TP-LINK®
The Reliable Choice

Easy Wi-Fi Extension
Flexible Placement

300Mbps Mini Wi-Fi Range Extender

TL-WA855RE

1910011428
REV 1.0.0

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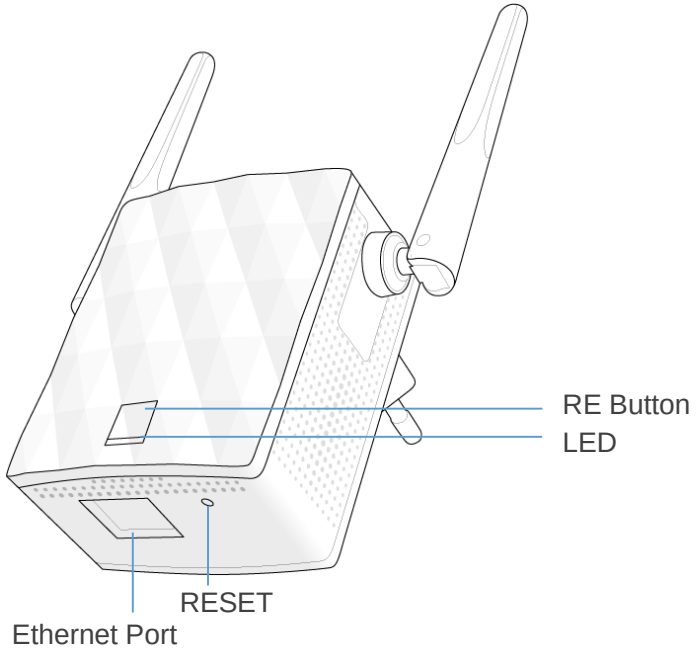
1

Appearance

This chapter covers the following topics:

- **LED Explanation**
- **Button and Port Explanation**
- **Positioning the Extender**



LED Explanation

Statue	Color	Indication
On	Green	The extender is connected to the router, and is in a good location.
	Orange	The extender is connected to the router, but is too far away from the router.
	Red	No active connection.
Blinking	Green	WPS connection is in progress, or the extender is initializing.
Off	--	The extender is powered off.

Button and Port Explanation

- **(Range Extender/WPS) Button:** If your Wireless router supports WPS function, you can press the WPS button and then press the RE button of the extender to establish a secure connection between the wireless router and the extender.
- **RESET:** This button is used to restore the extender's factory default settings.

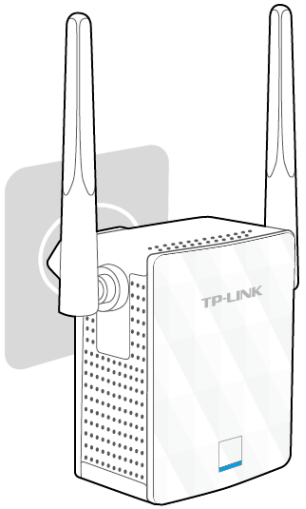
  There are two ways to reset the extender:

  Option One: While the extender is powered on, use a pin to press the RESET button, the LED should turn off momentarily, then release the button and wait the extender to reboot to its factory default settings.

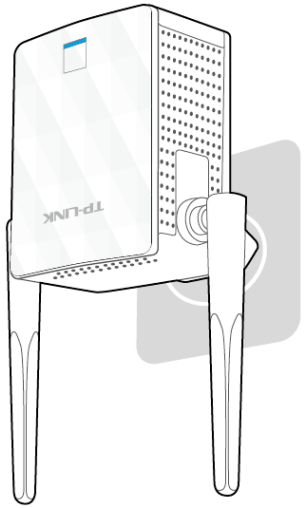
  Option Two: Log in to the extender's web management page, and go to **Settings > System Tools > Backup & Restore** page, click **Factory Restore**.
- **Ethernet Port:** One 10/100Mbps RJ45 Ethernet ports used to add wireless connectivity to an Ethernet-enabled device such as Internet TV, DVR, Gaming console and so on. Please note that this port is not allowed to be connected with router.

Positioning the Extender

For safety consideration, we suggest you plug the extender right way up or upside down, as the pictures shown below.



Right way up



Upside down

2

Connect the Extender to the Internet

This chapter covers the following topics:

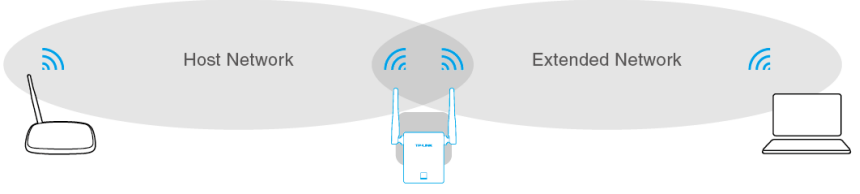
- **Before You Begin**
- **Quick Setup**
- **Using the extender as an USB Adapter**
- **Using the extender as an AP**

Before You Begin

Please read this chapter carefully before using the device. 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 metal 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 extender, please follow the instructions below to achieve an **ideal location** (please make sure it is always within the wireless coverage of the wireless router).

- **Half-way Between** - Generally, the ideal location for the extender is half-way between the wireless router and Wi-Fi dead zone. If the wireless signal is not satisfactory, you may place the extender somewhat nearer to the wireless router.



- **No Obstacles and Spacious** - Clear obstacles in the way between the extender and the wireless router. It's better to locate it in a spacious place.
- **No Interference** - Choose a location away from Bluetooth devices and other household electronics, such as cordless phone, microwave, and baby monitor, etc., to minimize signal interference.

Basic Requirements

- Place your extender in a well-ventilated place far from direct sunlight, any heater or heating vent.
- Leave at least 2 inches (5cm) space around the device for heat dissipation.
- Unplug your extender in a lighting storm to avoid damage.
- Use Web browser, such as Microsoft Internet Explorer 5.0 or above, Netscape Navigator 6.0 or above.
- Operating temperature of the extender should be 0℃~40℃ (32℉~104℉).
- Operating humidity of the extender should be 10%~90%RH (Non-condensing).

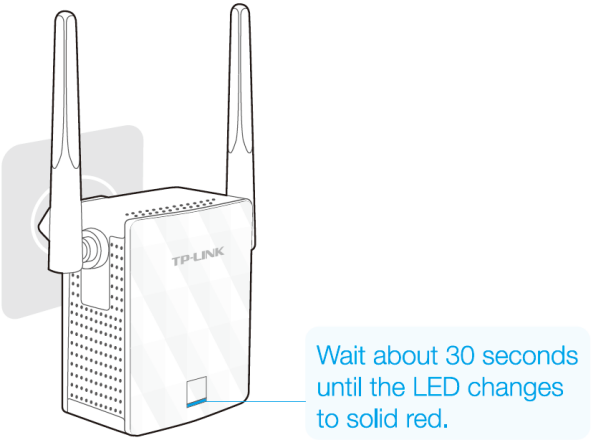
Quick Setup

Option One: Using WPS (Wi-Fi Protected Setup)

Your router should support WPS. Otherwise, please use Option Two: Using Web Browser.

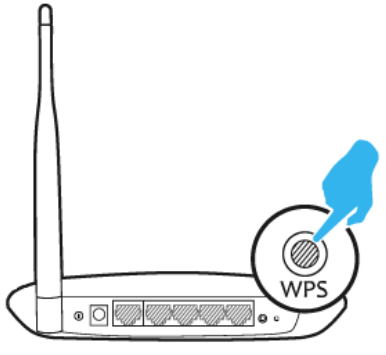
1 Power On

Plug in next to your router.



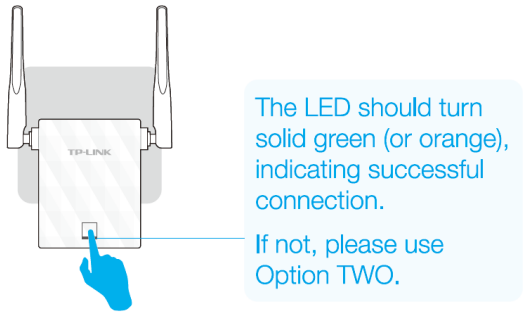
2 Connect

1) Press the **WPS button** on your router.



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

2) Immediately press the button on your extender. The LED starts blinking.

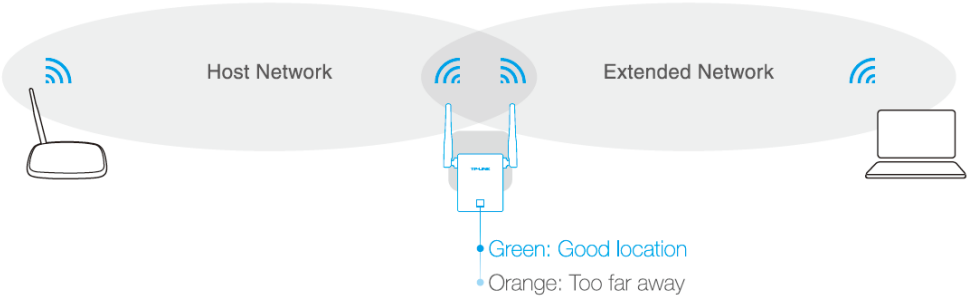


- If the LED does not turn solid green (or orange), please use Option Two: Using Web Browser.
- Some ISP gateways disable the WPS function by default, if the WPS method fails, please use Option Two: Using Web Browser.

3 Relocate

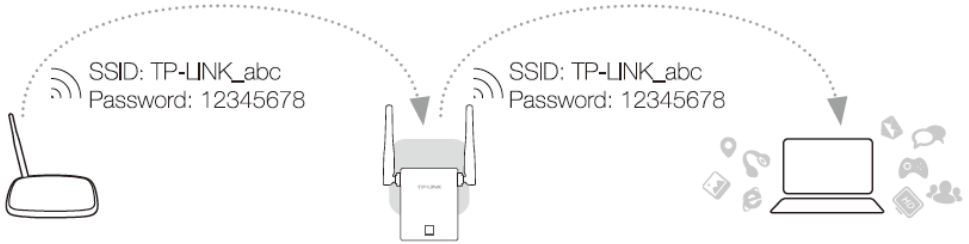
1) Plug the extender into an electrical outlet about halfway between your router (Host Network) and the Wi-Fi dead zone.

2) Wait about 1 minute until the LED is **lit with a solid green**. If not, **relocate it closer to the router** to achieve a good (or better) signal quality.



Enjoy!

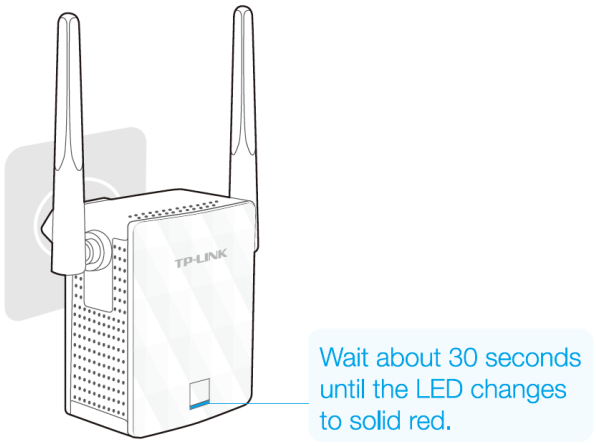
The extender shares the same wireless network name (SSID) and wireless password as your router.



Option Two: Using Web Browser

1 Power On

Plug in next to your router.

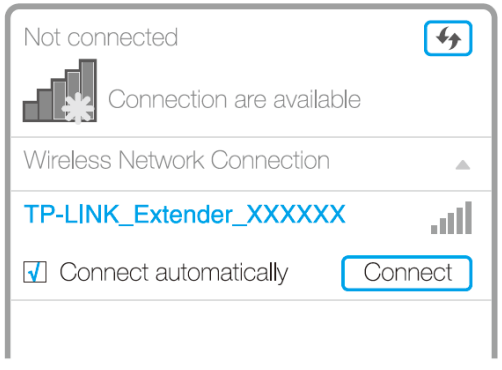


2 Connect to the Extender

- **Via Wireless**

  1) Disconnect the Ethernet (wired) connection to your computer.

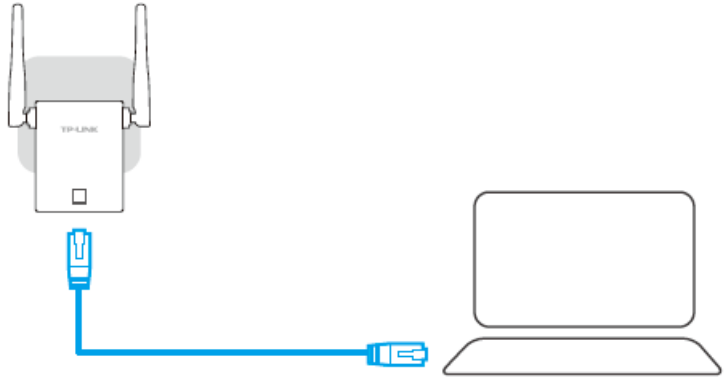
  2) Click the Wi-Fi icon on the taskbar and connect to the extender's network (e.g. TP-LINK_Extender_XXXXXX).



- **Via Ethernet Cable**

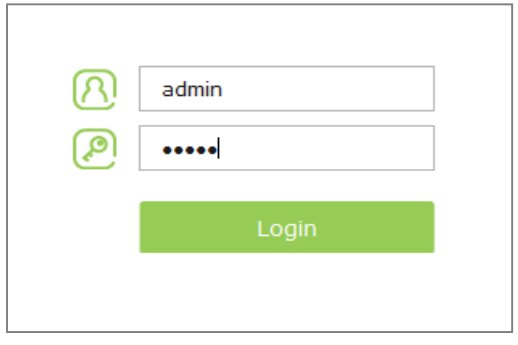
  1) Disable the Wi-Fi on your computer.

  2) Connect the extender to your computer via an Ethernet cable.

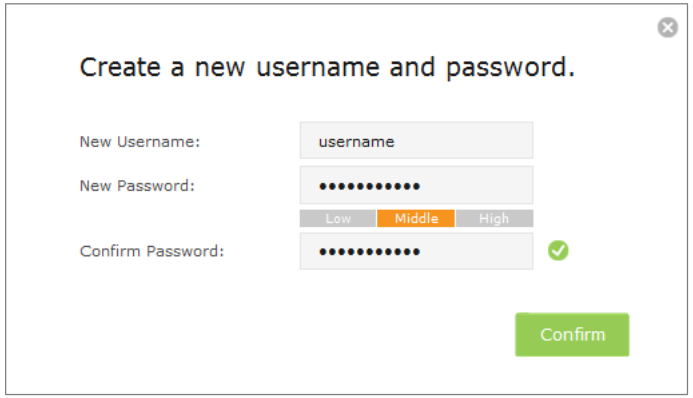


3 Configure

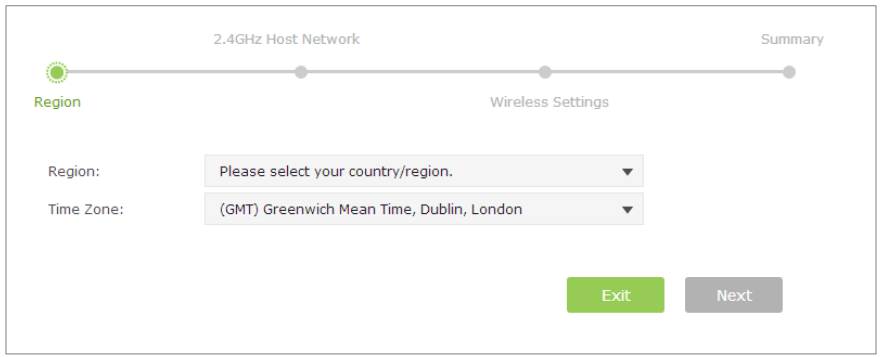
1) Launch a web browser on your computer and type **http://tplinkrepeater.net** into the URL field, and use **admin** (all lowercase) for both username and password to log in.



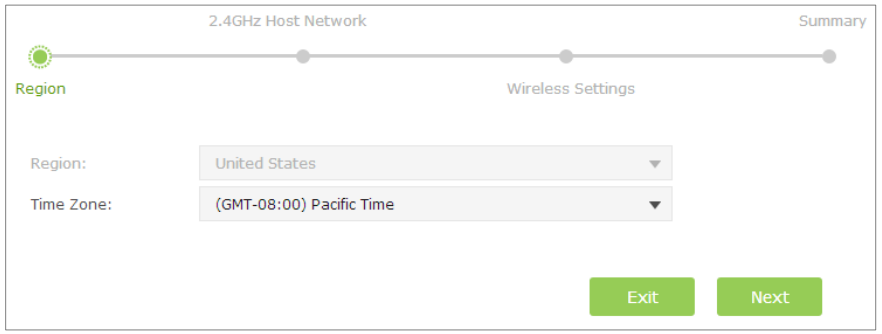
2) Create a new username and password to log in the web management page, then click **Confirm**.



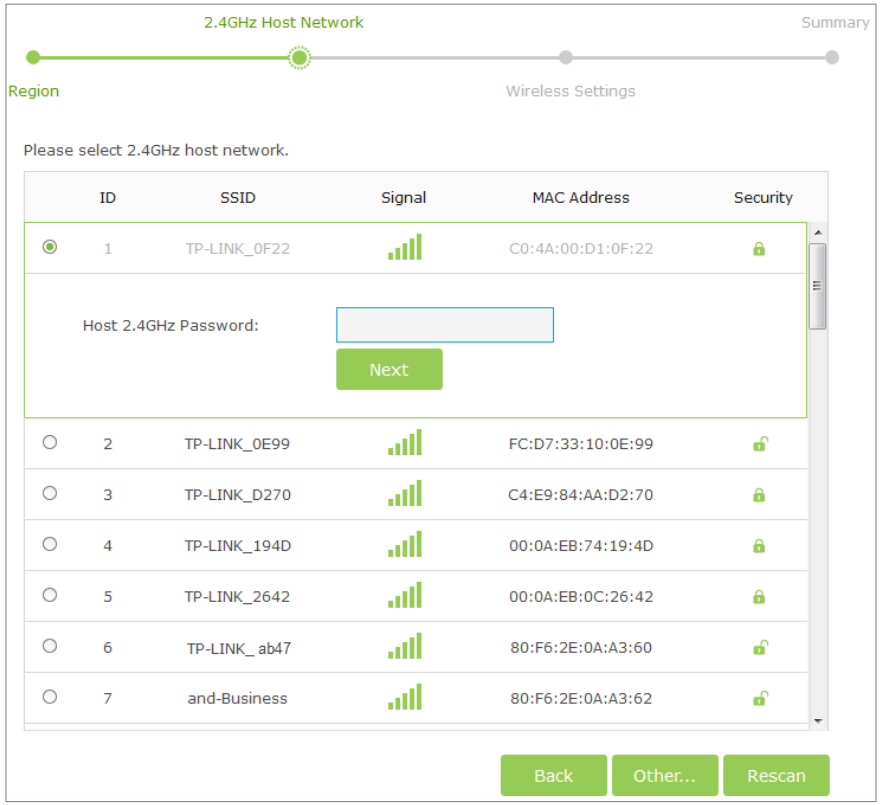
3) Select your region and time zone, then click **Next**.



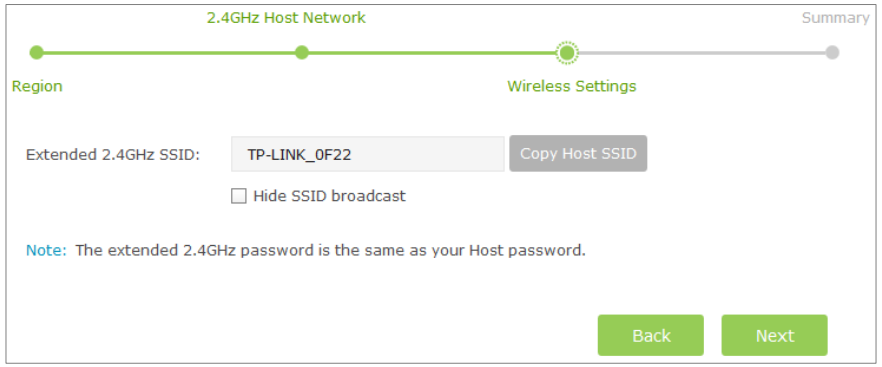
Per FCC regulations, all Wi-Fi products marketed in the U.S. are fixed to the U.S. region.



4) Select your router's 2.4GHz host network and enter the password, then click **Next**.



5) Either copy the host's SSID or customize it for the extended 2.4GHz network, then click **Next**.

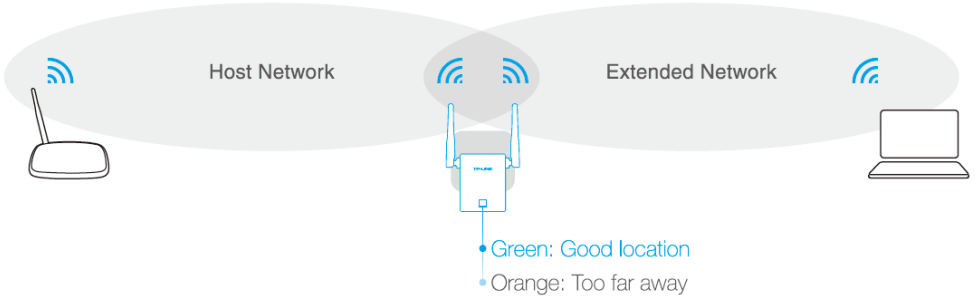


6) Verify your wireless settings and click **Save**. The LED should turn solid green, indicating successful connection.

4 Relocate

1) Plug the extender into an electrical outlet about halfway between your router (Host Network) and the Wi-Fi dead zone.

2) Wait about 1 minute until the LED is **lit with a solid green**. If not, **relocate the extender closer to the router** to achieve a good (or better) signal quality.



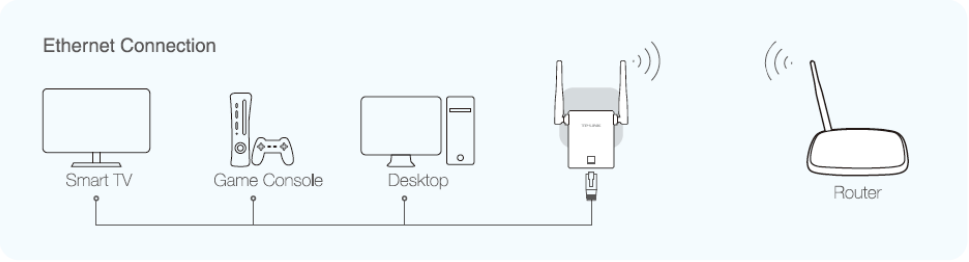
Enjoy!

The extended network shares the same Wi-Fi password as your host network, but may have different wireless network name if you customize the name during the configuration.

Using the extender as an USB Adapter

The extender can be used as a wireless adapter to connect any Ethernet-enabled device, such as a Blu-ray player, game console, DVR, or smart TV, to your wireless network.

After the extender connected to the Internet, you can connect an Ethernet-only device to the extender using an Ethernet cable.



Using the extender as an AP

The extender can be used as an access point, thus to transform your existing wired network to a wireless network.

Set the extender as an AP

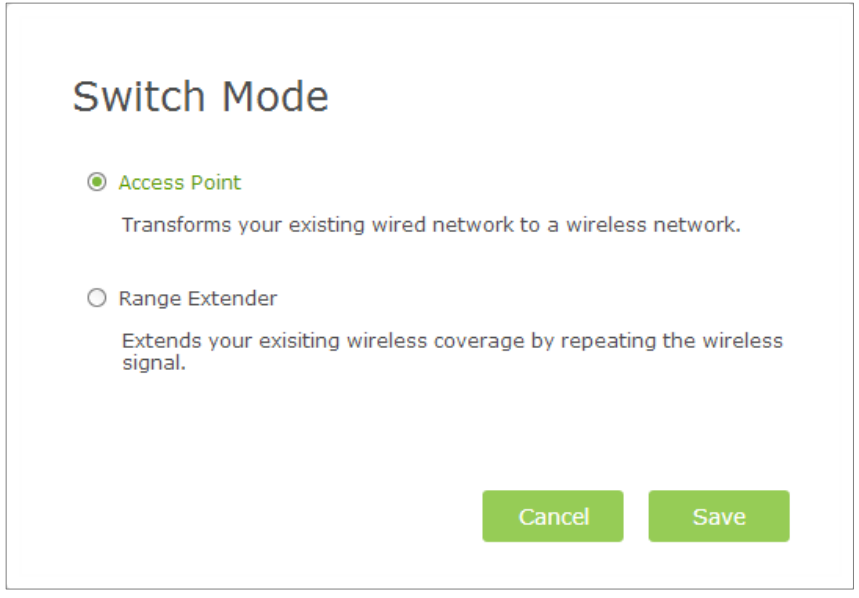
1 Connect the extender to your router

Power on the extender, and connect it to your router's Ethernet port with an Ethernet cable.

2 Set the extender to AP mode

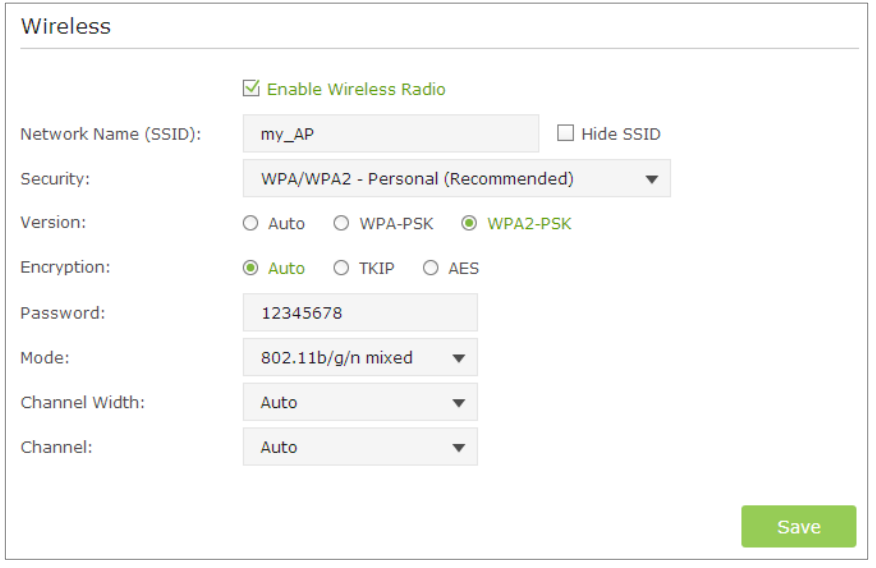
1) Connect your computer to your extender's wireless network.

2) Launch a web browser and log into **http://tplinkrepeater.net**, click **Mode** in the top right corner, select **Access Point** and click **Save**. The extender will switch to AP mode and reboot automatically.



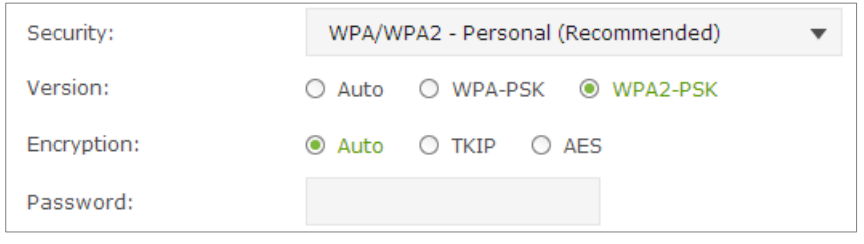
3 Change the SSID and Password (Optional)

Go to **Settings > Wireless > Wireless Settings** page, configure the extender as the picture shows below, and click **Save**.



- **Network Name (SSID):** Set a SSID for your AP's wireless network.
- **Security:** Select the security type. **WPA/WPA2 - Personal** is recommended.

If **WPA/WPA2 – Personal** is selected,

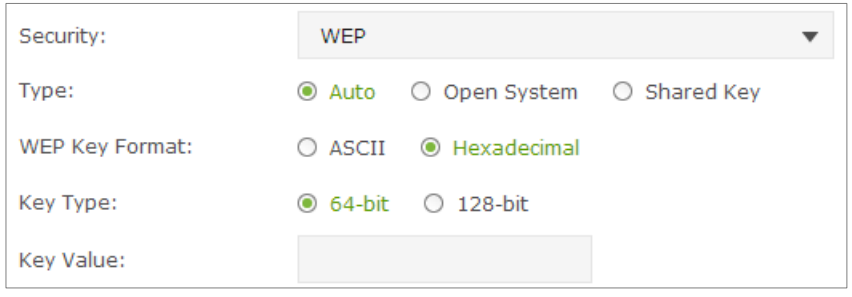


1) Select the security version. WPA2-PSK is recommended.

2) Select the encryption type. TKIP is NOT recommended if the extender operates in 802.11n mode, because TKIP is not supported by the 802.11n specification and the WPS function.

3) Enter a new password in the **Password** field.

If **WEP** is selected,



1) Select the security type. The defult is auto, which automatically chooses Open System or Shared Key based on the capability and access request of the wireless client.

2) Select the WEP key format. ASCII format is a combination of alphabetic and numeric characters. Hexadecimal format is a combination of the numbers (0-9) and letters (A-F, a-f).

3) Select the key type. 64-bit allows you to enter 10 hexadecimal digits or 5 ASCII characters into the **Key Value** field. 128-bit allows you to enter 26 hexadecimal digits or 13 ASCII characters into the **Key Value** field.

4) Enter the WEP key into the **Key Value** field.

- **Mode:** Select a transmission mixed mode.
- **Channel Width:** Select a channel bandwidth for the wireless network.
- **Channel:** Select the 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.

4 Enjoy the Internet

Now you can connect to the extender (AP)'s wireless network to enjoy the Internet.

> You can connect your wireless devices to the extender (AP)'s wireless network by WPS. For detailed instructions, please refer to Connect your devices to the AP by WPS.

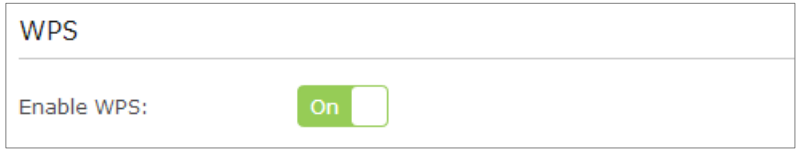
Connect your devices to the AP by WPS

There are three ways to connect your devices to the AP by WPS.

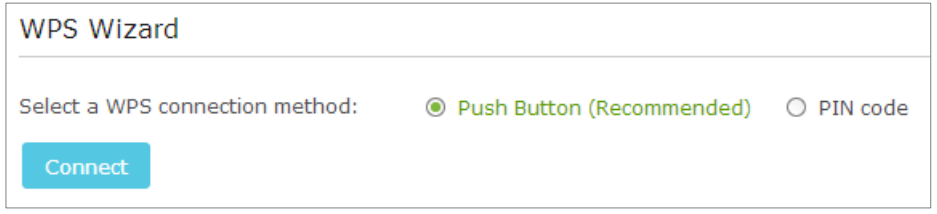
Method ONE: Use your device's WPS button

1) Launch a web browser and log into **http://tplinkrepeater.net**, then go to **Settings > Wireless > WPS** page.

2) Enable the WPS function of the AP.



3) Select **Push Button** at WPS Wizard section, and click **Connect**.



4) Immediately push the WPS button on your client device.

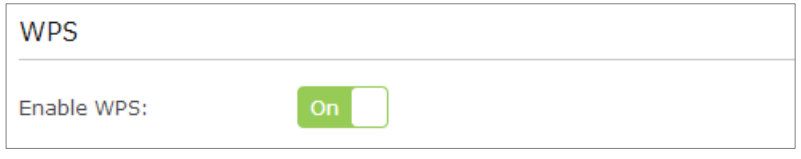
5) "Connect successfully" will appear on the WPS page, which means that your client device has connected to the AP by WPS.

Method TWO: Enter the client's PIN code on the AP

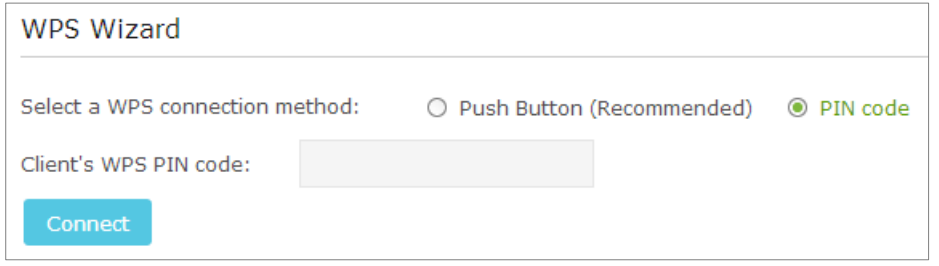
Use this method if your client device has a WPS PIN code.

1) Launch a web browser and log into **http://tplinkrepeater.net**, then go to **Settings > Wireless > WPS** page.

2) Enable the WPS function of the AP.



3) Select **PIN code** at WPS Wizard section, enter the client's WPS PIN code and click **Connect**.



4) "Connect successfully" will appear on this page, which means that your client device has connected to the AP by WPS.

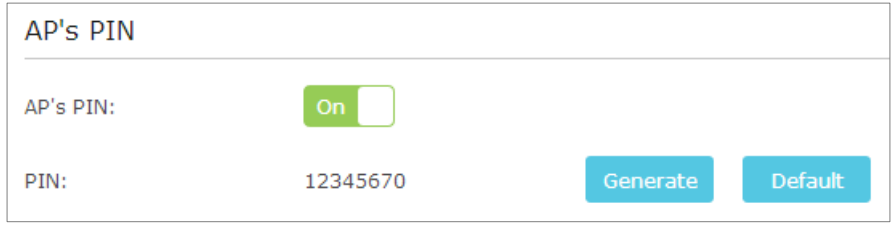
Method THREE: Enter the AP's PIN code on your client device

Use this method if your client device asks the AP's PIN code.

1) Launch a web browser and log into **http://tplinkrepeater.net**, then go to **Settings > Wireless > WPS** page.

2) Enable the WPS function of the AP.

3) Enable the AP's PIN. The current PIN code of the AP is displayed here, you can click **Generate** to get a new one.



4) On your client device, enter the AP's PIN code. When the AP (extender)'s LED is solid on, the client device has successfully connected to the AP.

3

View the Information of the Extender

This chapter covers the following topics:

- **Current Status of the Extender**
- **Information about the Host Network, the Extender and the Clients**

Current Status of the Extender

1) Launch a web browser and log into **http://tplinkrepeater.net**, then go to **Settings > Status** page.

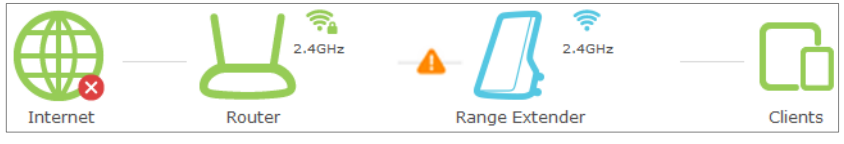
2) You can view the network connection status in this page.

- The normal status.

- The extender is failed to connect to the wireless network of your router.

- The extender is connected to your router, but no transmitting data. Please check your host network.

- The extender is connected to the router unnormally. Maybe the gateway is set incorrectly in the Static IP. You can select “Obtain an IP address automatically” on the “**Settings > Network**” page.



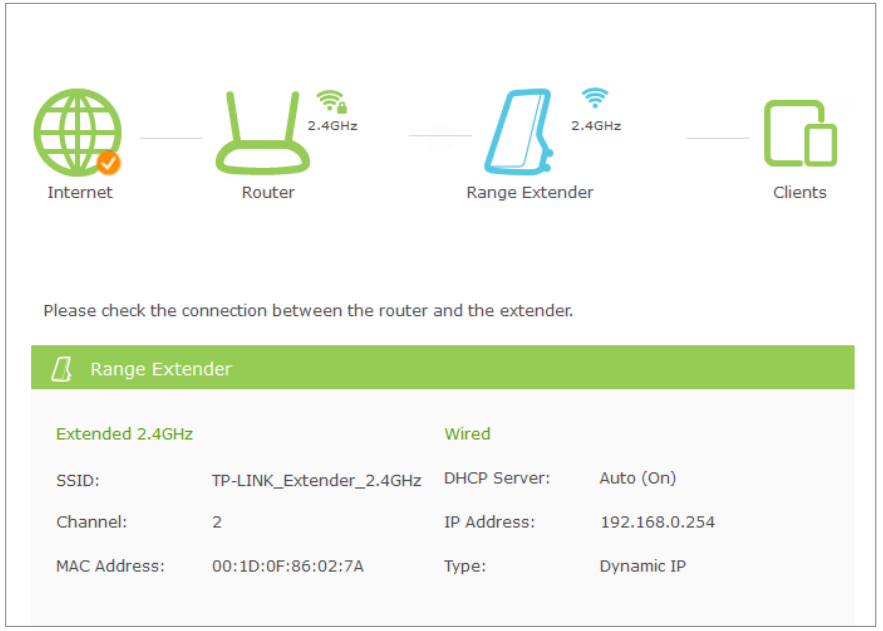
- The extender is failed to connect to the NTP server, or obtain the DNS server address. Please check your host network.

Wireless Icon Explanation

Name	Instructions
	The wireless is on and encrypted.
	The wireless is on and unencrypted.
/	Router：The wireless is off, or the connection is failed. Extender：The wireless is off.
/	The icons are selected.

Information about the Host Network, the Extender and the Clients

1. Launch a web browser and log into **http://tplinkrepeater.net**, then go to **Settings > Status** page.
2. Click the icons of your router, the extender and clients. The detailed informations of the corresponding icon are displayed below.



4

Manage the Extended Network and Security Settings

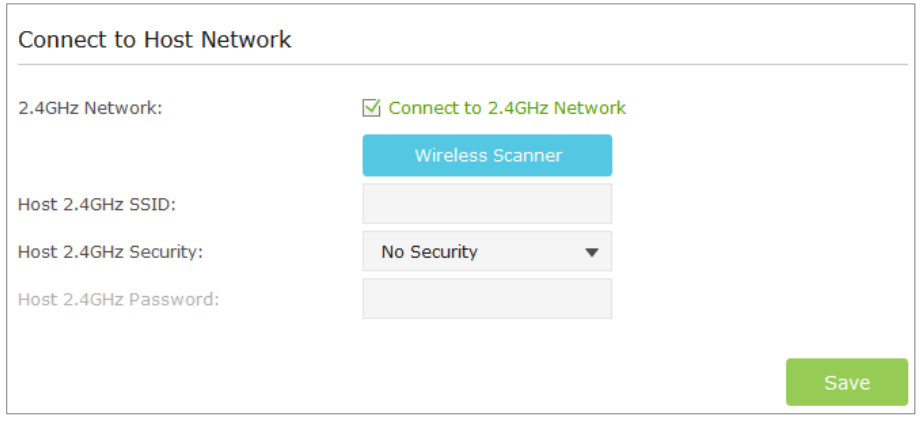
This chapter covers the following topics:

- **Extend another Network**
- **Customize the Extended SSID**
- **Secure the Extended Network**
- **Change Wi-Fi Coverage**
- **Change the Extender's IP Address**
- **DHCP Server**

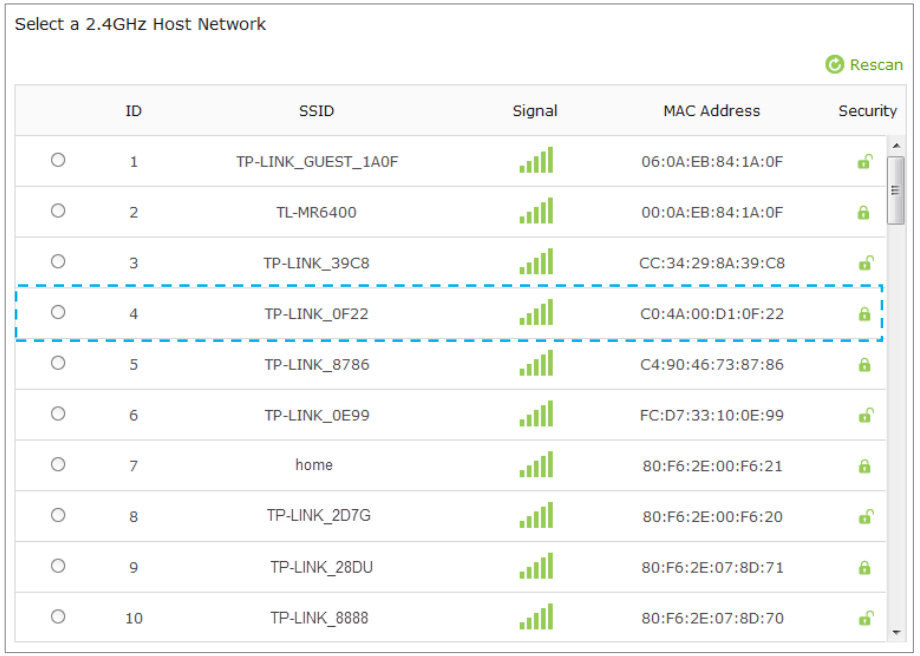
Extend another Network

If you want to extend another network, you can refer to the following steps to finish it quickly.

1. Launch a web browser and log into **http://tplinkrepeater.net**, then go to **Settings > Wireless > Connect to Network** page.
2. Enable **Connect to 2.4GHz Network**. Then click **Wireless Scanner** to scan the wireless network you want to extend.



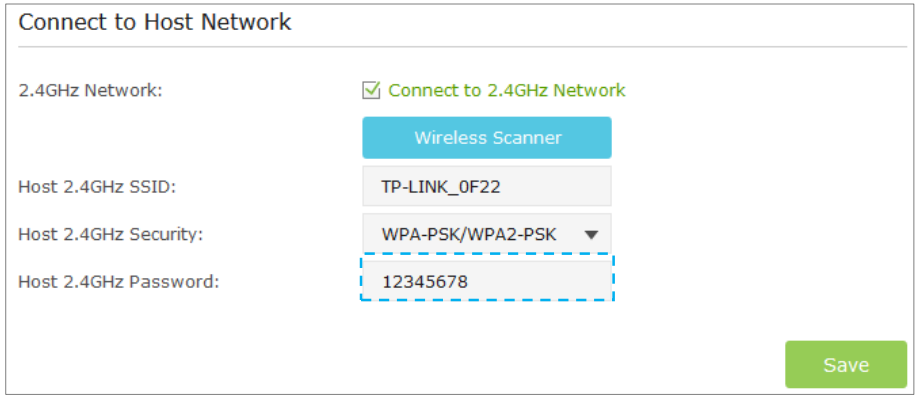
3. Select the network you want to extend from the list.



If the network you want to extend is on but not shown in the list, please try the steps below.

- Move the extender closer to your router. Then click **Refresh** on the top-right corner of the list to scan the network again.
- You can also enter the SSID and password of the network you want to extend on the **Connect to Network** page. Then click **Save** to connect to the host network.

4. Once a network is selected, the SSID and security settings of that network will automatically be filled in. If the host network is encrypted, enter the password and click **Save**.



When **Host 2.4GHz Security** is WEP, please select the index same as the host network.

5. **Relocate**

Plug in the extender halfway between your wireless router (Host Network) and the Wi-Fi dead zone.

Wait about 1 minute until the LED is **lit with a solid green**. If not, **relocate the extender closer to the router** to achieve a good (or better) signal quality.

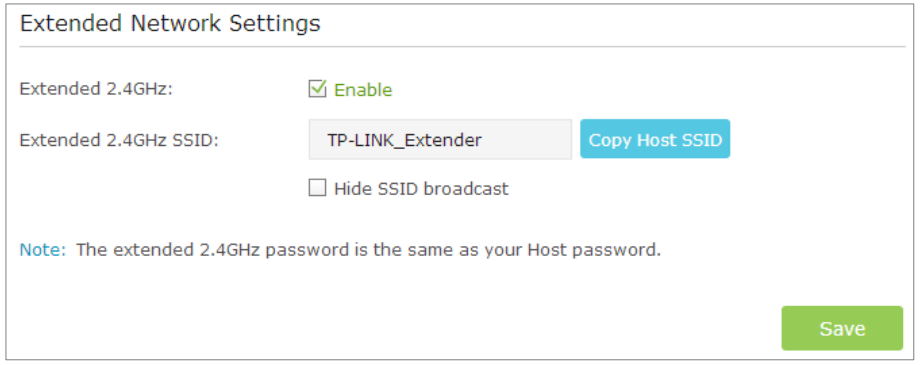
Enjoy!

The extender shares the same wireless network name (SSID) and wireless password as your host network. If you want to change the wireless network name (SSID), please refer to Customize the Extended SSID.

Customize the Extended SSID

On the Extended Network page, you can change and hide the wireless network name (SSID) of the extender, as well as enable or disable the wireless network of the extender.

1. Launch a web browser and log into **http://tplinkrepeater.net**, then go to **Settings > Wireless > Extended Network** page.
2. Either click **Copy Host SSID** or create a new name using up to 32 characters for the extended 2.4GHz nework. The SSID is case-sensitive.

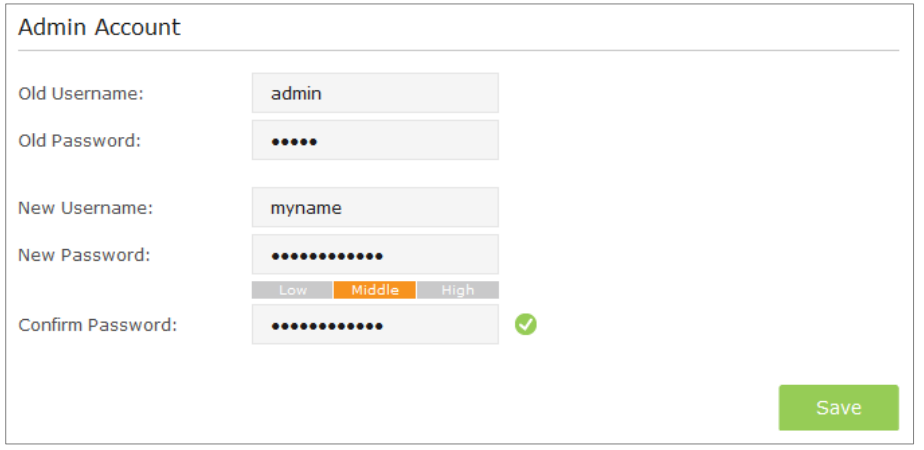


3. Select the **Hide SSID broadcast** checkbox if you want to hide the extender's SSID from the wireless devices. If you want to connect to the hiden SSID, please enter the SSID and the password manaully.
4. Click **Save** to save the settings.

Secure the Extended Network

Change your Admin Account

1. Launch a web browser and log into **http://tplinkrepeater.net**, then go to **Settings > System Tools > Admin Account** page.
2. Create a new username and password as shown in the figure below.



- **Old Username / Password:** Enter your current username / password.
- **New Username / Password:** Enter your new username / pawword.
- **Confirm Password:** Re-enter your new password.

3. Click **Save** to save the settings.

Block / Allow Network Access from Specific Clients

For increased security, you can restrict access to the extended network by allowing only specific wireless devices in the pre-set white list, or preventing the devices in the pre-set black list, from connecting to the extended network.

Blacklist Mode

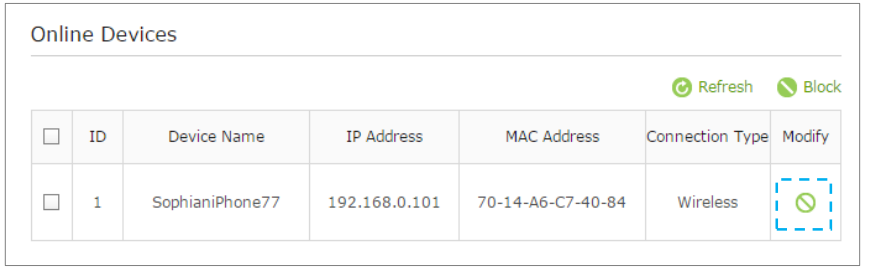
The devices in the Blacklist are not allowed to connect to the extender.

1. Launch a web browser and log into **http://tplinkrepeater.net**, then go to **Settings > Advanced Settings > Access Control** page.
2. Click the button to enable the Access Control function.

3. Select **Blacklist** as default access mode, then click **Save**.

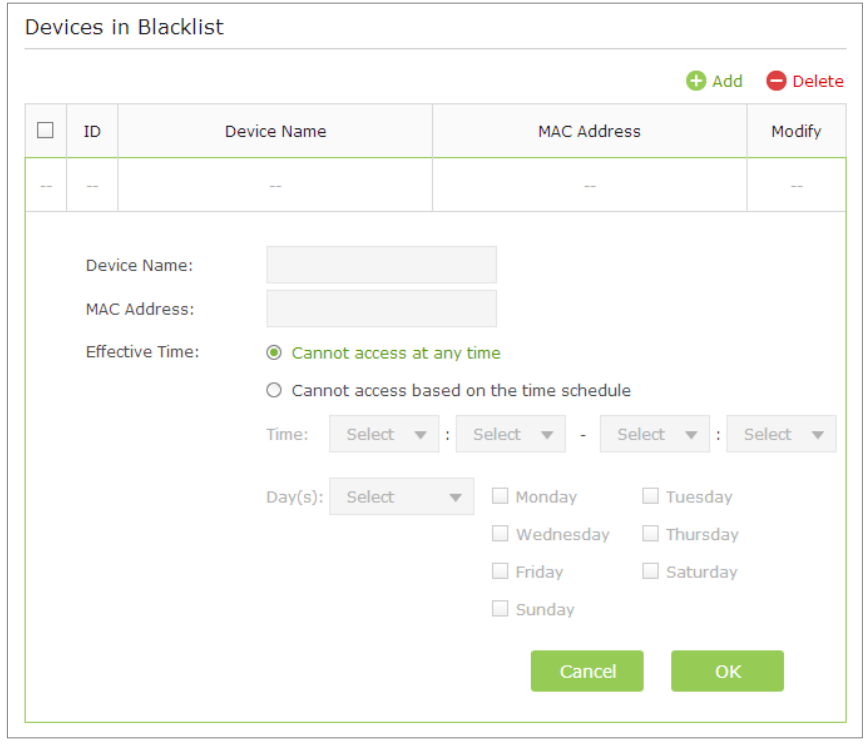
4. Add the device to the blacklist by following the below ways.
   - Add the Online Devices to the blacklist.

     In the Online Devices list, you can view the information about the devices connected to the extender. For one device, you can click the icon to add the device to the blacklist. For several devices, select them and click **Block** to add them at the same time.



   - Add the devices that are not in the Online Devices list.

     (1) Click **Add** icon.



(2) Enter the Device Name.

(3) Enter the device's MAC Address.

(4) Select the type of Effective Time. If you select **Cannot access based on the time time schedule**, set the time and days.

(5) Click **OK**.

Whitelist Mode

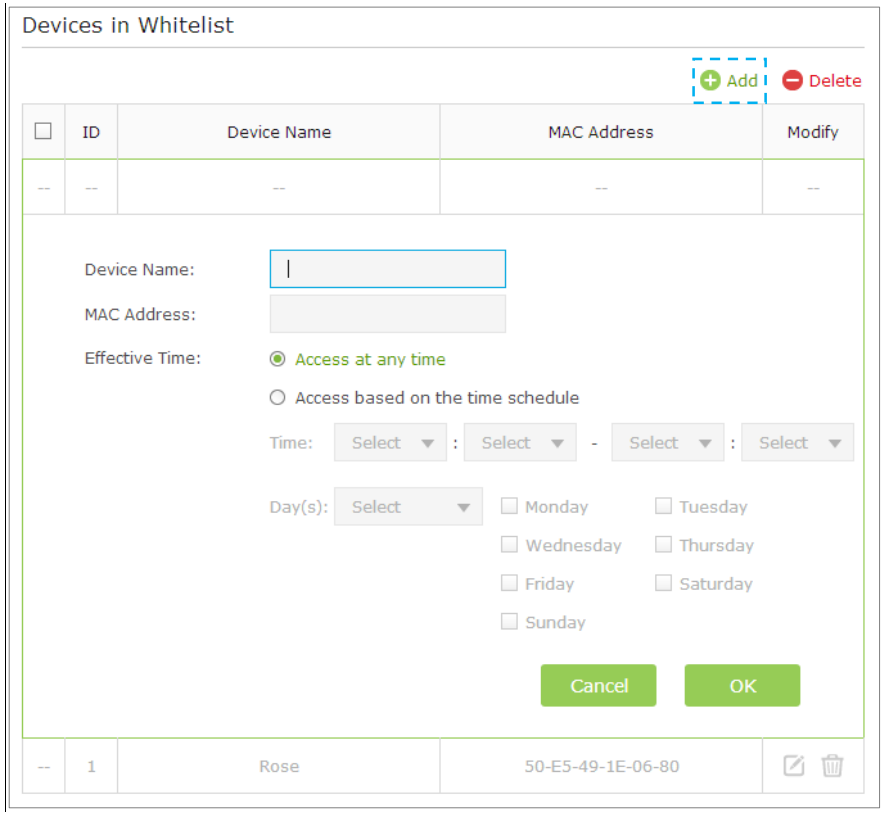
Only the devices in the Whitelist are allowed to connect to the extender.

1. Launch a web browser and log into **http://tplinkrepeater.net**, then go to **Settings > Advanced Settings > Access Control** page.

2. Click the button to enable the Access Control function.

3. Select **Whitelist** as default access mode, then click **Save**.

4. Click **Add** to add a device manually into the whitelist.



(1) Enter the Device Name.

(2) Enter the device's MAC Address.

(3) Select the type of Effective Time. If you select **Cannot access based on the time time schedule**, set the time and days.

(4) Click **OK**.

Modify or Remove a Device in the Blacklist/Whitelist

Launch a web browser and log into **http://tplinkrepeater.net**, then go to **Settings > Advanced Settings > Access Control** page.

In the **Devices in Blacklist / Whitelist** part:

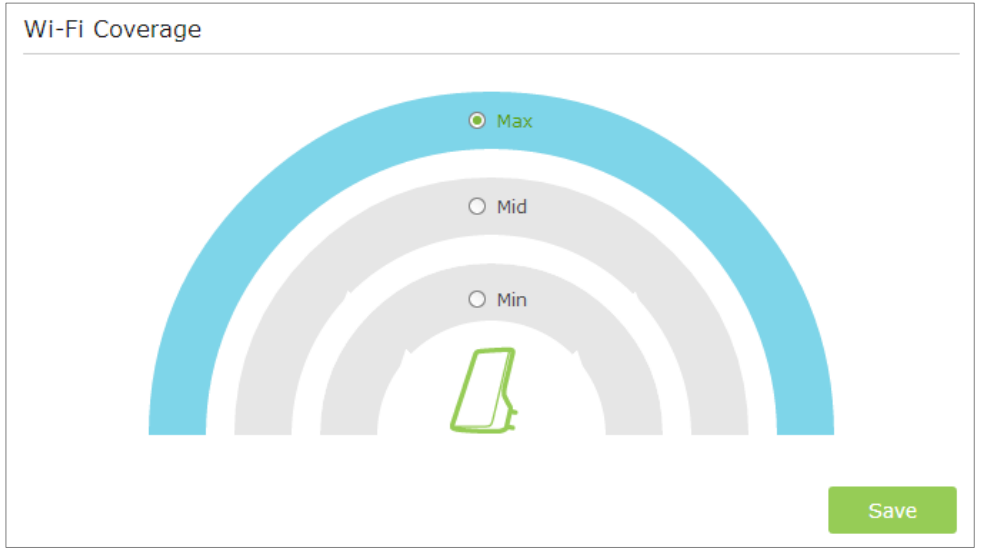
ID	Device Name	MAC Address	Modify
1	my phone	2A-47-56-85-67-10	
2	host	48-89-11-25-57-95	

- Click the icon , and then you can modify the device name and mac address.
- Click the icon to remove one device from the list. For several devices, select them and click **Delete** to remove them at the same time.

Change Wi-Fi Coverage

Launch a web browser and log into **http://tplinkrepeater.net**, then go to **Settings > Advanced Settings > Wi-Fi Coverage** page.

You can adjust the Wi-Fi coverage by three levels according to your need.



Change the Extender's IP Address

By default, the extender is set to obtain an IP address automatically from the front router. If you want to use a specific IP address appropriate to your network demand, please refer to the steps below.

> We do NOT recommend you change the IP address unless you are quite sure about the IP setting for special network demand, random changes may lead to Internet disconnection.

1. Launch a web browser and log into **http://tplinkrepeater.net**, then go to **Settings > Network** page.
2. Select **Use the following IP address**, then enter the IP address and gateway manually.

- **IP Address:** Enter the IP address in dotted-decimal notation (192.168.0.254 by default).
- **Subnet:** Enter the subnet mask in dotted-decimal notation that determines the size of the network (255.255.255.0 by default).
- **Default Gateway:** Enter the gateway that is in the same subnet as the IP address in dotted-decimal notation. It is usually the LAN IP address of your router.

3. Click the **Save** button to save the settings.

DHCP Server

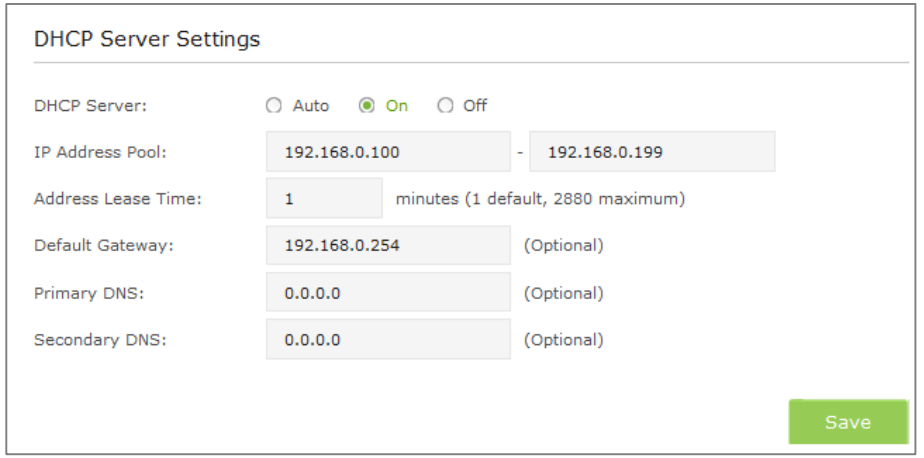
The extender can be configured as a DHCP (Dynamic Host Configuration Protocol) server to assign IP addresses automatically to the clients on the LAN.

To use the DHCP server function of the device, you should configure all computers as "Obtain an IP Address automatically" mode.

Set the DHCP Server

1. Launch a web browser and log into **http://tplinkrepeater.net**, then go to **Settings > Network** page.
2. The DHCP server is set to be auto by default, and the function will automatically be turn on or off according to the DHCP settings of the host network.

- If you select **on**, please configure it manually.



  - **IP Address Pool:** The start address and end address must be on the same subnet with LAN IP. Your extender will assign addresses within this specified range to its clients.
  - **Address Lease Time:** The amount of time in which a DHCP client can lease its current dynamic IP address assigned by your extender. After the dynamic IP address expires, the client will be automatically assigned a new dynamic IP address.
  - **Default Gateway (Optional):** Enter the LAN IP address of your host router.
  - **Primary / Secondary DNS (Optional):** Enter the DNS IP address provided by your ISP.

- If you select **Off**, please make sure the DHCP server of your host network is on. Otherwise, you have to set the IP address for each client manually.

3. Click **Save** to save your changes.

DHCP Client List

The DHCP Client List displays the Client Name**,** MAC Address, Assigned IP and Lease Time for each DHCP Client connected to the device.

1. Launch a web browser and log into **http://tplinkrepeater.net**, then go to **Settings > Network** page.
2. You can view the information of the DHCP clients connected to the extender in the DHCP Client List.

DHCP Client List

Client Number: 1 Refresh

ID	Client Name	MAC Address	Assigned IP Address	Lease Time
1	WIN7-PC	D4-3D-7E-BF-61-5F	192.168.0.100	00:00:31

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

Click **Refresh** to refresh the DHCP Client List.

5

Manage the Extender

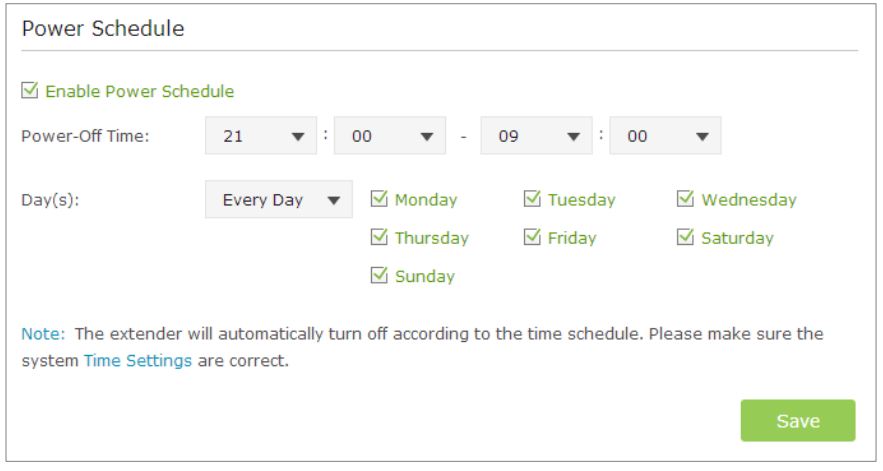
This chapter covers the following topics:

- **Power Schedule**
- **Time Settings**
- **Daylight Saving Time**
- **LED Control**
- **Firmware Upgrade**
- **Backup & Restore**
- **Factory Default Restore**
- **System Log**
- **Reboot**
- **Logout**

Power Schedule

For power-saving purpose, you can power off the extender according to the pre-set time schedule by enabling this power schedule function.

1. Launch a web browser and log into **http://tplinkrepeater.net**, then go to **Settings > Advanced Settings > Power Schedule** page.
2. Set the power-off schedule of your extender by following the below steps:



(1) **Enable Power Schedule**: Select this checkbox to enable this function.

(2) **Power-Off Time**: Select the time period to power off the extender.

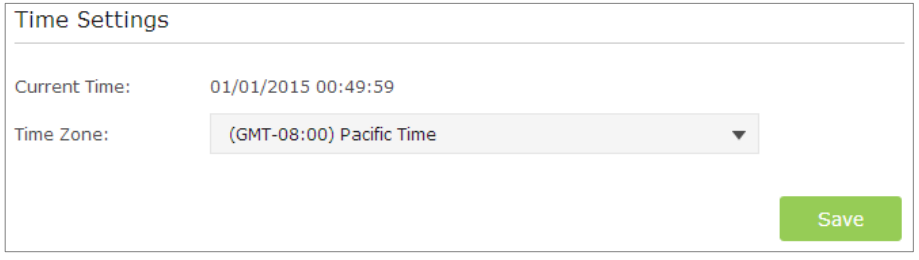
(3) **Day(s)**: Select the day(s) on which to power off the extender.

3. Click **Save** to save the settings.

Time Settings

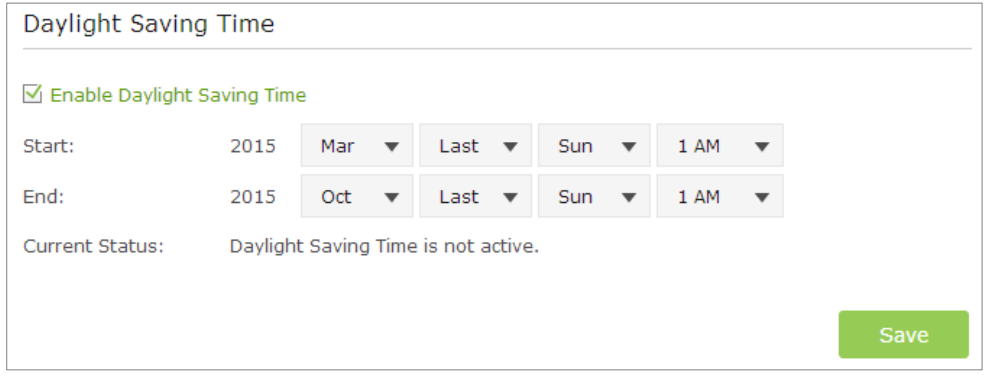
The extender obtain the current time from the Internet automatically. You can set the time zone of your location via the Time Settings page.

1. Launch a web browser and log into **http://tplinkrepeater.net**, then go to **Settings > System Tools > Time Settings** page.
2. Select the Time Zone of your location, then click **Save**.



Daylight Saving Time

1. Launch a web browser and log into **http://tplinkrepeater.net**, then go to **Settings > System Tools > Time Settings** page.
2. Set the daylight saving time by following the steps below:



(1) Select Enable **Daylight Saving Time** to enable this function.

(2) Select the correct **Start** date and time when daylight saving time starts at your local time zone.

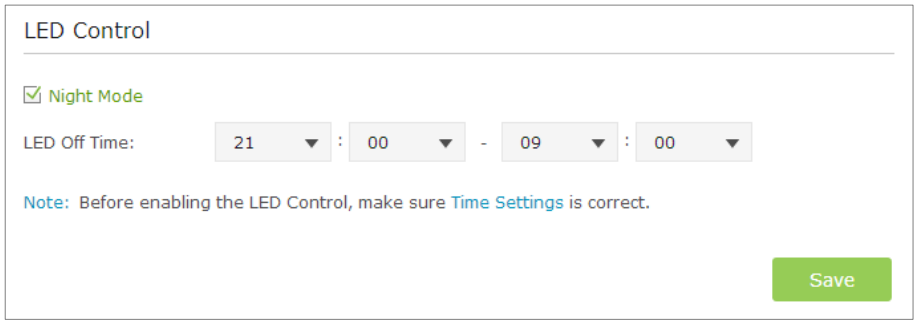
(3) Select the correct **End** date and time when daylight saving time ends at your local time zone.

(4) Click **Save**.

LED Control

LED Control can turn off the LED at the specific time. The extender can still work normally after the LED is off.

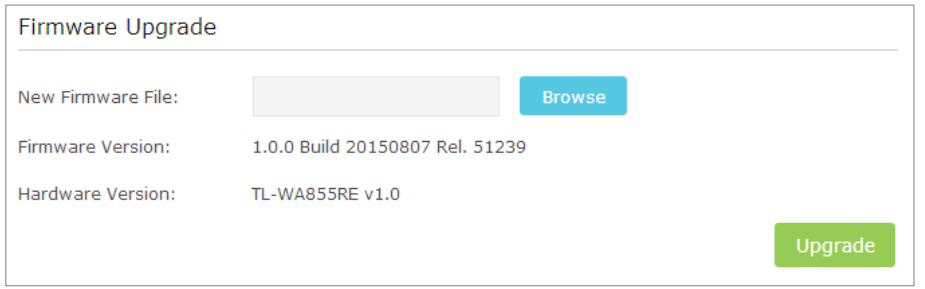
1. Launch a web browser and log into **http://tplinkrepeater.net**, then go to **Settings > System Tools > LED Control** page.
2. Tick the **Night Mode** to enable the LED Control function.
3. Set the time period to turn off the LED.



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

Firmware Upgrade

1. On your computer, download the latest firmware file from our support page at http://tp-link.com.
2. Launch a web browser and log into **http://tplinkrepeater.net**, then go to **Settings > System Tools > Firmware Upgrade** page.
3. Make sure the firmware version you downloaded is same as the hardware version displayed on this page, then click **Browse** to select the downloaded file.



4. Click **Upgrade**. The upgrade takes a few minutes to complete and the extender will automatically reboot itself when finished.

> Please DO NOT power off the extender during the upgrade process.

Backup & Restore

It is highly recommended to back up your current configurations, in case a recovery is needed to restore the system to a previous state or from the factory defaults.

Backup Configurations

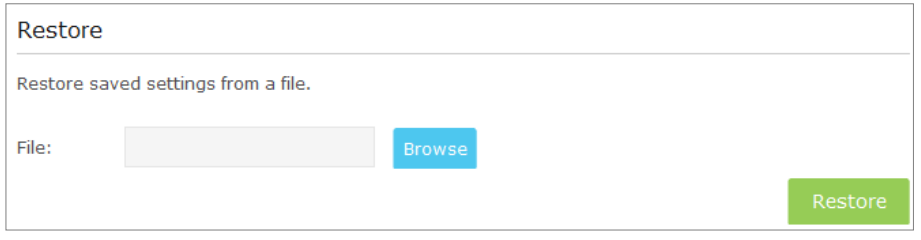
1. Launch a web browser and log into **http://tplinkrepeater.net,** then go to **Settings > System Tools > Backup & Restore** page.
2. Click **Backup** to save your current configurations as a config.bin file on your computer. Make sure to save it in a safe location where you can retrieve it when needed.

Please DO NOT power off the extender during the backup process.

Restore configurations

1) Launch a web browser and log into **http://tplinkrepeater.net,** then go to **Settings > System Tools > Backup & Restore** page.

2) Click **Browse** to select your backup file. And then click **Restore** restore the extender. The restore process may take a few minutes to complete and the extender will automatically reboot itself when finished.



Please DO NOT power off the extender during the restore process.

Factory Default Restore

1. Launch a web browser and log into **http://tplinkrepeater.net,** then go to **Settings > System Tools > Backup & Restore** page.

2. Click **Factory Restore** to reset your extender to its factory default settings.

Factory Restore will erase all settings that you have configured for the extender. To re-login to the extender's management page, use the default admin for both username and password.

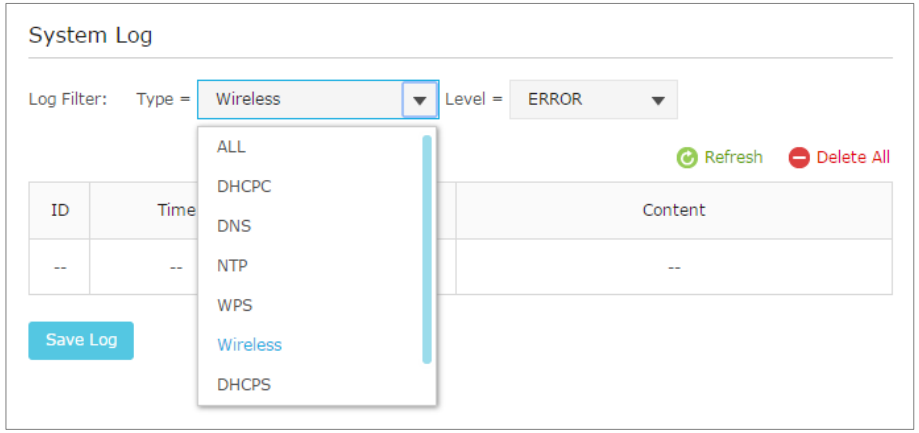
System Log

System Log can help you know what happened to your extender, facilitating you to locate the malfunctions. For example when your extender does not work properly, you may need to save the system log and send it to the technical support for troubleshooting

1. Launch a web browser and log into **http://tplinkrepeater.net**, then go to **Settings > System Tools > System Log** page.

2. You can filter out and view the specific logs by choosing log type and

level.



3. Click **Save Log** to save all the logs in txt file to your computer.

Reboot

1. Launch a web browser and log into **http://tplinkrepeater.net**.
2. Click **Reboot** on the top right corner to reboot the extender.

Logout

If you have logged into the web management page **http://tplinkrepeater.net**, click **Logout** in the top right corner to log out safely.

6

Appendix

This chapter covers the following topics:

- **Factory Default Settings**
- **Troubleshooting**
- **Specifications**
- **Glossary**

Factory Default Settings

Name	Status
Username	admin
Password	admin
IP Address	192.168.0.254
Subnet Mask	255.255.255.0
Domain	http://tplinkrepeater.net
SSID	TP-LINK_Extender_XXXXXX
Wireless Security	Disabled
Access Control	Disabled

Troubleshooting

T1. How do I restore my extender to its factory default settings?

There are two ways to reset the extender:

- Option One: With the extender powered on, use a pin to press the RESET button, the LED should turn off momentarily, then release the button.

- Option Two: Log into the extender's web management page, and go to **System Tools > Restore & Backup** page, click **Factory Restore**.

> Once the extender is reset, the current configurations will be erasered and you need to reconfigure it.

T2. What can I do if I forget my login password?

1. Restore the extender to its factory default settings. If you don't know how to do that, please refer to previous **T1**.
2. Use the default username and password (admin, admin) to log in to the web management page.
3. Reconfigure your extender, including the login password, by following the instructions of this guide.

T3. What can I do if I cannot access the web management page?

- Verify all the connections (either wireless or wired ones) are proper. If yes, please proceed to the next step.
- Try to obtain an IP address and gateway; if succeed, open your web-browser, and log into http://tplinkrepeater.net. If you are unable to log in, please RESET the device, and then use the default IP address **192.168.0.254** to log into web management page, reconfigure the device.
- Feel free to contact our technical support, if the problem still persists.

T4. I enabled a wireless MAC filter, wireless access control, or access control list (ACL) on my router. What should I do before configuring and using 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 the 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

   > 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 using Option ONE: Using WPS or Option TWO: Using Web Browser to configure your extender.
3. Connect all of your devices to the extended network, and make sure the router's Link LED remains lit.
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.

Now, you have successfully configured your extender, and can use it normally.

T5. How can I know that my wireless signal has been repeated and boosted by the extender?

An easy way is to compare the signal strength of your target wireless network (symbolized by its SSID), with TL-WA855RE in operation vs. out of operation. Before comparison, you'd better make sure your computer

can obtain an IP address from your target wireless network and thus access the Internet, either via TL-WA855RE or without.

T6. Will the extender work if I connect the ETHERNET port of it to the router via Ethernet cable?

Sorry, it won't work. The extender is designed to connect wirelessly to the router, while the ETHERNET port is designed to connect with a wired device, like Internet TV, Gaming console, DVR and so on.

T7. Why does the wireless transmission rate speed down, while the wireless signal is stronger after repeated by the extender?

In compliance with the wireless transmission protocol, all the extender devices are set to work in half-duplex instead of full-duplex mode. In other words, the extender has to process one-way communication between your root Wireless router (or AP) and the terminal clients; so the transmission time will be double-increased, while the speed will be decreased. TP-LINK recommends that you connect to the extender when your home network connection is poor, or when you want a larger wireless coverage to eliminate "dead zones".

Specifications

General	
Standards and Protocols	IEEE 802.3, IEEE 802.3u, IEEE 802.11n, IEEE 802.11b, IEEE 802.11g, TCP/IP, DHCP
Safety & Emission	CE
Port	One 10/100M Auto-Negotiation LAN RJ45 port
Wireless	
Frequency Band	2.4~2.4835GHz
Radio Data Rate	11n：up to 300Mbps 11g：54/48/36/24/18/12/9/6Mbps 11b：11/5.5/2/1Mbps
Security	WEP, WPA-PSK, WPA2-PSK
Physical and Environment	
Working Temperature	0℃~40℃ (32℉~104℉)
Working Humidity	10% ~ 90% RH, Non-condensing
Storage Temperature	-40℃~70℃(-40℉~158℉)
Storage Humidity	5% ~ 95% RH, Non-condensing

Glossary

- **802.11b -** The 802.11b standard specifies a wireless networking at 11 Mbps using direct-sequence spread-spectrum (DSSS) technology and operating in the unlicensed radio spectrum at 2.4GHz, and WEP encryption for security. 802.11b networks are also referred to as Wi-Fi networks.
- **802.11g -** specification 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.
- **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.
- **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.
- **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."

CE Mark Warning

CE1588

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	**1. SRD with FHSS modulation** 1.1. Maximum 2.5 mW e.i.r.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. 1.3.Maximum 100 mW e.i.r.p. Indoor applications. **2. SRD with DSSS and other than FHSS wideband modulation** 2.1. Maximum mean e.i.r.p. density is 2 mW/MHz. Maximum 100 mW e.i.r.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. 2.3. Maximum mean e.i.r.p. density is 10 mW/MHz. Maximum 100 mW e.i.r.p. Indoor applications.
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).

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 nedoit 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.

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.

Industry Canada Statement

Complies with the Canadian ICES-003 Class B specifications.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

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

Korea Warning Statements

당해 무선설비는 운용중 전파혼신 가능성이 있음.

NCC 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。

減少電磁波影響，請妥適使用。

BSMI Notice

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	

Explanation of the symbols on the product label

Symbal	Explanation
	Class II equipment
	AC voltage
	DC voltage
	Polarity of output terminals
	Indoor use only
	Hazard live parts
	Energy efficiency Marking
	Protection earth

	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.
	To prevent possible hearing damage, do not listen at high volume levels for long periods.

DECLARATION OF CONFORMITY

For the following equipment:

Product Description: **300Mbps Mini Wi-Fi Range Extender**

Model No.: **TL-WA855RE**

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

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:

CE1588

Person responsible for marking this declaration:

Yang Hongliang

Product Manager of International Business

Date of issue: 2015-10-19