS Service Account</u> if you want to log in to the router through a domain name.

# 15.7. System Log

When the router does not work normally, you can save the system log and send it to the technical support for troubleshooting.

- To save the system log locally:
- 1. Visit <u>http://tplinkwifi.net</u>, and log in your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > System Log.
- 3. Choose the type and level of the system logs as needed.

System Log			
View a detailed record of system activities.			
Current Time:	2025-01-22 04:13:37 P	M	
All	~		
Search	Q	🕞 Refresh	Clear All
	23 Time Settings INFO [3519] Ser 48 Led Controller INFO [1209] Sta		
2022-10-19 01:09:	48 Led Controller INFO [1209] Sta 48 Led Controller INFO [1209] Sta 48 Led Controller INFO [1209] Sta	art to run WAN0_OFF	
2022-10-19 01:09: 2022-10-19 01:09:	19 Led Controller INFO [1209] Sta 19 Led Controller INFO [1209] Sta	art to run WAN1_ON art to run WAN0_OFF	
2022-10-19 01:08:	19 Led Controller INFO [1209] Sta 49 Led Controller INFO [1209] Sta 49 Led Controller INFO [1209] Sta	art to run WAN1_OFF	
2022-10-19 01:08:	49 Led Controller INFO [1209] Sta 49 Led Controller INFO [1209] Sta 24 Led Controller INFO [1209] Sta	art to run LAN_OFF	
2022-10-19 01:08:	04 Led Controller INFO [1209] Sta 04 Led Controller INFO [1209] Sta 04 Led Controller INFO [1209] Sta	art to run WAN0_OFF	
2022-10-19 01:08:	04 Led Controller INFO [1209] Sta	art to run LAN_OFF	

4. In the Save Log section, click SAVE TO LOCAL to save the system logs to a local disk.

Save Log		
Send system log to a specific email addr	ress or save locally.	
	MAIL LOG	
	SAVE TO LOCAL	

• To send the system log to a mailbox at a fixed time:

For example, I want to check my router's working status at a fixed time every day, however, it's too troublesome to log in to the web management page every time I want to go checking. It would be great if the system logs could be sent to my mailbox at 8 a.m. every day.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System Tools > System Log.
- 3. In the Save Log section, click MAIL LOG.
- 4. Enter the information required:

Mail Log		×
Note: Set your mail information	n below.	
Email From:		
	Require Password	
Username:		
Email Password:	Ø	
SMTP Server:		
Email To:		
	Mail Log Automatically	
Frequency:	Every Day V	
Mail Time:	00 ~ : 00 ~	
	CANCEL	

- 1) Email From: Enter the email address used for sending the system log.
- 2) Select Require Password.

Tips: Generally, Require Password should be selected if the login of the mailbox requires username and password.

- 3) Username: Enter the email address used for sending the system log.
- 4) Email Password: Enter the password to login the sender's email address.
- 5) SMTP Server: Enter the SMTP server address.

Tips: SMTP server is available for users in most webmail systems. For example, the SMTP server address of Hotmail is smtp-mail.outlook.com.

- Email To: Enter the recipient's email address, which can be the same as or different from the sender's email address.
- 7) Select Mail Log Automatically.

© Tips: The router will send the system log to the designated email address if this option is enabled.

8) Frequency: This determines how often the recipient will receive the system log.

5. Click SAVE.

### **15.8.** Test the Network Connectivity

Diagnostics is used to test the connectivity between the router and the host or other network devices.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Diagnostics.

ivity problems.		
Ping	~	
4		
64	Bytes	
ST	ART	
	Ping 4 64	Ping v

- 3. Enter the information:
  - 1) Choose Ping or Traceroute as the diagnostic tool to test the connectivity;
  - Ping is used to test the connectivity between the router and the tested host, and measure the round-trip time.
  - Traceroute is used to display the route (path) your router has passed to reach the tested host, and measure transit delays of packets across an Internet Protocol network.
  - 2) Enter the IP Address or Domain Name of the tested host.
  - 3) Modify the Ping Count number and the Ping Packet Size. It's recommended to keep the default value.
  - 4) If you have chosen Traceroute, you can modify the Traceroute Max TTL. It's recommended to keep the default value.

4. Click START to begin the diagnostics.

The figure below indicates the proper connection between the router and the Yahoo server (www.Yahoo.com) tested through Ping.

```
PING 192.168.0.1 (192.168.0.1): 64 data bytes
Reply from 192.168.0.1: bytes=64 ttl=64 seq=1 time=0.322 ms
Reply from 192.168.0.1: bytes=64 ttl=64 seq=2 time=0.308 ms
Reply from 192.168.0.1: bytes=64 ttl=64 seq=3 time=0.286 ms
Reply from 192.168.0.1: bytes=64 ttl=64 seq=4 time=0.334 ms
--- Ping Statistic "192.168.0.1" ---
Packets: Sent=4, Received=4, Lost=0 (0.00% loss)
Round-trip min/avg/max = 0.286/0.312/0.334 ms
ping is stopped.
```

The figure below indicates the proper connection between the router and the Yahoo server (www.Yahoo.com) tested through Traceroute.

```
traceroute to 192.168.0.1, 5 hops max, 38 byte packets
1 Archer (192.168.0.1) 0.045 ms 0.015 ms 0.008 ms
Trace Complete.
traceroute is stopped.
```

# 15.9. Set System Time and Language

System time is the time displayed while the router is running. The system time you configure here will be used for other time-based functions like Parental Controls. You can choose the way to obtain the system time as needed.

System language is the language displayed when you log into the router. You can change the system language as needed.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Time & Language.
- To get time from the internet:
- 1. Enable 24-Hour Time if you want the time to display in a 24-hour way.
- 2. In the Set Time field, select Get from Internet.

System Time		
Set the router's system time	e.	
Current Time:	2025-01-22 16:18:41	
24-Hour Time:		
Set Time:	Get from Internet	~
Time Zone:	(UTC-10:00) Hawaii	~
NTP Server I:	us.pool.ntp.org	
NTP Server II:	north-america.pool.ntp.org	(Optional)

3. Select your local Time Zone from the drop-down list.

- 4. In the NTP Server I field, enter the IP address or domain name of your desired NTP Server.
- 5. (Optional) In the NTP Server II field, enter the IP address or domain name of the second NTP Server.
- 6. Click SAVE.
- To get time from your computer:
- 1. In the Set Time field, select Get from Managing Device.

System Time		
Set the router's system	ime.	
Current Time:	2025-01-22 16:19:07	
24-Hour Time:		
Set Time:	Get from Managing Device	
Time Zone:	(UTC-10:00) Hawaii	~

- 2. The time of your computer will then be displayed and click SAVE.
- To manually set the date and time:
- 1. In the Set Time field, select Manually.

System Time		
Set the router's system time.		
Current Time:	2025-01-22 16:19:53	
24-Hour Time:		
Set Time:	Manually	
Time Zone:	(UTC-10:00) Hawaii	~
Date:	2025/01/22	
Time:	16 v: 18 v: 25 v	

- 2. Set the current Date (In MM/DD/YYYY format).
- 3. Set the current Time (In HH/MM/SS format).
- 4. Click SAVE.
- To set Daylight Saving Time:
- 1. Tick the Enable box of Daylight Saving Time.

Daylight Saving Time				
Automatically synchronize th	e system time with daylight sa	iving time.		
Daylight Saving Time:	Enabled			
Start: 2025	Mar	~	2nd	~
	Sun	~	02:00	~
End: 2025	Nov	~	First	~
	Sun	~	02:00	~
Running Status:	Daylight Saving Time is o	off.		

- 2. Select the correct Start date and time when daylight saving time starts at your local time zone.
- 3. Select the correct End date and time when daylight saving time ends at your local time zone.
- 4. Click SAVE.

### • To set system language:

Select the language from the dropdown list, then click SAVE.

Language Set the router's system language.			
Language:	English	~	

## 15. 10. Set the Router to Reboot Regularly

The Scheduled Reboot feature cleans the cache to enhance the running performance of the router.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > Reboot.
- 3. Tick the Enable box of Reboot Schedule.

Reboot Schedule Set when and how often the router reboots automatically.		
Reboot Schedule:	Enabled	
Note: Before using this feature, make sure System Time is set to "Get from Internet".		
Reboot Time:	3 ~	
Repeat:	Every Week	
	Monday ~	

- 4. Specify the Reboot Time when the router reboots and Repeat to decide how often it reboots.
- 5. Click SAVE.

# 15.11. Control the LED

The LED of the router indicates its activities and status. You can enable the Night Mode feature to specify a time period during which the LED is off.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced > System > LED Control.
- 3. Enable Night Mode.
- 4. Specify the LED off time, and the LED will be off during this period every day.
- 5. Click SAVE.

LED Control		
Turn the router's LEDs on or off.		
LED Status:		
Note: TP-Link satellite routers w	ill follow the main router's LED Control Settings.	
	5	
Night Mode		
Set a time period when the LED	s will be off automatically.	
Night Mode:	Enabled	
Note: Before using this feature, make sure System Time is set to "Get from Internet".		
Current Time:	2025-01-22 16:32:39	
LED Off From:	22 ~ ): 00 ~	
To:	6	

# FAQ

### Q1. What should I do if I forget my wireless password?

The default wireless password is printed on the label of the router. If the password has been altered:

- 1. Connect your computer to the router using an Ethernet cable.
- 2. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 3. Go to Wireless to retrieve or reset your wireless password.

### Q2. What should I do if I forget my web management password?

- If you are using a TP-Link ID to log in, or you have enabled the Password Recovery feature of the router, click Forgot password on the login page and then follow the instructions to reset it.
- Alternatively, press and hold the Reset button of the router for about 6 seconds until the Power LED blinks to restore factory default settings, and then visit <u>http://tplinkwifi.net</u> to create a new login password.

### Note:

- Please refer to Password Recovery to learn how to configure Password Recovery.
- You'll need to reconfigure the router to surf the internet once the router is reset, and please mark down your new password for future use.

# Q3. What should I do if I can't log in to the router's web management page?

This can happen for a variety of reasons. Please try the methods below to log in again.

- Make sure your computer is connected to the router correctly and the corresponding LED indicator(s) light up.
- Make sure the IP address of your computer is configured as Obtain an IP address automatically and Obtain DNS server address automatically.
- Make sure <a href="http://tplinkwifi.net">http://192.168.0.1</a> is correctly entered.
- Check your computer's settings:
  - 1) Go to Start > Control Panel > Network and Internet, and click View network status and tasks.
  - 2) Click Internet Options on the bottom left.
  - 3) Click Connections and select Never dial a connection.

eneral Se	curity	Privacy	Content	Connections	Programs	Advanced
	o set up etup.	o an Inter	net connec	tion, click	Set	up
Dial-up and	l Virtua	Private N	Network se	ttings		
🎒 Bro	adbar	nd Conn	ection		Add	l
					Add V	PN
					Remo	ve
Choose Server for			ed to config	jure a proxy	Sett	ings
Never	dial a d	connection	n			
🔘 Dial w	heneve	r a netwo	ork connect	tion is not pres	ent	
Alway	s dial m	ny default	connection	1		
Curren		None			Set de	fault
Local Area	Netwo	rk (LAN) s	ettings -			
			to dial-up r dial-up se	connections. ettings.	LAN se	ttings

4) Click LAN settings and deselect the following three options and click OK.

	nfiguration may override manual settings. To ensure th I settings, disable automatic configuration.
Automatic	ally detect settings
Use autor	natic configuration script
Address	
Proxy server	
	xy server for your LAN (These settings will not apply to VPN connections).
Address:	Port: 80 Advanced
Huuross,	and the second se

5) Go to Advanced > Restore advanced settings, click OK to save the settings.

🔁 Internet Properti	es				? ×			
General Security	Privacy	Content	Connections	Programs	Advanced			
Settings								
Enable     Move :     Reset     Reset     Reset     Reset     Reset     Orse i     Oisable     Oisable     Oisable	s expand Caret Br system ca text size text size zoom leve atically re unused for e script de e script de	ret with fo to medium to medium el for new v cover from ders in His ebugging (I ebugging (C	new windows a cus/selection d for new window while zooming* windows and ta n page layout e story and Favor nternet Explore	hanges ws and tabs bs rrors with Co rites* er)				
▼ Display	/ Accelera	ator button	on selection		-			
*Takes effect a	*Takes effect after you restart Internet Explorer							
			Restore	advanced s	ettings			
Reset Internet Exp	plorer set	tings						
Resets Internet condition. You should only				Kest				
			<u></u>					
		Ok	Ca	incel	Apply			

- Use another web browser or computer to log in again.
- Reset the router to factory default settings and try again. If login still fails, please contact the technical support.

Note: You'll need to reconfigure the router to surf the internet once the router is reset.

# Q4. What should I do if I can't access the internet even though the configuration is finished?

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2. Go to Advanced> Network > Status to check internet status:

### If IP Address is a valid one, please try the methods below and try again:

- Your computer might not recognize any DNS server addresses. Please manually configure the DNS server.
  - 1) Go to Advanced > Network > DHCP Server.
  - 2) Enter 8.8.8.8 as Primary DNS, click SAVE.
  - Tips: 8.8.8 is a safe and public DNS server operated by Google.

DHCP Server			
Dynamically assgin IP addresses to the	devices connected to the	router.	
DHCP Server:	Enable		
IP Address Pool:	192.168.0.100	- 192.168.0	.249
Address Lease Time:	120	minutes	
Default Gateway:	192.168.0.1		(Optional)
Primary DNS:	8.8.8.8		(Optional)
Secondary DNS:			(Optional)

- Restart the modem and the router.
  - 1) Power off your modem and router, and leave them off for 1 minute.
  - 2) Power on your modem first, and wait about 2 minutes until it gets a solid cable or Internet light.
  - 3) Power on the router.
  - 4) Wait another 1 or 2 minutes and check the internet access.
- Reset the router to factory default settings and reconfigure the router.
- Upgrade the firmware of the router.
- Check the TCP/IP settings on the particular device if all other devices can get internet from the router.

As the picture below shows, if the IP Address is 0.0.0.0, please try the methods below and try again:

Status					
Internet status overview is displayed on this page.					
Internet					
Status:	WAN port is unplugged				
Internet Connection Type:	Dynamic IP				
IP Address:	0.0.0.0				
Subnet Mask:	0.0.0.0				
Default Gateway:	0.0.0.0				
Primary DNS:	0.0.0.0				
Secondary DNS:	0.0.0.0				

- Make sure the physical connection between the router and the modem is proper.
- Clone the MAC address of your computer.

- 1) Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2) Go to Internet or Advanced > Network > Internet and focus on the MAC Clone section.
- 3) Choose an option as needed (enter the MAC address if Use Custom MAC Address is selected), and click SAVE.

MAC Clone			
	Router MAC Address:	Use Default MAC Address	~
		Use Default MAC Address	
		Clone Current Device MAC Use Custom MAC Address	

#### Ø Tips:

- Some ISP will register the MAC address of your computer when you access the internet for the first time through their Cable modem, if you add a router into your network to share your internet connection, the ISP will not accept it as the MAC address is changed, so we need to clone your computer's MAC address to the router.
- The MAC addresses of a computer in wired connection and wireless connection are different.

### • Modify the LAN IP address of the router.

#### Note:

Most TP-Link routers use 192.168.0.1/192.168.1.1 as their default LAN IP address, which may conflict with the IP range of your existing ADSL modem/router. If so, the router is not able to communicate with your modem and you can't access the internet. To resolve this problem, we need to change the LAN IP address of the router to avoid such conflict, for example, 192.168.2.1.

- 1) Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
- 2) Go to Advanced > Network > LAN.
- 3) Modify the LAN IP address as the follow picture shows. Here we take 192.168.2.1 as an example.
- 4) Click SAVE.

LAN		
View and configure LAN settings.		
MAC Address:	98-DA-C4-B4-01-D8	
IP Address:	192.168.2.1	
Subnet Mask:	255.255.255.0	

• Restart the modem and the router.

- 1) Power off your modem and router, and leave them off for 1 minute.
- 2) Power on your modem first, and wait about 2 minutes until it get a solid cable or Internet light.
- 3) Power on the router.
- 4) Wait another 1 or 2 minutes and check the internet access.
- Double check the internet connection type.
  - 1) Confirm your internet connection type, which can be learned from the ISP.
  - 2) Visit <u>http://tplinkwifi.net</u>, and log in with your TP-Link ID or the password you set for the router.
  - 3) Go to Advanced > Network > Internet.
  - 4) Select your Internet Connection Type and fill in other parameters.
  - 5) Click SAVE.

Internet		
Set up an internet connection with the se	ervice information provided by your ISF	(internet service provider).
Internet Connection Type:	Dynamic IP V	
IP Address:	Static IP	
Subnet Mask:	Dynamic IP	
Default Gateway:	PPPoE	
Primary DNS:	L2TP PPTP	
Secondary DNS:		
	RENEW	
	RELEASE	

- 6) Restart the modem and the router again.
- Please upgrade the firmware of the router.

If you've tried every method above but still cannot access the internet, please contact the technical support.

# Q5. What should I do if I can't find my wireless network or I cannot connect the wireless network?

### If you fail to find any wireless network, please follow the steps below:

• Make sure the wireless function of your device is enabled if you're using a laptop with built-in wireless adapter. You can refer to the relevant document or contact the laptop manufacturer.

- Make sure the wireless adapter driver is installed successfully and the wireless adapter is enabled.
  - On Windows 7
  - 1) If you see the message No connections are available, it is usually because the wireless function is disabled or blocked somehow.
  - 2) Click Troubleshoot and windows might be able to fix the problem by itself.
  - On Windows XP
  - If you see the message Windows cannot configure this wireless connection, this is usually because windows configuration utility is disabled or you are running another wireless configuration tool to connect the wireless.
  - 2) Exit the wireless configuration tool (the TP-Link Utility, for example).
  - 3) Select and right click on My Computer on desktop, select Manage to open Computer Management window.
  - 4) Expand Services and Applications > Services, find and locate Wireless Zero Configuration in the Services list on the right side.
  - 5) Right click Wireless Zero Configuration, and then select Properties.
  - 6) Change Startup type to Automatic, click on Start button and make sure the Service status is Started. And then click OK.

### If you can find other wireless network except your own, please follow the steps below:

- Check the WLAN LED indicator on your wireless router/modem.
- Make sure your computer/device is still in the range of your router/modem. Move it closer if it is currently too far away.
- Go to Wireless or Advanced > Wireless > Wireless Settings, and check the wireless settings. Double check your wireless Network Name and SSID is not hided.

### If you can find your wireless network but fail to connect, please follow the steps below:

- Authenticating problem/password mismatch:
  - Sometimes you will be asked to type in a PIN number when you connect to the wireless network for the first time. This PIN number is different from the Wireless Password/Network Security Key, usually you can only find it on the label of your router.



- 2) If you cannot find the PIN or PIN failed, you may choose Connecting using a security key instead, and then type in the Wireless Password/Network Security Key.
- 3) If it continues to show note of Network Security Key Mismatch, it is suggested to confirm the wireless password of your wireless router.

Note: Wireless Password/Network Security Key is case sensitive.

- Windows unable to connect to XXXX / Can not join this network / Taking longer than usual to connect to this network:
  - Check the wireless signal strength of your network. If it is weak (1~3 bars), please move the router closer and try again.
  - Change the wireless Channel of the router to 1, 6 or 11 to reduce interference from other networks.
  - Re-install or update the driver for your wireless adapter of the computer.

### FCC compliance information statement



### Product Name: AX1800 Dual Band Wi-Fi 6 Router Model Number: Archer AX20/ Archer AX23/ Archer AX1800

Component Name	Model
I.T.E. Power Supply	T120150-2B1

### Responsible party:

### **TP-Link Systems Inc.**

Address: 10 Mauchly, Irvine, CA 92618 Website: http://www.tp-link.com/us/ Tel: +1 626 333 0234 Fax: +1 909 527 6803 E-mail: sales.usa@tp-link.com

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

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

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

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Note: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

### FCC RF Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

"To comply with FCC RF exposure compliance requirements, this grant is applicable to only Mobile Configurations. The antennas used for this transmitter must be installed to provide a separation distance of at least 44 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter."

We, **TP-Link Systems Inc.**, has determined that the equipment shown as above has been shown to comply with the applicable technical standards, FCC part 15. There is no unauthorized change is made in the equipment and the equipment is properly maintained and operated.

### FCC compliance information statement

Product Name: I.T.E. Power Supply Model Number: T120150-2B1 Responsible party:

### **TP-Link Systems Inc.**

Address: 10 Mauchly, Irvine, CA 92618 Website: http://www.tp-link.com/us/ Tel: +1 626 333 0234 Fax: +1 909 527 6803 E-mail: sales.usa@tp-link.com

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

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

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

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

We, **TP-Link Systems Inc.**, has determined that the equipment shown as above has been shown to comply with the applicable technical standards, FCC part 15. There is no unauthorized change is made in the equipment and the equipment is properly maintained and operated.

Issue Date: 2025-03-05

# CE Mark Warning

# (E

# **OPERATING FREQUENCY(the maximum transmitted power)**

2400 MHz -2483.5 MHz (20dBm) 5150 MHz -5250 MHz (23dBm)

# EU Declaration of Conformity

TP-Link hereby declares that the device is in compliance with the essential requirements and other relevant provisions of directives 2014/53/EU, 2009/125/EC, 2011/65/EU and (EU)2015/863.

The original EU Declaration of Conformity may be found at https://www.tp-link.com/en/support/ce/

## **RF Exposure Information**

This device meets the EU requirements (2014/53/EU Article 3.1a) on the limitation of exposure of the general public to electromagnetic fields by way of health protection.

The device complies with RF specifications when the device used at 20 cm from your body.

## Frequency band: 5150 - 5250 MHz:

Indoor use: Inside buildings only. Installations and use inside road vehicles and train carriages are not permitted. Limited outdoor use: If used outdoors, equipment shall not be attached to a fixed installation or to the external body of road vehicles, a fixed infrastructure or a fixed outdoor antenna. Use by unmanned aircraft systems (UAS) is limited to within the 5170 - 5250 MHz band.

	AT	BE	BG	СН	CY	CZ	DE	DK
	EE	EL	ES	FI	FR	HR	HU	IE
	IS	IT	LI	LT	LU	LV	MT	NL
)	NO	PL	PT	RO	SE	SI	SK	UK(NI)

UKCA Mark UK CA

### **UK Declaration of Conformity**

TP-Link hereby declares that the device is in compliance with the essential requirements and other relevant provisions of the Radio Equipment Regulations 2017.

The original UK Declaration of Conformity may be found at https://www.tp-link.com/support/ukca

### **National Restrictions**

Attention: This device may only be used indoors in Great Britain.

### **Canadian Compliance Statement**

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1) L'appareil ne doit pas produire de brouillage;

2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

### Caution:

1. The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;

### Avertissement:

1. Le dispositif fonctionnant dans la bande 5150-5250 MHz est réservé uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

### **Radiation Exposure Statement:**

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 27cm between the radiator & your body.

### Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 27 cm de distance entre la source de rayonnement et votre corps.

### **Industry Canada Statement**

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

### **Korea Warning Statements:**

당해 무선설비는 운용중 전파혼신 가능성이 있음.

### NCC Notice & BSMI Notice:

注意!

取得審驗證明之低功率射頻器材,非經核准,公司、商號或使用者均不得擅自變 更頻率、加大功率或變更原設計之特性及功能。

低功率射頻器材之使用不得影響飛航安全及干擾合法通信;經發現有干擾現象 時,應立即停用,並改善至無干擾時方得繼續使用。

前述合法通信,指依電信管理法規定作業之無線電通信。

低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干 擾。

應避免影響附近雷達系統之操作。

高增益指向性天線只得應用於固定式點對點系統。

安全諮詢及注意事項

- 請使用原裝電源供應器或只能按照本產品注明的電源類型使用本產品。
- 清潔本產品之前請先拔掉電源線。請勿使用液體、噴霧清潔劑或濕布進行 清潔。
- 注意防潮,請勿將水或其他液體潑灑到本產品上。
- 插槽與開口供通風使用,以確保本產品的操作可靠並防止過熱,請勿堵塞 或覆蓋開口。
- 請勿將本產品置放於靠近熱源的地方。除非有正常的通風,否則不可放在 密閉位置中。

• 請不要私自打開機殼,不要嘗試自行維修本產品,請由授權的專業人士進行此項工作。

### 限用物質含有情況標示聲明書

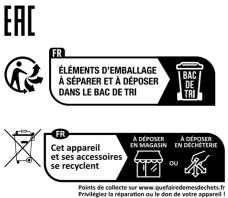
設備名稱:AX1800 Dual Band Wi-Fi 6 Router 型號(型式):Archer AX20/Archer AX23/Archer AX1800									
Equipment	name			Type design	ation (Type)				
	限用物質及其化學符號								
			Restricted subs	stances and its o	chemical symbols				
單元 Unit	鉛 Lead (Pb)	汞 Mercury (Hg)	鎘 Cadmium (Cd)	六價鉻 Hexavalent chromium (Cr <sup>+6</sup> )	多溴聯苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyl ethers (PBDE)			
PCB	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$			
外殼	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$			
電源供應器	—	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$			
其他及其 配件	_	0	0	0	0	0			
備考1. *超出	∃0.1 wt %	~ 及 〝 超出(	).01 wt % 係指	限用物質之百分	比含量超出百分比含	量基準值			
Note 1: "Exceeding 0.1 wt %" and "exceeding 0.01 wt %" indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition.									
備考2. `〇´	係指該項	限用物質之	百分比含量未超的	出百分比含量基準	隼值。				
	Note 2: "O" indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.								
偌考3 <sup>°</sup> <sup>°</sup> 医指药值限田物質为排除值日									

備考3. \*-\* 係指該項限用物質為排除項目。

Note 3: The "-" indicates that the restricted substance corresponds to the exemption.



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



### Safety Information

• Keep the device away from water, fire, humidity or hot environments.

- Do not attempt to disassemble, repair, or modify the device. If you need service, please contact us.
- Do not use damaged charger or USB cable to charge the device.
- Do not use any other chargers than those recommended
- Do not use the device where wireless devices are not allowed.
- Adapter shall be installed near the equipment and shall be easily accessible.
- Use only power supplies which are provided by manufacturer and in the original packing of this product. If you have any questions, please don't hesitate to contact us.
- Operating Temperature:  $0^{\circ}C \sim 40^{\circ}C$  ( $32^{\circ}F \sim 104^{\circ}F$ )
- Storage Temperature: -40°C ~ 60°C (-40°F ~ 140°F)

Please read and follow the above safety information when operating the device. We cannot guarantee that no accidents or damage will occur due to improper use of the device. Please use this product with care and operate at your own risk.

### Explanations of the symbols on the product label

Note: The product label can be found at the bottom of the product and its I.T.E. power supply. Symbols may vary from products.

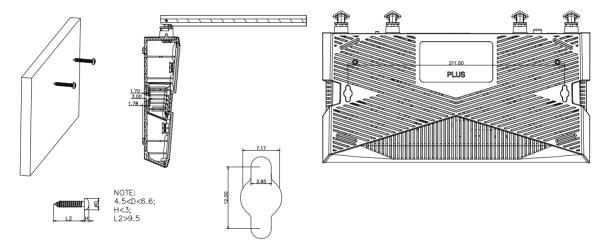
Symbol	Explanation
	Class II equipment
Ē	Class II equipment with functional earthing
$\sim$	Alternating current
	Direct current
♦ <del>°</del> ♦	Polarity of d.c. power connector
	For indoor use only
4	Dangerous voltage
	Caution, risk of electric shock
VI	Energy efficiency Marking
	Protective earth

Symbol	Explanation
<u> </u>	Earth
$\downarrow$	Frame or chassis
\	Functional earthing
	Caution, hot surface
$\underline{\wedge}$	Caution
	Operator's manual
(	Stand-by
()	"ON"/"OFF" (push-push)
	Fuse
N N	Fuse is used in neutral N
	RECYCLING This product bears the selective sorting symbol for Waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European directive 2012/19/EU in order to be recycled or dismantled to minimize its impact on the environment. User has the choice to give his product to a competent recycling organization or to the retailer when he buys a new electrical or electronic equipment.
N N N N N N N N N N N N N N N N N N N	Caution, avoid listening at high volume levels for long periods
	Disconnection, all power plugs
m	Switch of mini-gap construction
μ	Switch of micro-gap construction (for US version) Switch of micro-gap / micro-disconnection construction (for other versions except US)
3	Switch without contact gap (Semiconductor switching device)

# Appendix I

定位您的路由器

- •產品不應放置在會受潮濕或過高溫度的地方。
- 將路由器放置在能夠連接多個設備並接上電源的地方。
- •請確保線和電源線放置在安全位置,以免造成絆倒的危險。
- 路由器可以放置在架子上或桌面上。
- 將路由器遠離具有強烈電磁干擾的設備,例如藍牙設備、無線電話和微波爐。
- •通常,路由器放置在水平的表面上,例如在架子上或桌面上。該設備還可以安 裝在牆上,如下圖所示。



#### 【注意:

螺絲頭直徑為4.5mm<D<6.6mm,兩個螺絲之間的距離為211mm。從牆壁突出的螺絲需要約6.48mm的基底,並且螺絲的長度至少需要9.5mm才能承受產品的重量。

### 產品標籤上符號的解釋

符號可能因產品而異。

注意:產品標籤可以在產品底部和其I.T.E.電源供應器上找到。

注意:產品標籤可在產品底部找到。

符號	說明
	二級設備
<b>E</b>	具有接地功能的二級設備
$\sim$	交流電
	DC電壓

符號	說明
♦€♦	輸出端點的極性
$\bigtriangleup$	僅供室內使用
4	危險電壓
	請注意,有觸電的危險
VI	能源效率標誌
	保護接地
Ţ	接地
$\rightarrow$	框架或外殼
Ē	功能接地
	請注意,表面過熱
$\wedge$	敬 <u>先</u> 言口
• III	操作手冊
(	待機
	"開啟"/"關閉" (按壓式)
	保險絲
₩.	保險絲用於中性線N
	回收 "這個產品帶有歐盟指令2012/19/EU中關於廢棄電氣電子設備(WEEE)的選擇性分類標 誌。這意味著,該產品必須按照該指令處理,以便進行回收或拆解,從而最大限度地減 少對環境的影響。用戶可以選擇將產品交給有資格的回收機構,或在購買新的電器或電 子設備時將其交給零售商進行回收。"
Gu	請小心,避免長時間以高音量收聽。

符號	
	斷線,所有電源插頭
m	迷你間隙結構開闢
μ	"小間隙結構開關(US版本) 小間隙/小斷開結構的開關(非US版)"
٤	無接觸間隙的開關(半導體開關設備)

### 運作溫度: 0°C~40°C (32°F~104°F)

適配器應安裝在設備附近,並應易於接近。

請使用製造商提供的電源適配器。如果您有任何問題,請隨時與我們聯繫。