

User Guide

300Mbps Wi-Fi Range Extender TL-WA854RE

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About This Guide

This guide is a complement to Quick Installation Guide. The Quick Installation Guide provides instructions for quick internet setup, while this guide contains details of each function and demonstrates how to configure them.

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

Conventions

In this guide the following conventions are used:

Convention	Description
Underlined	Underlined words or phrases are hyperlinks and 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, and so on.
>	The menu structures to show the path to load the corresponding page. For example, Advanced > Wireless > MAC Filtering means the MAC Filtering function page is under the Wireless menu that is located in the Advanced tab.
Note:	Ignoring this type of note might result in a malfunction or damage to the device.
Ø Tips:	Indicates important information that helps you make better use of your device.
symbols on the web page	 click to edit the corresponding entry. click to delete the corresponding entry.

^{*}Maximum wireless signal rates are the physical rates derived from IEEE Standard 802.11 specifications. Actual wireless data throughput and wireless coverage 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.

More Info

The latest software, management app and utility are available from the Download Center at https://www.tp-link.com/support.

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

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

A Technical Support Forum is provided for you to discuss our products at https://forum.tp-link.com.

Our Technical Support contact information can be found at Contact Technical Support page at https://www.tp-link.com/support.

Chapter 1

Get to Know About Your Extender

This chapter introduces what the extender can do and its appearance.

It contains the following sections:

- Product Overview
- Appearance

1. 1. Product Overview

Bring Dead Zones Back to Life

Tired of Wi-Fi "dead zones"? The TP-Link extender is connected to your router wirelessly, strengthening its signal and expanding its coverage into areas that could not otherwise be reached. The device also reduces signal interference to ensure reliable Wi-Fi coverage throughout your home or office.

Easy Installation & Quick Position

The extender works with any standard wireless router. Instantly connect the extender to a router by pressing the router's WPS button (if available) followed by the extender's WPS button. Alternatively, follow the Quick Setup instructions on the extender's web management page.

Once the extender is connected to a router, you can relocate it to your preferred location with no furthure configuration required. The intelligent signal light can help to find the best location.

Easy Management with the Tether APP

Tether provides a simple, intuitive way to access and manage your extender with your smart devices.

1.2. Appearance



Note: The provided plug may differ from the picture due to different regional power specifications.

1. 2. 1. LED Explanation

You can check the extender's working status by following the LED Explanation table.

Name	Status	Indication
RE	On/Off	The extender is connected or not connected to your router's wireless network.
	Blinking	WPS connection is in process.
Wireless	On	The extender's wireless function is enabled.
Danner	On/Off	The extender is on or off.
Power	Blinking	The system is starting up or firmware is being upgraded.
ııll	On	Indicates the Wi-Fi connection between the extender and the router. More lit LEDs indicate a better signal strength.

1. 2. 2. Port and Button Description

Ports or Buttons	Description
《(合)》 (WPS Button)	Press the WPS button on your host router, and immediately press the ((A)) button on the extender for 1 second. The RE LED of the extender should change from blinking to solid on, indicating successful WPS connection.
RESET Button	With the extender powered on, use a pin to press the RESET button for 1 second. The extender will reboot.

Chapter 2

Set Up Internet Connection

This chapter informs you how to boost your host wireless coverage. Please follow the step-by-step instructions to set up the internet connection.

It contains the following sections:

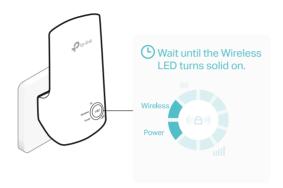
- Quick Setup
- Position Your Extender

2. 1. Quick Setup

Power on

Plug the extender into an electrical outlet next to your host router, and then wait until the Power LED changes to solid on.

Note: For safety, we suggest that you plug the extender in upright directions as shown below.



Connect to the host network

2. 1. 1. Method 1: Via the WPS Button

1. Press the WPS button on your host router, and then press the (a) button on the extender within 2 minutes.



Note:

For more information about using WPS button on your host router, please refer to the router's user guide.

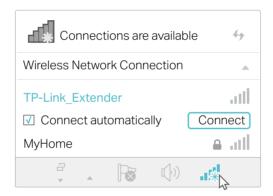
- 2. Wait until the RE LED changes from blinking to solid on, which indicates that the WPS connection is successful.
- 3. Enjoy! Connect to the extended network and enjoy internet. The extended network shares the same network name and password as your router.

Note:

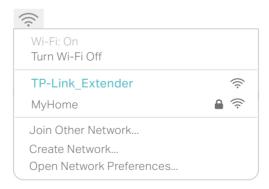
- If the WPS method fails, or if you want to customize the extended network name, refer to Method 2: Via a Web Browser or Method 3: Via the TP-Link Tether App.
- Since the performance of the extended network will be affected by the distance between the
 extender and host router, we recommend that you relocate your extender by referring to <u>Position</u>
 Your Extender.

2. 1. 2. Method 2: Via a Web Browser

- 1. Connect your computer to the extender wirelessly as follows:
 - · For Windows Users
 - 1) Unplug the Ethernet cable from your computer (if any).
 - 2) Click the Wi-Fi icon on the task bar and connect to the extender's network: TP-Link_Extender.



- For Mac OS X Users
 - 1) Unplug the Ethernet cable from your computer (if any).
 - 2) Click the Wi-Fi icon in the top right corner of the screen, and connect to the extender's network: TP-Link Extender.



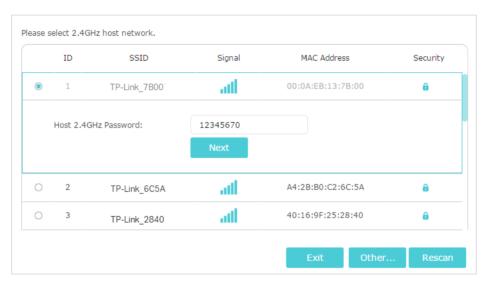
- 2. Follow the instructions of Quick Setup Wizard to connect the extender to your host router.
 - 1) Launch a web browser, enter http://tplinkrepeater.net or <a href="http:



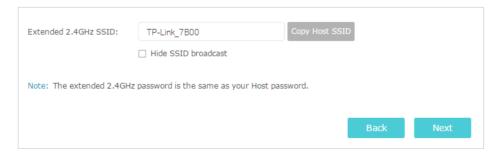
Note:

If the login window does not appear, please refer to FAQ.

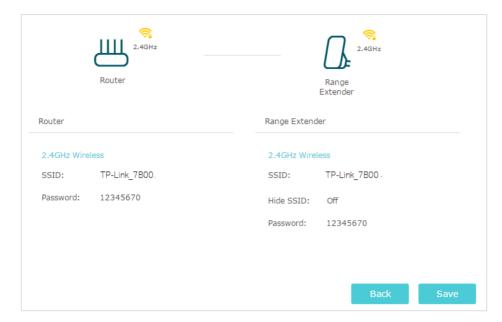
2) Select your host router's 2.4GHz SSID (network name), enter its password (NOT the password you just created for logins), and click Next.



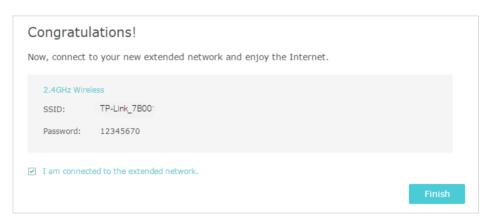
3) Either keep the default SSID (network name) or customize it for the extended network, and then click Next.



4) Verify your wireless settings and click Save.



5) Enjoy! Connect to the extended network and enjoy internet. The extended network shares the same wireless password as that of your host network, but may have different network name if you have customized the SSID during the configuration.



Note:

Since the performance of the extended network will be affected by the distance between extender and host router, we highly recommend you to relocate your extender referring to <u>Position Your Extender</u>.

2. 1. 3. Method 3: Via the TP-Link Tether App

 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.



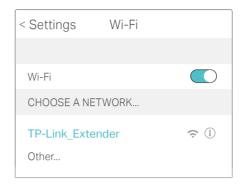


OR





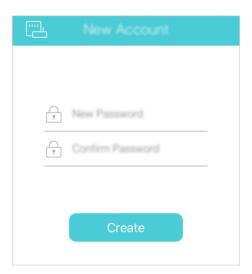
2. Go to Wi-Fi Settings and connect your device to the extender's wireless network: TP-Link Extender.



3. Launch Tether and select your extender from the Local Device list.



4. Create a password for future logins.



5. Follow the on-screen instructions to complete the configuration.

@ Tips:

You can manage your extender via Tether, such as controlling LEDs, sharing the password of your network and blocking devices.

Note:

Since the performance of the extended network will be affected by the distance between the extender and host router, we recommend that you relocate your extender by referring to Position Your Extender.

2. 2. Position Your Extender

Please follow the instructions below to achieve optimal performance of the extender.

- 1. Plug the extender into an electrical outlet between your host router and the Wi-Fi "dead" zone. The location you choose must be within the range of your existing host network.
- 2. Wait until the LEDs are lit. Make sure the extender is in a location with 3 or more LEDs lit. If not, relocate it closer to the router to achieve better signal quality.



To minimize signal interference, please choose a location which is far away from Bluetooth devices and other household electronic devices, such as cordless phones, microwave ovens and baby monitors.

Chapter 3

Customize Your Network

This chapter guides you on how to configure network settings that are available for this extender.

It contains the following sections:

- Check Internet Status
- Configure Wireless Network
- Change LAN Settings
- Specify DHCP Server Settings
- Adjust Wi-Fi Coverage
- Set Access Control

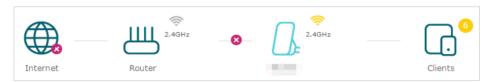
3. 1. Check Internet Status

You can view the internet status of your extender to check whether you have successfully set up the extended network(s).

- 1. Visit http://tplinkrepeater.net, and log in with the password you set for the extender.
- 2. Go to Settings > Status to view the internet status of your extender.
 - The extender is functioning normally.



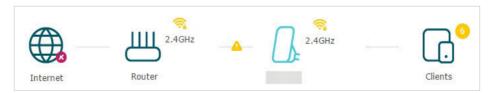
The extender is not connected to the host network. Please go to Settings > Wireless > Connect to Network to check whether the host network passwords are correct. If the problem still exists, relocate the extender closer to the router to achieve better signal quality.



• The extender is connected to the host network, but is not transmitting data. Please check your router's internet connection.



 The extender is connected to the router abnormally. Please go to Settings > Network and try setting your extender to obtain an IP address automatically.



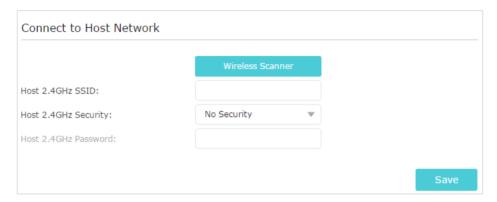
Click the Internet/Router/Range Extender/Clients icon to view corresponding information.

3. 2. Configure Wireless Network

If you want to extend another host network after Quick Setup, you can refer to this section. Moreover, you can change the wireless settings for your extended network.

Visit http://tplinkrepeater.net, and log in with the password you set for the extender.

- To extend another host network:
- 1. Go to Settings > Wireless > Connect to Network.

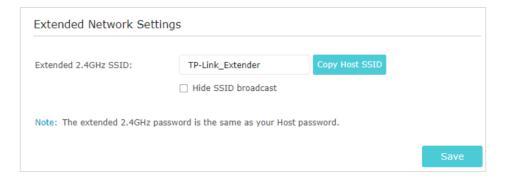


- 2. Click Wireless Scanner to find all available networks.
- 3. Select the host network you want to extend.

Note:

If the network you want to extend is on but not listed, please try the following steps.

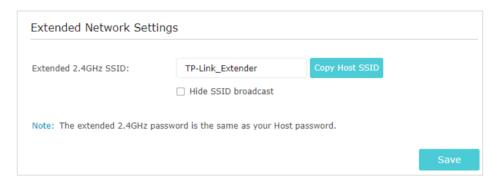
- 1. Move the extender closer to your router, and click Rescan in the top-right corner of the list.
- 2. You can manually enter the parameters of the network you want to extend, and click Save.
- 4. Once a host network is selected, the SSID and security type will be automatically filled in. If the selected network is encrypted, enter the password in the Password field.
- 5. Click Save.
- > To change the wireless network name (SSID):
- 1. Go to Settings > Wireless > Extended Network.



- 2. Create a new SSID in Extended 2.4GHz SSID or click Copy Host SSID. The value is case-sensitive.
- 3. Click Save.
- Note:

If you have changed the wireless settings via a wireless device, you will be disconnected after the settings are applied. Please write down the new SSID for future use.

- > To hide the SSID of the extended network:
- 1. Go to Settings > Wireless > Extended Network.

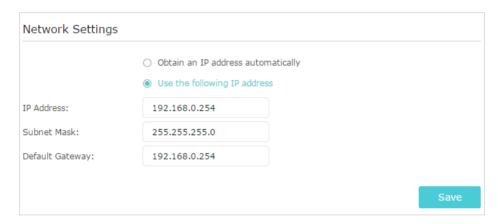


- Select Hide SSID broadcast, and the corresponding SSID will not be displayed when wireless devices scan for local wireless networks. Devices must join the network manually in order to connect.
- 3. Click Save.

3. 3. Change LAN Settings

The extender is preset with a default LAN IP 192.168.0.254, with which you can log in to the 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 http://tplinkrepeater.net, and log in with the password you set for the extender.
- 2. Go to Settings > Network.
- 3. Select Use the following IP address.
- 4. Enter a new IP address as needed and leave the Subnet Mask as the default settings and enter the gateway that is in the same subnet as the IP address. The gateway is usually the LAN IP address of your extender.

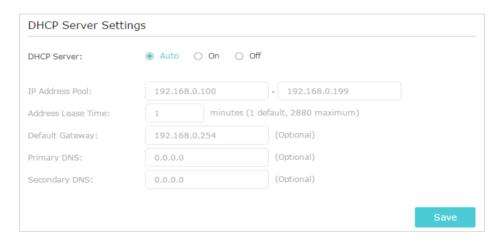


5. Click Save.

3. 4. Specify DHCP Server Settings

By default, the DHCP (Dynamic Host Configuration Protocol) Server is enabled and the extender 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.

- 1. Visit http://tplinkepeater.net, and log in with the password you set for the extender.
- 2. Go to Settings > Network.
- To specify the IP address that the extender assigns:



- 1. Select Auto (recommended) or On to enable the DHCP Server.
- 2. Enter the starting and ending IP addresses in the IP Address Pool.
- 3. Enter other parameters if the ISP requires them. The Default Gateway is automatically filled in and is the same as the LAN IP address of the extender.
- 4. Click Save.
- To view the DHCP Client List:

You can view the information of the DHCP clients connected to the extender in the DHCP Client List.



3. 5. Adjust Wi-Fi Coverage

You can set the extender's Wi-Fi coverage depending on how large you want your Wi-Fi area to be.

- 1. Visit http://tplinkrepeater.net, and log in with the password you set for the extender.
- 2. Go to Settings > Advanced Settings > Wi-Fi Coverage.
- 3. Select Min, Mid or Max to adjust your Wi-Fi coverage of the extender.

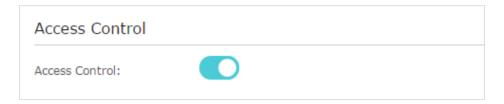


4. Click Save.

3. 6. Set Access Control

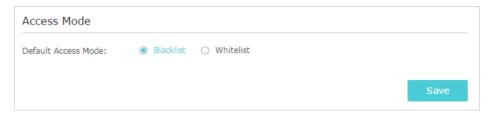
Access Control allows you to permit or block specific devices from accessing internet for a specific period.

- 1. Visit http://tplinkrepeater.net, and log in with the password you set for the extender.
- 2. Go to Settings > Advanced Settings > Access Control.
- 3. Enable Access Control.

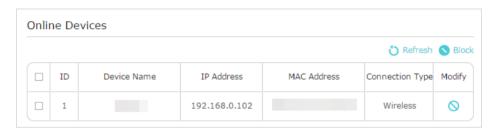


> To block specific device(s):

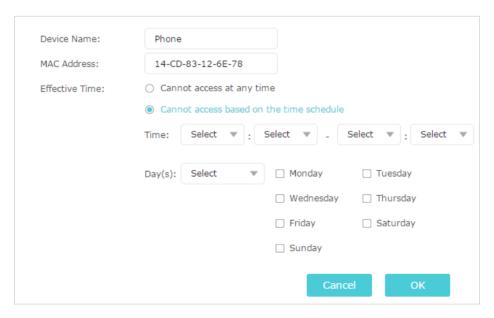
1. Select Blacklist and click Save.



- 2. Select the device to be blocked in the Online Devices table by ticking the corresponding checkbox.
- 3. Click Block and the selected device(s) will be added to the Devices in Blacklist table.



4. Click in the Devices in Blacklist table to set the Effective Time for a certain entry as needed.



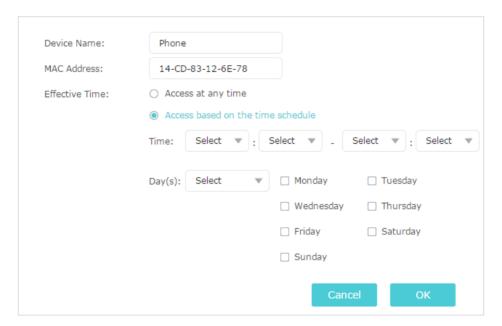
5. Click OK.

To permit specific device(s):

1. Select Whitelist and click Save.



2. Click Add in the Devices in Whitelist table. Enter the Device Name and MAC Address. And you can set the Effective Time for a certain entry as needed.



3. Click OK.

Chapter 5

Manage Your Extender

This chapter presents how to manage and maintain your extender.

It includes the following sections:

- Set Up System Time
- Control LEDs
- Power Schedule
- <u>Upgrade the Firmware</u>
- Backup and Restore Configuration Settings
- Change Admin Account
- System Log

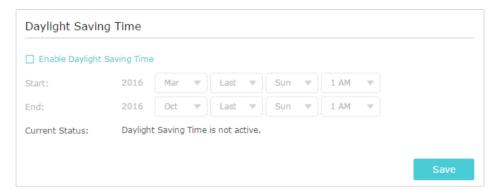
5. 1. Set Up System Time

The System Time of the extender will be used for time-based functions such as the Power Schedule function. If you have enabled the Daylight Saving Time feature, the system time will be sychronized with the daylight saving time you configure.

- 1. Visit http://tplinkrepeater.net, and log in with the password you set for the extender.
- 2. Go to Settings > System Tools > Time Settings.
- To get system time:
- 1. Select your local Time Zone from the drop-down list.



- 2. Click Save.
- To set up Daylight Saving Time:
- 1. Select Enable Daylight Saving Time.



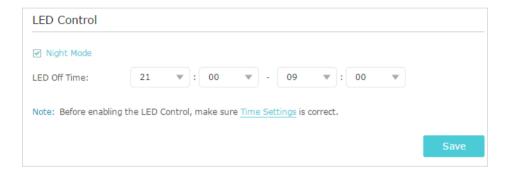
- 2. Select the Start and End date and time of the daylight saving time at your local time zone.
- 3. Click Save.

5. 2. Control LEDs

The LEDs of the extender indicate its activities and status. You can enable the Night Mode feature to specify a time period during which the LEDs are off.

1. Visit http://tplinkrepeater.net, and log in with the password you set for the extender.

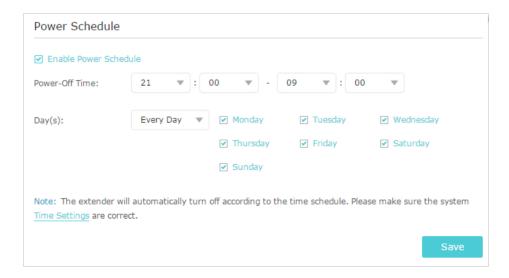
- 2. Go to Settings > System Tools > LED Control.
- > To specify a time period when LEDs are off:
- 1. Select Night Mode.
- 2. Specify a time period in the LED Off Time field, and the LEDs will be off during this period.
- 3. Click Save.



5. 3. Power Schedule

The Power Schdule feature allows you to specify a time period during which the extender is off.

- 1. Visit http://tplinkrepeater.net, and log in with the password you set for the extender.
- 2. Go to Settings > Advanced Settings > Power Schedule.
- To specify a time period when the extender is off:
- 1. Select Enable Power Schedule.
- 2. Specify a time period in the Power-Off Time field and days in the Day(s) field, and the extender will be off during this period.



3. Click Save.

5. 4. Upgrade the Firmware

TP-Link is committed to improving product features, giving you a better network experience. You can download the latest firmware file from the Support page of our website www.tp-link.com and upgrade the firmware to the latest version.

Note:

- 1. Make sure the latest firmware file is matched with the hardware version (as shown in the download section of the Support page).
- 2. Make sure that you have a stable connection between the extender and your computer.
- 3. Backup your extender configuration.
- 4. Do NOT power off the extender during the firmware upgrade.

To upgrade the firmware:

- 1. Download the latest firmware file for the extender from our website www.tp-link.com.
- 2. Visit http://tplinkrepeater.net, and log in with the password you set for the extender.
- 3. Go to Settings > System Tools > Firmware Upgrade.
- 4. Click Browse to locate the downloaded new firmware file, and then click Upgrade.



5. Wait a few minutes for the firmware upgrade to complete and the extender to reboot.

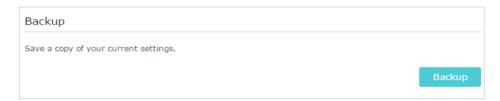
5. 5. Backup and Restore Configuration Settings

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

- 1. Visit http://tplinkrepeater.net, and log in with the password you set for the extender.
- 2. Go to Settings > System Tools > Backup & Restore.

To backup configuration settings:

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



To restore configuration settings:

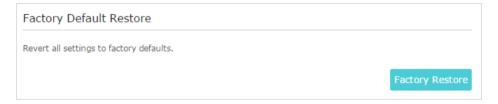
1. Click Browse to locate the backup configuration file stored on your computer, and click Restore.



- 2. Wait a few minutes for the restore and reboot.
- Note: During the restore process, do not power off or reset the extender.

> To reset the extender to factory default settings:

1. Click Factory Restore to reset the extender.



- 2. Wait a few minutes for the reset and reboot.
- Note:
- 1. During the reset process, do not power off or reset the extender.
- 2. We strongly recommend you backup the current configuration settings before resetting the extender.

5. 6. Change Admin Account

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

- 1. Visit http://tplinkrepeater.net, and log in with the password you set for the extender.
- 2. Go to Settings > System Tools > Admin Account.

3. Enter the old password, then the new password twice (both case-sensitive) and click Save.

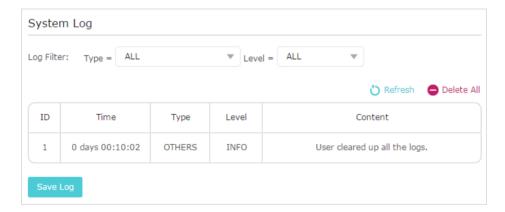


4. Use the new password for future logins.

5.7. System Log

If the extender is not working normally, you can save the system log and send it to our technical support team.

- 1. Visit http://tplinkrepeater.net, and log in with the password you set for the extender.
- 2. Go to Settings > System Tools > System Log.
- > To save the system log locally:
- 1. Choose the type and level of the system log as needed.
- 2. Click Save Log to save the system logs to a local disk.



FAQ

Q1. How to reset the extender to its factory default settings?

- With the extender powered on, use a pin to press the RESET button for 1 second. The
 extender will reboot.
- Log in to the extender's web management page. Go to Settings > System Tools > Restore & Backup and click Factory Restore.

Q2. What can I do if I forgot my login password?

Refer to FAQ > Q1 to reset the extender, and create a new password for future logins.

Note: The extender must be reconfigured after a reset to access internet. Please note down your new login password for future use.

Q3. What can I do if I forgot my wireless password?

The factory default wireless password is printed on the label of the extender. If the password has been altered, refer to FAQ > Q1 to reset the extender and retrieve your wireless password.

Q4. What can I do if I cannot access the 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 extended network.
- Make sure your computer is configured as Obtain an IP address automatically and Obtain DNS server address automatically.
- Use the IP address to access the extender. The default IP is 192.168.0.254. If the
 extender is connected to the router, you should go to your router's DHCP client list to
 obtain the extender's current IP address.
- Reset the extender. Then connect your computer to its wireless network, enter http://tplinkrepeater.net or <a href="http://tplinkrepeater.net

Q5.I enabled wireless MAC filter, wireless access control, or access control list (ACL) on my router, what should I do to configure and use the extender?

When a device connects through the extender to your router, the MAC address of the device shown on the router is translated to another MAC address. If your router's MAC filter, wireless access control, or ACL is enabled, the devices connected to the extender cannot get an IP address from the extender and cannot access internet.

To solve this problem, please follow the steps below:

1. Log in to your router and disable the MAC filter, wireless access control or ACL.

Note: For more information about how to disable your router's MAC filter, wireless access control or ACL, please refer to your router's user guide.

- 2. Power on your extender, and run the Quick Setup to configure your extender.
- 3. Connect all of your devices to the extended network.
- 4. On your router, add all the Online Devices' MAC addresses to your router's MAC filter table.
- 5. Enable the router's MAC filter, wireless access control, or ACL to complete the configuration.

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CE Mark Warning



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

OPERATING FREQUENCY (the maximum transmitted power)

2400 MHz -2483.5 MHz (20dBm)

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 and 2011/65/EU.

The original EU declaration of conformity may be found at https://www.tp-link.com/en/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.

Korea Warning Statements

당해 무선설비는 운용중 전파혼신 가능성이 있음.

NCC Notice & BSMI Notice

注意!

依據 低功率電波輻射性電機管理辦法

第十二條 經型式認證合格之低功率射頻電機,非經許可,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或功能。

第十四條 低功率射頻電機之使用不得影響飛航安全及干擾合法通行;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。前項合法通信,指依電信規定作業之無線電信。低功率射頻電機需忍受合法通信或工業、科學以及醫療用電波輻射性電機設備之干擾。

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

			限用物質及	其化學符號		
產品元件名稱	鉛	鎘	汞	六價鉻	多溴聯苯	多溴二苯醚
	Pb	Cd	Hg	CrVI	PBB	PBDE
PCB	0	\circ	0	0	\circ	\circ
外殼	0	\circ	0	0	\circ	\circ
電源供應板	-	0	0	0	0	0

備考1. "超出0.1 wt %" 及 "超出0.01 wt %" 系指限用物質之百分比含量超出百分比含量基準值。

備考2. "○"系指該項限用物質之百分比含量未超出百分比含量基準值。

備考3. " - " 系指該項限用物質為排除項目。



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EAC

Safety Information

- Keep the device away from water, fire, humidity or hot environments.
- Do not attempt to disassemble, repair, or modify the device.
- Do not use the device where wireless devices are not allowed.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.

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

Symbol	Explanation
	Class II equipment

Symbol	Explanation
\sim	AC voltage
\triangle	Indoor use only
Ā	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.
	Protection earth