



Easy Wi-Fi Extension

Flexible Placement

AC 1200

Wi-Fi Range Extender **RE350K**

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1

Introduction

This chapter covers the following topics:

-
- **Product Overview**
 - **Appearance**
-

Product Overview

What does the Range Extender actually do?

TP-LINK's **AC1200 Wi-Fi Range Extender**, model **RE350K**, is a compact, wall-plug extender that provides a robust Wi-Fi signal extension to expand wireless connectivity to those hard-to-reach areas throughout your home and Small Office/Home Office (SOHO) environment. With super-fast speed, the extender delivers up to 1200Mbps, providing reliable connections for bandwidth-intensive needs such as HD/4K video streaming and online gaming.

The Range Extender provides two easy-to-use setup options to extend your existing Wi-Fi network.

Option One: [Setup Using the Mobile App](#)

Option Two: [Setup Using a Computer](#)

Before connecting the extender to your network, please read through this user guide to familiarize yourself with the AC1200 Wi-Fi Range Extender.

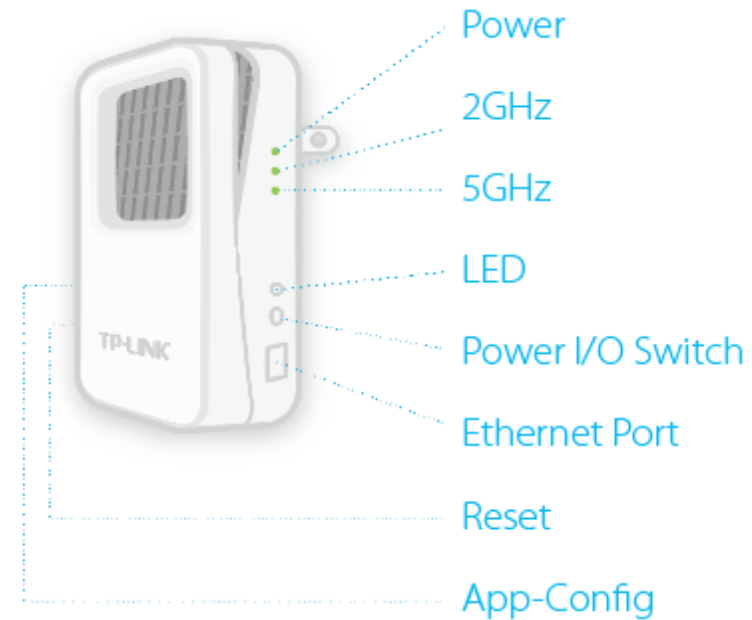
Support for the 802.11ac wireless technology

With IEEE 802.11ac-supported wireless technology, the range extender can transmit wireless data at the rate of up to 300Mbps with 2.4GHz and 867Mbps with 5GHz; it's 3 times faster than the standard 802.11n speed. The range extender is also compatible with all IEEE 802.11n, IEEE 802.11a, IEEE 802.11b, and IEEE 802.11g products.

Main features

- ◆ Complies with IEEE 802.11ac
- ◆ Supports built-in DHCP server
- ◆ Supports firmware update
- ◆ Supports web-based management
- ◆ Supports mobile app management

Appearance



Buttons

- ◆ **LED:** Press this button to turn the status LEDs on or off.
- ◆ **Power I/O Switch:** Slide the Power switch to turn the extender on or off.
- ◆ **App-Config:** Press this button for 2 seconds until the 2.4GHz and 5GHz LEDs blink to initiate the App-Config process.
- ◆ **Reset:** Press this button for 2 seconds until all LEDs blink once to reset the Range Extender to factory defaults.

Ethernet Port: The 10/100Mbps RJ45 Ethernet port is used to add wireless connectivity to an Ethernet-enabled device such as Internet TV, DVR, or game console. Please note that this port **cannot** be used to connect the extender directly to the router.

LED Indicators

Name	Status	Indication
Power	Blinking Green	The extender is initializing or updating firmware.
	Green	The extender is ready for use.
	Off	The extender is powered off.
2.4GHz	Blinking Green	App-Config is initiated.
	Green	The extender is connected to the primary network over 2.4GHz.
	Amber	The extender is connected but too far away from the router.
	Off	No connection.

5GHz	Blinking Green	App-Config is in progress.
	Green	The extender is connected to the primary network over 5GHz.
	Amber	The extender is connected but too far away from the router.
	Off	No connection.

2

Connect the Extender to the Internet

This chapter covers the following topics:

- **Before You Begin**
- **Safety Information**
- **Quick Setup**

Before You Begin

Where should I place my Range Extender?

The operating distance range of your wireless connection can vary significantly depending on the physical position of the wireless devices. Factors that can weaken signals by getting in the way of your network's radio waves are motor-driven appliances or obstructions, and walls. Typical ranges vary based on the types of materials and background RF (Radio Frequency) noise in your home or office.

In order to optimize the performance of the AC1200 Wi-Fi Range Extender, please read through the information below that describes the **ideal location** to place your Range Extender. Make sure that the extender is always within the wireless coverage of the wireless router.

- **Halfway** – Generally, the ideal placement for the extender is halfway between your wireless router and wireless devices. If the wireless signal is not satisfactory, you should relocate the extender closer to the router.



- **No Obstacles** – Clear obstacles around the extender or place it in an open corridor or a spacious location.

- **No Interference** – To minimize signal interference, choose a location away from Bluetooth® devices and other household electronics such as cordless phones, microwave ovens, and baby monitors, etc.



Safety Information

Please read and observe the following information for the safe and proper use of the Range Extender to prevent any unanticipated damage.

- ◆ Place the extender in a well-ventilated location, far from direct sunlight or any heat sources.
- ◆ Leave at least 2 inches (5cm) of space around the extender for heat dissipation.
- ◆ Turn off and unplug the extender during a lightning storm to avoid electronic shock or fire.
- ◆ Operating temperature of the extender should be 0°C~40°C (32°F~104°F).
- ◆ Operating humidity of the extender should be 10%~90% RH (Non-condensing).

Quick Setup

There are two easy setup options to extend your Wi-Fi network.

Setup Using the Mobile App



The Kasa app requires a mobile device running iOS 8 or later; or Android 4.1 or later. The extender can also be configured [via a web browser](#).

1 Download TP-LINK Kasa app

Search for and download the **Kasa** mobile app in the App Store or Google Play, or simply scan the QR code.



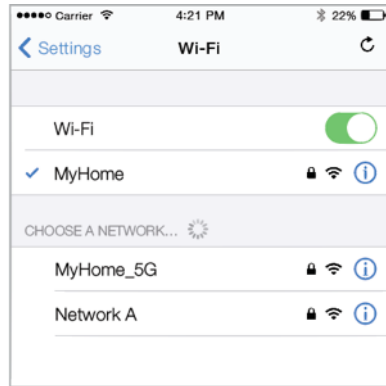
OR



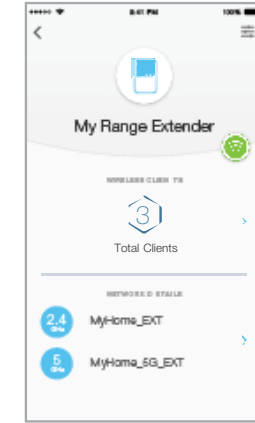
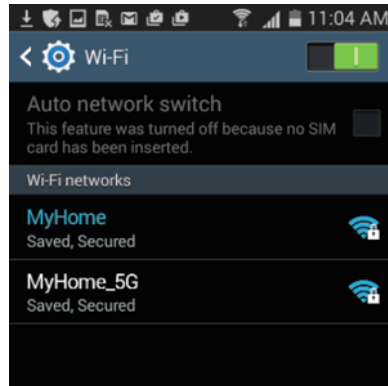
2 Connect to your Wi-Fi Network

Go to your mobile device's Settings and connect to your home Wi-Fi network that you wish to extend.

iOS



Android



If the 2.4GHz and 5GHz LEDs do not change from blinking to solid, please refer to [Setup Using a Computer](#).

3 Extend your Wi-Fi Network


Launch Kasa and follow the app instructions to extend your Wi-Fi network.

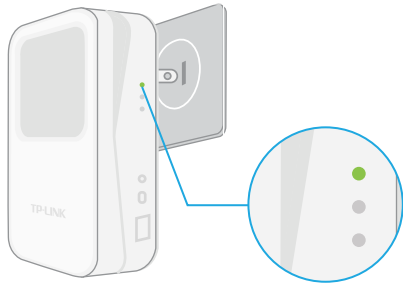
4 Connect to Extended Network

Unless you customized the extended network names during the configuration, the extender adds ***EXT*** to the end of the main network's SSIDs and uses the same Wi-Fi password.


Setup Using a Computer

1 Plug In

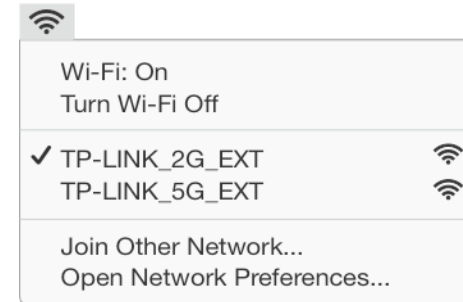
Plug in the Range Extender to an electrical wall outlet near your router. Toggle the Power switch to On and wait until the Power  LED is lit and solid green.



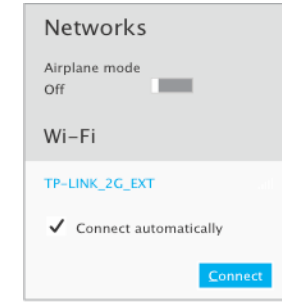
2 Connect via Wireless

Disconnect the Ethernet (wired) connection from your computer (if any). Click the  (Wi-Fi) icon on the taskbar and connect to the extender's network (e.g. *TP-LINK_2G_EXT* or *TP-LINK_5G_EXT*). No password is needed to connect.

Mac OS X

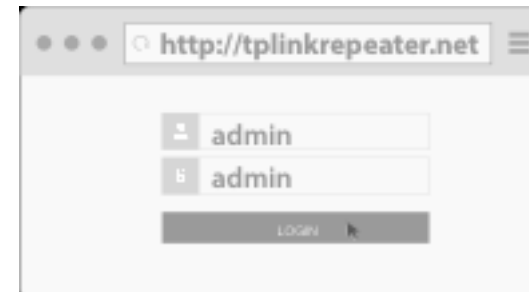


Windows



3 Log In

Launch a web browser and type: **http://tplinkrepeater.net** (or **http://192.168.0.254**) into the URL field. Enter **admin** (all lowercase) for both username and password to log in.





If this is your first time logging into the extender's web-based interface, you are prompted to create a new username and password. Please do so, or you can change the admin account at a later time. Refer to [Changing admin account](#).

Create a new username and password.

New Username:

New Password:

Confirm Password:

Low Middle High

4 Extend your Wi-Fi Network

Follow the **Quick Setup** wizard to extend your 2.4GHz and 5GHz Wi-Fi networks.

a) Select your region and click .

2.4GHz Host Network | Wireless Settings | 5GHz Host Network | Summary

Region:



Per FCC regulations, all wireless products marketed in the U.S. are fixed to the U.S. region.

b) Select your router's 2.4GHz network and enter your Wi-Fi password, then click .

2.4GHz Host Network | Wireless Settings | 5GHz Host Network | Summary

Please select 2.4GHz host network or skip this network.

SSID	MAC ADDRESS	SECURITY
<input checked="" type="radio"/> MyHome_2G	C4:E9:84:75:76:F2	wpa2
<input type="radio"/> MyHome_5G	BA:BE:FA:CE:08:41	wpa2
<input type="radio"/> Other network	C4:E9:84:D7:0E:03	wpa/wpa2

Host 2.4GHz Password:



If your network name (SSID) is hidden, click **OTHER...** to enter your 2.4GHz network settings.

- c) Select your router's 5GHz network and enter your Wi-Fi password, then click **NEXT**.

The screenshot shows the 'Wireless Settings' screen with a progress bar at the top. The '5GHz Host Network' step is highlighted. Below the progress bar, there is a section titled 'Please select 5GHz host network or skip this network.' containing a table with columns for SSID, MAC ADDRESS, and SECURITY. The first row is selected and shows 'MyHome_5G' with MAC address 'E8:DE:27:42:54:F4' and security 'wpa2'. Below the table is a 'Host 5GHz Password:' field with a 'NEXT' button. At the bottom, there are buttons for 'BACK', 'OTHER...', 'RESCAN', and 'SKIP'.

SSID	MAC ADDRESS	SECURITY
<input checked="" type="radio"/> MyHome_5G	E8:DE:27:42:54:F4	wpa2
<input type="radio"/> MyHome_2G	64:66:B3:5F:A7:E6	wpa/wpa2
<input type="radio"/> Other network	C2:E9:84:F1:66:A4	wpa/wpa2



If your network name (SSID) is hidden, click **OTHER...** to enter your 5GHz network settings.

If your router does not support 5GHz wireless band, click **SKIP** to continue.

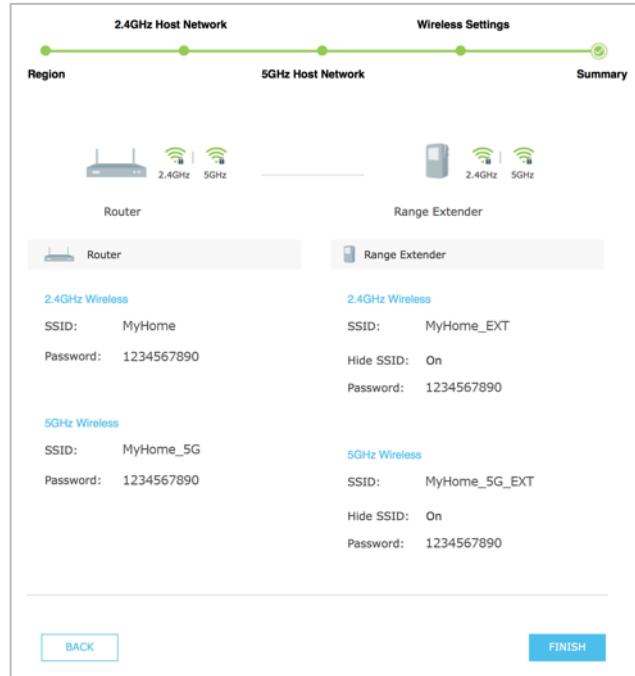
- d) On the **Wireless Settings** screen, you can either copy and use the same SSIDs as your main (host) networks, or create new names for the extended networks, then click **NEXT**.

The screenshot shows the 'Wireless Settings' screen with a progress bar at the top. The 'Wireless Settings' step is highlighted. Below the progress bar, there are two sections for extended networks. The first section is for 'Extended 2.4GHz SSID' with a text input field containing 'MyHome_2G_EXT' and a 'COPY HOST SSID' button. Below it is a 'Hide SSID broadcast' checkbox. A note states: 'The extended 2.4GHz password is the same as your Host password.' The second section is for 'Extended 5GHz SSID' with a text input field containing 'MyHome_5G_EXT' and a 'COPY HOST SSID' button. Below it is a 'Hide SSID broadcast' checkbox. A note states: 'The extended 5GHz password is the same as your Host password.' At the bottom, there are 'BACK' and 'NEXT' buttons.



To prevent your SSIDs from being seen by others, select the **Hide SSID broadcast** checkbox.

- e) Verify your extended wireless settings and click **FINISH**. The extender applies the settings and automatically reboots. Once the connection is established, the 2.4GHz and 5GHz LEDs on the extender should turn on and stay solid.



2.4GHz and 5GHz Wi-Fi LEDs

Green: Good connection.

Amber: Connection is established, but the extender is too far away from the main (host) router.

Off: No connection.

5 Relocate your Extender

- Plug in the extender to an electrical outlet around the midpoint between your router (Host Network) and the weak signal area.

- Wait for the extender to reconnect and both Wi-Fi (2.4GHz and 5GHz) LEDs are lit a solid green. If not, relocate the extender closer to the router.

Unless you customized the extended network names during the configuration (step 4d), the extender adds **_EXT** to the end of the main network's SSIDs and uses the same Wi-Fi password.

For example: If the SSIDs of your main Wi-Fi network are *MyHome* (for 2.4GHz) and *MyHome_5G* (for 5GHz). The extended network's SSIDs will be *MyHome_EXT* and *MyHome_5G_EXT*.



3

Manage the Range Extender

This chapter covers the following section:

- **Manage via Web Interface**
- **Other Functions**

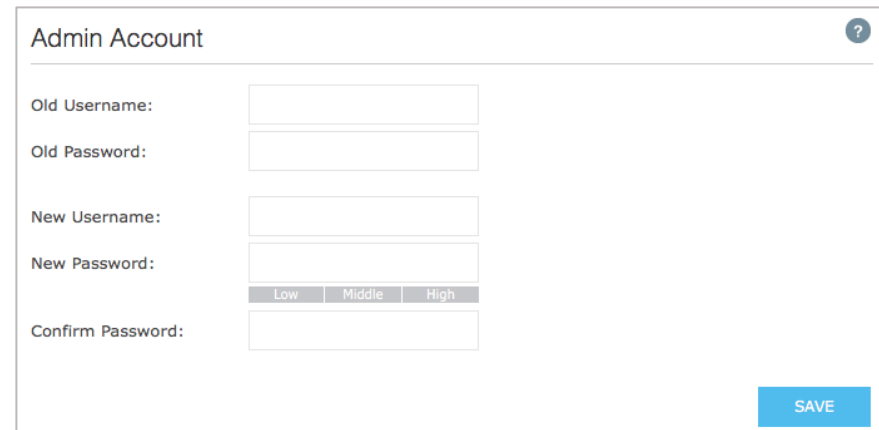
Manage via Web Interface

The Range Extender's web-based interface allows you to do more advanced configuration for your extended network. Please make sure that you connect your computer or mobile device to the extended network before any configuration.

Changing admin account

The default admin account credentials to log into the extender's web interface are **admin** (all lowercase) for both username and password. It is strongly recommended that you change the default to something unique.

- 1) Launch a web browser and type: **http://tplinkrepeater.net** in the URL field.
- 2) Log in using the admin credentials.
- 3) Go to **Settings > System Tools > Admin Account**.



The screenshot shows the 'Admin Account' configuration page. It features a title bar with a question mark icon. The page contains five input fields: 'Old Username', 'Old Password', 'New Username', 'New Password', and 'Confirm Password'. The 'New Password' field has a strength indicator below it with three segments labeled 'Low', 'Middle', and 'High'. A blue 'SAVE' button is located in the bottom right corner.

- 4) Enter your current username and password into the **Old Username** and **Old Password** fields respectively.
- 5) Enter your new username and password into the **New Username** and **New Password** fields, then enter the password again to confirm.
- 6) Click **SAVE** to confirm the changes.



You will be prompted to log back in using the new admin account.

Dashboard

After the initial setup, you will be taken to the dashboard (or control panel) of the Range Extender every time you log in. The dashboard displays the current status of your extended networks. To view the additional information about the main (host) network or see who's currently connected to your extended network, simply click on the icon.

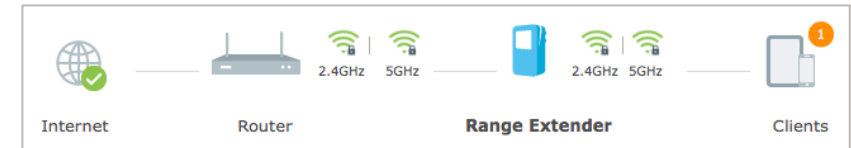
To access the dashboard:

- 1) Launch a web browser and type: **http://tplinkrepeater.net** in the URL field, then log in using the admin credentials.
- 2) You should be redirected to the dashboard automatically. If not, go to **Settings > Status**.

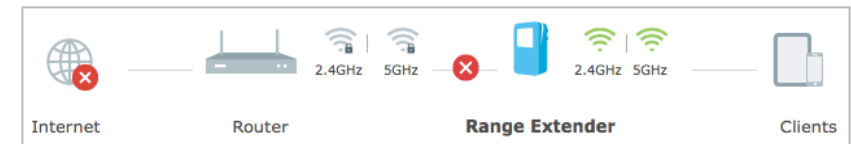
The screenshot shows the dashboard with the following components:

- Network Status Bar:** Internet (green checkmark), Router, Range Extender (blue icon), Clients (grey icon).
- Range Extender Section:**
 - Extended 2.4GHz:** SSID: MyHome_EXT, MAC Address: 00:4C:52:06:07:74, Uplink Signal: 60%, Uplink Speed: 108 Mbps, Link Uptime: 2 hours 5 mins.
 - Extended 5GHz:** SSID: MyHome_5G_EXT, MAC Address: 00:4C:52:06:07:76, Uplink Signal: 20%, Uplink Speed: 81 Mbps, Link Uptime: 2 hours 5 mins.
 - Wired:** DHCP Server: Auto (Off), IP Address: 10.30.31.181, Type: Dynamic IP.
 - General Info:** Uptime: 2 hours, 6 minutes, 18 second.

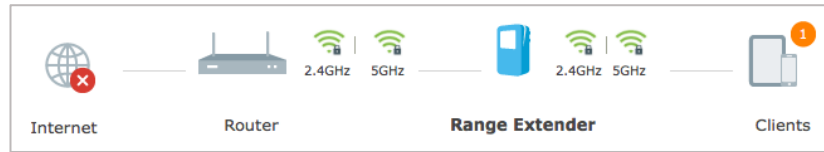
- Normal network connection status.



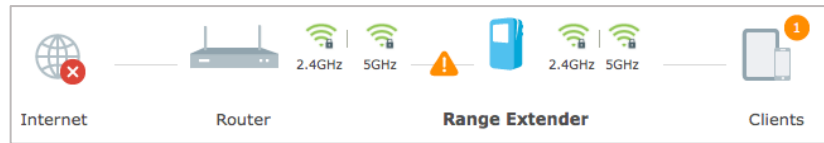
- The Range Extender is not connected to the router.



- The Range Extender is connected to the router, but Internet is not available.



- The Range Extender is partially connected to the router. Make sure the extender is set to **obtain an IP address automatically** under **Settings > Network > Network Settings**.



Wi-Fi icon indicators for 2.4GHz and 5GHz:

Wi-Fi Icon	Indication
	A secure Wi-Fi connection.
	A non-secure Wi-Fi connection.
	No Wi-Fi connection.

Extending another Wi-Fi network

If you want to change the extender's connection to another Wi-Fi network, you can either go through the Quick Setup again or follow the steps below without using the Quick Setup.

To extend another Wi-Fi network without using Quick Setup:

- Launch a web browser and type: <http://tplinkrepeater.net> in the URL field, then log in using the admin credentials.
- Go to **Settings > Wireless > Connect to Network**.

Connect to Host Network
?

2.4GHz Network:

Host 2.4GHz SSID:

Host 2.4GHz Security:

Host 2.4GHz Password:

Connect to 2.4GHz Network

WIRELESS SCANNER

MyHome_EXT

WPA2-PSK

1234567890

5GHz Network:

Host 5GHz SSID:

Host 5GHz Security:

Host 5GHz Password:

Connect to 5GHz Network

WIRELESS SCANNER

MyHome_5G_EXT

WPA2-PSK

1234567890

SAVE

- 3) Select the **Connect to 2.4GHz Network** checkbox to extend the 2.4GHz band of the main (host) network.
- 4) Click **WIRELESS SCANNER** to scan for available 2.4GHz networks near you.
- 5) Select the Wi-Fi network that you wish to extend from the list.



*If your Wi-Fi network doesn't appear on the list, its SSID may be hidden, click to close the list and enter the **SSID**, **Security**, and **Password** of the main (host) network. These fields are case-sensitive.*

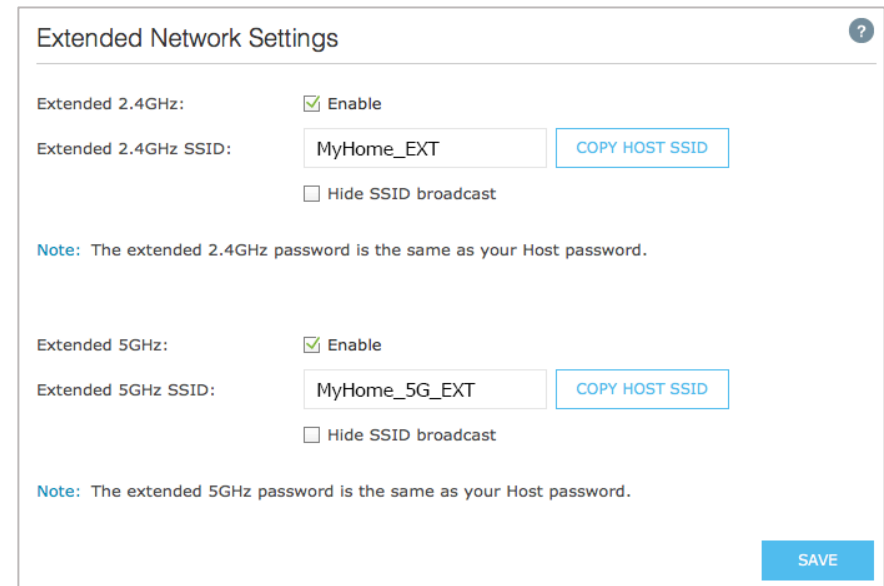
- 6) Enter the Wi-Fi password of the selected network.
- 7) If your router supports the 5GHz band, repeat step **3** to **6** to extend the 5GHz network.
- 8) Click **SAVE** to apply your settings.

Extended Network Settings

You can change or hide the network name (SSID) of the extended network. However, you cannot change the extender's Wi-Fi security. You must use the same Wi-Fi password of the main (host) network to connect to the extended network.

To change the extended network's SSID:

- 1) Launch a web browser and type: **http://tplinkrepeater.net** in the URL field, then log in using the admin credentials.
- 2) Go to **Settings > Wireless > Extended Network**.
- 3) Change the following Wi-Fi settings.



- a) **Extended 2.4GHz** and **Extended 5GHz**: The extended network is enabled by default. Deselect **Enable** if you do not want to use the extender's 2.4GHz or 5GHz band.
 - b) **Extended 2.4GHz SSID** and **Extended 5GHz SSID**: You can either enter a new name or click COPY HOST SSID to use the same SSID of the main (host) network.
 - c) **Hide SSID broadcast**: Select this checkbox to hide the extender's SSID from the Wi-Fi network list.
- 4) Click SAVE to save the extended network settings.

Wi-Fi Access Control

By default, any wireless devices can connect to the extended network through the SSID. To increase network security, you can restrict access to the Wi-Fi network of your extender using the Access Control function.



It is strongly recommended that you use a computer with a wired connection to configure and enable the Access Control function.

If you use a wireless device to manage the Access Control, make sure that you add the device to the Whitelist first.

To restrict access:

- 1) Launch a web browser and type: **http://tplinkrepeater.net** in the URL field, then log in using the admin credentials.
- 2) Go to **Settings > Wireless > Access Control**.
- 3) Toggle **On** to enable the Access Control function.

Access Control ?

Access Control: **On**

- 4) Under **Access Mode**, select **Blacklist** or **Whitelist**.


Access Mode

Default Access Mode: **Blacklist** **Whitelist**



- **Blacklist**: The devices in this list **are not** allowed to connect to the extended network.
- **Whitelist**: Only the devices in this list **are** allowed to connect to the extended network.


- 5) Click SAVE.

To add one or more wireless devices (clients) to the Blacklist:

- 1) In the **Online Devices** list, displaying all wireless device(s) that are currently connected to the extended network.
 - To block a device, click the  (Block) icon on the row of the device.


It will be added to the **Device in Blacklist**.

Online Devices						
 Refresh  BLOCK						
<input type="checkbox"/>	ID	DEVICE NAME	IP ADDRESS	MAC ADDRESS	CONNECTION TYPE	MODIFY
<input type="checkbox"/>	1	[REDACTED]	10.30.31.131	D8-D1-CB-A1-56-48	Wireless	



- To block multiple devices, select the checkboxes of the devices and click  **BLOCK** at the top-right of the listing. Those devices will be added to the **Devices in Blacklist**.

Online Devices						
 Refresh  BLO						
<input type="checkbox"/>	ID	DEVICE NAME	IP ADDRESS	MAC ADDRESS	CONNECTION TYPE	MODIFY
<input checked="" type="checkbox"/>	1	[REDACTED]	10.30.31.131	D8-D1-CB-A1-56-48	Wireless	

To manually add a device to the Blacklist or Whitelist:

- Under the **Devices in Blacklist** or **Devices in Whitelist**, click  **Add**.

Devices in Blacklist



 Add  Delete




<input type="checkbox"/>	ID	DEVICE NAME	MAC ADDRESS	MODIFY
--	--	--	--	--


Device Name:

MAC Address:

- Enter the **Device Name**.
- Enter the device's **MAC Address** in hexadecimal format (0-9, a-f, A-F) separated by a dash (for example, 00-FC-E9-98-7E-A0).
- Click .

To modify the device's name or its MAC address, or remove a device from the Blacklist or Whitelist, click the  (Edit) icon or the  (Trash) icon on the row of the device.

Devices in Blacklist				
 Add  Delete				
<input type="checkbox"/>	ID	DEVICE NAME	MAC ADDRESS	MODIFY
<input type="checkbox"/>	1	iPad Air	00-FC-E9-98-7E-A0	 

To remove multiple devices, select the checkboxes of the devices and click  **Delete** at the top-right of the listing.

Devices in Blacklist				
<input checked="" type="checkbox"/>	ID	DEVICE NAME	MAC ADDRESS	MODIFY
<input checked="" type="checkbox"/>	1	iPad Air	00-FC-E9-98-7E-A0	 

Changing the IP address

By default, the extender is configured to obtain its IP address automatically from your wireless router or Access Point (AP) that it connects to. If the wireless router does not have a DHCP server or its DHCP server is disabled, you can assign a static IP address to the extender.




We do NOT recommend that you change the Range Extender's IP address unless you are an experienced network administrator with strong knowledge of IP addressing, subnetting, and DHCP. Incorrect configuration can cause performance and network connection issues.

To change the extender's IP address:

- 1) Launch a web browser and type: **http://tplinkrepeater.net** in the URL field, then log in using the admin credentials.
- 2) Go to **Settings > Network > Network Settings**.
- 3) Select **Use the following IP address** and enter the static IP addresses in dotted-decimal notation into the following fields.

Network Settings ?	
	<input type="radio"/> Obtain an IP address automatically
	<input checked="" type="radio"/> Use the following IP address
IP Address:	<input type="text" value="192.168.0.100"/>
Subnet Mask:	<input type="text" value="255.255.255.0"/>
Default Gateway:	<input type="text" value="192.168.0.1"/>

- a) **IP Address:** The IP address to be assigned to the extender.
 - b) **Subnet Mask:** The subnet mask that matches the static IP address entered above.
 - c) **Default Gateway:** The gateway address of your Wi-Fi network.
- 4) Click  to apply your configuration.



You will be disconnected from the extender. To continue to configure the extender, log into the extender using the new IP address.

DHCP Server

By default, the Range Extender is configured as a DHCP (Dynamic Host Configuration Protocol) server to automatically allocate dynamic IP addresses to DHCP clients connected to your extended networks.

To change the DHCP Server Settings:

- 1) Launch a web browser and type: **http://tplinkrepeater.net** in the URL field, then log in using the admin credentials.
- 2) Go to **Settings > Network > DHCP Server Settings**.

DHCP Server Settings

DHCP Server: Auto On Off

IP Address Pool: -

Address Lease Time: minutes (1 default, 2880 maximum)

Default Gateway: (Optional)

Primary DNS: (Optional)

Secondary DNS: (Optional)

- 3) Under **DHCP Server**, select one of the following options:
- **Auto:** This option is selected by default to automatically allocate IP addresses to devices.
 - **On:** If you want the extender to allocate IP addresses from a IP address pool, select this option and enter the following:
 - a. **IP Address Pool:** Enter the starting and ending IP addresses in dotted-decimal notation. These addresses must be in the same subnet as the main (host) network.
 - b. **Address Lease Time:** Enter the time duration that an IP address is leased to the client between 1 and 2880 minutes. The default is 1 minute.
 - c. **Default Gateway:** Enter the LAN IP address of your main (host) network. This field is optional.
 - d. **Primary DNS:** Enter the primary DNS address of your main (host) network. This field is optional.
 - e. **Secondary DNS:** Enter the secondary DNS address of your main

(host) network. This field is optional.

- **Off:** If selected, you must have another DHCP server within your LAN; otherwise, you have to assign an IP address for each client manually.

4) Click **SAVE** to save your DHCP Server configuration.

DHCP Client List

The DHCP Client List displays the following information of each DHCP client that is currently connected to the extended network. Use the **Refresh** button to update the client list.

ID	CLIENT NAME	MAC ADDRESS	ASSIGNED IP ADDRESS	LEASE TIME
--	--	--	--	--

- **Client Name:** The name of the DHCP client.
- **MAC Address:** The DHCP client's MAC address.
- **Assigned IP Address:** The IP address that is allocated to the DHCP client by the DHCP server.
- **Lease Time:** The time duration that the IP address is leased to the DHCP client.

Other Functions

Wireless Adapter

The Range Extender can also be used as a wireless adapter to connect any Ethernet-only device, such as a Blu-ray® player, game console, DVR, or Smart TV, to your Wi-Fi network.

Once the extender is successfully connected to your Wi-Fi networks, simply plug the Ethernet cable from the Ethernet-only device directly into the extender's Ethernet port.

By default, the Ethernet port connects to the 5GHz wireless network. If you want the Ethernet-only device to connect to the 2.4GHz wireless network, follow the steps below.

- 1) Launch a web browser and type: **http://tplinkrepeater.net** in the URL field, then log in using the admin credentials.
- 2) Go to **Settings > Network > Ethernet Traffic (Wired Network)**.
- 3) Select **2.4GHz**.

Ethernet Traffic (Wired Network)	
Host Network for the Ethernet port:	<input checked="" type="radio"/> 2.4GHz <input type="radio"/> 5GHz

4) Click **SAVE** to apply your changes.

Status LED Control

You can conveniently turn off and on the Status LEDs (Power, 2.4GHz, and 5GHz) by pressing the LED button on the extender. However, the LEDs can also be set to turn off and on at a specific time every day.



*Before enabling the Night Mode feature, make sure that the extender's time zone is set to your proper time zone under **Settings > System Tools > Time Settings**.*

To set the time to turn off and on the LEDs:

- 1) Launch a web browser and type: **http://tplinkrepeater.net** in the URL field, then log in using the admin credentials.
- 2) Go to **Settings > System Tools > LED Control**.

LED Control ?

Night Mode

LED Off Time: 21 : 00 - 06 : 00

- 3) Select **Night Mode** to enable the LED Control feature.
- 4) Under **LED Off Time**, select the time range (from and to) during which the LEDs will be off in 24-hour time.
- 5) Click **SAVE** to apply your settings.

4

Maintain the Range Extender

This chapter covers the following topics:

- **Firmware Upgrade**
- **Backup and Restore**
- **Factory Defaults**
- **System Log**
- **Reboot**
- **Log out**

Firmware Upgrade

Upgrading the Range Extender's firmware is necessary to improve the current performance of the device and fix the issues that the previous firmware version may have.

Before upgrading the firmware, you need to download the latest firmware from the TP-LINK Support website to your computer.



IMPORTANT: To prevent upgrade failure, please note the following:

- Make sure the latest firmware file is matched with the hardware version as shown under the **Settings > System Tools > Firmware Upgrade** page.
- Make sure you have a stable connection between the extender and your computer.
- Backup your current configuration.
- Do **NOT** switch off or unplug the extender during the firmware upgrade.

To upgrade the extender's firmware:

- 1) Launch a web browser and type: **http://tplinkrepeater.net** in the URL field, then log in using the admin credentials.
- 2) Go to **Settings > System Tools > Firmware Upgrade**.

Firmware Upgrade

New Firmware File: BROWSE

Firmware Version: 1.0.0 Build 20151019 Rel. 39946

Hardware Version: RE350K v1.0

UPGRADE

- 3) Click **BROWSE** to locate and select the downloaded firmware file.
- 4) Click **UPGRADE**.



*The firmware upgrade takes a few minutes to complete. Please **DO NOT** power off or unplug the extender. After the firmware upgrade is finished, the extender will automatically reboot.*

Backup and Restore

It is highly recommended to backup your current configurations on a regular basis, before factory resetting or firmware upgrading. In the case of network failure or poor performance, you will be able to restore the Range Extender to its previous state.



Please **DO NOT** power off or unplug the extender during the backup or restore process.

To backup your current configuration:

- 1) Connect your computer to the extended network.
- 2) Launch a web browser and type: **http://tplinkrepeater.net** in the URL field, then log in using the admin credentials.
- 3) Go to **Settings > System Tools > Backup & Restore**.
- 4) Under **Backup**, click **BACKUP** to save a copy of your current configuration as a “*config.bin*” file on your computer.

Backup

Save a copy of your current settings.

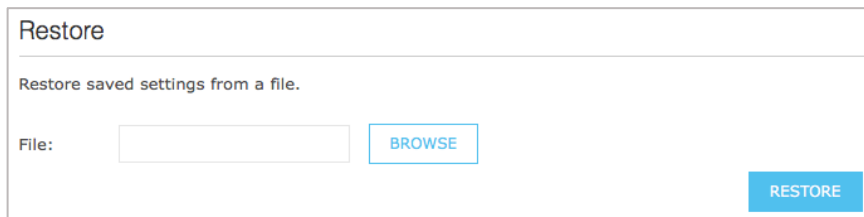
BACKUP



Make sure that you save the backup file in a safe location where you can retrieve it when needed.

To restore the extender to its previous state:

- 1) Connect your computer to the extended network.
- 2) Launch a web browser and type: **http://tplinkrepeater.net** in the URL field, then log in using the admin credentials.
- 3) Go to **Settings > System Tools > Backup & Restore**.
- 4) Under **Restore**, click **BROWSE** to locate and select the saved “*config.bin*” file.



The screenshot shows a web interface titled "Restore". Below the title, it says "Restore saved settings from a file." There is a "File:" label followed by an empty text input field and a blue "BROWSE" button. At the bottom right of the form is a blue "RESTORE" button.

- 5) Click **RESTORE**.



The restore process takes a few minutes to complete. After reverting back to a previous state is finished, the extender will automatically reboot.

Factory Defaults

Resetting the Range Extender back to factory defaults can be done with a single click of the button on the extender’s web-based interface. Alternatively, you can factory reset by pressing the Reset button on the extender for 2 seconds.



Factory reset will erase all your configurations that have been made to the extender and revert it back to the original state.

To factory reset via the web-based interface:

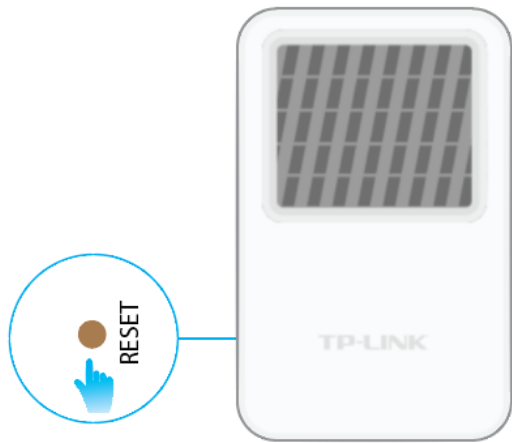
- 1) Launch a web browser and type: **http://tplinkrepeater.net** in the URL field, then log in using the admin credentials.
- 2) Go to **Settings > System Tools > Backup & Restore**.
- 3) Under **Factory Default Restore**, click **FACTORY RESTORE** and confirm at the prompt.



The screenshot shows a web interface titled "Factory Default Restore". Below the title, it says "Revert all settings to factory defaults." At the bottom right of the form is a blue "FACTORY RESTORE" button.

To factory reset via the Reset button:

- 1) With the extender powered on, use a pin to press and hold the recessed Reset button until all LEDs start flashing multiple times, then release the button.



The factory reset takes a few minutes to complete. The extender will automatically reboot when the factory reset is finished.

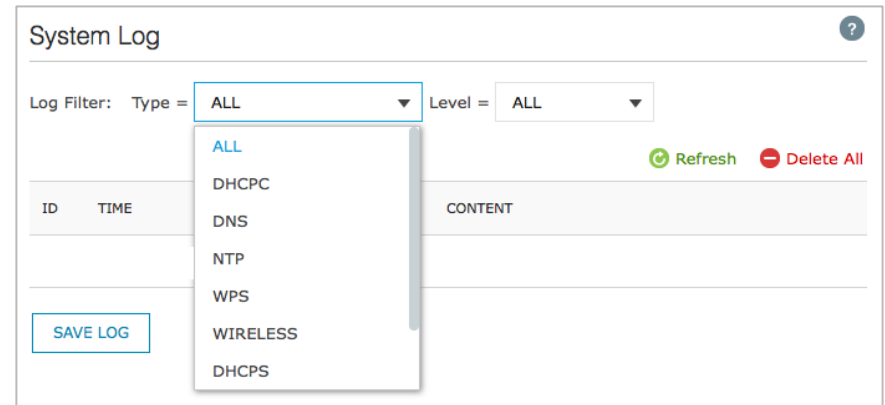
To log back into the extender, enter **admin** for both username and password.



System Log


The System Log displays a list of the most recent activities (events) of the Range Extender. You can define which type of logs and/or the level of logs you want to view. You also have the ability to export the system log as a text file to your computer.

To view the System Log:

- 1) Launch a web browser and type: **http://tplinkrepeater.net** in the URL field, then log in using the admin credentials.
- 2) Go to **Settings > System Tools > System Log**.
- 3) Under **Log Filter**, select the type of logs and/or the log level you want to view. **All** is the default for log type and log level.




- Click  **Refresh** to update the system log.
- Click  **Delete All** to permanently remove all system logs.


- Click  to export the system log as a text (*.txt) file to your computer.

Reboot

If you are having a problem with the extended network, you can simply reboot the extender. There are two ways to reboot the extender:

- Toggle the Power Switch to Off. Wait for 10 seconds then switch it back on.
- Log into the extender's web-based interface and click  (REBOOT) on the top right corner of the dashboard.

Log out

To log out of the extender's web-based interface, simply click  (LOG OUT) on the top right corner of the dashboard.

5

Appendix

This chapter covers the following topics:

- **Factory Defaults Settings**
- **Troubleshooting FAQs**
- **Specifications**
- **Glossary**

Factory Defaults Settings

The following are the factory default settings of the Range Extender.

Admin Account:

Username:	admin
Password:	admin

Wireless Info:

Default SSIDs:	2.4GHz: TP-LINK_2G_EXT 5GHz: TP-LINK_5G_EXT
Security:	None
Access Control:	Disabled

Extender IP Info:

IP Address:	192.168.0.254
Subnet Mask:	255.255.255.0
Domain:	http://tplinkrepeater.net

Quick Setup:	Enabled
---------------------	---------

Troubleshooting FAQs

Q1. How do I restore my extender's configuration to its factory default settings?

There are two options to factory reset the extender:

- *Option One:* With the extender powered on, use a pin to press and hold the RESET button until all LEDs turn off and turn back on (about 2 seconds), then release the button.
- *Option Two:* Restore the default settings from the extender's web-based interface. Go to **System Tools > Restore & Backup**.



Factory resetting your range extender will erase the current configuration settings.

Q2. I forgot my password, what should I do?

There are two types of passwords: Wi-Fi password and admin account's password.

• **Wi-Fi Password**

The Wi-Fi password of your extended network is the same as your main (host) network.

• **Admin account's Password**

The default admin password, which is used to access the extender's web-based interface, is **admin** (all lowercase). If you have changed and forgotten the admin password, you will have to factory reset the extender to its original state. Refer to the [Factory](#)

[Defaults](#) section for instructions.

Q3. The App-Config process fails during the initial setup, what should I do?

Follow Kasa's instructions to reinitiate the App-Config process or use Option 2 to set up the extender using a computer.

Q4. What should I do if I cannot access the extender's web-based interface?

- Make sure that **http://tplinkrepeater.net** is entered correctly.
- Make sure that you only use either Ethernet or Wi-Fi connection when accessing the extender's web-based interface but not both.
- If you use a computer to access the extender's web-based interface, make sure that it is configured to obtain an IP address automatically (DHCP).
- If the problem still persists, contact our technical support.

Q5. How do I check the Wi-Fi signal strength of my extended networks?

An easy way to check the signal strength is to access the dashboard of the extender. Go to **Settings > Status**, the Uplink Signal and the Uplink Speed are shown under both of your extended networks.

Q6. Why the 2.4GHz and 5GHz LEDs on the extender are lit in amber?

Amber indicates that the extender is connected, but it is far away from the main (host) router (or AP). You should relocate it closer to the router or use the Location Assistant feature on the Kasa mobile app to find a best location to place the extender.

Specifications

General	
Standards and Protocols	IEEE 802.3, IEEE 802.3u, IEEE 802.11a, IEEE 802.11n, IEEE 802.11b, IEEE 802.11g, IEEE 802.1x, IEEE 802.11e, IEEE 802.11i, IEEE 802.11ac, TCP/IP, DHCP
Safety & Emission	CE
Ports	One 10/100/1000M Auto-Negotiation LAN RJ45 port
Wireless	
Frequency Band	2.4GHz: 2.4~2.4835GHz 5GHz: 5.15~5.25GHz
Radio Data Rate	2.4GHz: 11n: Up to 450Mbps 11g: 54/48/36/24/18/12/9/6Mbps 11b: 11/5.5/2/1Mbps 5GHz: 11ac: Up to 1300Mbps 11n: Up to 450Mbps 11a: 54/48/36/24/18/12/9/6Mbps

Security	WEP, WPA-PSK, WPA2-PSK
Physical and Environment	
Working Temperature	0°C~40°C (32°F~104°F)
Working Humidity	10% ~ 90% RH, Non-condensing
Storage Temperature	-40°C~70°C(-40°F~158°F)
Storage Humidity	5% ~ 95% RH, Non-condensing

Glossary

- 802.11b** – The 802.11b standard, also known as Wi-Fi, which provides speeds up to 11 Mbps using direct-sequence spread-spectrum (DSSS) technology and operating in the unlicensed radio spectrum at 2.4GHz, and WEP encryption for security.
- 802.11g** – The 802.11g specification is for wireless networking at 54 Mbps using direct-sequence spread-spectrum (DSSS) technology, using OFDM modulation and operating in the unlicensed radio spectrum at 2.4GHz, and backward compatibility with IEEE 802.11b devices, and WEP encryption for security.
- 802.11n** – 802.11n builds upon previous 802.11 standards by adding MIMO (multiple-input multiple-output). MIMO uses multiple transmitter and receiver antennas to allow for increased data throughput via spatial multiplexing and increased range by exploiting the spatial diversity, perhaps through coding schemes like Alamouti coding. The Enhanced Wireless Consortium (EWC) was formed to help accelerate the IEEE 802.11n development process and promote a technology specification

for interoperability of next-generation wireless local area networking (WLAN) products.

- **Access Point (Range Extender)** – A wireless LAN transceiver or "base station" that can connect a wired LAN to one or many wireless devices. Access points can also bridge to each other.
- **DNS** (Domain Name System) – An Internet Service that translates the names of websites into IP addresses.
- **Domain Name** - A descriptive name for an address or group of addresses on the Internet.
- **DSL** (Digital Subscriber Line) – A technology that allows data to be sent or received over existing traditional phone lines.
- **ISP** (Internet Service Provider) – A company that provides access to the Internet.
- **MTU (Maximum Transmission Unit)** – The size in bytes of the largest packet that can be transmitted.
- **SSID** – A Service Set Identification is a thirty-two character (maximum) alphanumeric key identifying a wireless local area network. For the wireless devices in a network to communicate with each other, all devices must be configured with the same SSID. This is typically the configuration parameter for a wireless PC card. It corresponds to the ESSID in the wireless Access Point and to the wireless network name.
- **WEP** (Wired Equivalent Privacy) – A data privacy mechanism based on a 64-bit or 128-bit or 152-bit shared key algorithm, as described in the IEEE 802.11 standard.
- **Wi-Fi** – A trademark of the Wi-Fi Alliance and the brand name for products using the IEEE 802.11 family of standards.
- **WLAN** (Wireless Local Area Network) – A group of computers and

associated devices communicate with each other wirelessly, which network serving users are limited in a local area.

- **WPA (Wi-Fi Protected Access)** – WPA is a security technology for wireless networks that improves on the authentication and encryption features of WEP (Wired Equivalent Privacy). In fact, WPA was developed by the networking industry in response to the shortcomings of WEP. One of the key technologies behind WPA is the Temporal Key Integrity Protocol (TKIP). TKIP addresses the encryption weaknesses of WEP. Another key component of WPA is built-in authentication that WEP does not offer. With this feature, WPA provides roughly comparable security to VPN tunneling with WEP, with the benefit of easier administration and use. This is similar to 802.1x support and requires a RADIUS server in order to implement. The Wi-Fi Alliance will call this, WPA-Enterprise. One variation of WPA is called WPA Pre Shared Key or WPA-Personal for short - this provides an authentication alternative to an expensive RADIUS server. WPA-Personal is a simplified but still powerful form of WPA most suitable for home Wi-Fi networking. To use WPA-Personal, a person sets a static key or "passphrase" as with WEP. But, using TKIP, WPA-Personal automatically changes the keys at a preset time interval, making it much more difficult for hackers to find and exploit them. The Wi-Fi Alliance will call this, WPA-Personal.

FCC STATEMENT



This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one 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 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.”

The device operates in 5.15 ~ 5.25GHz / 5.745 ~ 5.85 GHz frequency range. It is restricted in indoor environment only. This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules.

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.

RF Exposure Information

This device meets the EU requirements (1999/519/EC) 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.

National Restrictions

This device is intended for home and office use in all EU countries (and other countries following the EU directive 1999/5/EC) without any limitation except for the countries mentioned below:

Country	Restriction	Reason/remark
Belarus	Not implemented	
Norway	Implemented	This subsection does not apply for the geographical area within a radius of 20 km from the centre of Ny-Ålesund on Svalbard.
Italy	Implemented	The public use is subject to general authorisation by the respective service provider.
Russian Federation	Limited implementation	<p>1. SRD with FHSS modulation</p> <p>1.1. Maximum 2.5 mW e.i.r.p.</p> <p>1.2. Maximum 100 mW e.i.r.p. Permitted for use SRD for outdoor applications without restriction on installation height only for purposes of gathering telemetry information for automated monitoring and resources accounting systems. Permitted to use SRD for other purposes for outdoor applications only when the installation height is not exceeding 10 m above the ground surface.</p> <p>1.3. Maximum 100 mW e.i.r.p. Indoor applications.</p> <p>2. SRD with DSSS and other than FHSS wideband modulation</p> <p>2.1. Maximum mean e.i.r.p. density is 2 mW/MHz. Maximum 100 mW e.i.r.p.</p> <p>2.2. Maximum mean e.i.r.p. density is 20 mW/MHz. Maximum 100 mW e.i.r.p. It is permitted to use SRD for outdoor applications only for purposes of gathering telemetry information for automated monitoring and resources accounting systems or security systems.</p> <p>2.3. Maximum mean e.i.r.p. density is 10 mW/MHz. Maximum 100 mW e.i.r.p. Indoor applications.</p>
Ukraine	Limited implementation	e.i.r.p. ≤100 mW with built-in antenna with amplification factor up to 6 dBi.

ATTENTION: Due to EU law, the country settings must be identical to the country where the device is operating (important due to non-harmonised frequencies in the EU).

Restricted to indoor use.

Canadian Compliance Statement

This device complies with Industry Canada license-exempt RSSs. Operation is subject to the following two conditions:

- 1) This device may not cause interference, and
- 2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- 1) l'appareil n' doit pas produire de brouillage, et
- 2) l'utilisateur de 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.
- 2) For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the band 5725-5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate; and

The high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

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;
- 2) Le gain maximal d'antenne permis pour les dispositifs avec antenne(s) amovible(s) utilisant la bande 5725-5850 MHz doit se conformer à la limitation P.I.R.E spécifiée pour l'exploitation point à point et non point à point, selon le cas.

En outre, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5250-5350 MHz et 5650-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

Industry Canada Statement

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

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 20cm 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 20 cm de distance entre la source de rayonnement et votre corps.

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。

減少電磁波影響，請妥適使用。

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。



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



Safety Information

- When product has power button, the power button is one of the way to shut off the product; when there is no power button, the only way to completely shut off power is to disconnect the product or the power adapter from the power source.

-
- Don't disassemble the product, or make repairs yourself. You run the risk of electric shock and voiding the limited warranty. If you need service, please contact us.
 - Avoid water and wet locations.

This product can be used in the following countries:

AT	BG	BY	CA	CZ	DE	DK	EE
ES	FI	FR	GB	GR	HU	IE	IT
LT	LV	MT	NL	NO	PL	PT	RO
RU	SE	SG	SK	TR	UA	US	

DECLARATION OF CONFORMITY

For the following equipment:

Product Description: **AC1200 Wi-Fi Range Extender**

Model No.: **RE350K**

Trademark: **TP-LINK**

We declare under our own responsibility that the above products satisfy all the technical regulations applicable to the product within the scope of Council Directives:

Directives 1999/5/EC, Directives 2004/108/EC, Directives 2006/95/EC, Directives 1999/519/EC, Directives 2011/65/EU

The above product is in conformity with the following standards or other normative documents

EN 300 328 V1.8.1

EN 301 893 V1.7.1

EN 301 489-1 V1.9.2:2011 & EN 301 489-17 V2.2.1:2012

EN 55022:2010+AC:2011

EN 55024:2010

EN 60950-1: 2006 + A11: 2009 + A1: 2010 + A12: 2011 +A2: 2013

EN 50385: 2002

The product carries the CE Mark:



TP-LINK TECHNOLOGIES CO., LTD.

Building 24 (floors 1, 3, 4, 5), and 28 (floors 1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China

Person responsible for marking this declaration:

A handwritten signature in black ink, appearing to read 'Yang Hongliang', is centered within a light gray rectangular box.

Yang Hongliang

Product Manager of International Business

Date of issue: 2015-11-10

TP-LINK TECHNOLOGIES CO., LTD.

Building 24 (floors 1, 3, 4, 5), and 28 (floors 1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China