



# User Guide

300Mbps Wireless N Mano Router  
TL-WR802N

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# About This Guide

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

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

## Conventions

In this guide the following conventions are used:

Convention	Description
<u>Underlined</u>	Underlined words or phrases are hyperlinks. You can click to redirect to a website or a specific section.
Teal	Contents to be emphasized and texts on the web page are in teal, including the menus, items, buttons and so on.
>	The menu structures to show the path to load the corresponding page. For example, <a href="#">Advanced</a> > <a href="#">Wireless</a> > <a href="#">MAC Filtering</a> means the MAC Filtering function page is under the Wireless menu that is located in the Advanced tab.
 <b>Note:</b>	Ignoring this type of note might result in a malfunction or damage to the device.
 <b>Tips:</b>	Indicates important information that helps you make better use of your device.

## More Info

The latest software, management app and utility are available from the [Download Center](#) at [www.tp-link.com/support](http://www.tp-link.com/support).

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

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

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

Our Technical Support contact information can be found at the [Contact Technical Support](#) page at [www.tp-link.com/support](http://www.tp-link.com/support).



## Chapter 1

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# Get to Know About Your Router

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This chapter introduces what the router can do and shows its appearance.

It contains the following sections:

- [Product Overview](#)
- [Appearance](#)

## 1.1. Product Overview

To meet the wireless needs of almost any situation you might encounter, the TP-LINK portable router, with multiple operating modes, is designed for home and travel use. The portable size of the router means that you can put it in your pocket and take it with you wherever you go. The built-in adapter makes it perfect for travelers, students, and anyone else living life on the go.

## 1.2. Appearance



### LED Explanation

Status	Indication
Solid	The system has started up successfully.
Flashing	The router is booting or connecting to an Ethernet device.

### Port and Button Description

Item	Description
WAN/LAN Port	Functions as the LAN port in Access Point, Repeater, Client and Hotspot Router mode. Functions as the WAN port in Standard Wireless Router mode.
Power Port	Connect to a USB charger, power adapter or computer USB port via the USB cable for power supply.
Reset Button	Press and hold for 5 seconds to restore the router to its factory default settings.

## Chapter 2

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# Connect the Hardware

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This chapter contains the following sections:

- [Position Your Router](#)
- [Connect Your Router](#)

## 2.1. Position Your Router

- The Product should not be located where it will be exposed to moisture or excessive heat.
- Place the router in a location where it can be connected to the various devices as well as to a power source.
- Make sure the cables and power cord are safely placed out of the way so they do not create a tripping hazard.
- The router can be placed on a shelf or desktop.
- Keep away from the strong electromagnetic radiation and the device of electromagnetic sensitive.

## 2.2. Connect Your Router

There are five operation modes supported by this router: Standard Wireless Router, Access Point, Range Extender, Client and Hotspot Router. Please determine the operation mode you need and carry out the corresponding steps.

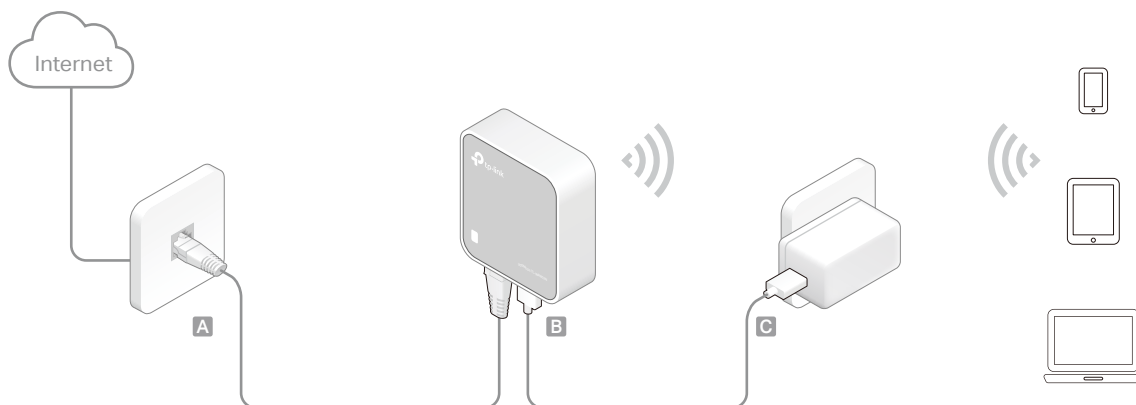
### 2.2.1. Standard Wireless Router Mode

Create an instant private wireless network and share Internet to multiple Wi-Fi devices. This mode is suitable for hotel rooms and home networks.

1. Connect the hardware according to step A to C.
2. Connect your device to the router wirelessly or via an Ethernet cable. The Wi-Fi network name and password are on the router's label.

**Note:**

If the hotel's Internet has an authentication process, you will need to authenticate only once and only on one device.



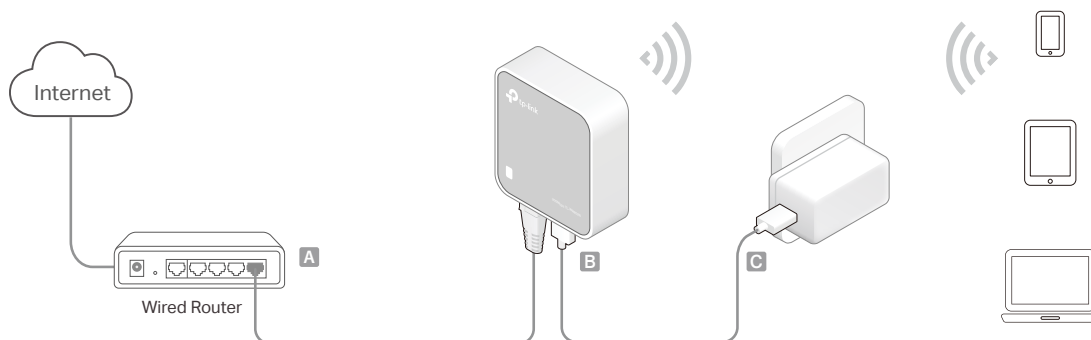
### 2.2.2. Access Point Mode

Create a wireless network from an Ethernet connection. This mode is suitable for dorm rooms or homes where there's already a wired router but you need a wireless hotspot.

1. Connect the hardware according to step A to C.
2. Connect your device to the router wirelessly or via an Ethernet cable. The Wi-Fi network name and password are on the router's label.

**Note:**

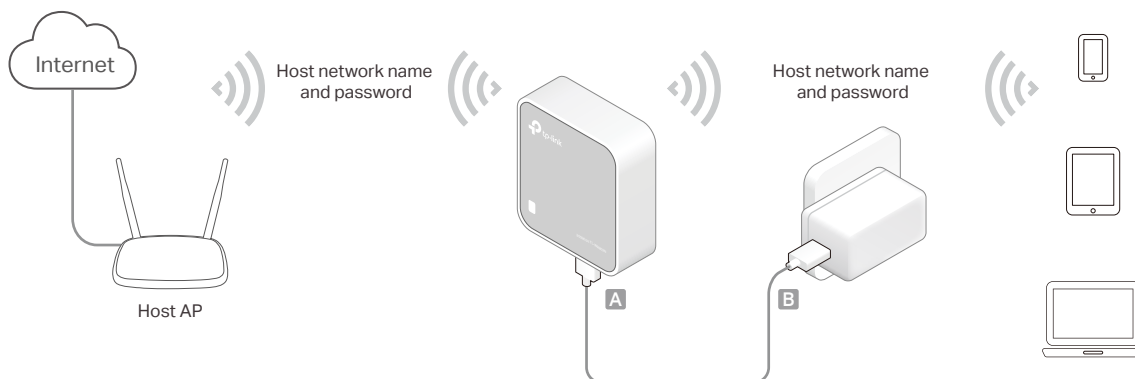
If the hotel's Internet has an authentication process, you will need to authenticate it on EACH device.



### 2.2.3. Range Extender Mode

Repeat signal from an existing wireless network. This mode is suitable to extend wireless coverage, reaching devices that were previously too far from your primary router to maintain a stable wireless connection. The repeated signal will display the same network name and password as your existing wireless network.

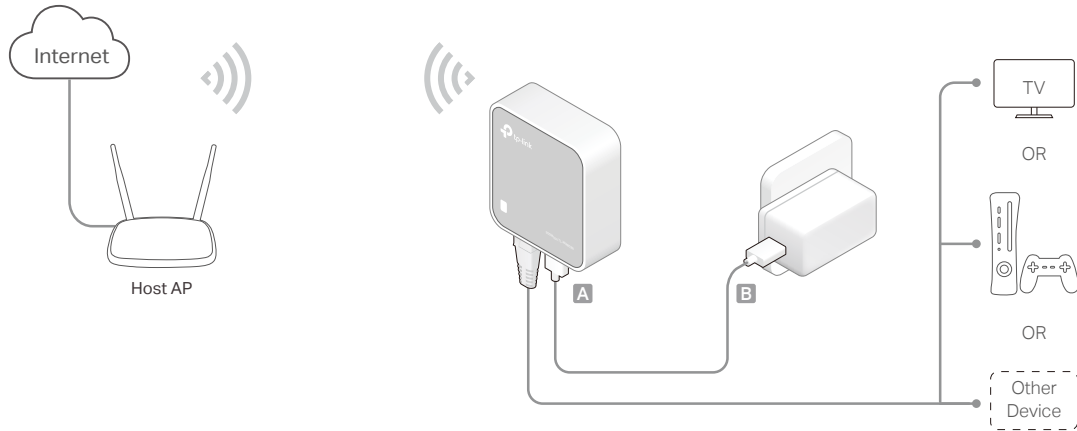
1. Plug the router into an electrical outlet near your host AP.
2. Connect your device to the router wirelessly or via an Ethernet cable. The Wi-Fi network name and password are on the router's label.



### 2.2.4. Client Mode

In this mode, this device can be connected to another device via an Ethernet cable and act as an adapter to grant your wired devices access to a wireless network, especially for a smart TV, media player, or game console.

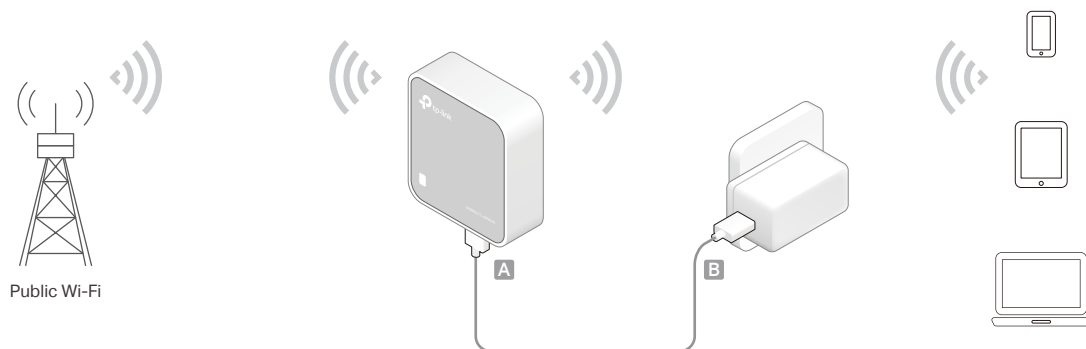
1. Plug the router into an electrical outlet within the signal range of your host AP.
2. Connect your device to the router wirelessly or via an Ethernet cable. The Wi-Fi network name and password are on the router's label.



### 2. 2. 5. Hotspot Router Mode

In Hotspot Router mode, the router enables multiple users to share Internet connection from WISP.

1. Plug the router into an electrical outlet within the range of the public hotspot.
2. Connect your device to the router wirelessly or via an Ethernet cable. The Wi-Fi network name and password are on the router's label.



## Chapter 3

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# Set Up Internet Connection Via Quick Setup Wizard

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This chapter introduces how to connect your router to the Internet via the web-based Quick Setup Wizard.

It contains the following sections:

- [Log into the Router](#)
- [Configure the Router](#)

## 3.1. Log into the Router

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

Follow the steps below to log into your router.

1. Set up the TCP/IP Protocol in [Obtain an IP address automatically](#) mode on your computer.
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router. The default one is [admin](#) (all lowercase) for both username and password.

**Note:**

If the login window does not appear, please refer to [FAQ](#) Section.

## 3.2. Configure the Router

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

1. Go to [Quick Setup](#) and click [Next](#) to start.
2. Choose the working mode you need and click [Next](#). Then follow the corresponding steps to connect your router to the Internet.

Working Mode	
<input checked="" type="radio"/> <b>Standard Wireless Router</b>	- Enable multiple users to share Internet connection via ADSL/Cable Modem
<input type="radio"/> <b>Access Point</b>	- Transform your existing wired network to a wireless network
<input type="radio"/> <b>Repeater</b>	- Extend your existing wireless coverage by relaying wireless signal
<input type="radio"/> <b>Client</b>	- Acting as a "Wireless Adapter" to connect your wired devices (e.g. Xbox/PS3) to a wireless network
<input type="radio"/> <b>Hotspot Router</b>	- Enable multiple users to share Internet connection from WISP

### 3.2.1. Standard Wireless Router Mode

1. Select the [WAN Connection Type](#). When using the router in a hotel room or a small office, select [Dynamic IP](#).



**Note:**

- If you use DSL line and you are only provided an account name and a password by your ISP, choose [PPPoE](#).
- If you use cable TV or fiber cable, choose [Dynamic IP](#).
- If you are provided more information such as IP address, Subnet Mask and Default Gateway, choose [Static IP](#).
- Contact your ISP if you are not sure about the WAN connection information. You can also select [Auto-Detect](#) to let the router detect your connection type automatically.

Quick Setup - WAN Connection Type

The Quick Setup is preparing to set up your internet connection, please choose one type below according to your ISP. The detailed description will be displayed after you choose the corresponding type.

- Auto-Detect
- Dynamic IP (Most Common Cases)
- Static IP
- PPPoE
- L2TP
- PPTP

Note: For users in some areas, please contact your ISP to choose connection type manually.

Back Next

2. In this case, we take dynamic IP for instance. Please select to clone the mac address or not and click [Next](#). For other connection types, please enter the parameters provided by your ISP, and then click [Next](#).

Quick Setup - MAC Clone

MAC(Media Access Control) address is a unique identifier that identifies your computer or device in the network. Some of the ISPs may register the MAC address of your computer which firstly connects to their services, and would not allow the Internet connection for any new computer or router.TP-LINK router can help you to "clone" or replicate the registered MAC address of your first computer.

In most of the cases, there is no need to clone the MAC address. But if you can't get the Internet connection after Quick Setup, please run it again and clone the MAC address for a try.

- No, I do NOT need to clone MAC address.
- YES, I need to clone MAC address.

Note: please make sure your current computer is the one initially connected to your modem or ISP's device.

Back Next

3. Either customize your [Wireless Network Name](#) and [Wireless Password](#) or keep the default ones , and then click [Next](#).

**Quick Setup - Wireless**

The Internet settings have been completed, now please configure the wireless settings.

Wireless Radio:  (Also called the SSID)

Wireless Network Name:  (Also called the SSID)

Wireless Security:

Disable Security

WPA-PSK/WPA2-PSK

Wireless Password:  (You can enter ASCII characters between 8 and 63 or Hexadecimal characters between 8 and 64.)

No Change (use the current security settings.)

More Advanced Wireless Settings

4. Click **Finish** to complete the configuration. Now your computers and Wi-Fi devices can connect to the Internet!

**Quick Setup - Finish**

Congratulations! This device is now connecting you to the Internet. For detail settings, please click other menus if necessary.

### 3. 2. 2. Access Point Mode

1. Either customize your **Wireless Network Name** and **Wireless Password** or keep the default ones, and then click **Next**.

**Quick Setup - Wireless**

**AP Mode Setting:**

Wireless Network Name(SSID):  (also called SSID)

Channel:

Wireless Security Mode:

Wireless Password:  (You can enter ASCII or Hexadecimal characters. For Hexadecimal, the length should be between 8 and 64 characters; for ASCII, the length should be between 8 and 63 characters. For good security it should be of ample length and should not be a commonly known phrase.)

2. Select the LAN IP type of the router or leave the default setting **Smart IP** for most cases, and then click **Next**.

**Quick Setup - Network Setting**

Type:  ▼

Note: The IP parameters cannot be configured if you have chosen Smart IP (DHCP) (In this situation the device will help you configure the IP parameters automatically as you need).

IP Address:

Subnet Mask:  ▼

We recommend you configure this AP with the same IP subnet and subnet mask, but different IP address from your root AP/Router.

DHCP Server:  Disable  Enable

3. Click **Reboot** to complete the configuration.

**Quick Setup - Finish**

**Congratulations! This device is now connecting you to the Internet. For detail settings, please click other menus if necessary.**

The change of working mode config will not take effect until this device reboot.

### 3.2.3. Repeater Mode

1. Click **Survey** to find your host network and click **Connect**. Enter the host network's password in the **Wireless Password** field, and then click **Next**.

**Quick Setup - Wireless**

**Repeater Mode Setting:**

Wireless Name of Root AP:  (also called SSID)

MAC Address of Root AP:

You can click the Survey button to scan the network SSIDs, and then choose the target one to setup the connection.

WDS Mode:  ▼

Wireless Security Mode:  ▼

All security settings, for example the wireless password should match the Root AP.

Wireless Password:

You can enter ASCII or Hexadecimal characters. For Hexadecimal, the length should be between 8 and 64 characters; for ASCII, the length should be between 8 and 63 characters. For good security it should be of ample length and should not be a commonly known phrase.

2. Select the LAN IP type of the router or leave the default setting **Smart IP** for most cases, and then click **Next**.

Quick Setup - Network Setting

Type:  ▼

Note: The IP parameters cannot be configured if you have chosen Smart IP (DHCP) (In this situation the device will help you configure the IP parameters automatically as you need).

IP Address:

Subnet Mask:  ▼

We recommend you configure this AP with the same IP subnet and subnet mask, but different IP address from your root AP/Router.

DHCP Server:  Disable  Enable

3. Click **Reboot** to complete the configuration.

Quick Setup - Finish

**Congratulations!**

The basic internet and wireless settings are finished, please click **Finish** button and test your internet connection.

If it is failed, please reboot your modem and wait 2 minutes or run the Quick Setup again.

The change of working mode config will not take effect until this device reboot.

4. Relocate the router about **halfway** between your host AP and the Wi-Fi dead zone. The extended network **shares** the **same network name** and **password** as your host network.

### 3. 2. 4. Client Mode

1. Click **Survey** to find your host network and click **Connect**. Enter the host network's password in the **Wireless Password** field, and then click **Next**.

Quick Setup - Wireless

**Client Mode Setting:**

Wireless Name of Root AP:  (also called SSID)

MAC Address of Root AP:

You can click the Survey button to scan the network SSIDs, and then choose the target one to setup the connection.

Wireless Security Mode:  ▼

All security settings, for example the wireless password should match the Root AP:

Wireless Password:

You can enter ASCII or Hexadecimal characters. For Hexadecimal, the length should be between 8 and 64 characters; for ASCII, the length should be between 8 and 63 characters. For good security it should be of ample length and should not be a commonly known phrase.

2. Select the LAN IP type of the router or leave the default setting **Smart IP** for most cases, and then click **Next**.

Quick Setup - Network Setting

Type:    
Note: The IP parameters cannot be configured if you have chosen Smart IP (DHCP) (In this situation the device will help you configure the IP parameters automatically as you need).

IP Address:    
Subnet Mask:    
We recommend you configure this AP with the same IP subnet and subnet mask, but different IP address from your root AP/Router.

DHCP Server:  Disable  Enable

3. Click **Reboot** to complete the configuration. Now you can connect your wired-only device to the router's LAN or LAN/WAN port using an Ethernet cable.

Quick Setup - Finish

**Congratulations!**

The basic internet and wireless settings are finished, please click **Finish** button and test your internet connection.

If it is failed, please reboot your modem and wait 2 minutes or run the Quick Setup again.

The change of working mode config will not take effect until this device reboot.

### 3.2.5. Hotspot Router Mode

1. Select the **WAN Connection Type**. When using the router in a hotel room or a small office, select **Dynamic IP**.

Quick Setup - WAN Connection Type

The Quick Setup is preparing to set up your internet connection, please choose one type below according to your ISP. The detailed description will be displayed after you choose the corresponding type.

**Dynamic IP (Most Common Cases)**   
For Cable/DSL/Broadband connection which makes your computer immediately online without any setting or signing-in.

**Static IP**

**PPPoE**

**L2TP**

**PPTP**

Note: For users in some areas, please contact your ISP to choose connection type manually.

- In this case, we take dynamic IP that requires no more parameters for instance. For other connection types, please enter the parameters provided by your ISP.
- Click [Survey](#) to find the public Wi-Fi network and click [Connect](#). Enter the public Wi-Fi password in the [Password](#) field. In the [AP Setting](#) section, either customize your [Local SSID](#) and [Wireless Password](#) or keep the default ones, and then click [Next](#).

### Quick Setup - Wireless

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#### Client Setting

SSID:

BSSID:  Example: 00-1D-0F-11-22-33

Key type:

WEP Index:

Auth type:

Password:

---

#### AP Setting

Local SSID:

Wireless Security Mode:

Wireless Password:

You can enter ASCII or Hexadecimal characters. For Hexadecimal, the length should be between 8 and 64 characters; for ASCII, the length should be between 8 and 63 characters. For good security it should be of ample length and should not be a commonly known phrase.

- Click [Reboot](#) to complete the configuration.

### Quick Setup - Finish

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#### Congratulations!

The basic internet and wireless settings are finished, please click **Finish** button and test your internet connection.

If it is failed, please reboot your modem and wait 2 minutes or run the Quick Setup again.

**The change of working mode config will not take effect until this device reboot.**

## Chapter 4

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# Configure the router in Standard Wireless Router

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This chapter presents how to configure the various features of the router working as a standard wireless router.

It contains the following sections:

- "Status"
- "WPS"
- "Working Mode"
- "Network"
- "Wireless"
- "DHCP"
- "Forwarding"
- "Security"
- "Parental Controls"
- "Access Control"
- "Advanced Routing"
- "Bandwidth Control"
- "IP&MAC Binding"
- "Dynamic DNS"
- "System Tools"
- "Logout"

## 4.1. Status

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Status](#). You can view the current status information of the router.

**Status**

---

Firmware Version: XXXXXXXXXX  
 Hardware Version: XXXXXXXXXX

---

**LAN**

MAC Address: 0C-4A-08-45-F3-60  
 IP Address: 192.168.0.118  
 Subnet Mask: 255.255.255.0

---

**Wireless**

Wireless Radio: Enable  
 Name (SSID): TP-LINK\_F360  
 Mode: 11bgn mixed  
 Channel Width: Automatic  
 Channel: Auto (Current channel 4)  
 MAC Address: 0C-4A-08-45-F3-60  
 WDS Status: Disable

---

**WAN**

MAC Address: 0C-4A-08-45-F3-61  
 IP Address: 50.68.74.120 Dynamic IP  
 Subnet Mask: 255.255.255.0  
 Default Gateway: 50.68.74.1  
 DNS Server: 50.64.50.59, 1.1.1.1

---

**Traffic Statistics**

	Received	Sent
Bytes:	0	0
Packets:	0	0

---

System Up Time: 0 days 01:20:00 Refresh

- **Firmware Version** - The version information of the router's firmware.
- **Hardware Version** - The version information of the router's hardware.
- **LAN** - This field displays the current settings of the LAN, and you can configure them on the [Network > LAN](#) page.
  - **MAC address** - The physical address of the router.
  - **IP address** - The LAN IP address of the router.
  - **Subnet Mask** - The subnet mask associated with the LAN IP address.
- **Wireless** - This field displays the basic information or status of the wireless function, and you can configure them on the [Wireless > Wireless Settings](#) page.
  - **Wireless Radio** - Indicates whether the wireless feature is enabled or not.



- **Name (SSID)** - The SSID of the router.
- **Mode** - The current wireless working mode in use.
- **Channel Width** - The current wireless channel width in use.
- **Channel** - The current wireless channel in use.
- **MAC Address** - The physical address of the router.
- **WDS Status** - The status of WDS connection.
- **WAN** - This field displays the current settings of the WAN, and you can configure them on the **Network > WAN** page.
  - **MAC Address** - The physical address of the WAN port.
  - **IP Address** - The current WAN (Internet) IP Address. This field will be blank or 0.0.0.0 if the IP Address is assigned dynamically and there is no Internet connection.
  - **Subnet Mask** - The subnet mask associated with the WAN IP Address.
  - **Default Gateway** - The Gateway currently used is shown here. When you use Dynamic IP as the Internet connection type, click **Renew** or **Release** here to obtain new IP parameters dynamically from the ISP or release them.
  - **DNS Server** - The IP addresses of DNS (Domain Name System) server.
- **Traffic Statistics** - The router's traffic statistics.
  - **Received (Bytes)** - Traffic in bytes received from the WAN port.
  - **Received (Packets)** - Traffic in packets received from the WAN port.
  - **Sent (Bytes)** - Traffic in bytes sent out from the WAN port.
  - **Sent (Packets)** - Traffic in packets sent out from the WAN port.
- **System Up Time** - The length of the time since the router was last powered on or reset.

Click **Refresh** to get the latest status and settings of the router.

## 4.2. WPS

WPS (Wi-Fi Protected Setup) can help you to quickly and securely connect to a network. This section will guide you to add a new wireless device to your router's network quickly via WPS.

**Note:**

The WPS function cannot be configured if the wireless function of the router is disabled. Please make sure the wireless function is enabled before configuration.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **WPS**.
3. Follow one of the following three methods to connect your client device to the router's Wi-Fi network.

## Method ONE: Press the WPS Button on Your Client Device

1. Keep the WPS Status as **Enabled** and click **Add Device**.

WPS (Wi-Fi Protected Setup)

SSID: **TP-LINK\_F360**

WPS Status: **Enabled**

Current PIN: **80834601**

Disable PIN of this device

Add a new device:

2. Select **Press the button of the new device in two minutes** and click **Connect**.

Add A New Device

Enter the new device's PIN.  
PIN:

Press the button of the new device in two minutes.

3. Within two minutes, press the WPS button on your client device.
4. A success message will appear on the WPS page if the client device has been successfully added to the router's network.

## Method TWO: Enter the Client's PIN

1. Keep the WPS Status as **Enabled** and click **Add Device**.

WPS (Wi-Fi Protected Setup)

SSID: **TP-LINK\_F360**

WPS Status: **Enabled**

Current PIN: **80834601**

Disable PIN of this device

Add a new device:

2. Select **Enter the new device's PIN**, enter your client device's current PIN in the **PIN** field and click **Connect**.

Add A New Device

Enter the new device's PIN.  
PIN:

Press the button of the new device in two minutes.

3. A success message will appear on the WPS page if the client device has been successfully added to the router's network.

### Method Three: Enter the Router's PIN

1. Keep the WPS Status as **Enabled** and get the **Current PIN** of the router.

WPS (Wi-Fi Protected Setup)

SSID: **TP-LINK\_F360**

WPS Status: **Enabled**

Current PIN: **80834601**

Disable PIN of this device

Add a new device:

2. Enter the router's current PIN on your client device to join the router's Wi-Fi network.

## 4.3. Working Mode

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Working Mode**.
3. Select the working mode as needed and click **Save**.

Working Mode

- Standard Wireless Router** - Enable multiple users to share Internet connection via ADSL/Cable Modem
- Access Point** - Transform your existing wired network to a wireless network
- Repeater** - Extend your existing wireless coverage by relaying wireless signal
- Client** - Acting as a "Wireless Adapter" to connect your wired devices (e.g. Xbox/PS3) to a wireless network
- Hotspot Router** - Enable multiple users to share Internet connection from WISP

## 4.4. Network

### 4.4.1. WAN

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Network > WAN**.
3. Configure the IP parameters of the LAN and click **Save**.

#### Dynamic IP

If your ISP provides the DHCP service, please select **Dynamic IP**, and the router will automatically get IP parameters from your ISP.

Click **Renew** to renew the IP parameters from your ISP.

Click [Release](#) to release the IP parameters.

The screenshot shows the WAN configuration interface. At the top left, the word "WAN" is displayed in blue. Below it, the "WAN Connection Type" is set to "Dynamic IP" in a dropdown menu, with a "Detect" button to its right. Underneath, the "IP Address:", "Subnet Mask:", and "Default Gateway:" fields are all blurred. Below these fields are "Renew" and "Release" buttons. The "MTU Size (in bytes)" is set to "1500" with a note: "(The default is 1500, do not change unless necessary.)". There is a checkbox labeled "Use These DNS Servers" which is currently unchecked. Below it, the "Primary DNS:" field contains "0.0.0.0" and the "Secondary DNS:" field contains "0.0.0.0" with "(Optional)" in red text to its right. At the bottom, the "Host Name:" field is also blurred.

- **MTU Size** - The normal MTU (Maximum Transmission Unit) value for most Ethernet networks is 1500 Bytes. It is not recommended that you change the default MTU size unless required by your ISP.
- **Use These DNS Servers** - If your ISP provides you one or two DNS addresses, select [Use These DNS Servers](#) and enter the primary and secondary addresses. Otherwise, the DNS servers will be assigned dynamically from your ISP.
- **Host Name** - This option specifies the name of the router.
- **Get IP with Unicast DHCP** - A few ISPs' DHCP servers do not support the broadcast applications. If you cannot get the IP address normally, you can choose this option. (It is rarely required.)

## Static IP

If your ISP provides a static or fixed IP address, subnet mask, default gateway and DNS setting, please select [Static IP](#).

The screenshot shows the WAN configuration interface with "Static IP" selected in the "WAN Connection Type" dropdown. The "Detect" button is still present. The "IP Address:", "Subnet Mask:", and "Default Gateway:" fields are now active text boxes, each containing "0.0.0.0". The "MTU Size (in bytes)" remains at "1500" with the same note. The "Use These DNS Servers" checkbox is still unchecked. The "Primary DNS:" and "Secondary DNS:" fields are active text boxes containing "0.0.0.0", with "(Optional)" in red text to the right of the secondary field. The "Host Name:" field is still blurred.

- **IP Address** - Enter the IP address in dotted-decimal notation provided by your ISP.

- **Subnet Mask** - Enter the subnet mask in dotted-decimal notation provided by your ISP. Normally 255.255.255.0 is used as the subnet mask.
- **Default Gateway** - Enter the gateway IP address in dotted-decimal notation provided by your ISP.
- **MTU Size** - The normal MTU (Maximum Transmission Unit) value for most Ethernet networks is 1500 Bytes. It is not recommended that you change the default MTU size unless required by your ISP.
- **Primary/Secondary DNS** - (Optional) Enter one or two DNS addresses in dotted-decimal notation provided by your ISP.

## PPPoE/Russia PPPoE

If your ISP provides PPPoE connection, select [PPPoE/Russia PPPoE](#).

The screenshot shows the WAN configuration interface for PPPoE/Russia PPPoE. The 'WAN Connection Type' is set to 'PPPoE/Russia PPPoE'. Below this, there are fields for 'User Name', 'Password', and 'Confirm Password'. The 'Secondary Connection' options are 'Disabled' (selected), 'Dynamic IP', and 'Static IP'. The 'WAN Connection Mode' is set to 'Connect Automatically', with a 'Max Idle Time' of 15 minutes. There are also options for 'Connect on Demand' and 'Connect Manually', both with a 'Max Idle Time' of 15 minutes. The status is 'Disconnected!'. At the bottom, there are 'Save' and 'Advanced' buttons.

- **User Name/Password** - Enter the user name and password provided by your ISP. These fields are case-sensitive.
- **Confirm Password** - Enter the Password provided by your ISP again to ensure the password you entered is correct.
- **Secondary Connection** - It's available only for PPPoE connection. If your ISP provides an extra connection type, select [Dynamic IP](#) or [Static IP](#) to activate the secondary connection.
- **WAN Connection Mode**
  - **Connect on Demand** - In this mode, the Internet connection can be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the Internet again. If you want to keep your Internet connection active all the time, please enter 0 in the [Max Idle Time](#)

field. Otherwise, enter the number of minutes you want to have elapsed before your Internet access disconnects.

- **Connect Automatically** - The connection can be re-established automatically when it is down.
- **Time-based Connecting** - The connection will only be established in the period from the start time to the end time (both are in HH:MM format).
- **Connect Manually** - You can click **Connect/Disconnect** to connect/disconnect immediately. This mode also supports the **Max Idle Time** function as **Connect on Demand** mode. The Internet connection can be disconnected automatically after a specified inactivity period (Max Idle Time) and not be able to re-establish when you attempt to access the Internet again.

**Note:**

- Only when you have configured the system time on the **System Tools > Time Settings** page, will the time-based connecting function take effect.
- Sometimes the connection cannot be terminated although you have specified the **Max Idle Time** because some applications are visiting the Internet continually in the background.

If you want to do some advanced configurations, please click **Advanced**.

PPPoE Advanced Settings

MTU Size (in bytes):  (The default is 1480, do not change unless necessary.)

Service Name:

AC Name:

Use IP Address Specified by ISP

ISP Specified IP Address:

Detect Online Interval:  Seconds (0 ~ 120 seconds, the default is 0, 0 means not detecting.)

Use The Following DNS Servers

Primary DNS:

Secondary DNS:  (Optional)

- **MTU Size** - The default MTU size is 1480 bytes. It is not recommended that you change the default MTU size unless required by your ISP.
- **Service Name/AC Name** - The service name and AC (Access Concentrator) name should not be configured unless you are sure it is necessary for your ISP. In most cases, leaving these fields blank will work.
- **ISP Specified IP Address** - If your ISP does not automatically assign IP addresses to the router, please select **Use IP address specified by ISP** and enter the IP address provided by your ISP in dotted-decimal notation.

- **Detect Online Interval** - The router will detect Access Concentrator online at every interval. The default value is 0. You can input the value between 0 and 120. The value 0 means no detect.
- **Primary DNS/Secondary DNS** - If your ISP does not automatically assign DNS addresses to the router, please select **Use the following DNS servers** and enter the IP address in dotted-decimal notation of your ISP's primary DNS server. If a secondary DNS server address is available, enter it as well.

## BigPond Cable

If your ISP provides BigPond cable connection, please select **BigPond Cable**.

The screenshot shows the WAN configuration interface for a BigPond Cable connection. The page is titled "WAN" in the top left corner. The configuration fields are as follows:

- WAN Connection Type:** A dropdown menu set to "BigPond Cable".
- User Name:** An empty text input field.
- Password:** An empty text input field.
- Auth Server:** A text input field containing "sm-server".
- Auth Domain:** An empty text input field.
- MTU Size (in bytes):** A text input field containing "1500", with a note: "(The default is 1500, do not change unless necessary.)"
- Connection Mode:** Three radio button options:
  - Connect on Demand: Max Idle Time: 15 minutes (0 means remain active at all times.)
  - Connect Automatically
  - Connect Manually: Max Idle Time: 15 minutes (0 means remain active at all times.)
- Buttons:** "Connect", "Disconnect", and "Disconnected!" (in red text).
- Save:** A "Save" button at the bottom.

- **User Name/Password** - Enter the user name and password provided by your ISP. These fields are case-sensitive.
- **Auth Server** - Enter the authenticating server IP address or host name.
- **Auth Domain** - Type in the domain suffix server name based on your location.
- **MTU Size** - The default MTU size is 1480 bytes. It is not recommended that you change the default MTU size unless required by your ISP.
- **Connection Mode**
  - **Connect on Demand** - In this mode, the Internet connection can be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the Internet again. If you want to keep your Internet connection active all the time, please enter 0 in the **Max Idle Time** field. Otherwise, enter the number of minutes you want to have elapsed before your Internet access disconnects.

- **Connect Automatically** - The connection can be re-established automatically when it is down.
- **Connect Manually** - You can click **Connect/Disconnect** to connect/disconnect immediately. This mode also supports the **Max Idle Time** function as **Connect on Demand** mode. The Internet connection can be disconnected automatically after a specified inactivity period (Max Idle Time) and not be able to re-establish when you attempt to access the Internet again.

**Note:**

Sometimes the connection cannot be terminated although you have specified the **Max Idle Time** because some applications are visiting the Internet continually in the background.

## L2TP/Russia L2TP

If your ISP provides L2TP connection, please select **L2TP/Russia L2TP**.

The screenshot shows the WAN configuration interface for L2TP/Russia L2TP. The page is titled "WAN" and contains the following fields and options:

- WAN Connection Type:** A dropdown menu set to "L2TP/Russia L2TP".
- User Name:** An empty text input field.
- Password:** An empty text input field.
- Confirm Password:** An empty text input field.
- Connect/Disconnect:** Two buttons labeled "Connect" and "Disconnect".
- Connection Status:** A status indicator showing "Disconnected!".
- Dynamic IP / Static IP:** Two radio buttons, with "Dynamic IP" selected.
- Server IP Address/Name:** An empty text input field.
- IP Address:** 0.0.0.0
- Subnet Mask:** 0.0.0.0
- Gateway:** 0.0.0.0
- DNS:** 0.0.0.0 , 0.0.0.0
- Internet IP Address:** 0.0.0.0
- Internet DNS:** 0.0.0.0 , 0.0.0.0
- MTU Size (in bytes):** 1460 (The default is 1460, do not change unless necessary.)
- Max Idle Time:** 15 minutes (0 means remain active at all times.)
- Connection Mode:** Three radio buttons: "Connect on Demand", "Connect Automatically" (selected), and "Connect Manually".
- Save:** A button at the bottom of the form.

- **User Name/Password** - Enter the user name and password provided by your ISP. These fields are case-sensitive.
- **Confirm Password** - Enter the Password provided by your ISP again to ensure the password you entered is correct.
- **Connect/Disconnect** - Click this button to connect or disconnect immediately.



- **Dynamic IP/ Static IP** - Select either as required by your ISP. If **Static IP** is selected, please enter the IP address, subnet mask, gateway and DNS also provided by your ISP.
- **Internet IP Address/ Internet DNS** - The Internet IP address and DNS server address assigned by L2TP server.
- **Connection Mode**
  - **Connect on Demand** - In this mode, the Internet connection can be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the Internet again. If you want to keep your Internet connection active all the time, please enter 0 in the **Max Idle Time** field. Otherwise, enter the number of minutes you want to have elapsed before your Internet access disconnects.
  - **Connect Automatically** - The connection can be re-established automatically when it is down.
  - **Connect Manually** - You can click **Connect/Disconnect** to connect/disconnect immediately. This mode also supports the **Max Idle Time** function as **Connect on Demand** mode. The Internet connection can be disconnected automatically after a specified inactivity period (Max Idle Time) and not be able to re-establish when you attempt to access the Internet again.

**Note:**

Sometimes the connection cannot be terminated although you have specified the **Max Idle Time** because some applications are visiting the Internet continually in the background.

## PPTP/Russia PPTP

If your ISP provides PPTP connection, please select [PPTP/Russia PPTP](#).

WAN

---

WAN Connection Type: PPTP/Russia PPTP ▼

User Name:

Password:

Confirm Password:

Disconnected!

Dynamic IP
  Static IP

Server IP Address/Name:

IP Address: 0.0.0.0

Subnet Mask: 0.0.0.0

Gateway: 0.0.0.0

DNS: 0.0.0.0 , 0.0.0.0

Internet IP Address: 0.0.0.0

Internet DNS: 0.0.0.0 , 0.0.0.0

MTU Size (in bytes): 1420 (The default is 1420, do not change unless necessary.)

Max Idle Time: 15 minutes (0 means remain active at all times.)

Connection Mode:
   
 Connect on Demand
   
 Connect Automatically
   
 Connect Manually

- [User Name/Password](#) - Enter the user name and password provided by your ISP. These fields are case-sensitive.
- [Confirm Password](#) - Enter the Password provided by your ISP again to ensure the password you entered is correct.
- [Connect/Disconnect](#) - Click this button to connect or disconnect immediately.
- [Dynamic IP/ Static IP](#) - Select either as required by your ISP. If [Static IP](#) is selected, please enter the IP address, subnet mask, gateway and DNS also provided by your ISP.
- [Internet IP Address/ Internet DNS](#) - The Internet IP address and DNS server address assigned by L2TP server.
- [Connection Mode](#)
  - [Connect on Demand](#) - In this mode, the Internet connection can be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the Internet again. If you want to keep your Internet connection active all the time, please enter 0 in the [Max Idle Time](#)

field. Otherwise, enter the number of minutes you want to have elapsed before your Internet access disconnects.

- **Connect Automatically** - The connection can be re-established automatically when it is down.
- **Connect Manually** - You can click **Connect/Disconnect** to connect/disconnect immediately. This mode also supports the **Max Idle Time** function as **Connect on Demand** mode. The Internet connection can be disconnected automatically after a specified inactivity period (Max Idle Time) and not be able to re-establish when you attempt to access the Internet again.

**Note:**

Sometimes the connection cannot be terminated although you have specified the **Max Idle Time** because some applications are visiting the Internet continually in the background.

## 4.4.2. MAC Clone

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Network > MAC Clone**.
3. Configure the WAN MAC address and click **Save**.

- **WAN MAC Address** - This field displays the current MAC address of the WAN port. If your ISP requires you to register the MAC address, please enter the correct MAC address in this field. Click **Restore Factory MAC** to restore the MAC address of WAN port to the factory default value.
- **Your PC's MAC Address** - This field displays the MAC address of the PC that is managing the router. If the MAC address is required, you can click **Clone MAC Address** and this MAC address will be filled in the **WAN MAC Address** field.

**Note:**

- You can only use the MAC Address Clone function for PCs on the LAN.
- If you have changed the WAN MAC address when the WAN connection is PPPoE, it will not take effect until the connection is re-established.

## 4.4.3. LAN

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Network > LAN**.
3. Configure the IP parameters of the LAN and click **Save**.

LAN

MAC Address: 0C-4A-08-45-F3-60

IP Address:

Subnet Mask:

IGMP Proxy:

Note:IGMP(Internet Group Management Protocol) works for IPTV multicast stream.The device supports both IGMP proxy with enabled/disabled option and IGMP snooping.

- **MAC Address** - The physical address of the LAN ports. The value can not be changed.
- **IP Address** - Enter the IP address in dotted-decimal notation of your router (factory default - 192.168.0.254).
- **Subnet Mask** - An address code that determines the size of the network. Normally 255.255.255.0 is used as the subnet mask.
- **IGMP Proxy** - The Internet Group Management Protocol (IGMP) feature allow you to watch TV on IPTV-supported devices on the LAN .

**Note:**

- If you have changed the IP address, you must use the new IP address to log in.
- If the new IP address you set is not in the same subnet as the old one, the IP address pool in the DHCP Server will be configured automatically, but the Virtual Server and DMZ Host will not take effect until they are re-configured.

## 4. 5. Wireless

### 4. 5. 1. Wireless Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Wireless > Wireless Settings**.
3. Configure the basic settings for the wireless network and click **Save**.

Wireless Settings

Wireless Network Name:  (Also called the SSID)

Mode:

Channel Width:

Channel:

Enable Wireless Router Radio

Enable SSID Broadcast

Enable WDS Bridging

- **Wireless Network Name** - Enter a string of up to 32 characters. The default SSID is TP-LINK\_XXXX (XXXX indicates the last unique four numbers of each router's MAC address). It is strongly recommended that you change your network name (SSID). This value is case-sensitive. For example, TEST is NOT the same as test.
- **Mode** - Select the desired mode. It is strongly recommended that you keep the default setting **11bgn mixed**, so that all 802.11b/g/n wireless devices can connect to the router.

**Note:**

If 11bg mixed mode is selected, the **Channel Width** field will turn grey and the value will become 20M, and cannot be changed.

- **Channel Width** - Select any channel width from the drop-down list. The default setting is **Auto**, which can automatically adjust the channel width for your clients.
- **Channel** - This field determines which operating frequency will be used. The default channel is set to **Auto**. It is not necessary to change the wireless channel unless you notice interference problems with another nearby access point.
- **Enable Wireless Router Radio** - The wireless radio of the router can be enabled or disabled to allow or deny wireless access. If enabled, the wireless clients will be able to access the router.
- **Enable SSID Broadcast** - If enabled, the router will broadcast the wireless network name (SSID).
- **Enable WDS Bridging** - You can select this to enable WDS Bridging, with this function, the router can bridge two or more WLANs.

**Note:**

If this checkbox is selected, you had better make sure the following settings are correct.

SSID (to be bridged):	<input type="text"/>
BSSID (to be bridged):	<input type="text"/> Example:00-1D-0F-11-22-33
	<input type="button" value="Survey"/>
WDS Mode:	<input type="text" value="Auto"/>
Key type:	<input type="text" value="None"/>
WEP Index:	<input type="text" value="1"/>
Auth type:	<input type="text" value="open"/>
Password:	<input type="text"/>

- **SSID (to be bridged)** - The SSID of the AP your router is going to connect to as a client. You can also use the survey function to select the SSID to join.
- **BSSID (to be bridged)** - The BSSID of the AP your router is going to connect to as a client. You can also use the survey function to select the BSSID to join.
- **Survey** - Click this button, you can search the AP which runs currently.
- **WDS Mode** - This field determines which WDS Mode will be used. It is not necessary to change the WDS mode unless you notice network communication problems with

root AP. If you select Auto, then the router will choose the appropriate WDS mode automatically.

- **Key type** - This option should be chosen according to the AP's security configuration. It is recommended that the security type is the same as your AP's security type.
- **WEP Index** - This option should be chosen if the key type is WEP (ASCII) or WEP (HEX). It indicates the index of the WEP key.
- **Auth Type** - This option should be chosen if the key type is WEP (ASCII) or WEP (HEX). It indicates the authorization type of the Root AP.
- **Password** - If the AP your router is going to connect needs password, you need to fill the password in this blank.

## 4.5.2. Wireless Security

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Wireless > Wireless Security**.
3. Configure the security settings of your wireless network and click **Save**.

- **Disable Security** - The wireless security function can be enabled or disabled. If disabled, wireless clients can connect to the router without a password. It's strongly recommended to choose one of the following modes to enable security.

- **WPA-PSK/WPA2-Personal** - It's the WPA/WPA2 authentication type based on pre-shared passphrase.
  - **Version** - Select **Automatic**, **WPA-PSK** or **WPA2-PSK**.
  - **Encryption** - Select **Automatic**, **TKIP** or **AES**.
  - **Wireless Password** - Enter ASCII or Hexadecimal characters. For Hexadecimal, the length should be between 8 and 64 characters; for ASCII, the length should be between 8 and 63 characters.
  - **Group Key Update Period** - Specify the group key update interval in seconds. The value can be 0 or at least 30. Enter 0 to disable the update.
- **WPA /WPA2-Enterprise** - It's based on Radius Server.
  - **Version** - Select **Automatic**, **WPA** or **WPA2**.
  - **Encryption** - Select **Automatic**, **TKIP** or **AES**.
  - **Radius Server IP** - Enter the IP address of the Radius server.
  - **Radius Port** - Enter the port that Radius server used.
  - **Radius Password** - Enter the password for the Radius server.
  - **Group Key Update Period** - Specify the group key update interval in seconds. The value should be 30 or above. Enter 0 to disable the update.
- **WEP** - It is based on the IEEE 802.11 standard.
  - **Type** - The default setting is **Automatic**, which can select Shared Key or Open System authentication type automatically based on the wireless client's capability and request.
  - **WEP Key Format** - Hexadecimal and ASCII formats are provided here. Hexadecimal format stands for any combination of hexadecimal digits (0-9, a-f, A-F) in the specified length. ASCII format stands for any combination of keyboard characters in the specified length.
  - **WEP Key (Password)** - Select which of the four keys will be used and enter the matching WEP key. Make sure these values are identical on all wireless clients in your network.
  - **Key Type** - Select the WEP key length (64-bit, 128-bit or 152-bit) for encryption. **Disabled** means this WEP key entry is invalid.
  - **64-bit** - Enter 10 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 5 ASCII characters.
  - **128-bit** - Enter 26 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 13 ASCII characters.
  - **152-bit** - Enter 32 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 16 ASCII characters.

### 4.5.3. Wireless MAC Filtering

Wireless MAC Filtering is used to deny or allow specific wireless client devices to access your network by their MAC addresses.

**I want to:** Deny or allow specific wireless client devices to access my network by their MAC addresses.

**For example,** you want the wireless client A with the MAC address 00-0A-EB-B0-00-0B and the wireless client B with the MAC address 00-0A-EB-00-07-5F to access the router, but other wireless clients cannot access the router.

**How can I do that?**

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless > Wireless MAC Filtering](#).
3. Click [Enable](#) to enable the Wireless MAC Filtering function.
4. Select [Allow the stations specified by any enabled entries in the list to access](#) as the filtering rule.
5. Delete or disable all entries if there are any entries already.
6. Click [Add New](#) and fill in the blanks.

- 1) Enter the MAC address 00-0A-EB-B0-00-0B/00-0A-EB-00-07-5F in the MAC Address field.
  - 2) Enter wireless client A/B in the Description field.
  - 3) Leave the status as [Enabled](#).
  - 4) Click [Save](#) and click [Back](#).
7. The configured filtering rules should be listed as the picture shows below.

ID	MAC Address	Status	Description	Modify
1	00-0A-EB-B0-00-0B	Enabled	Client A	<a href="#">Modify</a> <a href="#">Delete</a>
2	00-0A-EB-00-07-5F	Enabled	Client B	<a href="#">Modify</a> <a href="#">Delete</a>



**Done!** Now only client A and client B can access your network.

#### 4.5.4. Wireless Advanced

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless > Wireless Advanced](#).
3. Configure the advanced settings of your wireless network and click [Save](#).

**Note:**

If you are not familiar with the setting items on this page, it's strongly recommended to keep the provided default values; otherwise it may result in lower wireless network performance.

The screenshot shows the 'Wireless Advanced' configuration page. The settings are as follows:

Setting	Value	Range
Transmit Power	High	
Beacon Interval	100	(40-1000)
RTS Threshold	2346	(256-2346)
Fragmentation Threshold	2346	(256-2346)
DTIM Interval	1	(1-255)

Additional options:

- Enable WMM
- Enable Short GI
- Enable AP Isolation

A 'Save' button is located at the bottom of the form.

- **Transmit Power** - Select **High**, **Middle** or **Low** which you would like to specify for the router. **High** is the default setting and recommended.
- **Beacon Interval** - Enter a value between 40-1000 milliseconds for Beacon Interval here. Beacon Interval value determines the time interval of the beacons. The beacons are the packets sent by the router to synchronize a wireless network. The default value is 100.
- **RTS Threshold** - Here you can specify the RTS (Request to Send) Threshold. If the packet is larger than the specified RTS Threshold size, the router will send RTS frames to a particular receiving station and negotiate the sending of a data frame. The default value is 2346.
- **Fragmentation Threshold** - This value is the maximum size determining whether packets will be fragmented. Setting a low value for the Fragmentation Threshold may result in poor network performance because of excessive packets. 2346 is the default setting and is recommended.
- **DTIM Interval** - This value determines the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the router has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. You can specify the value between 1-255 Beacon Intervals. The default value is 1, which indicates the DTIM Interval is the same as Beacon Interval.

- **Enable WMM** - WMM function can guarantee the packets with high-priority messages being transmitted preferentially. It is strongly recommended to enable this function.
- **Enable Short GI** - It is recommended to enable this function, for it will increase the data capacity by reducing the guard interval time.
- **Enable AP Isolation** - This function isolates all connected wireless stations so that wireless stations cannot access each other through WLAN. This function will be disabled if WDS / Bridge is enabled.

### 4.5.5. Wireless Statistics

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Wireless > Wireless Statistics** to check the data packets sent and received by each client device connected to the router.

ID	MAC Address	Current Status	Received Packets	Sent Packets	Configure
1	D0-51-62-27-C0-42	WPA2-PSK	65	33	Deny

- **MAC Address** - The MAC address of the connected wireless client.
- **Current Status** - The running status of the connected wireless client.
- **Received Packets** - Packets received by the wireless client.
- **Sent Packets** - Packets sent by the wireless client.
- **Configure** - The button is used for loading the item to the Wireless MAC Filtering list.
  - **Allow** - If the Wireless MAC Filtering function is enabled, click this button to allow the client to access your network.
  - **Deny** - If the Wireless MAC Filtering function is enabled, click this button to deny the client to access your network.

## 4.6. DHCP

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

### 4.6.1. DHCP Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.

2. Go to **DHCP > DHCP Settings**.
3. Specify DHCP server settings and click **Save**.

DHCP Settings

DHCP Server:  Disable  Enable

Start IP Address:

End IP Address:

Address Lease Time:  minutes (1~2880 minutes, the default value is 120)

Default Gateway:

Default Domain:  (Optional)

Primary DNS:  (Optional)

Secondary DNS:  (Optional)

- **DHCP Server** - Enable or disable the DHCP server. If disabled, you must have another DHCP server within your network or else you must configure the computer manually.
- **Start IP Address** - Specify an IP address for the DHCP Server to start with when assigning IP addresses. 192.168.0.100 is the default start address.
- **End IP Address** - Specify an IP address for the DHCP Server to end with when assigning IP addresses. 192.168.0.199 is the default end address.
- **Address Lease Time** - The Address Lease Time is the amount of time a network user will be allowed to connect to the router with the current dynamic IP Address. When time is up, the router will automatically assign the same IP address to the user. The range of the time is 1 ~ 2880 minutes. The default value is 120.
- **Default Gateway (Optional)** - It is suggested to input the IP address of the LAN port of the Router. The default value is 192.168.0.254.
- **Default Domain (Optional)** - Input the domain name of your network.
- **Primary DNS (Optional)** - Input the DNS IP address provided by your ISP.
- **Secondary DNS (Optional)** - Input the IP address of another DNS server if your ISP provides two DNS servers.

**Note:**

To use the DHCP server function of the router, you must configure all computers on the LAN as [Obtain an IP Address automatically](#).

## 4. 6. 2. DHCP Client List

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **DHCP > DHCP Client List** to view the information of the clients connected to the router.

DHCP Client List				
ID	Client Name	MAC Address	Assigned IP	Lease Time
1	XXXXXXXXXX	XXXXXXXXXX	192.168.0.100	01:22:00
2	XXXXXXXXXX	XXXXXXXXXX	192.168.0.101	01:55:07

- **Client Name** - The name of the DHCP client.
- **MAC Address** - The MAC address of the DHCP client.
- **Assigned IP** - The IP address that the router has allocated to the DHCP client.
- **Lease Time** - The time of the DHCP client leased. After the dynamic IP address has expired, a new dynamic IP address will be automatically assigned to the user.

You cannot change any of the values on this page. To update this page and show the current connected devices, click [Refresh](#).

### 4. 6. 3. Address Reservation

You can reserve an IP address for a specific client. When you have specified a reserved IP address for a PC on the LAN, this PC will always receive the same IP address each time when it accesses the DHCP server.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [DHCP > Address Reservation](#).
3. Click [Add New](#) and fill in the blanks.

Address Reservation				
ID	MAC Address	Reserved IP Address	Status	Modify
1	74-D4-35-98-42-A8	192.168.0.100	Disabled	<a href="#">Modify</a> <a href="#">Delete</a>

The change of Address Reservation will not take effect until this device reboots, please [click here](#) to reboot.

- 1) Enter the MAC address (in XX-XX-XX-XX-XX-XX format) of the client for which you want to reserve an IP address.
- 2) Enter the IP address (in dotted-decimal notation) which you want to reserve for the client.
- 3) Leave the status as [Enabled](#).
- 4) Click [Save](#).

## 4. 7. Forwarding

The router's NAT (Network Address Translation) feature makes the devices on the LAN use the same public IP address to communicate in the Internet, which protects the

local network by hiding IP addresses of the devices. However, it also brings about the problem that external hosts cannot initiatively communicate with the specified devices in the local network.

With the forwarding feature, the router can traverse the isolation of NAT so that clients on the Internet can reach devices on the LAN and realize some specific functions.

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

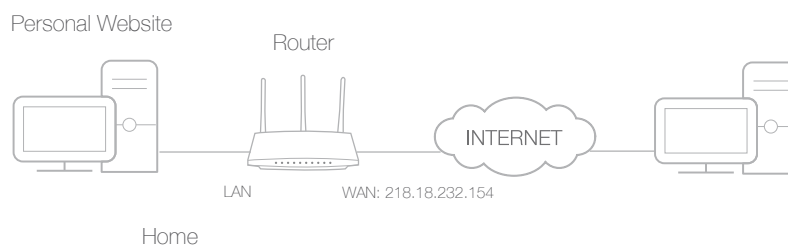
### 4.7.1. Virtual Servers

When you build up a server in the local network and want to share it on the Internet, Virtual Servers can realize the service and provide it to Internet users. At the same time virtual servers can keep the local network safe as other services are still invisible from the Internet.

Virtual Servers can be used to set up public services in your local network, such as HTTP, FTP, DNS, POP3/SMTP and Telnet. Different service uses different service port. Port 80 is used in HTTP service, port 21 in FTP service, port 25 in SMTP service and port 110 in POP3 service. Please verify the service port number before the configuration.

**I want to:** Share my personal website I've built in local network with my friends through the Internet.

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



1. Set your PC to a static IP address, for example 192.168.0.100.
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
3. Go to **Forwarding > Virtual Servers**.
4. Click **Add New**. Select **HTTP** from the **Common Service Port** list. The service port, internal port and protocol will be automatically filled in. Enter the PC's IP address 192.168.0.100 in the **IP Address** field.

The screenshot shows a web interface titled "Add or Modify a Virtual Server Entry". It contains the following fields and options:

- Service Port:** Input field with "80" and a hint "(XX-XX or XX)".
- Internal Port:** Input field with "80" and a hint "(XX, Enter a specific port number or leave it blank)".
- IP Address:** Input field with "192.168.0.100".
- Protocol:** Dropdown menu with "TCP" selected.
- Status:** Dropdown menu with "Enabled" selected.
- Common Service Port:** Dropdown menu with "HTTP" selected.

At the bottom of the form are two buttons: "Save" and "Back".

#### 5. Leave the status as **Enabled** and click **Save**.

##### Note:

- It is recommended to keep the default settings of **Internal Port** and **Protocol** if you are not clear about which port and protocol to use.
- If the service you want to use is not in the **Common Service Port** list, you can enter the corresponding parameters manually. You should verify the port number that the service needs.
- You can add multiple virtual server rules if you want to provide several services in a router. Please note that the **Service Port** should not be overlapped.

## Done!

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

##### Note:

- If you have changed the default **Service Port**, you should use [http:// WAN IP: Service Port](http://WAN IP: Service Port) to visit the website.
- Some specific service ports are forbidden by the ISP, if you fail to visit the website, please use another service port.

### 4.7.2. Port Triggering

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

Follow the steps below to configure the port triggering rules:

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Forwarding > Port Triggering**.
3. Click **Add New**. Select the desired application from the **Common Applications** list. The trigger port and incoming ports will be automatically filled in. The following picture takes application **MSN Gaming Zone** as an example.

Add or Modify a Port Triggering Entry

---

Trigger Port:	<input type="text" value="47624"/>
Trigger Protocol:	<input type="text" value="All"/>
Incoming Ports:	<input type="text" value="2300-2400,28800-29000"/>
Incoming Protocol:	<input type="text" value="All"/>
Status:	<input type="text" value="Enabled"/>
Common Applications:	<input type="text" value="MSN Gaming Zone"/>

4. Leave the status as **Enabled** and click **Save**.

**Note:**

- You can add multiple port triggering rules as needed.
- The triggering ports can not be overlapped.
- If the application you need is not listed in the **Common Applications** list, please enter the parameters manually. You should verify the incoming ports the application uses first and enter them in **Incoming Ports** field. You can input at most 5 groups of ports (or port sections). Every group of ports must be set apart with ",". For example, 2000-2038, 2050-2051, 2085, 3010-3030.

### 4.7.3. DMZ

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

**Note:**

DMZ is more applicable in the situation that users are not clear about which ports to open. When it is enabled, the DMZ host is totally exposed to the Internet, which may bring some potential safety hazards. If DMZ is not in use, please disable it in time.

**I want to:**

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

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

**How can I do that?**

1. Assign a static IP address to your PC, for example 192.168.0.100.
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.

3. Go to **Forwarding > DMZ**.
4. Select **Enable** and enter the IP address 192.168.0.100 in the **DMZ Host IP Address** field.

DMZ

Current DMZ Status:  Enable  Disable

DMZ Host IP Address:

Save

5. Click **Save**.

## Done!

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

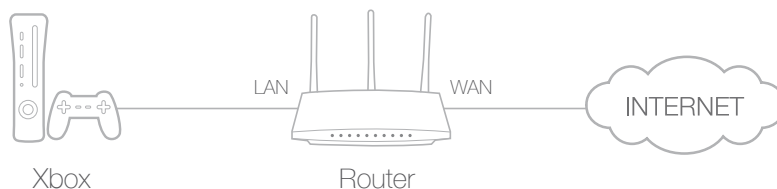
### 4.7.4. UPnP

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

#### ☞ Tips:

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

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



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

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Forwarding > UPnP**.
3. Click **Disable** or **Enable** according to your needs.



UPnP

Current UPnP Status: **Enabled**

Current UPnP Settings List

ID	App Description	External Port	Protocol	Internal Port	IP Address	Status
<input type="button" value="Refresh"/>						

## 4.8. Security

This function allows you to protect your home network from cyber attacks and unauthorized users by implementing these network security functions.

### 4.8.1. Basic Security

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Security > Basic Security](#), and you can enable or disable the security functions.

Basic Security

Firewall

SPI Firewall:  Enable  Disable

VPN

PPTP Passthrough:  Enable  Disable

L2TP Passthrough:  Enable  Disable

IPsec Passthrough:  Enable  Disable

ALG

FTP ALG:  Enable  Disable

TFTP ALG:  Enable  Disable

H323 ALG:  Enable  Disable

RTSP ALG:  Enable  Disable

SIP ALG:  Enable  Disable

- **Firewall** - A firewall protects your network from Internet attacks.
  - **SPI Firewall** - SPI (Stateful Packet Inspection, also known as dynamic packet filtering) helps to prevent cyber attacks by tracking more state per session. It validates that the traffic passing through the session conforms to the protocol. SPI Firewall is enabled by default.
- **VPN** - VPN Passthrough must be enabled if you want to allow VPN tunnels using IPsec, PPTP or L2TP protocols to pass through the router's firewall.

- **PPTP Passthrough** - Point-to-Point Tunneling Protocol (PPTP) allows the Point-to-Point Protocol (PPP) to be tunneled through an IP network. If you want to allow PPTP tunnels to pass through the router, you can keep the default (Enabled).
- **L2TP Passthrough** - Layer 2 Tunneling Protocol (L2TP) is the method used to enable Point-to-Point sessions via the Internet on the Layer 2 level. If you want to allow L2TP tunnels to pass through the router, you can keep the default (Enabled).
- **IPSec Passthrough** - Internet Protocol Security (IPSec) is a suite of protocols for ensuring private, secure communications over Internet Protocol (IP) networks, through the use of cryptographic security services. If you want to allow IPSec tunnels to pass through the router, you can keep the default (Enabled).
- **ALG** - It is recommended to enable Application Layer Gateway (ALG) because ALG allows customized Network Address Translation (NAT) traversal filters to be plugged into the gateway to support address and port translation for certain application layer "control/data" protocols such as FTP, TFTP, H323 etc.
  - **FTP ALG** - To allow FTP clients and servers to transfer data across NAT, keep the default **Enable**.
  - **TFTP ALG** - To allow TFTP clients and servers to transfer data across NAT, keep the default **Enable**.
  - **H323 ALG** - To allow Microsoft NetMeeting clients to communicate across NAT, keep the default **Enable**.
  - **RTSP ALG** - To allow some media player clients to communicate with some streaming media servers across NAT, click **Enable**.
  - **SIP ALG** - To allow some multimedia clients to communicate across NAT, click **Enable**.

3. Click **Save**.

## 4.8.2. Advanced Security

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Security > Advanced Security](#), and you can protect the router from being attacked by ICMP-Flood, UDP Flood and TCP-SYN Flood.

- **Packets Statistics Interval (5~60)** - The default value is 10. Select a value between 5 and 60 seconds from the drop-down list. The **Packets Statistics Interval** value indicates the time section of the packets statistics. The result of the statistics is used for analysis by SYN Flood, UDP Flood and ICMP-Flood.
- **DoS Protection** - Denial of Service protection. Select Enable or Disable to enable or disable the DoS protection function. Only when it is enabled, will the flood filters be enabled.

**Note:**

Dos Protection will take effect only when the Statistics in [System Tool > Statistics](#) is enabled.

- **Enable ICMP-FLOOD Attack Filtering** - Check the box to enable or disable this function.
- **ICMP-FLOOD Packets Threshold (5~3600)** - The default value is 50. Enter a value between 5 ~ 3600. When the number of the current ICMP-FLOOD packets is beyond the set value, the router will startup the blocking function immediately.
- **Enable UDP-FLOOD Filtering** - Check the box to enable or disable this function.
- **UDP-FLOOD Packets Threshold (5~3600)** - The default value is 500. Enter a value between 5 ~ 3600. When the number of the current UPD-FLOOD packets is beyond the set value, the router will startup the blocking function immediately.

- **Enable TCP-SYN-FLOOD Attack Filtering** - Check the box to enable or disable this function.
  - **TCP-SYN-FLOOD Packets Threshold (5~3600)** - The default value is 50. Enter a value between 5 ~ 3600. When the number of the current TCP-SYN-FLOOD packets is beyond the set value, the router will startup the blocking function immediately.
  - **Ignore Ping Packet From WAN Port** - The default setting is disabled. If enabled, the ping packet from the Internet cannot access the router.
  - **Forbid Ping Packet From LAN Port** - The default setting is disabled. If enabled, the ping packet from LAN cannot access the router. This function can be used to defend against some viruses.
3. Click **Save**.
  4. Click **Blocked DoS Host List** to display the DoS host table by blocking.

### 4.8.3. Local Management

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Security > Local Management**, and you can block computers in LAN from accessing the router.

The screenshot shows the 'Local Management' web interface. At the top, there is a title 'Local Management'. Below it, the 'Management Rules' section is visible. There are two radio button options:
 

- All the PCs on the LAN are allowed to access the Router's Web-Based Utility
- Only the PCs listed can browse the built-in web pages to perform Administrator tasks

 Below these options, there are four input fields labeled 'MAC 1:', 'MAC 2:', 'MAC 3:', and 'MAC 4:'. At the bottom of this section, there is a label 'Your PC's MAC Address:' followed by an input field containing the value '50-E5-49-1E-06-80' and an 'Add' button. At the very bottom of the form, there is a 'Save' button.

For example, if you want to allow PCs with specific MAC addresses to access the router's web management page locally from inside the network, please follow the instructions below:

- 1) Select **Only the PCs listed can browse the built-in web pages to perform Administrator tasks**.
- 2) Enter the MAC address of each PC separately. The format of the MAC address is XX-XX-XX-XX-XX-XX (X is any hexadecimal digit). Only the PCs with the listed MAC addresses can use the password to browse the built-in web pages to perform administrator tasks.

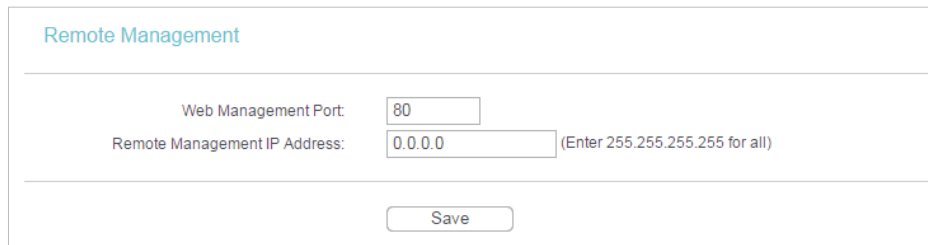
- 3) Click [Add](#), and your PC's MAC address will also be listed.
- 4) Click [Save](#).

**Note:**

If your PC is blocked but you want to access the router again, press and hold the [Reset](#) button to reset the router to the factory defaults.

#### 4.8.4. Remote Management

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Security](#) > [Remote Management](#), and you can manage your router from a remote device via the Internet.



Remote Management	
Web Management Port:	<input type="text" value="80"/>
Remote Management IP Address:	<input type="text" value="0.0.0.0"/> (Enter 255.255.255.255 for all)
<input type="button" value="Save"/>	

- **Web Management Port** - Web browser access normally uses the standard HTTP service port 80. This router's default remote management web port number is 80. For higher security, you can change the remote management web port to a custom port by entering a number between 1 and 65534 but do not use the number of any common service port.
- **Remote Management IP Address** - This is the address you will use when accessing your router via a remote device. This function is disabled when the IP address is set to the default value of 0.0.0.0. To enable this function, change 0.0.0.0 to a valid IP address. If it is set to 255.255.255.255, then all the remote devices can access the router from the Internet.

**Note:**

- To access the router, enter your router's WAN IP address in your browser's address bar, followed by a colon and the custom port number. For example, if your router's WAN address is 202.96.12.8, and the port number used is 8080, please enter <http://202.96.12.8:8080> in your browser. Later, you may be asked for the router's password. After successfully entering the username and password, you will be able to access the router's web management page.
- Be sure to change the router's default password for security purposes.

## 4.9. Parental Controls

Parental Controls allows you to block inappropriate and malicious websites, and control access to specific websites at specific time for your children's devices.

For example, you want the children's PC with the MAC address 00-11-22-33-44-AA can access www.tp-link.com on Saturday only while the parent PC with the MAC address 00-11-22-33-44-BB is without any restriction.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Access Control > Schedule](#).
3. Click [Add New](#) to create a new schedule entry with [Schedule Description](#) as `Schedule_1`, [Day](#) as Sat and [Time](#) as all day-24 hours, and then click [Save](#).

4. Go to [Parental Control](#).
5. Select [Enable](#) and enter the MAC address 00-11-22-33-44-BB in the [MAC Address of Parental PC](#) field.
6. Click [Add New](#).
7. Enter appropriate parameters in corresponding fields.

- Enter 00-11-22-33-44-AA in the [MAC Address of Children's PC](#) field.
- Enter Allow TP-LINK in the [Website Description](#) field.
- Enter www.tp-link.com in the [Allowed Website Name](#) field.
- Select Schedule\_1 you created from the [Effective Time](#) drop-down list.
- In the [Status](#) field, select [Enable](#).

8. Click [Save](#).

Then you can go back to the [Parental Control Settings](#) page to check the following list.

ID	MAC address	Website Description	Schedule	Status	Modify
1	00-11-22-33-44-AA	TP-LINK	schedule_1	<input checked="" type="checkbox"/>	<a href="#">Edit</a> <a href="#">Delete</a>

## 4. 10. Access Control

Access Control is used to deny or allow specific client devices to access your network with access time and content restrictions.

### I want to:

Deny or allow specific client devices to access my network with access time and content restrictions.

*For example,* If you want to restrict the Internet activities of host with MAC address 00-11-22-33-44-AA on the LAN to access www.tp-link.com only, please follow the steps below:

### How can I do that?

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Access Control](#) > [Host](#) and configure the host settings:
  - 1) Click [Add New](#).
  - 2) Select [MAC Address](#) as the mode type. Create a unique description (e.g. [host\\_1](#)) for the host in the [Host Description](#) field and enter 00-11-22-33-44-AA in the [MAC Address](#) field.

Add or Modify a Host Entry

---

Mode: IP Address ▼

Host Description:

LAN IP Address:  -

---

- 3) Click [Save](#).
3. Go to [Access Control](#) > [Target](#) and configure the target settings:
  - 1) Click [Add New](#).

- 2) Select **Domain Name** as the mode type. Create a unique description (e.g. **target\_1**) for the target in the **Target Description** field and enter the domain name, either the full name or the keywords (for example TP-LINK) in the **Domain Name** field.

**Note:**

Any domain name with keywords in it (e.g. www.tp-link.com) will be blocked or allowed.

Add or Modify an Access Target Entry

---

Mode: Domain Name ▾

Target Description: target\_1

Domain Name: www.tp-link.com

tp-link

---

Save
Back

- 3) Click **Save**.
4. Go to **Access Control > Schedule** and configure the schedule settings:
  - 1) Click **Add New**.
  - 2) Create a unique description (e.g. **schedule\_1**) for the schedule in the **Schedule Description** field and set the day(s) and time period.

Advance Schedule Settings

---

Note: The Schedule is based on the time of the Router.

Schedule Description: schedule\_1

Day:  Everyday  Select Days

Mon  Tue  Wed  Thu  Fri  Sat  Sun

Time:  all day-24 hours

Start Time:   (HHMM)

Stop Time:   (HHMM)

---

Save
Back

- 3) Click **Save**.
5. Go to **Access Control > Rule** and add a new access control rule.
  - 1) Click **Add New**.
  - 2) Give a name for the rule in the **Rule Name** field. Select **host\_1** from the host drop-down list; select **target\_1**



from the target drop-down list; select `schedule_1` from the schedule drop-down list.

The screenshot shows a web form titled "Add Internet Access Control Entry". It contains the following fields:

- Rule Name:
- Host:  [Click Here To Add New Host List](#)
- Target:  [Click Here To Add New Target List](#)
- Schedule:  [Click Here To Add New Schedule](#)
- Status:

At the bottom of the form are two buttons: "Save" and "Back".

3) Leave the status as `Enabled` as click `Save`.

6. Select `Enable Internet Access Control` to enable Access Control function.
7. Select `Allow the packets specified by any enabled access control policy to pass through the Router` as the default filter policy and click `Save`.

The screenshot shows a web page titled "Access Control Rule Management". It contains the following elements:

- `Enable Internet Access Control`
- Default Filter Policy**
  - `Allow` the packets specified by any enabled access control policy to pass through the Router
  - `Deny` the packets specified by any enabled access control policy to pass through the Router

At the bottom of the page is a "Save" button.

**Done!**

Now only the specific host(s) can visit the target(s) within the scheduled time period.

## 4. 11. Advanced Routing

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

### 4. 11. 1. Static Routing List

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to `Advanced Routing > Static Routing`.

➤ **To add static routing entries:**

1. Click [Add New](#).

Add or Modify a Static Route Entry

---

Destination Network:

Subnet Mask:

Default Gateway:

Status: Enabled ▼

---

2. Enter the following information.

- **Destination Network** - The Destination Network is the address of the network or host that you want to assign to a static route.
- **Subnet Mask** - The Subnet Mask determines which portion of an IP address is the network portion, and which portion is the host portion.
- **Default Gateway** - This is the IP address of the default gateway device that allows the contact between the router and the network or host.

3. Select [Enabled](#) or [Disabled](#) for this entry on the [Status](#) drop-down list.

4. Click [Save](#).

You can also do the following operations to modify the current settings.

- Click [Delete](#) to delete the entry.
- Click [Enable All](#) to enable all the entries.
- Click [Disable All](#) to disable all the entries.
- Click [Delete All](#) to delete all the entries.
- Click [Previous](#) to view the information on the previous screen and [Next](#) to view the information on the next screen.

## 4. 11. 2. System Routing Table

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Advanced Routing](#) > [System Routing Table](#), and you can view all the valid route entries in use.

System Routing Table

---

ID	Destination Network	Subnet Mask	Gateway	Interface
1	192.168.0.0	255.255.255.0	0.0.0.0	LAN & WLAN
2	239.0.0.0	255.0.0.0	0.0.0.0	LAN & WLAN

---

- **Destination Network** - The Destination Network is the address of the network or host to which the static route is assigned.
- **Subnet Mask** - The Subnet Mask determines which portion of an IP address is the network portion, and which portion is the host portion.
- **Gateway** - This is the IP address of the gateway device that allows for contact between the Router and the network or host.
- **Interface** - This interface tells you whether the Destination IP Address is on the LAN & WLAN (internal wired and wireless networks), or the WAN (Internet).
- Click **Refresh** to refresh the data displayed.

## 4. 12. Bandwidth Control

### 4. 12. 1. Control Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Bandwidth Control > Control Settings**.
3. Configure the bandwidth as needed and click **Save**.

Bandwidth Control Settings

Enable Bandwidth Control:

Line Type:  ADSL  Other

Egress Bandwidth:  Kbps

Ingress Bandwidth:  Kbps

Save

The values you configure for the Egress Bandwidth and Ingress Bandwidth should be less than 100,000Kbps. For optimal control of the bandwidth, please select the right Line Type and consult your ISP for the total egress and ingress bandwidth.

- **Enable Bandwidth Control** - Check this box so that the Bandwidth Control settings can take effect.
- **Line Type** - Select the right type for you network connection. If you are not sure, please consult your ISP.
- **Egress Bandwidth** - The upload speed through the WAN port.
- **Ingress Bandwidth** - The download speed through the WAN port.

### 4. 12. 2. Rule List

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.

- Go to **Bandwidth Control > Rule List**, and you can view and configure the Bandwidth Control rules.

ID	Description	Egress Bandwidth(Kbps)		Ingress Bandwidth(Kbps)		Enable	Modify
		Min	Max	Min	Max		
The current list is empty.							

Current No.  Page

- **Description** - This is the information about the rules such as address range.
- **Egress Bandwidth** - This field displays the max and min upload bandwidth through the WAN port. The default is 0.
- **Ingress Bandwidth** - This field displays the max and min download bandwidth through the WAN port. The default is 0.
- **Enable** - This field displays the status of the rule.
- **Modify** - Click **Modify/Delete** to edit/delete the rule.

➤ **To add a Bandwidth control rule:**

- Click **Add New**.
- Enter the information as the figure shown below.

**Bandwidth Control Rule Settings**

Enable:

IP Range:  -

Port Range:  -

Protocol:

Egress Bandwidth:
   
 Min Bandwidth(Kbps): 
                         
 Max Bandwidth(Kbps):

Ingress Bandwidth:
   
 Min Bandwidth(Kbps): 
                         
 Max Bandwidth(Kbps):

- Click **Save**.

## 4. 13. IP&MAC Binding

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

### 4. 13. 1. Binding Settings

- Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.

2. Go to [IP & MAC Binding > Binding Settings](#).
3. Select [Enable](#) for ARP Binding.

4. Click [Save](#).

➤ **To add IP & MAC Binding entries:**

1. Click [Add New](#).
2. Select the [Bind](#) checkbox.

3. Enter the MAC address and IP address.
4. Click [Save](#).

➤ **To modify or delete an existing entry:**

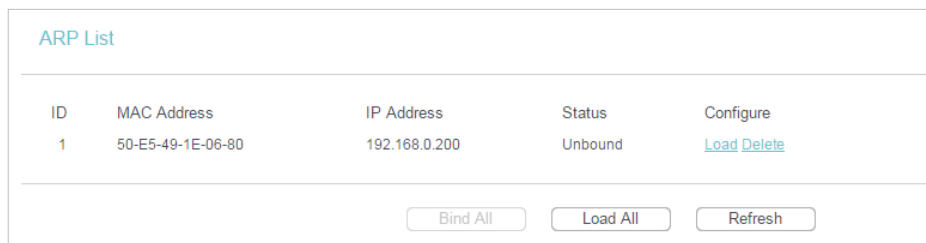
1. Find the desired entry in the table.
2. Click [Modify](#) or [Delete](#) in the Modify column.

➤ **To find an existing entry:**

1. Click [Find](#).
2. Enter the MAC address or IP address in the corresponding field.
3. Click [Find](#) on this page as shown below.

### 4. 13. 2. ARP List

To manage a device, you can observe the device on the LAN by checking its MAC address and IP address on the ARP list, and you can also configure the items. This page displays the ARP list which shows all the existing IP & MAC Binding entries.



ID	MAC Address	IP Address	Status	Configure
1	50-E5-49-1E-06-80	192.168.0.200	Unbound	<a href="#">Load</a> <a href="#">Delete</a>

- **MAC Address** - The MAC address of the listed computer on the LAN.
- **IP Address** - The assigned IP address of the listed computer on the LAN.
- **Status** - Indicates whether or not the MAC and IP addresses are bound.
- **Configure** - Load or delete an item.
  - **Load** - Load the item to the IP & MAC Binding list.
  - **Delete** - Delete the item.
- Click **Bind All** to bind all the current items.
- Click **Load All** to load all items to the IP & MAC Binding list.
- Click **Refresh** to refresh all items.

**Note:**

An item can not be loaded to the IP & MAC Binding list if the IP address of the item has been loaded before. Error warning will prompt as well. Likewise, **Load All** only loads the items without interference to the IP & MAC Binding list.

## 4. 14. Dynamic DNS

The router offers the DDNS (Dynamic Domain Name System) feature, which allows the hosting of a website, FTP server, or e-mail server with a fixed domain name (named by yourself) and a dynamic IP address. Thus your friends can connect to your server by entering your domain name no matter what your IP address is. Before using this feature, you need to sign up for DDNS service providers such as [www.comexe.cn](http://www.comexe.cn),

[www.dyndns.org](http://www.dyndns.org), or [www.noip.com](http://www.noip.com). The Dynamic DNS client service provider will give you a password or key.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.

2. Go to [Dynamic DNS](#).

## Comexe DDNS

If the dynamic DNS Service Provider you select is [www.comexe.cn](http://www.comexe.cn), the following page will appear.

The screenshot shows a web form titled "DDNS" for the service provider "Comexe ( www.comexe.cn )". The form contains the following elements:

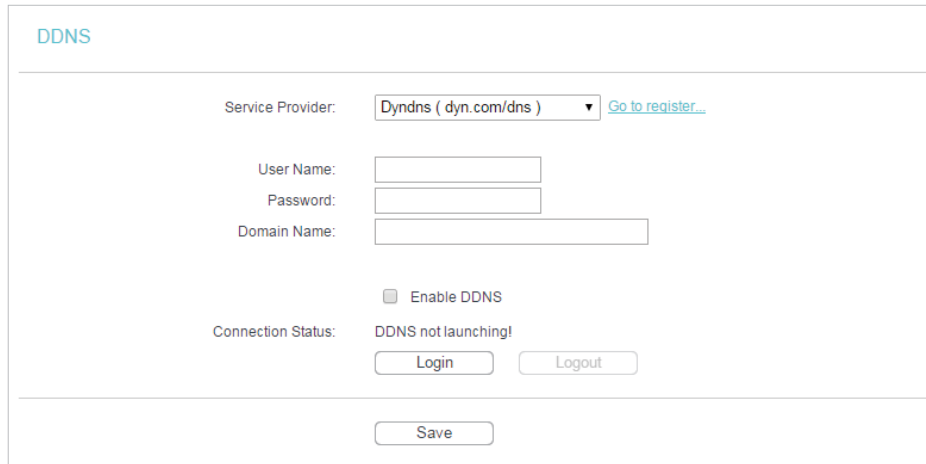
- Service Provider:** A dropdown menu showing "Comexe ( www.comexe.cn )" and a link "Go to register...".
- Domain Name:** Five empty text input fields stacked vertically.
- User Name:** One empty text input field.
- Password:** One empty text input field.
- Enable DDNS:** A checkbox that is currently unchecked.
- Connection Status:** The text "DDNS not launching!" is displayed, with "Login" and "Logout" buttons below it.
- Save:** A "Save" button located at the bottom center of the form.

To set up for DDNS, follow these instructions:

1. Enter the [Domain Name](#) received from your dynamic DNS service provider.
  2. Enter the [User Name](#) for your DDNS account.
  3. Enter the [Password](#) for your DDNS account.
  4. Click [Login](#).
  5. Click [Save](#).
- [Connection Status](#) - The status of the DDNS service connection is displayed here.
  - [Logout](#) - Click [Logout](#) to log out of the DDNS service.

## Dyndns DDNS

If the dynamic DNS Service Provider you select is [www.dyn.com](http://www.dyn.com), the following page will appear.



The screenshot shows a web form titled "DDNS". At the top left, the text "DDNS" is displayed in blue. Below this, the form contains the following elements:

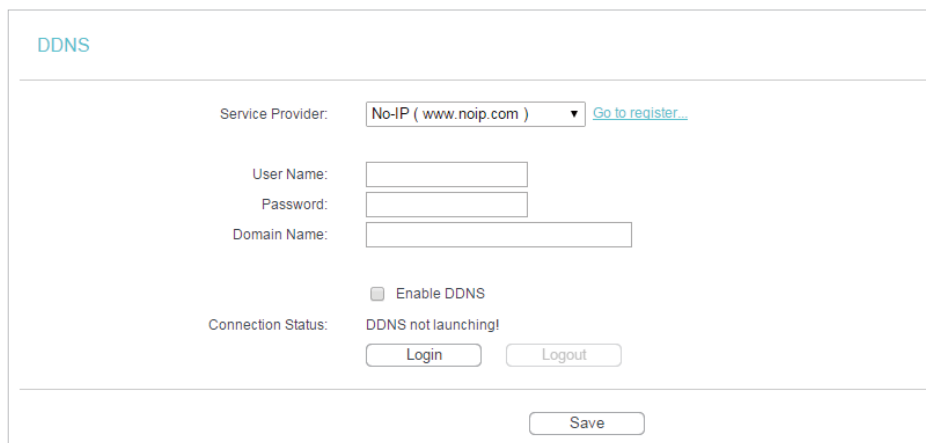
- Service Provider:** A dropdown menu set to "Dyndns ( dyn.com/dns )" with a "Go to register..." link to its right.
- User Name:** A text input field.
- Password:** A text input field.
- Domain Name:** A text input field.
- Enable DDNS:** A checkbox that is currently unchecked.
- Connection Status:** The text "DDNS not launching!".
- Login:** A button.
- Logout:** A button.
- Save:** A button located at the bottom center of the form.

To set up for DDNS, follow these instructions:

1. Enter the [User Name](#) for your DDNS account.
  2. Enter the [Password](#) for your DDNS account.
  3. Enter the [Domain Name](#) you received from dynamic DNS service provider here.
  4. Click [Login](#).
  5. Click [Save](#).
- [Connection Status](#) - The status of the DDNS service connection is displayed here.
  - [Logout](#) - Click [Logout](#) to log out of the DDNS service.

## No-ip DDNS

If the dynamic DNS Service Provider you select is [www.noip.com](http://www.noip.com), the following page will appear.



The screenshot shows a web form titled "DDNS". At the top left, the text "DDNS" is displayed in blue. Below this, the form contains the following elements:

- Service Provider:** A dropdown menu set to "No-IP ( www.noip.com )" with a "Go to register..." link to its right.
- User Name:** A text input field.
- Password:** A text input field.
- Domain Name:** A text input field.
- Enable DDNS:** A checkbox that is currently unchecked.
- Connection Status:** The text "DDNS not launching!".
- Login:** A button.
- Logout:** A button.
- Save:** A button located at the bottom center of the form.

To set up for DDNS, follow these instructions:



1. Enter the [User Name](#) for your DDNS account.
  2. Enter the [Password](#) for your DDNS account.
  3. Enter the [Domain Name](#) you received from dynamic DNS service provider.
  4. Click [Login](#).
  5. Click [Save](#).
- [Connection Status](#) - The status of the DDNS service connection is displayed here.
  - [Logout](#) - Click [Logout](#) to log out of the DDNS service.

## 4. 15. System Tools

### 4. 15. 1. Time Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools](#) > [Time Settings](#) and configure the system time as needed.

**Time Settings**

Time zone: (GMT) Greenwich Mean Time, Dublin, London ▼

Date: 1 / 2 / 2016 (MM/DD/YY)

Time: 1 : 44 : 7 (HH/MM/SS)

NTP Server 1: 0.0.0.0 (Optional)

NTP Server 2: 0.0.0.0 (Optional)

Enable DaylightSaving

Start: 2016 Mar ▼ Last ▼ Sun ▼ 1am ▼

End: 2016 Oct ▼ Last ▼ Sun ▼ 1am ▼

Daylight Saving Status:

Note: Click the "GET GMT" to update the time from the internet with the pre-defined servers or entering the customized server (IP Address or Domain Name) in the above frames.

➤ **To set time manually:**

3. Select your local [time zone](#).
4. Enter the [Date](#) in Month/Day/Year format.
5. Enter the [Time](#) in Hour/Minute/Second format.
6. Click [Save](#).

➤ **To set time automatically:**

7. Select your local [time zone](#).
8. Enter the address or domain of the [NTP Server I](#) or [NTP Server II](#).
9. Click [Get GMT](#) to get time from the Internet if you have connected to the Internet.

➤ **To set Daylight Saving Time:**

1. Select [Enable DaylightSaving](#).
2. Select the start time from the drop-down list in the [Start](#) field.
3. Select the end time from the drop-down list in the [End](#) field.
4. Click [Save](#).

📌 **Note:**

This setting will be used for some time-based functions such as firewall. You must specify your time zone once you log in to the router successfully; otherwise, time-based functions will not take effect.

## 4.15.2. Diagnostic

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

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Diagnostic](#).

**Diagnostic Tools**

---

**Diagnostic Parameters**

Diagnostic Tool:  Ping  Traceroute

IP Address/ Domain Name:

Ping Count:  (1-50)

Ping Packet Size:  (4-1472 Bytes)

Ping Timeout:  (100-2000 Milliseconds)

Traceroute Max TTL:  (1-30)

**Diagnostic Results**

This device is ready.

- **Diagnostic Tool** - Select one diagnostic tool.
  - **Ping** - This diagnostic tool troubleshoots connectivity, reachability, and name resolution to a given host or gateway.
  - **Tracerouter** - This diagnostic tool tests the performance of a connection.

📌 **Note:**

You can use ping/traceroute to test both numeric IP address or domain name. If pinging/tracerouting the IP address is successful, but pinging/tracerouting the domain name is not, you might have a name resolution problem. In this case, ensure that the domain name you are specifying can be resolved by using Domain Name System (DNS) queries.

- **IP Address/Domain Name** - Enter the destination IP address (such as 192.168.0.1) or Domain name (such as www.tp-link.com).
  - **Pings Count** - The number of Ping packets for a Ping connection.
  - **Ping Packet Size** - The size of Ping packet.
  - **Ping Timeout** - Set the waiting time for the reply of each Ping packet. If there is no reply in the specified time, the connection is overtime.
  - **Traceroute Max TTL** - The max number of hops for a Traceroute connection.
3. Click **Start** to check the connectivity of the Internet.
  4. The **Diagnostic Results** page displays the diagnosis result. If the result is similar to the following figure, the connectivity of the Internet is fine.

```

Diagnostic Results
-----
Pinging 192.168.0.1 with 64 bytes of data:

Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=1
Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=2
Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=3
Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=4

Ping statistics for 192.168.0.1
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss)
Approximate round trip times in milliseconds:
Minimum = 1, Maximum = 1, Average = 1

```

**Note:**

Only one user can use this tool at one time. Options "Number of Pings", "Ping Size" and "Ping Timeout" are used for the Ping function. Option "Tracert Hops" is used for the Tracert function.

### 4.15.3. Firmware Upgrade

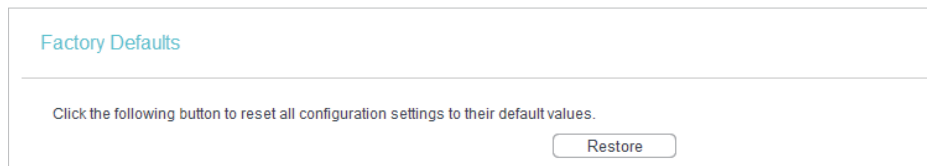
TP-LINK is dedicated to improving and enriching the product features, giving users a better network experience. We will release the latest firmware at TP-LINK official website. You can download the latest firmware file from the [Support](#) page of our website [www.tp-link.com](http://www.tp-link.com) and upgrade the firmware to the latest version.

1. Download the latest firmware file for the router from our website [www.tp-link.com](http://www.tp-link.com).
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
3. Go to **System Tools > Firmware Upgrade**.
4. Click **Browse** to locate the downloaded firmware file, and click **Upgrade**.

The screenshot shows the 'Firmware Upgrade' interface. It includes a 'File:' label followed by a text input field and a 'Browse...' button. Below this, there are labels for 'Firmware Version:' and 'Hardware Version:' with corresponding blurred text. At the bottom of the form is an 'Upgrade' button.

### 4. 15. 4. Factory Defaults

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Factory Defaults](#). Click [Restore](#) to reset all settings to the default values.

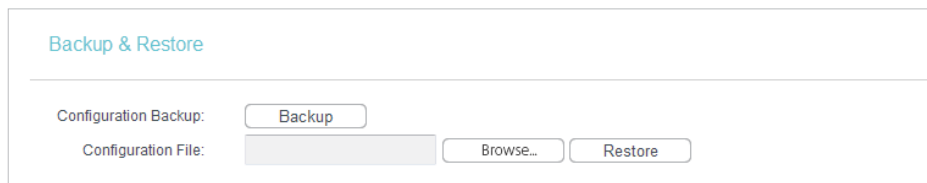


- The default [Username](#): admin
- The default [Password](#): admin
- The default [IP Address](#): 192.168.0.1
- The default [Subnet Mask](#): 255.255.255.0

### 4. 15. 5. Backup & Restore

The configuration settings are stored as a configuration file in the router. You can backup the configuration file in your computer for future use and restore the router to the previous settings from the backup file when needed.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Backup & Restore](#).



➤ **To backup configuration settings:**

Click [Backup](#) to save a copy of the current settings in your local computer. A ".bin" file of the current settings will be stored in your computer.

➤ **To restore configuration settings:**

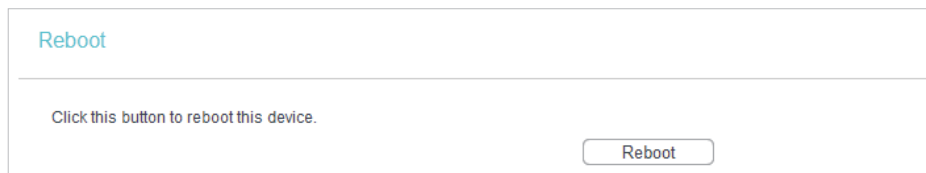
1. Click [Browse...](#) to locate the backup configuration file stored in your computer, and click [Restore](#).
2. Wait a few minutes for the restoring and rebooting.

📌 **Note:**

During the restoring process, do not power off or reset the router.

### 4. 15. 6. Reboot

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Reboot](#), and you can restart your router.



Reboot

Click this button to reboot this device.

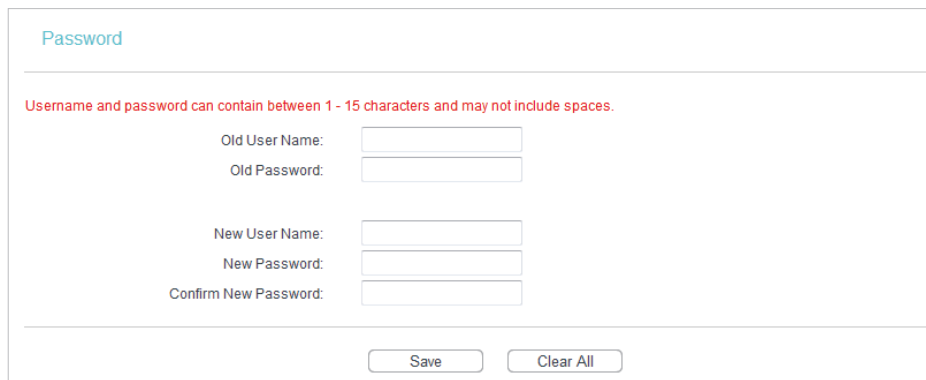
Reboot

Some settings of the router will take effect only after rebooting, including:

- Change the LAN IP Address (system will reboot automatically).
- Change the DHCP Settings.
- Change the Web Management Port.
- Upgrade the firmware of the router (system will reboot automatically).
- Restore the router to its factory defaults (system will reboot automatically).
- Update the configuration with the file (system will reboot automatically).

#### 4.15.7. Password

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools** > **Password**, and you can change the factory default username and password of the router.



Password

Username and password can contain between 1 - 15 characters and may not include spaces.

Old User Name:

Old Password:

New User Name:

New Password:

Confirm New Password:

Save Clear All

It is strongly recommended that you change the default username and password of the router, for all users that try to access the router's web-based utility or Quick Setup will be prompted for the router's username and password.

**Note:**

The new username and password must not exceed 15 characters and not include any spacing.

3. Click **Save**.

## 4. 15. 8. System Log

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > System Log](#), and you can view the logs of the router.

- **Auto Mail Feature** - Indicates whether the auto mail feature is enabled or not.
- **Mail Settings** - Set the receiving and sending mailbox address, server address, validation information as well as the timetable for Auto Mail Feature.

- **From** - Your mail box address. The router will connect it to send logs.
- **To** - Recipient's mail address. The destination mailbox which will receive logs
- **SMTP Server** - Your smtp server. It corresponds with the mailbox filled in the **From** field. You can log on the relevant website for help if you are not clear with the address.

- **Authentication** - Most SMTP Server requires Authentication. It is required by most mailboxes that need user name and password to log in.

**Note:**

Only when you select Authentication, do you have to enter the user name and password in the following fields.

- **User Name** - Your mail account name filled in the From field. The part behind @ is included.
- **Password** - Your mail account password.
- **Confirm The Password** - Enter the password again to confirm.
- **Enable Auto Mail Feature** - Select it to mail logs automatically. You could mail the current logs either at a specified time everyday or by intervals, but only one could be the current effective rule. Enter the desired time or intervals in the corresponding field.

Click **Save** to apply your settings.

Click **Back** to return to the previous page.

- **Log Type** - By selecting the log type, only logs of this type will be shown.
- **Log Level** - By selecting the log level, only logs of this level will be shown.
- **Refresh** - Refresh the page to show the latest log list.
- **Save Log** - Click to save all the logs in a txt file.
- **Mail Log** - Click to send an email of current logs manually according to the address and validation information set in Mail Settings.
- **Clear Log** - All the logs will be deleted from the router permanently, not just from the page.

Click **Next** to go to the next page, or click **Previous** to return to the previous page.

## 4. 15. 9. Statistics

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Statistics**, and you can view the statistics of the router, including total traffic and the value of the last Packet Statistic Interval in seconds.

**Statistics**

Current Statistics Status: **Disabled** Enable

Packets Statistics Interval(5-60):  Seconds Refresh

Auto-refresh

Sorted Rules:  Reset All Delete All

IP Address/ MAC Address	Total		Current			Modify
	Packets	Bytes	Packets	Bytes	ICMP Tx	
The current list is empty.						

5 entries per page. Current No. 1 Page

Previous Next

- **Current Statistics Status** - Enable or Disable. The default value is disabled. To enable, click the Enable button. If disabled, the function of DoS protection in Security settings will be disabled.
- **Packets Statistics Interval (5-60)** - The default value is 10. Select a value between 5 and 60 in the drop-down list. The Packets Statistic Interval indicates the time section of the packets statistic.
- **Sorted Rules** – Choose how displayed statistics are sorted.
- Select **Auto-refresh** to refresh automatically. Click **Refresh** to refresh immediately.
- Click **Reset All** to reset the values of all the entries to zero.
- Click **Delete All** to delete all entries in the table.

## Statistics Table

IP/MAC Address	The IP and MAC address are displayed with related statistics.	
Total	Packets	The total number of packets received and transmitted by the router.
	Bytes	The total number of bytes received and transmitted by the router.
Current	Packets	The total number of packets received and transmitted in the last Packets Statistic interval seconds.
	Bytes	The total number of bytes received and transmitted in the last Packets Statistic interval seconds.
	ICMP Tx	The number of the ICMP packets transmitted to WAN per second at the specified Packets Statistics interval. It is shown like "current transmitting rate / Max transmitting rate".
	UDP Tx	The number of UDP packets transmitted to the WAN per second at the specified Packets Statistics interval. It is shown like "current transmitting rate / Max transmitting rate".
	TCP SYN Tx	The number of TCP SYN packets transmitted to the WAN per second at the specified Packets Statistics interval. It is shown like "current transmitting rate / Max transmitting rate".
Modify	Reset	Reset the value of the entry to zero.
	Delete	Delete the existing entry in the table.

## 4. 16. Logout

Click **Logout** at the bottom of the main menu, and you will log out of the web management page and return to the login window.



## Chapter 5

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# Configure the Router in Access Point Mode

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This chapter presents how to configure the various features of the router working as an Access Point.

It contains the following sections:

- "Status"
- "WPS"
- "Working Mode"
- "Network"
- "Wireless"
- "DHCP"
- "System Tools"
- "Logout"

## 5.1. Status

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Status](#). You can view the current status information of the router in Access Point Mode.

The screenshot displays the 'Status' page of a TP-Link router. It is organized into several sections:

- Status:** Shows Firmware Version and Hardware Version.
- Wired:** Displays MAC Address (00-0A-EB-13-09-19), IP Address (192.168.0.1), and Subnet Mask (255.255.255.0).
- Wireless:** Shows Working Mode (Access Point), Wireless Network Name (TP-LINK\_0919), Channel (Auto (Current channel 1)), Mode, Channel Width (Automatic), Max Tx Rate (300Mbps), and MAC Address (00-0A-EB-13-09-19).
- Traffic Statistics:** A table showing Bytes and Packets Received and Sent, all currently at 0.
- System Up Time:** Shows 0 days 02:43:33 and a Refresh button.

- **Firmware Version** - The version information of the router's firmware.
- **Hardware Version** - The version information of the router's hardware.
- **Wired** - This field displays the current settings of the LAN, and you can configure them on the [Network > LAN](#) page.
  - **MAC address** - The physical address of the router.
  - **IP address** - The LAN IP address of the router.
  - **Subnet Mask** - The subnet mask associated with the LAN IP address.
- **Wireless** - This field displays the basic information or status of the wireless function, and you can configure them on the [Wireless > Wireless Settings](#) page.
  - **Working Mode** - The current wireless working mode in use.
  - **Wireless Network Name** - The SSID of the router.

- **Channel** - The current wireless channel in use.
- **Mode** - The current wireless mode which the router works on.
- **Channel Width** - The current wireless channel width in use.
- **MAC Address** - The physical address of the router.
- **Traffic Statistics** - The router's traffic statistics.
  - **Received (Bytes)** - Traffic in bytes received from the WAN port.
  - **Received (Packets)** - Traffic in packets received from the WAN port.
  - **Sent (Bytes)** - Traffic in bytes sent out from the WAN port.
  - **Sent (Packets)** - Traffic in packets sent out from the WAN port.
- **System Up Time** - The length of the time since the router was last powered on or reset.

Click **Refresh** to get the latest status and settings of the router.

## 5.2. WPS

WPS (Wi-Fi Protected Setup) can help you to quickly and securely connect to a network. This section will guide you to add a new wireless device to your router's network quickly via WPS.

**Note:**

The WPS function cannot be configured if the wireless function of the router is disabled. Please make sure the wireless function is enabled before configuration.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **WPS**.
3. Follow one of the following three methods to connect your client device to the router's Wi-Fi network.

### Method ONE: Press the WPS Button on Your Client Device

1. Keep the WPS Status as **Enabled** and click **Add Device**.

The screenshot shows the WPS (Wi-Fi Protected Setup) configuration page. The page title is "WPS (Wi-Fi Protected Setup)". The SSID is "TP-LINK\_F360". The WPS Status is "Enabled" with a "Disable WPS" button. The Current PIN is "80834601" with "Restore PIN" and "Gen New PIN" buttons. There is a checkbox for "Disable PIN of this device" which is currently unchecked. At the bottom, there is an "Add a new device:" label and an "Add Device" button.

2. Select **Press the button of the new device in two minutes** and click **Connect**.

Add A New Device

Enter the new device's PIN.  
PIN:

Press the button of the new device in two minutes.

Back Connect

3. Within two minutes, press the WPS button on your client device.
4. A success message will appear on the WPS page if the client device has been successfully added to the router's network.

## Method TWO: Enter the Client's PIN

1. Keep the WPS Status as **Enabled** and click **Add Device**.

WPS (Wi-Fi Protected Setup)

SSID: TP-LINK\_F360

WPS Status: Enabled

Current PIN: 80834601

Disable PIN of this device

Add a new device:

2. Select **Enter the new device's PIN**, enter your client device's current PIN in the **PIN** field and click **Connect**.

Add A New Device

Enter the new device's PIN.  
PIN:

Press the button of the new device in two minutes.

Back Connect

3. A success message will appear on the WPS page if the client device has been successfully added to the router's network.

## Method Three: Enter the Router's PIN

1. Keep the WPS Status as **Enabled** and get the **Current PIN** of the router.

WPS (Wi-Fi Protected Setup)

SSID: **TP-LINK\_F360**

WPS Status: **Enabled**

Current PIN: **80834601**

Disable PIN of this device

Add a new device:

2. Enter the router's current PIN on your client device to join the router's Wi-Fi network.

## 5.3. Working Mode

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Working Mode**.
3. Select the working mode as needed and click **Save**.

Working Mode

- Standard Wireless Router** - Enable multiple users to share Internet connection via ADSL/Cable Modem
- Access Point** - Transform your existing wired network to a wireless network
- Repeater** - Extend your existing wireless coverage by relaying wireless signal
- Client** - Acting as a "Wireless Adapter" to connect your wired devices (e.g. Xbox/PS3) to a wireless network
- Hotspot Router** - Enable multiple users to share Internet connection from WISP

## 5.4. Network

### 5.4.1. LAN

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Network > LAN**.
3. Configure the IP parameters of the LAN and click **Save**.

### LAN

---

MAC Address: 00-0A-EB-13-09-19

Type:

IP Address:

Subnet Mask:

Gateway:

Note: The IP parameters cannot be configured if you have chosen Smart IP (DHCP)  
(In this situation the device will help you configure the IP parameters automatically as you need).

---

- **MAC Address** - The physical address of the LAN ports. The value can not be changed.
- **Type** - Either select **Smart IP(DHCP)** to get IP address from DHCP server, or **Static IP** to configure IP address manually.
- **IP Address** - Enter the IP address in dotted-decimal notation if your select **Static IP** (factory default - 192.168.0.254).
- **Subnet Mask** - An address code that determines the size of the network. Normally 255.255.255.0 is used as the subnet mask.
- **Gateway** - The gateway should be in the same subnet as your IP address.

**Note:**

- If you have changed the IP address, you must use the new IP address to login.
- If you select **Smart IP(DHCP)**, the DHCP server of the router will not start up.
- If the new IP address you set is not in the same subnet as the old one, the IP Address pool in the DHCP Server will be configured automatically, but the Virtual Server and DMZ Host will not take effect until they are re-configured.

## 5. 5. Wireless

### 5. 5. 1. Wireless Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Wireless > Wireless Settings**.
3. Configure the basic settings for the wireless network and click **Save**.

Wireless Settings

Wireless Network Name:  (Also called the SSID)

Channel:

Mode:

Channel Width:

Enable Wireless Radio

Enable SSID Broadcast

- **Wireless Network Name** - Enter a string of up to 32 characters. The default SSID is TP-LINK\_XXXX (XXXX indicates the last unique four numbers of each router's MAC address). It is strongly recommended that you change your network name (SSID). This value is case-sensitive. For example, TEST is NOT the same as test.
- **Channel** - This field determines which operating frequency will be used. The default channel is set to **Auto**. It is not necessary to change the wireless channel unless you notice interference problems with another nearby access point.
- **Mode** - Select the desired mode. It is strongly recommended that you keep the default setting **11bgn mixed**, so that all 802.11b/g/n wireless devices can connect to the router.

**Note:**

If 11bg mixed mode is selected, the **Channel Width** field will turn gray and the value will become 20M and cannot be changed.

- **Channel Width** - Select any channel width from the drop-down list. The default setting is **Auto**, which can automatically adjust the channel width for your clients.
- **Enable Wireless Radio** - The wireless radio of the router can be enabled or disabled to allow or deny wireless access. If enabled, the wireless clients will be able to access the router.
- **Enable SSID Broadcast** - If enabled, the router will broadcast the wireless network name (SSID).

## 5.5.2. Wireless Security

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Wireless > Wireless Security**.
3. Configure the security settings of your wireless network and click **Save**.

Wireless Security

Disable Security

WPA/WPA2 - Personal(Recommended)

Version:

Encryption:

Wireless Password:   
(You can enter ASCII characters between 8 and 63 or Hexadecimal characters between 8 and 64.)

Group Key Update Period:  Seconds  
(Keep it default if you are not sure, minimum is 30, 0 means no update)

WPA/WPA2 - Enterprise

Version:

Encryption:

Radius Server IP:

Radius Port:  (1-65535, 0 stands for default port 1812)

Radius Password:

Group Key Update Period:  (in second, minimum is 30, 0 means no update)

WEP

Type:

WEP Key Format:

Key Selected	WEP Key	Key Type
Key 1: <input checked="" type="radio"/>	<input type="text"/>	<input type="text" value="Disabled"/>
Key 2: <input type="radio"/>	<input type="text"/>	<input type="text" value="Disabled"/>
Key 3: <input type="radio"/>	<input type="text"/>	<input type="text" value="Disabled"/>
Key 4: <input type="radio"/>	<input type="text"/>	<input type="text" value="Disabled"/>

- **Disable Security** - The wireless security function can be enabled or disabled. If disabled, wireless clients can connect to the router without a password. It's strongly recommended to choose one of the following modes to enable security.
- **WPA-PSK/WPA2-Personal** - It's the WPA/WPA2 authentication type based on pre-shared passphrase.
  - **Version** - Select **Automatic**, **WPA-PSK** or **WPA2-PSK**.
  - **Encryption** - Select **Automatic**, **TKIP** or **AES**.
  - **Wireless Password** - Enter ASCII or Hexadecimal characters. For Hexadecimal, the length should be between 8 and 64 characters; for ASCII, the length should be between 8 and 63 characters.
  - **Group Key Update Period** - Specify the group key update interval in seconds. The value can be 0 or at least 30. Enter 0 to disable the update.
- **WPA /WPA2-Enterprise** - It's based on Radius Server.
  - **Version** - Select **Automatic**, **WPA** or **WPA2**.
  - **Encryption** - Select **Automatic**, **TKIP** or **AES**.
  - **Radius Server IP** - Enter the IP address of the Radius server.
  - **Radius Port** - Enter the port that Radius server used.
  - **Radius Password** - Enter the password for the Radius server.



- **Group Key Update Period** - Specify the group key update interval in seconds. The value should be 30 or above. Enter 0 to disable the update.
- **WEP** - It is based on the IEEE 802.11 standard.
  - **Type** - The default setting is **Automatic**, which can select Shared Key or Open System authentication type automatically based on the wireless client's capability and request.
  - **WEP Key Format** - Hexadecimal and ASCII formats are provided here. Hexadecimal format stands for any combination of hexadecimal digits (0-9, a-f, A-F) in the specified length. ASCII format stands for any combination of keyboard characters in the specified length.
  - **WEP Key (Password)** - Select which of the four keys will be used and enter the matching WEP key. Make sure these values are identical on all wireless clients in your network.
  - **Key Type** - Select the WEP key length (64-bit, 128-bit or 152-bit) for encryption. **Disabled** means this WEP key entry is invalid.
  - **64-bit** - Enter 10 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 5 ASCII characters.
  - **128-bit** - Enter 26 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 13 ASCII characters.
  - **152-bit** - Enter 32 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 16 ASCII characters.

### 5. 5. 3. Wireless MAC Filtering

Wireless MAC Filtering is used to deny or allow specific wireless client devices to access your network by their MAC addresses.

**I want to:** Deny or allow specific wireless client devices to access my network by their MAC addresses.

*For example,* you want the wireless client A with the MAC address 00-0A-EB-B0-00-0B and the wireless client B with the MAC address 00-0A-EB-00-07-5F to access the router, but other wireless clients cannot access the router

**How can I do that?**

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Wireless > Wireless MAC Filtering**.
3. Click **Enable** to enable the Wireless MAC Filtering function.

4. Select [Allow the stations specified by any enabled entries in the list to access](#) as the filtering rule.
5. Delete all or disable all entries if there are any entries already.
6. Click [Add New](#) and fill in the blank.

Add or Modify Wireless MAC Address Filtering entry

---

MAC Address:   
 Description:   
 Status:

- 1) Enter the MAC address 00-0A-EB-B0-00-0B/00-0A-EB-00-07-5F in the MAC Address field.
  - 2) Enter wireless client A/B in the Description field.
  - 3) Select [Enabled](#) in the Status drop-down list.
  - 4) Click [Save](#) and click [Back](#).
7. The configured filtering rules should be listed as the picture shows below.

**Filtering Rules**

Deny the stations specified by any enabled entries in the list to access.  
 Allow the stations specified by any enabled entries in the list to access.

ID	MAC Address	Status	Description	Modify
1	00-0A-EB-B0-00-0B	Enabled	Client A	<a href="#">Modify</a> <a href="#">Delete</a>
2	00-0A-EB-00-07-5F	Enabled	Client B	<a href="#">Modify</a> <a href="#">Delete</a>

**Done!**

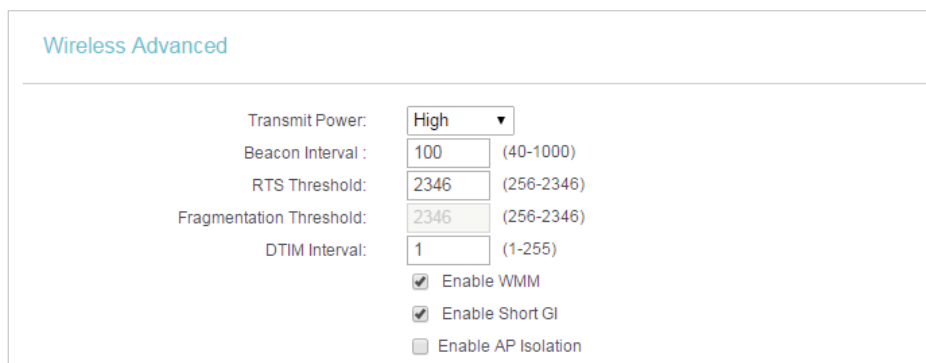
Now only client A and client B can access your network.

#### 5.5.4. Wireless Advanced

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless > Wireless Advanced](#).
3. Configure the advanced settings of your wireless network and click [Save](#).

**Note:**

If you are not familiar with the setting items on this page, it's strongly recommended to keep the provided default values; otherwise it may result in lower wireless network performance.



Wireless Advanced

Transmit Power: High

Beacon Interval : 100 (40-1000)

RTS Threshold: 2346 (256-2346)

Fragmentation Threshold: 2346 (256-2346)

DTIM Interval: 1 (1-255)

Enable WMM

Enable Short GI

Enable AP Isolation

- **Transmit Power** - Select **High**, **Middle** or **Low** which you would like to specify for the router. **High** is the default setting and recommended.
- **Beacon Interval** - Enter a value between 40-1000 milliseconds for Beacon Interval here. Beacon Interval value determines the time interval of the beacons. The beacons are the packets sent by the router to synchronize a wireless network. The default value is 100.
- **RTS Threshold** - Here you can specify the RTS (Request to Send) Threshold. If the packet is larger than the specified RTS Threshold size, the router will send RTS frames to a particular receiving station and negotiate the sending of a data frame. The default value is 2346.
- **Fragmentation Threshold** - This value is the maximum size determining whether packets will be fragmented. Setting a low value for the Fragmentation Threshold may result in poor network performance because of excessive packets. 2346 is the default setting and is recommended.
- **DTIM Interval** - This value determines the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the router has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. You can specify the value between 1-255 Beacon Intervals. The default value is 1, which indicates the DTIM Interval is the same as Beacon Interval.
- **Enable WMM** - WMM function can guarantee the packets with high-priority messages being transmitted preferentially. It is strongly recommended to enable this function.
- **Enable Short GI** - It is recommended to enable this function, for it will increase the data capacity by reducing the guard interval time.
- **Enable AP Isolation** - This function isolates all connected wireless stations so that wireless stations cannot access each other through WLAN. This function will be disabled if WDS/Bridge is enabled.

### 5.5.5. Wireless Statistics

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.

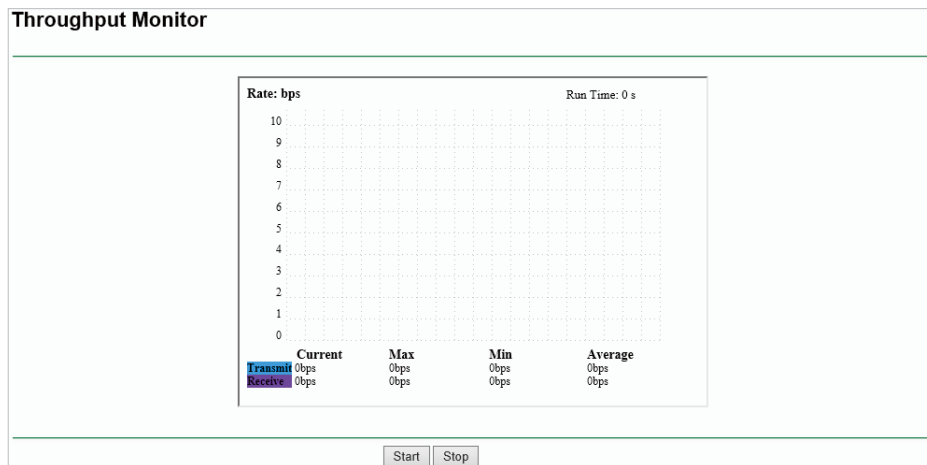
- Go to [Wireless > Wireless Statistics](#) to check the data packets sent and received by each client device connected to the router.

Wireless Statistics					
Current Connected Wireless Stations numbers: <b>1</b> <input type="button" value="Refresh"/>					
ID	MAC Address	Current Status	Received Packets	Sent Packets	Configure
1	D0-51-62-27-C0-42	WPA2-PSK	65	33	<input type="button" value="Deny"/>
<input type="button" value="Previous"/> <input type="button" value="Next"/>					

- **MAC Address** - The MAC address of the connected wireless client.
- **Current Status** - The running status of the connected wireless client.
- **Received Packets** - Packets received by the wireless client.
- **Sent Packets** - Packets sent by the wireless client.
- **Configure** - The button is used for loading the item to the Wireless MAC Filtering list.
  - **Allow** - If the Wireless MAC Filtering function is enabled, click this button to allow the client to access your network.
  - **Deny** - If the Wireless MAC Filtering function is enabled, click this button to deny the client to access your network.

### 5.5.6. Throughput Monitor

- Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
- Go to [Wireless > Throughput Monitor](#) to view the wireless throughput information.



- **Rate** - The Throughput unit.
- **Run Time** - How long this function is running.
- **Transmit** - Wireless transmit rate information.
- **Receive** - Wireless receive rate information.

Click [Start/Stop](#) to start or stop wireless throughput monitor.

## 5.6. DHCP

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

### 5.6.1. DHCP Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [DHCP > DHCP Settings](#).
3. Specify DHCP server settings and click [Save](#).

DHCP Settings

DHCP Server:  Disable  Enable

Start IP Address:

End IP Address:

Address Lease Time:  minutes (1~2880 minutes, the default value is 120)

Default Gateway:

Default Domain:  (Optional)

Primary DNS:  (Optional)

Secondary DNS:  (Optional)

- **DHCP Server** - Enable or disable the DHCP server. If disabled, you must have another DHCP server within your network or else you must configure the computer manually.
- **Start IP Address** - Specify an IP address for the DHCP Server to start with when assigning IP addresses. 192.168.0.100 is the default start address.
- **End IP Address** - Specify an IP address for the DHCP Server to end with when assigning IP addresses. 192.168.0.199 is the default end address.
- **Address Lease Time** - The Address Lease Time is the amount of time a network user will be allowed to connect to the router with the current dynamic IP Address. When time is up, the user will be automatically assigned a new dynamic IP address. The range of the time is 1 ~ 2880 minutes. The default value is 120.
- **Default Gateway (Optional)** - It is suggested to input the IP address of the LAN port of the router. The default value is 192.168.0.254.
- **Default Domain (Optional)** - Input the domain name of your network.
- **Primary DNS (Optional)** - Input the DNS IP address provided by your ISP.

- **Secondary DNS (Optional)** - Input the IP address of another DNS server if your ISP provides two DNS servers.

**Note:**

- To use the DHCP server function of the router, you must configure all computers on the LAN as **Obtain an IP Address automatically**.
- When you choose **Smart IP (DHCP)** in **Network > LAN**, the DHCP Server function will be disabled. You will see the page as below.

### DHCP Settings

---

DHCP Server:  Disable  Enable

Start IP Address:

End IP Address:

Address Lease Time:  minutes (1~2880 minutes, the default value is 1 min)

Default Gateway:  (Optional)

Default Domain:  (Optional)

Primary DNS:  (Optional)

Secondary DNS:  (Optional)

---

## 5.6.2. DHCP Client List

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **DHCP > DHCP Client List** to view the information of the clients connected to the router.

### DHCP Client List

ID	Client Name	MAC Address	Assigned IP	Lease Time
1	...	...	192.168.0.100	01:22:00
2	...	...	192.168.0.101	01:55:07

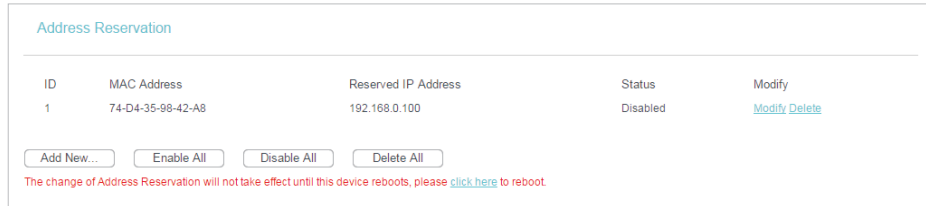
- **Client Name** - The name of the DHCP client.
- **MAC Address** - The MAC address of the DHCP client.
- **Assigned IP** - The IP address that the router has allocated to the DHCP client.
- **Lease Time** - The time of the DHCP client leased. After the dynamic IP address has expired, a new dynamic IP address will be automatically assigned to the user.

You cannot change any of the values on this page. To update this page and show the current attached devices, click **Refresh**.

### 5.6.3. Address Reservation

You can reserve an IP address for a specific client. When you specify a reserved IP address for a PC on the LAN, this PC will always receive the same IP address each time when it accesses the DHCP server.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **DHCP > Address Reservation**.
3. Click **Add New** and fill in the blank.



ID	MAC Address	Reserved IP Address	Status	Modify
1	74-D4-35-98-42-A8	192.168.0.100	Disabled	<a href="#">Modify</a> <a href="#">Delete</a>

[Add New...](#) [Enable All](#) [Disable All](#) [Delete All](#)

The change of Address Reservation will not take effect until this device reboots, please [click here](#) to reboot.

- 1) Enter the MAC address (in XX-XX-XX-XX-XX-XX format.) of the client for which you want to reserve an IP address.
- 2) Enter the IP address (in dotted-decimal notation) which you want to reserve for the client.
- 3) Leave the **Status** as **Enabled**.
- 4) Click **Save**.

## 5.7. System Tools

### 5.7.1. Diagnostic

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

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Diagnostic**.

The screenshot shows a web interface titled "Diagnostic Tools". Under the "Diagnostic Parameters" section, there are two radio buttons for "Diagnostic Tool": "Ping" (selected) and "Traceroute". Below this are several input fields with their respective values and ranges:

- IP Address/ Domain Name: [Empty text box]
- Ping Count: [4] (1-50)
- Ping Packet Size: [64] (4-1472 Bytes)
- Ping Timeout: [800] (100-2000 Milliseconds)
- Traceroute Max TTL: [20] (1-30)

Under the "Diagnostic Results" section, there is a dashed box containing the text: "This device is ready."

- **Diagnostic Tool** - Select one diagnostic tool.
  - **Ping** - This diagnostic tool troubleshoots connectivity, reachability, and name resolution to a given host or gateway.
  - **Tracerouter** - This diagnostic tool tests the performance of a connection.

**Note:**

You can use ping/traceroute to test both numeric IP address or domain name. If pinging/tracerouting the IP address is successful, but pinging/tracerouting the domain name is not, you might have a name resolution problem. In this case, ensure that the domain name you are specifying can be resolved by using Domain Name System (DNS) queries.

- **IP Address/Domain Name** - Enter the destination IP address (such as 192.168.0.1) or Domain name (such as www.tp-link.com).
  - **Pings Count** - The number of Ping packets for a Ping connection.
  - **Ping Packet Size** - The size of Ping packet.
  - **Ping Timeout** - Set the waiting time for the reply of each Ping packet. If there is no reply in the specified time, the connection is overtime.
  - **Traceroute Max TTL** - The max number of hops for a Traceroute connection.
3. Click **Start** to check the connectivity of the Internet.
  4. The **Diagnostic Results** page displays the diagnosis result. If the result is similar to the following figure, the connectivity of the Internet is fine.



```

Diagnostic Results
-----
Pinging 192.168.0.1 with 64 bytes of data:

Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=1
Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=2
Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=3
Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=4

Ping statistics for 192.168.0.1
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss)
Approximate round trip times in milliseconds:
Minimum = 1, Maximum = 1, Average = 1

```

**Note:**

Only one user can use this tool at one time. Options "Number of Pings", "Ping Size" and "Ping Timeout" are used for the Ping function. Option "Tracert Hops" is used for the Tracert function.

### 5.7.2. Ping Watch Dog

The Ping Watch Dog is dedicated for continuous monitoring of the particular connection to remote host using the Ping tool. It makes the router continuously ping a user defined IP address (it can be the Internet gateway for example). If it is unable to ping under the user defined constraints, the router will automatically reboot.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Ping Watch Dog**. Configure the settings and click **Save**.

**Ping Watch Dog Utility**

---

Enable:

IP Address:

Interval:  (10-300) seconds

Delay:  (60-300) seconds

Fail Count:  (1-65535)

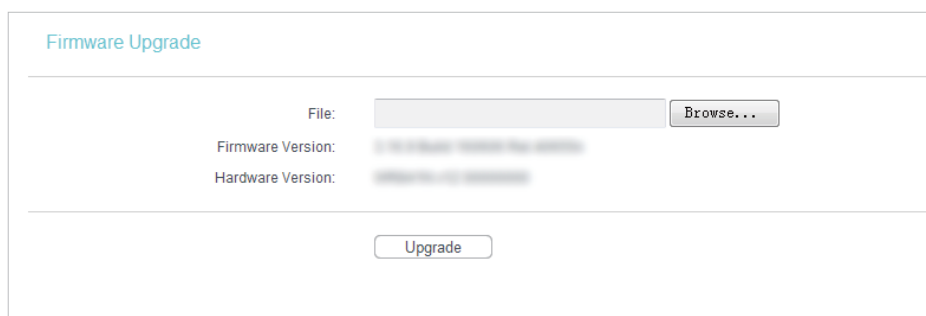
---

- **Enable** - Turn on/off Ping Watch Dog.
- **IP Address** - The IP address of the target host where the Ping Watch Dog Utility is sending ping packets.
- **Interval** - Time interval between two ping packets which are sent out continuously.
- **Delay** - Time delay before first ping packet is sent out when the router is restarted.
- **Fail Count** - Upper limit of the ping packets the router can drop continuously. If this value is overrun, the router will restart automatically.

### 5.7.3. Firmware Upgrade

TP-LINK is dedicated to improving and enriching the product features, giving users a better network experience. We will release the latest firmware at TP-LINK official website. You can download the latest firmware file from the [Support](#) page of our website [www.tp-link.com](http://www.tp-link.com) and upgrade the firmware to the latest version.

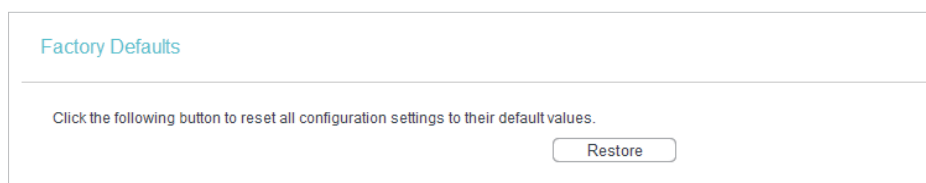
1. Download the latest firmware file for the router from our website [www.tp-link.com](http://www.tp-link.com).
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
3. Go to [System Tools > Firmware Upgrade](#).
4. Click [Browse](#) to locate the downloaded firmware file, and click [Upgrade](#).



The screenshot shows the 'Firmware Upgrade' page. At the top, the title 'Firmware Upgrade' is displayed. Below the title, there is a 'File:' label followed by a text input field and a 'Browse...' button. Underneath, the 'Firmware Version:' and 'Hardware Version:' labels are shown, with their respective values blurred. At the bottom of the page, there is an 'Upgrade' button.

### 5.7.4. Factory Defaults

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Factory Defaults](#). Click [Restore](#) to reset all settings to the default values.



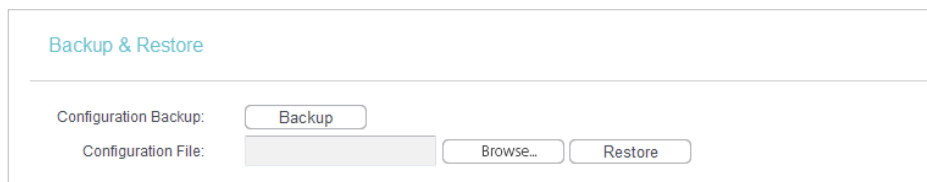
The screenshot shows the 'Factory Defaults' page. At the top, the title 'Factory Defaults' is displayed. Below the title, there is a message: 'Click the following button to reset all configuration settings to their default values.' At the bottom of the page, there is a 'Restore' button.

- The default [Username](#): admin
- The default [Password](#): admin
- The default [IP Address](#): 192.168.0.254
- The default [Subnet Mask](#): 255.255.255.0

### 5.7.5. Backup & Restore

The configuration settings are stored as a configuration file in the router. You can backup the configuration file in your computer for future use and restore the router to the previous settings from the backup file when needed.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Backup & Restore](#).



- To backup configuration settings:

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

- To restore configuration settings:

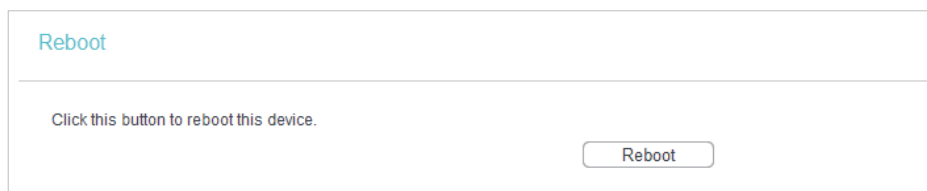
1. Click **Choose File** to locate the backup configuration file stored in your computer, and click **Restore**.
2. Wait a few minutes for the restoring and rebooting.

**Note:**

During the restoring process, do not power off or reset the router.

### 5.7.6. Reboot

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Reboot**, and you can restart your router.



Some settings of the router will take effect only after rebooting, including:

- Change the LAN IP Address (system will reboot automatically).
- Change the DHCP Settings.
- Change the Working Modes.
- Change the Web Management Port.
- Upgrade the firmware of the router (system will reboot automatically).
- Restore the router to its factory defaults (system will reboot automatically).
- Update the configuration with the file (system will reboot automatically).

### 5.7.7. Password

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Password**, and you can change the factory default username and password of the router.

Password

Username and password can contain between 1 - 15 characters and may not include spaces.

Old User Name:

Old Password:

New User Name:

New Password:

Confirm New Password:

Save Clear All

It is strongly recommended that you change the default username and password of the router, for all users that try to access the router's web-based utility or Quick Setup will be prompted for the router's username and password.

**Note:**

The new username and password must not exceed 15 characters and not include any spacing.

3. Click [Save](#).

### 5.7.8. System Log

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > System Log](#), and you can view the logs of the router.

System Log

Auto Mail Feature: **Disabled** [Mail Settings](#)

Log Type: ALL Log Level: ALL

Log is Empty.

Time =   
H-Ver = : S-Ver =   
L = 192.168.0.118 : M = 255.255.255.0   
W1 = DHCP : W = 0.0.0.0 : M = 0.0.0.0 : G = 0.0.0.0

Refresh Save Log Mail Log Clear Log

Previous Next Current No. 1 Page

- [Auto Mail Feature](#) - Indicates whether the auto mail feature is enabled or not.
- [Mail Settings](#) - Set the receiving and sending mailbox address, server address, validation information as well as the timetable for Auto Mail Feature.

The screenshot shows a web form titled "Mail Account Settings". It has the following elements:

- Input fields for "From:", "To:", and "SMTP Server:".
- A checked checkbox labeled "Authentication".
- Input fields for "User Name:", "Password:", and "Confirm The Password:".
- A section for "Enable Auto Mail Feature" with two radio button options:
  - Selected: "Everyday, mail the log at 18 : 00 (HH:MM)"
  - Unselected: "Mail the log every 48 hours"
- "Save" and "Back" buttons at the bottom.

- **From** - Your mail box address. The router will connect it to send logs.
- **To** - Recipient's mail address. The destination mailbox which will receive logs.
- **SMTP Server** - Your smtp server. It corresponds with the mailbox filled in the **From** field. You can log on the relevant website for help if you are not clear with the address.
- **Authentication** - Most SMTP Server requires Authentication. It is required by most mailboxes that need user name and password to log in.

**Note:**

Only when you select Authentication, do you have to enter the user name and password in the following fields.

- **User Name** - Your mail account name filled in the From field. The part behind @ is included.
- **Password** - Your mail account password.
- **Confirm The Password** - Enter the password again to confirm.
- **Enable Auto Mail Feature** - Select it to mail logs automatically. You could mail the current logs either at a specified time everyday or by intervals, but only one could be the current effective rule. Enter the desired time or intervals in the corresponding field.

Click **Save** to apply your settings.

Click **Back** to return to the previous page.

- **Log Type** - By selecting the log type, only logs of this type will be shown.
- **Log Level** - By selecting the log level, only logs of this level will be shown.
- **Refresh** - Refresh the page to show the latest log list.

- [Save Log](#) - Click to save all the logs in a txt file.
- [Mail Log](#) - Click to send an email of current logs manually according to the address and validation information set in Mail Settings.
- [Clear Log](#) - All the logs will be deleted from the router permanently, not just from the page.

Click [Next](#) to go to the next page, or click [Previous](#) to return to the previous page.

## 5. 8. Logout

Click [Logout](#) at the bottom of the main menu, and you will log out of the web page and return to the login window.

## Chapter 6

---

# Configure the Router in Range Extender Mode

---

This chapter presents how to configure the various features of the router working as a Range Extender.

This chapter contains the following sections:

- "Status"
- "Working Mode"
- "Network"
- "Wireless"
- "DHCP"
- "System Tools"
- "Logout"

## 6.1. Status

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Status](#). You can view the current status information of the router in Range Extender Mode.

**Status**

---

Firmware Version: XXXXXXXXXX  
Hardware Version: XXXXXXXXXX

---

**Wired**

MAC Address: 00-0A-EB-13-09-19  
IP Address: 192.168.0.1  
Subnet Mask: 255.255.255.0

---

**Wireless**

Working Mode: **WDS Repeater**  
Wireless Name of Root AP:  
Channel: 1  
Mode:  
Channel Width: Automatic  
Max Tx Rate: 300Mbps  
MAC Address: 00-0A-EB-13-09-19  
Repeater Status: Init...

---

**Traffic Statistics**

	Received	Sent
Bytes:	0	0
Packets:	0	0

---

System Up Time: 0 days 00:17:18 Refresh

- **Firmware Version** - The version information of the router's firmware.
- **Hardware Version** - The version information of the router's hardware.
- **Wired** - This field displays the current settings of the LAN, and you can configure them on the [Network > LAN](#) page.
  - **MAC address** - The physical address of the router.
  - **IP address** - The LAN IP address of the router.
  - **Subnet Mask** - The subnet mask associated with the LAN IP address.
- **Wireless** - This field displays the basic information or status of the wireless function, and you can configure them on the [Wireless > Wireless Settings](#) page.
  - **Working Mode** - The current operation mode in use.
  - **Wireless Name of Root AP** - The SSID of the root router.



- **Channel** - The current wireless channel in use.
- **Mode** - The current wireless working mode in use.
- **Channel Width** - The current wireless channel width in use.
- **MAC Address** - The physical address of the router.
- **Traffic Statistics** - The router's traffic statistics.
  - **Received (Bytes)** - Traffic in bytes received from the WAN port.
  - **Received (Packets)** - Traffic in packets received from the WAN port.
  - **Sent (Bytes)** - Traffic in bytes sent out from the WAN port.
  - **Sent (Packets)** - Traffic in packets sent out from the WAN port.
- **System Up Time** - The length of the time since the router was last powered on or reset.

Click **Refresh** to get the latest status and settings of the router.

## 6.2. Working Mode

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Working Mode**.
3. Select the working mode as needed and click **Save**.

Working Mode	
<input type="radio"/> <b>Standard Wireless Router</b>	- Enable multiple users to share Internet connection via ADSL/Cable Modem
<input type="radio"/> <b>Access Point</b>	- Transform your existing wired network to a wireless network
<input checked="" type="radio"/> <b>Repeater</b>	- Extend your existing wireless coverage by relaying wireless signal
<input type="radio"/> <b>Client</b>	- Acting as a "Wireless Adapter" to connect your wired devices (e.g. Xbox/PS3) to a wireless network
<input type="radio"/> <b>Hotspot Router</b>	- Enable multiple users to share Internet connection from WISP

## 6.3. Network

### 6.3.1. LAN

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Network > LAN**.
3. Configure the IP parameters of the LAN and click **Save**.

### LAN

---

MAC Address: 00-0A-EB-13-09-19

Type:

IP Address:

Subnet Mask:

Gateway:

Note: The IP parameters cannot be configured if you have chosen Smart IP (DHCP)  
(In this situation the device will help you configure the IP parameters automatically as you need).

---

- **MAC Address** - The physical address of the LAN ports. The value can not be changed.
- **Type** - Either select **Smart IP(DHCP)** to get IP address from DHCP server, or **Static IP** to configure IP address manually.
- **IP Address** - Enter the IP address in dotted-decimal notation if your select **Static IP** (factory default - 192.168.0.254).
- **Subnet Mask** - An address code that determines the size of the network. Normally 255.255.255.0 is used as the subnet mask.
- **Gateway** - The gateway should be in the same subnet as your IP address.
- **Allow remote access** - Allow remote devices to access the router by inputting the IP address in browser.

■ **Note:**

- If you have changed the IP address, you must use the new IP address to login.
- If you select **Smart IP(DHCP)**, the DHCP server of the router will not start up.
- If the new IP address you set is not in the same subnet as the old one, the IP Address pool in the DHCP Server will be configured automatically, but the Virtual Server and DMZ Host will not take effect until they are re-configured.

## 6. 4. Wireless

### 6. 4. 1. Wireless Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Wireless > Wireless Settings**.

3. Configure the basic settings for the wireless network and click [Save](#).

- [Wireless Name of Root AP](#) - The SSID of AP that you want to connect to.
- [MAC Address of Root AP](#) - The MAC address of AP that you want to connect to.
- [Mode](#) - Select the desired mode. It is strongly recommended that you keep the default setting [11bgn mixed](#), so that all 802.11b/g/n wireless devices can connect to the router.

**Note:**

If 11bg mixed mode is selected, the [Channel Width](#) field will turn grey and the value will become 20M, and cannot be changed.

- [Channel Width](#) - Select any channel width from the drop-down list. The default setting is [Auto](#), which can automatically adjust the channel width for your clients.
- [WDS Mode](#) - This field determines which WDS Mode will be used. It is not necessary to change the WDS mode unless you notice network communication problems with root AP. If you select [Auto](#), then router will choose the appropriate WDS mode automatically.
- [Enable Wireless Router Radio](#) - The wireless radio of the router can be enabled or disabled to allow or deny wireless access. If enabled, the wireless clients will be able to access the router.
- [Survey](#) - Click this button, and the [AP List](#) page will appear. Find the SSID of the Access Point you want to connect to, and click [Connect](#) in the corresponding row. The target network's SSID and MAC address will be automatically filled into the corresponding box.

AP List

AP Count: 43

ID	BSSID	SSID	Signal	Channel	Security	Choose
1	88-63-DF-93-9E-E5	mengmeng	40dB	11	WPA2-PSK	<a href="#">Connect</a>
2	00-0A-EB-42-52-35	TP-LINK_5235	40dB	10	WPA2-PSK	<a href="#">Connect</a>
3	40-16-9F-70-B0-C4	TP-LINK_B0C4	39dB	2	WPA2-PSK	<a href="#">Connect</a>
4	00-0A-EB-13-01-01	TP-LINK_0101	38dB	1	WPA-PSK/WPA2-PSK	<a href="#">Connect</a>
5	88-63-DF-96-A1-61	TP-LINK_0303	37dB	11	WPA2-PSK	<a href="#">Connect</a>
6	88-63-DF-96-A2-23	â**jâœœ%çœ:â**	37dB	11	WPA2-PSK	<a href="#">Connect</a>

## 6.4.2. Wireless Security

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless > Wireless Security](#).
3. Configure the security settings of your wireless network and click [Save](#).

Wireless Security

Disable Security

WPA/WPA2 - Personal(Recommended)

Version:

Encryption:

Wireless Password:   
(You can enter ASCII characters between 8 and 63 or Hexadecimal characters between 8 and 64.)

Group Key Update Period:  Seconds  
(Keep it default if you are not sure, minimum is 30, 0 means no update)

WPA/WPA2 - Enterprise

Version:

Encryption:

Radius Server IP:

Radius Port:  (1-65535, 0 stands for default port 1812)

Radius Password:

Group Key Update Period:  (in second, minimum is 30, 0 means no update)

WEP

Type:

WEP Key Format:

Key Selected	WEP Key	Key Type
Key 1: <input checked="" type="radio"/>	<input type="text"/>	<input type="text" value="Disabled"/>
Key 2: <input type="radio"/>	<input type="text"/>	<input type="text" value="Disabled"/>
Key 3: <input type="radio"/>	<input type="text"/>	<input type="text" value="Disabled"/>
Key 4: <input type="radio"/>	<input type="text"/>	<input type="text" value="Disabled"/>

- **Disable Security** - The wireless security function can be enabled or disabled. If disabled, wireless clients can connect to the router without a password. It's strongly recommended to choose one of the following modes to enable security.
- **WPA-PSK/WPA2-Personal** - It's the WPA/WPA2 authentication type based on pre-shared passphrase.
  - **Version** - Select **Automatic**, **WPA-PSK** or **WPA2-PSK**.
  - **Encryption** - Select **Automatic**, **TKIP** or **AES**.
  - **Wireless Password** - Enter ASCII or Hexadecimal characters. For Hexadecimal, the length should be between 8 and 64 characters; for ASCII, the length should be between 8 and 63 characters.
  - **Group Key Update Period** - Specify the group key update interval in seconds. The value can be 0 or at least 30. Enter 0 to disable the update.
- **WPA /WPA2-Enterprise** - It's based on Radius Server.
  - **Version** - Select **Automatic**, **WPA** or **WPA2**.

- **Encryption** - Select **Automatic**, **TKIP** or **AES**.
- **Radius Server IP** - Enter the IP address of the Radius server.
- **Radius Port** - Enter the port that Radius server used.
- **Radius Password** - Enter the password for the Radius server.
- **Group Key Update Period** - Specify the group key update interval in seconds. The value should be 30 or above. Enter 0 to disable the update.
- **WEP** - It is based on the IEEE 802.11 standard.
  - **Type** - The default setting is **Automatic**, which can select Shared Key or Open System authentication type automatically based on the wireless client's capability and request.
  - **WEP Key Format** - Hexadecimal and ASCII formats are provided here. Hexadecimal format stands for any combination of hexadecimal digits (0-9, a-f, A-F) in the specified length. ASCII format stands for any combination of keyboard characters in the specified length.
  - **WEP Key (Password)** - Select which of the four keys will be used and enter the matching WEP key. Make sure these values are identical on all wireless clients in your network.
  - **Key Type** - Select the WEP key length (64-bit, 128-bit or 152-bit) for encryption. **Disabled** means this WEP key entry is invalid.
  - **64-bit** - Enter 10 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 5 ASCII characters.
  - **128-bit** - Enter 26 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 13 ASCII characters.
  - **152-bit** - Enter 32 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 16 ASCII characters.

### 6.4.3. Wireless MAC Filtering

Wireless MAC Filtering is used to deny or allow specific wireless client devices to access your network by their MAC addresses.

**I want to:** Deny or allow specific wireless client devices to access my network by their MAC addresses.

**How can I do that?** **For example**, you want the wireless client A with the MAC address 00-0A-EB-B0-00-0B and the wireless client B with the MAC address 00-0A-EB-00-07-5F to access the router, but other wireless clients cannot access the router

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.

2. Go to [Wireless > Wireless MAC Filtering](#).
3. Click [Enable](#) to enable the Wireless MAC Filtering function.
4. Select [Allow the stations specified by any enabled entries in the list to access](#) as the filtering rule.
5. Delete all or disable all entries if there are any entries already.
6. Click [Add New](#) and fill in the blank.

Add or Modify Wireless MAC Address Filtering entry

---

MAC Address:

Description:

Status:  ▼

- 1) Enter the MAC address 00-0A-EB-B0-00-0B/00-0A-EB-00-07-5F in the MAC Address field.
  - 2) Enter wireless client A/B in the Description field.
  - 3) Leave the status as [Enabled](#).
  - 4) Click [Save](#) and click [Back](#).
7. The configured filtering rules should be listed as the picture shows below.

**Filtering Rules**

Deny the stations specified by any enabled entries in the list to access.

Allow the stations specified by any enabled entries in the list to access.

ID	MAC Address	Status	Description	Modify
1	00-0A-EB-B0-00-0B	Enabled	Client A	<a href="#">Modify</a> <a href="#">Delete</a>
2	00-0A-EB-00-07-5F	Enabled	Client B	<a href="#">Modify</a> <a href="#">Delete</a>

[Add New...](#)
[Enable All](#)
[Disable All](#)
[Delete All](#)

[Previous](#)
[Next](#)

**Done!**

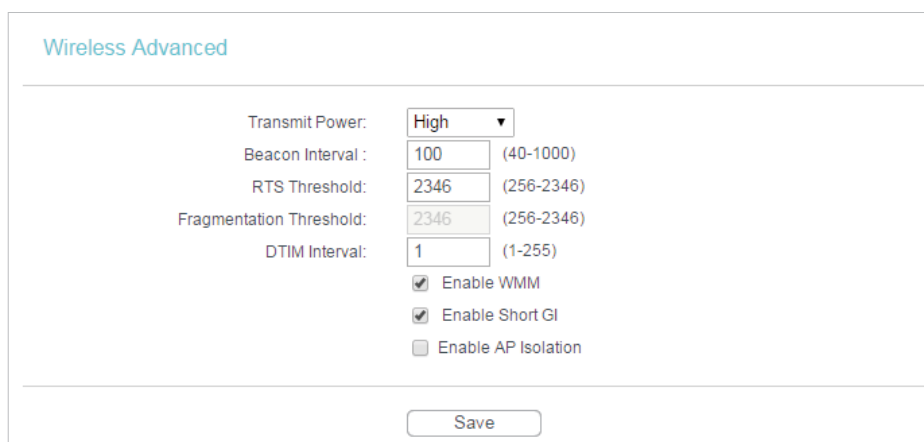
Now only client A and client B can access your network.

#### 6. 4. 4. Wireless Advanced

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless > Wireless Advanced](#).
3. Configure the advanced settings of your wireless network and click [Save](#).

**Note:**

If you are not familiar with the setting items on this page, it's strongly recommended to keep the provided default values; otherwise it may result in lower wireless network performance.



The screenshot shows the 'Wireless Advanced' configuration page. It contains the following settings:

Setting	Value	Range
Transmit Power:	High	
Beacon Interval :	100	(40-1000)
RTS Threshold:	2346	(256-2346)
Fragmentation Threshold:	2346	(256-2346)
DTIM Interval:	1	(1-255)

Below the settings are three checkboxes:

- Enable WMM
- Enable Short GI
- Enable AP Isolation

A 'Save' button is located at the bottom of the page.

- **Transmit Power** - Select **High**, **Middle** or **Low** which you would like to specify for the router. **High** is the default setting and recommended.
- **Beacon Interval** - Enter a value between 40-1000 milliseconds for Beacon Interval here. Beacon Interval value determines the time interval of the beacons. The beacons are the packets sent by the Router to synchronize a wireless network. The default value is 100.
- **RTS Threshold** - Here you can specify the RTS (Request to Send) Threshold. If the packet is larger than the specified RTS Threshold size, the Router will send RTS frames to a particular receiving station and negotiate the sending of a data frame. The default value is 2346.
- **Fragmentation Threshold** - This value is the maximum size determining whether packets will be fragmented. Setting a low value for the Fragmentation Threshold may result in poor network performance because of excessive packets. 2346 is the default setting and is recommended.
- **DTIM Interval** - This value determines the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the Router has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. You can specify the value between 1-255 Beacon Intervals. The default value is 1, which indicates the DTIM Interval is the same as Beacon Interval.
- **Enable WMM** - WMM function can guarantee the packets with high-priority messages being transmitted preferentially. It is strongly recommended to enable this function.
- **Enable Short GI** - It is recommended to enable this function, for it will increase the data capacity by reducing the guard interval time.
- **Enable AP Isolation** - This function isolates all connected wireless stations so that wireless stations cannot access each other through WLAN. This function will be disabled if WDS/Bridge is enabled.

### 6.4.5. Wireless Statistics

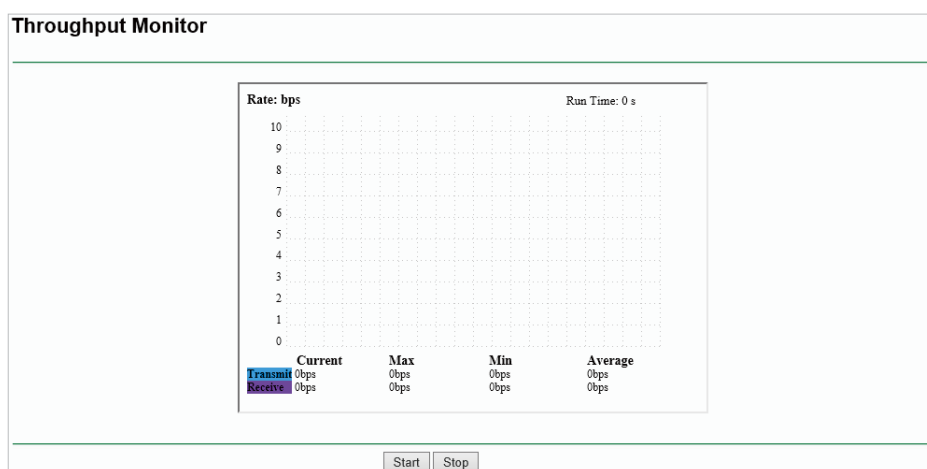
1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless > Wireless Statistics](#) to check the data packets sent and received by each client device connected to the router.

Wireless Statistics					
Current Connected Wireless Stations numbers: <b>1</b> <input type="button" value="Refresh"/>					
ID	MAC Address	Current Status	Received Packets	Sent Packets	Configure
1	D0-51-62-27-C0-42	WPA2-PSK	65	33	<input type="button" value="Deny"/>
<input type="button" value="Previous"/> <input type="button" value="Next"/>					

- **MAC Address** - The MAC address of the connected wireless client.
- **Current Status** - The running status of the connected wireless client.
- **Received Packets** - Packets received by the wireless client.
- **Sent Packets** - Packets sent by the wireless client.
- **Configure** - The button is used for loading the item to the Wireless MAC Filtering list.
  - **Allow** - If the Wireless MAC Filtering function is enabled, click this button to allow the client to access your network.
  - **Deny** - If the Wireless MAC Filtering function is enabled, click this button to deny the client to access your network.

### 6.4.6. Throughput Monitor

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless > Throughput Monitor](#) to view the wireless throughput information.



- **Rate** - The Throughput unit.
- **Run Time** - How long this function is running.



- **Transmit** - Wireless transmit rate information.
- **Receive** - Wireless receive rate information.

Click **Start/Stop** to start or stop wireless throughput monitor.

## 6.5. DHCP

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

### 6.5.1. DHCP Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **DHCP > DHCP Settings**.
3. Specify DHCP server settings and click **Save**.

**DHCP Settings**

---

DHCP Server:  Disable  Enable

Start IP Address:

End IP Address:

Address Lease Time:  minutes (1~2880 minutes, the default value is 1 minute)

Default Gateway:  (Optional)

Default Domain:  (Optional)

Primary DNS:  (Optional)

Secondary DNS:  (Optional)

Note: The DHCP Settings function cannot be configured if you have chosen Smart IP (DHCP) in **Network->LAN** (in this situation the device will help you configure the DHCP automatically as you need).

---

- **DHCP Server** - Enable or disable the DHCP server. If disabled, you must have another DHCP server within your network or else you must configure the computer manually.
- **Start IP Address** - Specify an IP address for the DHCP Server to start with when assigning IP addresses. 192.168.0.100 is the default start address.
- **End IP Address** - Specify an IP address for the DHCP Server to end with when assigning IP addresses. 192.168.0.199 is the default end address.
- **Address Lease Time** - The Address Lease Time is the amount of time a network user will be allowed to connect to the router with the current dynamic IP Address. When time is up, the user will be automatically assigned a new dynamic IP address. The range of the time is 1 ~ 2880 minutes. The default value is 120.

- **Default Gateway (Optional)** - It is suggested to input the IP address of the LAN port of the router. The default value is 192.168.0.254.
- **Default Domain (Optional)** - Input the domain name of your network.
- **Primary DNS (Optional)** - Input the DNS IP address provided by your ISP.
- **Secondary DNS (Optional)** - Input the IP address of another DNS server if your ISP provides two DNS servers.

**Note:**

- To use the DHCP server function of the router, you must configure all computers on the LAN as [Obtain an IP Address automatically](#).
- When you choose [Static IP](#) in [Network > LAN](#), the DHCP Server function will be disabled.

### 6.5.2. DHCP Client List

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [DHCP > DHCP Client List](#) to view the information of the clients connected to the router.

DHCP Client List				
ID	Client Name	MAC Address	Assigned IP	Lease Time
1	192.168.0.100	08:00:27:12:34:56	192.168.0.100	01:22:00
2	192.168.0.101	08:00:27:12:34:57	192.168.0.101	01:55:07

- **Client Name** - The name of the DHCP client.
- **MAC Address** - The MAC address of the DHCP client.
- **Assigned IP** - The IP address that the router has allocated to the DHCP client.
- **Lease Time** - The time of the DHCP client leased. After the dynamic IP address has expired, a new dynamic IP address will be automatically assigned to the user.

You cannot change any of the values on this page. To update this page and show the current attached devices, click [Refresh](#).

### 6.5.3. Address Reservation

You can reserve an IP address for a specific client. When you specify a reserved IP address for a PC on the LAN, this PC will always receive the same IP address each time when it accesses the DHCP server.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [DHCP > Address Reservation](#).

3. Click **Add New** and fill in the blank.

The screenshot shows the 'Address Reservation' interface. It contains a table with the following data:

ID	MAC Address	Reserved IP Address	Status	Modify
1	74-D4-35-98-42-A8	192.168.0.100	Disabled	<a href="#">Modify</a> <a href="#">Delete</a>

Below the table are four buttons: 'Add New...', 'Enable All', 'Disable All', and 'Delete All'. A red warning message at the bottom states: 'The change of Address Reservation will not take effect until this device reboots, please [click here](#) to reboot.'

- 1) Enter the MAC address (in XX-XX-XX-XX-XX-XX format.) of the client for which you want to reserve an IP address.
- 2) Enter the IP address (in dotted-decimal notation) which you want to reserve for the client.
- 3) Leave the status as **Enabled**.
- 4) Click **Save**.

## 6. 6. System Tools

### 6. 6. 1. Diagnostic

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

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Diagnostic**.

The screenshot shows the 'Diagnostic Tools' interface. Under 'Diagnostic Parameters', there are the following settings:

- Diagnostic Tool:**  Ping  Traceroute
- IP Address/ Domain Name:**
- Ping Count:**  (1-50)
- Ping Packet Size:**  (4-1472 Bytes)
- Ping Timeout:**  (100-2000 Milliseconds)
- Traceroute Max TTL:**  (1-30)

Under 'Diagnostic Results', there is a dashed box containing the text: 'This device is ready.'

At the bottom of the page is a 'Start' button.

- **Diagnostic Tool** - Select one diagnostic tool.
  - **Ping** - This diagnostic tool troubleshoots connectivity, reachability, and name resolution to a given host or gateway.
  - **Tracerouter** - This diagnostic tool tests the performance of a connection.

**Note:**

You can use ping/traceroute to test both numeric IP address or domain name. If pinging/tracerouting the IP address is successful, but pinging/tracerouting the domain name is not, you might have a name resolution problem. In this case, ensure that the domain name you are specifying can be resolved by using Domain Name System (DNS) queries.

- **IP Address/Domain Name** - Enter the destination IP address (such as 192.168.0.1) or Domain name (such as www.tp-link.com).
  - **Pings Count** - The number of Ping packets for a Ping connection.
  - **Ping Packet Size** - The size of Ping packet.
  - **Ping Timeout** - Set the waiting time for the reply of each Ping packet. If there is no reply in the specified time, the connection is overtime.
  - **Traceroute Max TTL** - The max number of hops for a Traceroute connection.
3. Click **Start** to check the connectivity of the Internet.
  4. The **Diagnostic Results** page displays the diagnosis result. If the result is similar to the following figure, the connectivity of the Internet is fine.

```

Diagnostic Results
-----
Pinging 192.168.0.1 with 64 bytes of data:

Reply from 192.168.0.1: bytes=64 time=1    TTL=64 seq=1
Reply from 192.168.0.1: bytes=64 time=1    TTL=64 seq=2
Reply from 192.168.0.1: bytes=64 time=1    TTL=64 seq=3
Reply from 192.168.0.1: bytes=64 time=1    TTL=64 seq=4

Ping statistics for 192.168.0.1
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss)
Approximate round trip times in milliseconds:
  Minimum = 1, Maximum = 1, Average = 1
  
```

**Note:**

Only one user can use this tool at one time. Options "Number of Pings", "Ping Size" and "Ping Timeout" are used for the Ping function. Option "Tracert Hops" is used for the Tracert function.

## 6.6.2. Ping Watch Dog

The Ping Watch Dog is dedicated for continuous monitoring of the particular connection to remote host using the Ping tool. It makes the router continuously ping a user defined IP address (it can be the internet gateway for example). If it is unable to ping under the user defined constraints, the router will automatically reboot.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.

2. Go to **System Tools > Ping Watch Dog**. Configure the settings and click **Save**.

**Ping Watch Dog Utility**

Enable:

IP Address:

Interval:  (10-300) seconds

Delay:  (60-300) seconds

Fail Count:  (1-65535)

- **Enable** - Turn on/off Ping Watch Dog.
- **IP Address** - The IP address of the target host where the Ping Watch Dog Utility is sending ping packets.
- **Interval** - Time interval between two ping packets which are sent out continuously.
- **Delay** - Time delay before first ping packet is sent out when the router is restarted.
- **Fail Count** - Upper limit of the ping packets the router can drop continuously. If this value is overrun, the router will restart automatically.

### 6.6.3. Firmware Upgrade

TP-LINK is dedicated to improving and enriching the product features, giving users a better network experience. We will release the latest firmware at TP-LINK official website. You can download the latest firmware file from the **Support** page of our website [www.tp-link.com](http://www.tp-link.com) and upgrade the firmware to the latest version.

1. Download the latest firmware file for the router from our website [www.tp-link.com](http://www.tp-link.com).
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
3. Go to **System Tools > Firmware Upgrade**.
4. Click **Browse** to locate the downloaded firmware file, and click **Upgrade**.

**Firmware Upgrade**

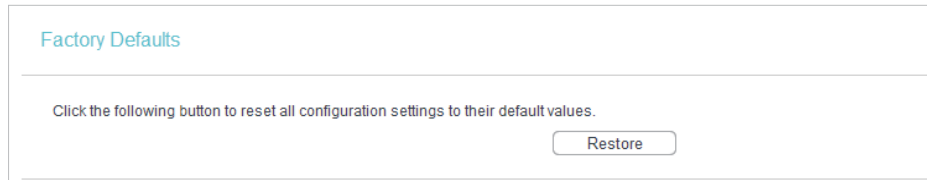
File:

Firmware Version:

Hardware Version:

### 6.6.4. Factory Defaults

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Factory Defaults](#). Click [Restore](#) to reset all settings to the default values.

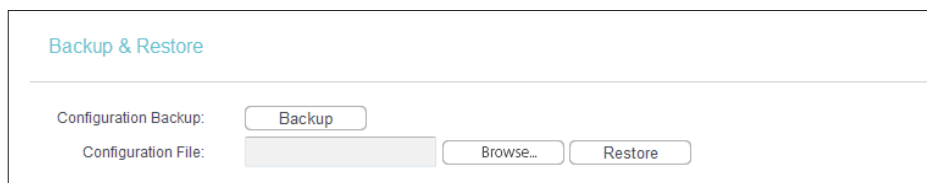


- The default **Username**: admin
- The default **Password**: admin
- The default **IP Address**: 192.168.0.254
- The default **Subnet Mask**: 255.255.255.0

### 6.6.5. Backup & Restore

The configuration settings are stored as a configuration file in the router. You can backup the configuration file in your computer for future use and restore the router to the previous settings from the backup file when needed.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Backup & Restore](#).



#### á To backup configuration settings:

Click [Backup](#) to save a copy of the current settings in your local computer. A ".bin" file of the current settings will be stored in your computer.

#### á To restore configuration settings:

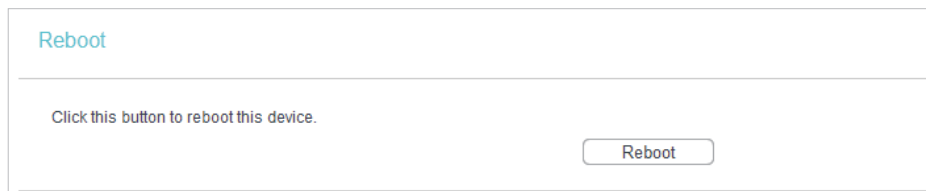
1. Click [Choose File](#) to locate the backup configuration file stored in your computer, and click [Restore](#).
2. Wait a few minutes for the restoring and rebooting.

#### 📌 Note:

During the restoring process, do not power off or reset the router.

### 6.6.6. Reboot

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Reboot](#), and you can restart your router.



Reboot

Click this button to reboot this device.

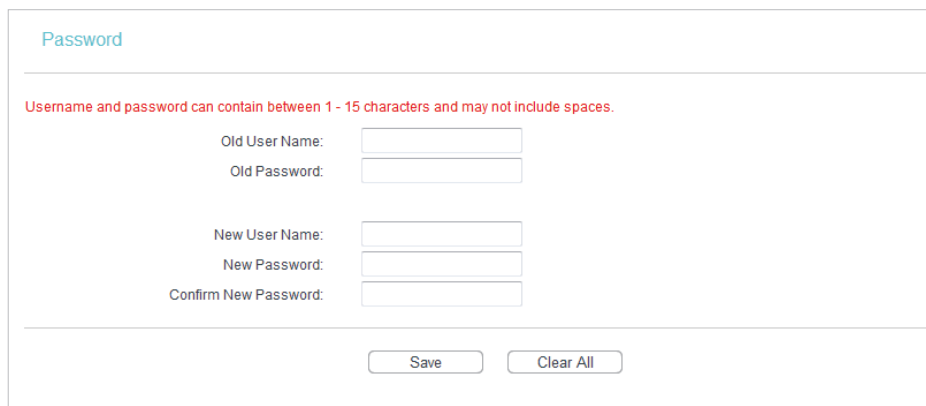
Reboot

Some settings of the router will take effect only after rebooting, including:

- Change the LAN IP Address (system will reboot automatically).
- Change the DHCP Settings.
- Change the Working Modes.
- Change the Web Management Port.
- Upgrade the firmware of the router (system will reboot automatically).
- Restore the router to its factory defaults (system will reboot automatically).
- Update the configuration with the file (system will reboot automatically).

### 6.6.7. Password

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools** > **Password**, and you can change the factory default username and password of the router.



Password

Username and password can contain between 1 - 15 characters and may not include spaces.

Old User Name:

Old Password:

New User Name:

New Password:

Confirm New Password:

Save Clear All

It is strongly recommended that you change the default username and password of the router, for all users that try to access the router's web-based utility or Quick Setup will be prompted for the router's username and password.

**Note:**

The new username and password must not exceed 15 characters and not include any spacing.

3. Click **Save**.

## 6.6.8. System Log

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > System Log](#), and you can view the logs of the router.

- **Auto Mail Feature** - Indicates whether the auto mail feature is enabled or not.
- **Mail Settings** - Set the receiving and sending mailbox address, server address, validation information as well as the timetable for Auto Mail Feature.

- **From** - Your mail box address. The router will connect it to send logs.
- **To** - Recipient's mail address. The destination mailbox which will receive logs.
- **SMTP Server** - Your smtp server. It corresponds with the mailbox filled in the **From** field. You can log on the relevant website for help if you are not clear with the address.



- **Authentication** - Most SMTP Server requires Authentication. It is required by most mailboxes that need user name and password to log in.

■ **Note:**

Only when you select Authentication, do you have to enter the user name and password in the following fields.

- **User Name** - Your mail account name filled in the From field. The part behind @ is included.
- **Password** - Your mail account password.
- **Confirm The Password** - Enter the password again to confirm.
- **Enable Auto Mail Feature** - Select it to mail logs automatically. You could mail the current logs either at a specified time everyday or by intervals, but only one could be the current effective rule. Enter the desired time or intervals in the corresponding field.

Click **Save** to apply your settings.

Click **Back** to return to the previous page.

- **Log Type** - By selecting the log type, only logs of this type will be shown.
- **Log Level** - By selecting the log level, only logs of this level will be shown.
- **Refresh** - **Refresh** the page to show the latest log list.
- **Save Log** - Click to save all the logs in a txt file.
- **Mail Log** - Click to send an email of current logs manually according to the address and validation information set in Mail Settings.
- **Clear Log** - All the logs will be deleted from the router permanently, not just from the page.

Click **Next** to go to the next page, or click **Previous** to return to the previous page.

## 6.7. Logout

Click **Logout** at the bottom of the main menu, and you will log out of the web page and return to the login window.

## Chapter 7

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# Configure the Router in Client Mode

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This chapter presents how to configure the various features of the router working as a client.

This chapter contains the following sections:

- [Status](#)
- [Working Mode](#)
- [Network](#)
- [Wireless](#)
- [DHCP](#)
- [System Tools](#)
- [Logout](#)

## 7.1. Status

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Status](#). You can view the current status information of the router in Client Mode.

Status		
Firmware Version:	3.16.9 Build 160729 Rel.64608n	
Hardware Version:	WR810N v3 00000000	
Wired		
MAC Address:	00-0A-EB-13-09-19	
IP Address:	192.168.0.254	
Subnet Mask:	255.255.255.0	
Wireless		
Working Mode:	<b>Client</b>	
Wireless Name of Root AP:	TP-LINK_0101	
Channel:	1	
Mode:	11bgn mixed	
Channel Width:	Automatic	
Max Tx Rate:	300Mbps	
MAC Address:	00-0A-EB-13-09-19	
Traffic Statistics		
	Received	Sent
Bytes:	0	0
Packets:	0	0
System Up Time:	0 days 00:06:01	
	<input type="button" value="Refresh"/>	

- **Firmware Version** - The version information of the router's firmware.
- **Hardware Version** - The version information of the router's hardware.
- **Wired** - This field displays the current settings of the LAN, and you can configure them on the [Network > LAN](#) page.
  - **MAC address** - The physical address of the router.
  - **IP address** - The LAN IP address of the router.
  - **Subnet Mask** - The subnet mask associated with the LAN IP address.
- **Wireless** - This field displays the basic information or status of the wireless function, and you can configure them on the [Wireless > Wireless Settings](#) page.
  - **Working Mode** - The current wireless working mode in use.
  - **Wireless Name of Root AP** - The SSID of the root router.
  - **Channel** - The current wireless channel in use.
  - **Mode** - The current wireless mode which the router works on.
  - **Channel Width** - The current wireless channel width in use.
  - **MAC Address** - The physical address of the router.
- **Traffic Statistics** - The router's traffic statistics.

- **Received (Bytes)** - Traffic in bytes received from the WAN port.
- **Received (Packets)** - Traffic in packets received from the WAN port.
- **Sent (Bytes)** - Traffic in bytes sent out from the WAN port.
- **Sent (Packets)** - Traffic in packets sent out from the WAN port.
- **System Up Time** - The length of the time since the router was last powered on or reset.

Click [Refresh](#) to get the latest status and settings of the router.

## 7.2. Working Mode

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Working Mode](#).
3. Select the working mode as needed and click [Save](#).

Working Mode

- Standard Wireless Router** - Enable multiple users to share Internet connection via ADSL/Cable Modem
- Access Point** - Transform your existing wired network to a wireless network
- Repeater** - Extend your existing wireless coverage by relaying wireless signal
- Client** - Acting as a "Wireless Adapter" to connect your wired devices (e.g. Xbox/PS3) to a wireless network
- Hotspot Router** - Enable multiple users to share Internet connection from WISP

[Save](#)

## 7.3. Network

### 7.3.1. LAN

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Network](#) > [LAN](#).
3. Configure the IP parameters of the LAN and click [Save](#).

LAN

MAC Address: 00-0A-EB-13-09-19

Type:

IP Address:

Subnet Mask:

Gateway:

Note: The IP parameters cannot be configured if you have chosen Smart IP (DHCP)  
(In this situation the device will help you configure the IP parameters automatically as you need).

[Save](#)

- **MAC Address** - The physical address of the LAN ports. The value can not be changed.
- **Type** - Either select **Smart IP(DHCP)** to get IP address from DHCP server, or **Static IP** to configure IP address manually.
- **IP Address** - Enter the IP address in dotted-decimal notation if your select **Static IP** (factory default - 192.168.0.254).
- **Subnet Mask** - An address code that determines the size of the network. Normally 255.255.255.0 is used as the subnet mask.
- **Gateway** - The gateway should be in the same subnet as your IP address.
- **Allow remote access** - Allow remote devices to access the router by inputting the IP address in browser.

■ **Note:**

1. If you have changed the IP address, you must use the new IP address to login.
2. If you select **Smart IP(DHCP)**, the DHCP server of the router will not start up.
3. If the new IP address you set is not in the same subnet as the old one, the IP Address pool in the DHCP Server will be configured automatically, but the Virtual Server and DMZ Host will not take effect until they are re-configured.

## 7.4. Wireless

### 7.4.1. Wireless Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Wireless > Wireless Settings**.
3. Configure the basic settings for the wireless network and click **Save**.

- **Enable WDS** - If your host AP supports WDS well, please enable this option. If WDS is enabled, all traffic from wired networks will be forwarded in the format of WDS frames consisting of four address fields. If WDS is disabled, three address frames are used.
- **Wireless Name of Root AP** - Enter the SSID of the AP that you want to access.
- **MAC Address of Root AP** - Enter the MAC address of the AP that you want to access.
- **Survey** - Click this button, and the **AP List** page will appear. Find the SSID of the Access Point you want to connect to, and click **Connect** in the corresponding row. The target network's SSID and MAC address will be automatically filled into the corresponding box.

AP List

AP Count: 44

ID	BSSID	SSID	Signal	Channel	Security	Choose
1	00-0A-EB-25-02-96	TP-LINK_0296	52dB	6	WPA-PSK/WPA2-PSK	<a href="#">Connect</a>
2	00-0A-EB-11-22-EE	EVERBEST	51dB	10	WPA2-PSK	<a href="#">Connect</a>
3	40-16-9F-00-00-61	TP-LINK_0061	51dB	7	WPA2-PSK	<a href="#">Connect</a>
4	74-DE-AD-FA-7F-89	chenalshi2.4GHz	50dB	2	None	<a href="#">Connect</a>
5	00-0A-EB-13-01-01	TP-LINK_0101	45dB	1	WPA-PSK/WPA2-PSK	<a href="#">Connect</a>
6	88-83-DF-96-A1-61	TP-LINK_0303	44dB	11	WPA2-PSK	<a href="#">Connect</a>

## 7.4.2. Wireless Security

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless > Wireless Security](#).
3. Configure the security settings of your wireless network and click [Save](#).

Wireless Security

Disable Security

WPA/WPA2 - Personal(Recommended)

Version:

Encryption:

Wireless Password:

(You can enter ASCII characters between 8 and 63 or Hexadecimal characters between 8 and 64.)

Group Key Update Period:  Seconds  
(Keep it default if you are not sure, minimum is 30, 0 means no update)

WPA/WPA2 - Enterprise

Version:

Encryption:

Radius Server IP:

Radius Port:  (1-65535, 0 stands for default port 1812)

Radius Password:

Group Key Update Period:  (in second, minimum is 30, 0 means no update)

WEP

Type:

WEP Key Format:

Key Selected	WEP Key	Key Type
Key 1: <input type="radio"/>	<input type="text"/>	<input type="text" value="Disabled"/>
Key 2: <input type="radio"/>	<input type="text"/>	<input type="text" value="Disabled"/>
Key 3: <input type="radio"/>	<input type="text"/>	<input type="text" value="Disabled"/>
Key 4: <input type="radio"/>	<input type="text"/>	<input type="text" value="Disabled"/>

- **Disable Security** - The wireless security function can be enabled or disabled. If disabled, wireless clients can connect to the router without a password. It's strongly recommended to choose one of the following modes to enable security.
- **WPA-PSK/WPA2-Personal** - It's the WPA/WPA2 authentication type based on pre-shared passphrase.
  - **Version** - Select [Automatic](#), [WPA-PSK](#) or [WPA2-PSK](#).
  - **Encryption** - Select [Automatic](#), [TKIP](#) or [AES](#).

- **Wireless Password** - Enter ASCII or Hexadecimal characters. For Hexadecimal, the length should be between 8 and 64 characters; for ASCII, the length should be between 8 and 63 characters.
- **Group Key Update Period** - Specify the group key update interval in seconds. The value can be 0 or at least 30. Enter 0 to disable the update.
- **WPA /WPA2-Enterprise** - It's based on Radius Server.
  - **Version** - Select **Automatic**, **WPA** or **WPA2**.
  - **Encryption** - Select **Automatic**, **TKIP** or **AES**.
  - **Radius Server IP** - Enter the IP address of the Radius server.
  - **Radius Port** - Enter the port that Radius server used.
  - **Radius Password** - Enter the password for the Radius server.
  - **Group Key Update Period** - Specify the group key update interval in seconds. The value should be 30 or above. Enter 0 to disable the update.
- **WEP** - It is based on the IEEE 802.11 standard.
  - **Type** - The default setting is **Automatic**, which can select Shared Key or Open System authentication type automatically based on the wireless client's capability and request.
  - **WEP Key Format** - Hexadecimal and ASCII formats are provided here. Hexadecimal format stands for any combination of hexadecimal digits (0-9, a-f, A-F) in the specified length. ASCII format stands for any combination of keyboard characters in the specified length.
  - **WEP Key (Password)** - Select which of the four keys will be used and enter the matching WEP key. Make sure these values are identical on all wireless clients in your network.
  - **Key Type** - Select the WEP key length (64-bit, 128-bit or 152-bit) for encryption. **Disabled** means this WEP key entry is invalid.
  - **64-bit** - Enter 10 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 5 ASCII characters.
  - **128-bit** - Enter 26 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 13 ASCII characters.
  - **152-bit** - Enter 32 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 16 ASCII characters.

### 7.4.3. Wireless MAC Filtering

Wireless MAC Filtering is used to deny or allow specific wireless client devices to access your network by their MAC addresses.

**I want to:** Deny or allow specific wireless client devices to access my

network by their MAC addresses.

For example, you want the wireless client A with the MAC address 00-0A-EB-B0-00-0B and the wireless client B with the MAC address 00-0A-EB-00-07-5F to access the router, but other wireless clients cannot access the router

## How can I do that?

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless > Wireless MAC Filtering](#).
3. Click [Enable](#) to enable the Wireless MAC Filtering function.
4. Select [Allow the stations specified by any enabled entries in the list to access](#) as the filtering rule.
5. Delete all or disable all entries if there are any entries already.
6. Click [Add New](#) and fill in the blank.

- 1) Enter the MAC address 00-0A-EB-B0-00-0B/00-0A-EB-00-07-5F in the MAC Address field.
  - 2) Enter wireless client A/B in the Description field.
  - 3) Select [Enabled](#) in the Status drop-down list.
  - 4) Click [Save](#) and click [Back](#).
7. The configured filtering rules should be listed as the picture shows below.

ID	MAC Address	Status	Description	Modify
1	00-0A-EB-B0-00-0B	Enabled	Client A	<a href="#">Modify</a> <a href="#">Delete</a>
2	00-0A-EB-00-07-5F	Enabled	Client B	<a href="#">Modify</a> <a href="#">Delete</a>

**Done!**

Now only client A and client B can access your network.

### 7.4.4. Wireless Advanced

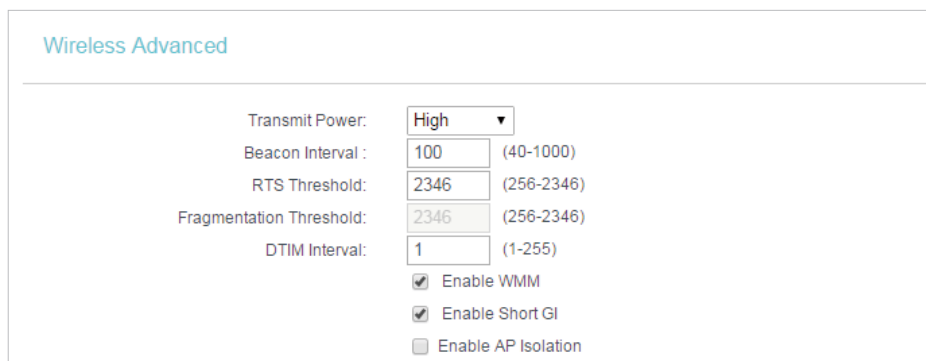
1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless > Wireless Advanced](#).



### 3. Configure the advanced settings of your wireless network and click [Save](#).

#### Note:

If you are not familiar with the setting items on this page, it's strongly recommended to keep the provided default values; otherwise it may result in lower wireless network performance.



Transmit Power:	High	
Beacon Interval :	100	(40-1000)
RTS Threshold:	2346	(256-2346)
Fragmentation Threshold:	2346	(256-2346)
DTIM Interval:	1	(1-255)
	<input checked="" type="checkbox"/>	Enable WMM
	<input checked="" type="checkbox"/>	Enable Short GI
	<input type="checkbox"/>	Enable AP Isolation

- **Transmit Power** - Select **High**, **Middle** or **Low** which you would like to specify for the router. **High** is the default setting and recommended.
- **Beacon Interval** - Enter a value between 40-1000 milliseconds for Beacon Interval here. Beacon Interval value determines the time interval of the beacons. The beacons are the packets sent by the router to synchronize a wireless network. The default value is 100.
- **RTS Threshold** - Here you can specify the RTS (Request to Send) Threshold. If the packet is larger than the specified RTS Threshold size, the router will send RTS frames to a particular receiving station and negotiate the sending of a data frame. The default value is 2346.
- **Fragmentation Threshold** - This value is the maximum size determining whether packets will be fragmented. Setting a low value for the Fragmentation Threshold may result in poor network performance because of excessive packets. 2346 is the default setting and is recommended.
- **DTIM Interval** - This value determines the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the router has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. You can specify the value between 1-255 Beacon Intervals. The default value is 1, which indicates the DTIM Interval is the same as Beacon Interval.
- **Enable WMM** - WMM function can guarantee the packets with high-priority messages being transmitted preferentially. It is strongly recommended to enable this function.
- **Enable Short GI** - It is recommended to enable this function, for it will increase the data capacity by reducing the guard interval time.
- **Enable AP Isolation** - This function isolates all connected wireless stations so that wireless stations cannot access each other through WLAN. This function will be disabled if WDS/Bridge is enabled.

### 7.4.5. Wireless Statistics

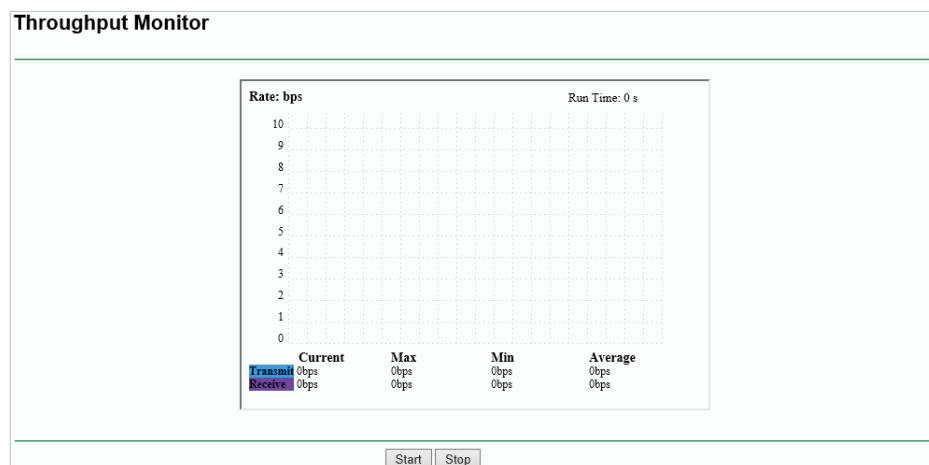
1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless > Wireless Statistics](#) to check the data packets sent and received by each client device connected to the router.

Wireless Statistics					
Current Connected Wireless Stations numbers: <b>1</b> <input type="button" value="Refresh"/>					
ID	MAC Address	Current Status	Received Packets	Sent Packets	Configure
1	D0-51-62-27-C0-42	WPA2-PSK	65	33	<input type="button" value="Deny"/>
<input type="button" value="Previous"/> <input type="button" value="Next"/>					

- **MAC Address** - The MAC address of the connected wireless client .
- **Current Status** - The running status of the connected wireless client .
- **Received Packets** - Packets received by the wireless client.
- **Sent Packets** - Packets sent by the wireless client.
- **Configure** - The button is used for loading the item to the Wireless MAC Filtering list.
  - **Allow** - If the Wireless MAC Filtering function is enabled, click this button to allow the client to access your network.
  - **Deny** - If the Wireless MAC Filtering function is enabled, click this button to deny the client to access your network.

### 7.4.6. Throughput Monitor

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless > Throughput Monitor](#) to view the wireless throughput information.



- **Rate** - The Throughput unit.
- **Run Time** - How long this function is running.

- **Transmit** - Wireless transmit rate information.
- **Receive** - Wireless receive rate information.

Click **Start/Stop** to start or stop wireless throughput monitor.

## 7.5. DHCP

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

### 7.5.1. DHCP Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **DHCP > DHCP Settings**.
3. Specify DHCP server settings and click **Save**.

DHCP Settings

DHCP Server:  Disable  Enable

Start IP Address:

End IP Address:

Address Lease Time:  minutes (1~2880 minutes, the default value is 120)

Default Gateway:

Default Domain:  (Optional)

Primary DNS:  (Optional)

Secondary DNS:  (Optional)

- **DHCP Server** - Enable or disable the DHCP server. If disabled, you must have another DHCP server within your network or else you must configure the computer manually.
- **Start IP Address** - Specify an IP address for the DHCP Server to start with when assigning IP addresses. 192.168.0.100 is the default start address.
- **End IP Address** - Specify an IP address for the DHCP Server to end with when assigning IP addresses. 192.168.0.199 is the default end address.
- **Address Lease Time** - The Address Lease Time is the amount of time a network user will be allowed to connect to the router with the current dynamic IP Address. When time is up, the user will be automatically assigned a new dynamic IP address. The range of the time is 1 ~ 2880 minutes. The default value is 120.

- **Default Gateway (Optional)** - It is suggested to input the IP address of the LAN port of the router. The default value is 192.168.0.254.
- **Default Domain (Optional)** - Input the domain name of your network.
- **Primary DNS (Optional)** - Input the DNS IP address provided by your ISP.
- **Secondary DNS (Optional)** - Input the IP address of another DNS server if your ISP provides two DNS servers.

**Note:**

- To use the DHCP server function of the router, you must configure all computers on the LAN as **Obtain an IP Address automatically**.
- When you choose **Smart IP (DHCP)** in **Network > LAN**, the DHCP Server function will be disabled. You will see the page as below.

### DHCP Settings

---

DHCP Server:  Disable  Enable

Start IP Address:

End IP Address:

Address Lease Time:  minutes (1~2880 minutes, the default value is 1 min)

Default Gateway:  (Optional)

Default Domain:  (Optional)

Primary DNS:  (Optional)

Secondary DNS:  (Optional)

---

## 7.5.2. DHCP Client List

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **DHCP > DHCP Client List** to view the information of the clients connected to the router.

### DHCP Client List

ID	Client Name	MAC Address	Assigned IP	Lease Time
1	192.168.0.100	192.168.0.100	192.168.0.100	01:22:00
2	192.168.0.101	192.168.0.101	192.168.0.101	01:55:07

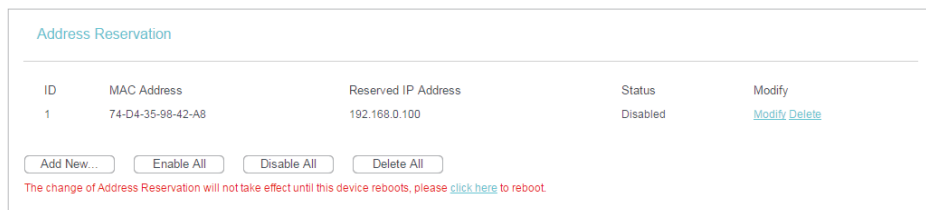
- **Client Name** - The name of the DHCP client.
- **MAC Address** - The MAC address of the DHCP client.
- **Assigned IP** - The IP address that the router has allocated to the DHCP client.
- **Lease Time** - The time of the DHCP client leased. After the dynamic IP address has expired, a new dynamic IP address will be automatically assigned to the user.

You cannot change any of the values on this page. To update this page and show the current attached devices, click [Refresh](#).

### 7.5.3. Address Reservation

You can reserve an IP address for a specific client. When you specify a reserved IP address for a PC on the LAN, this PC will always receive the same IP address each time when it accesses the DHCP server.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [DHCP > Address Reservation](#).
3. Click [Add New](#) and fill in the blank.



ID	MAC Address	Reserved IP Address	Status	Modify
1	74-D4-35-98-42-A8	192.168.0.100	Disabled	<a href="#">Modify</a> <a href="#">Delete</a>

[Add New...](#) [Enable All](#) [Disable All](#) [Delete All](#)

The change of Address Reservation will not take effect until this device reboots, please [click here](#) to reboot.

- 1) Enter the MAC address (in XX-XX-XX-XX-XX-XX format.) of the client for which you want to reserve an IP address.
- 2) Enter the IP address (in dotted-decimal notation) which you want to reserve for the client.
- 3) Leave the [Status](#) as [Enabled](#).
- 4) Click [Save](#).

## 7.6. System Tools

### 7.6.1. Diagnostic

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

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Diagnostic](#).

The screenshot shows the 'Diagnostic Tools' page. Under 'Diagnostic Parameters', there are the following settings:

- Diagnostic Tool:** Radio buttons for 'Ping' (selected) and 'Traceroute'.
- IP Address/ Domain Name:** An empty text input field.
- Ping Count:** A text input field with '4' and a range '(1-50)'.
- Ping Packet Size:** A text input field with '64' and a range '(4-1472 Bytes)'.
- Ping Timeout:** A text input field with '800' and a range '(100-2000 Milliseconds)'.
- Traceroute Max TTL:** A text input field with '20' and a range '(1-30)'.

Below the parameters is the 'Diagnostic Results' section, which contains a dashed border box with the text 'This device is ready.' and a 'Start' button at the bottom center.

- **Diagnostic Tool** - Select one diagnostic tool.
  - **Ping** - This diagnostic tool troubleshoots connectivity, reachability, and name resolution to a given host or gateway.
  - **Tracerouter** - This diagnostic tool tests the performance of a connection.

**Note:**

You can use ping/traceroute to test both numeric IP address or domain name. If pinging/tracerouting the IP address is successful, but pinging/tracerouting the domain name is not, you might have a name resolution problem. In this case, ensure that the domain name you are specifying can be resolved by using Domain Name System (DNS) queries.

- **IP Address/Domain Name** - Enter the destination IP address (such as 192.168.0.1) or Domain name (such as www.tp-link.com).
- **Pings Count** - The number of Ping packets for a Ping connection.
- **Ping Packet Size** - The size of Ping packet.
- **Ping Timeout** - Set the waiting time for the reply of each Ping packet. If there is no reply in the specified time, the connection is overtime.
- **Traceroute Max TTL** - The max number of hops for a Traceroute connection.

3. Click [Start](#) to check the connectivity of the Internet.
4. The [Diagnostic Results](#) page displays the diagnosis result. If the result is similar to the following figure, the connectivity of the Internet is fine.

```

Diagnostic Results
-----
Pinging 192.168.0.1 with 64 bytes of data:

Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=1
Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=2
Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=3
Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=4

Ping statistics for 192.168.0.1
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss)
Approximate round trip times in milliseconds:
Minimum = 1, Maximum = 1, Average = 1

```

**Note:**

Only one user can use this tool at one time. Options "Number of Pings", "Ping Size" and "Ping Timeout" are used for the Ping function. Option "Tracert Hops" is used for the Tracert function.

## 7.6.2. Ping Watch Dog

The Ping Watch Dog is dedicated for continuous monitoring of the particular connection to remote host using the Ping tool. It makes the router continuously ping a user defined IP address (it can be the internet gateway for example). If it is unable to ping under the user defined constraints, the router will automatically reboot.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Ping Watch Dog](#). Configure the settings and click [Save](#).

**Ping Watch Dog Utility**

---

Enable:

IP Address:

Interval:  (10-300) seconds

Delay:  (60-300) seconds

Fail Count:  (1-65535)

---

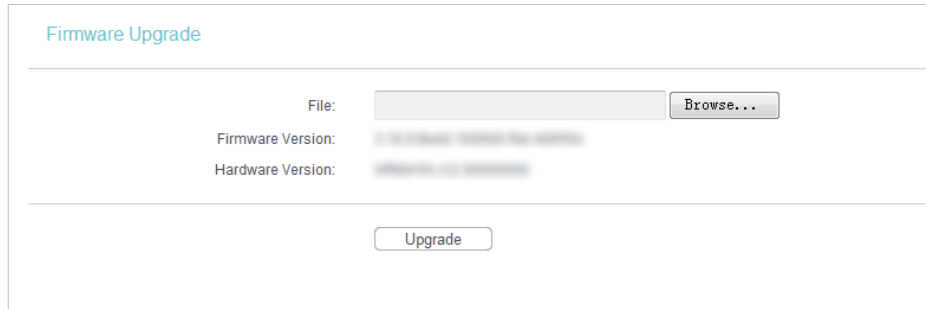
- **Enable** - Turn on/off Ping Watch Dog.
- **IP Address** - The IP address of the target host where the Ping Watch Dog Utility is sending ping packets.
- **Interval** - Time interval between two ping packets which are sent out continuously.
- **Delay** - Time delay before first ping packet is sent out when the router is restarted.

- **Fail Count** - Upper limit of the ping packets the router can drop continuously. If this value is overrun, the router will restart automatically.

### 7.6.3. Firmware Upgrade

TP-LINK is dedicated to improving and enriching the product features, giving users a better network experience. We will release the latest firmware at TP-LINK official website. You can download the latest firmware file from the [Support](#) page of our website [www.tp-link.com](http://www.tp-link.com) and upgrade the firmware to the latest version.

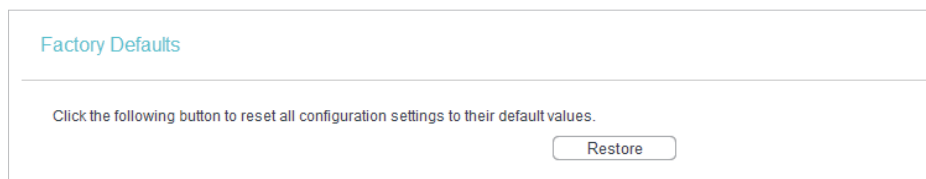
1. Download the latest firmware file for the router from our website [www.tp-link.com](http://www.tp-link.com).
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
3. Go to [System Tools > Firmware Upgrade](#).
4. Click [Browse](#) to locate the downloaded firmware file, and click [Upgrade](#).



The screenshot shows the 'Firmware Upgrade' page. It features a 'File:' label next to a text input field and a 'Browse...' button. Below this, there are labels for 'Firmware Version:' and 'Hardware Version:', each followed by a blurred text field. At the bottom of the page, there is an 'Upgrade' button.

### 7.6.4. Factory Defaults

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Factory Defaults](#). Click [Restore](#) to reset all settings to the default values.



The screenshot shows the 'Factory Defaults' page. It contains a single line of text: 'Click the following button to reset all configuration settings to their default values.' Below this text is a 'Restore' button.

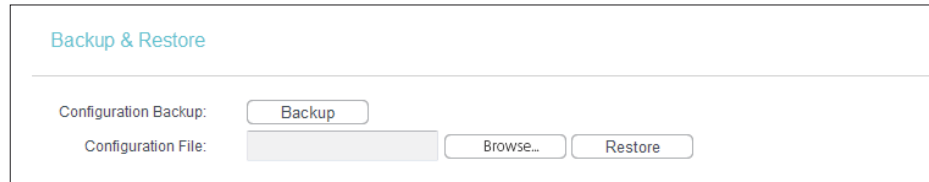
- The default **Username**: admin
- The default **Password**: admin
- The default **IP Address**: 192.168.0.254
- The default **Subnet Mask**: 255.255.255.0

### 7.6.5. Backup & Restore

The configuration settings are stored as a configuration file in the router. You can backup the configuration file in your computer for future use and restore the router to the previous settings from the backup file when needed.



1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Backup & Restore](#).



#### á To backup configuration settings:

Click [Backup](#) to save a copy of the current settings in your local computer. A ".bin" file of the current settings will be stored in your computer.

#### á To restore configuration settings:

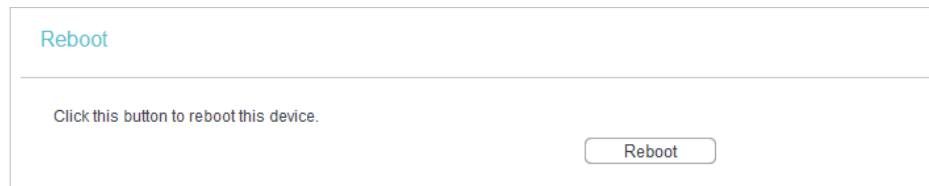
1. Click [Choose File](#) to locate the backup configuration file stored in your computer, and click [Restore](#).
2. Wait a few minutes for the restoring and rebooting.

#### ■ Note:

During the restoring process, do not power off or reset the router.

### 7.6.6. Reboot

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Reboot](#), and you can restart your router.



Some settings of the router will take effect only after rebooting, including:

- Change the LAN IP Address (system will reboot automatically).
- Change the DHCP Settings.
- Change the Working Modes.
- Change the Web Management Port.
- Upgrade the firmware of the router (system will reboot automatically).
- Restore the router to its factory defaults (system will reboot automatically).
- Update the configuration with the file (system will reboot automatically).

### 7.6.7. Password

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.

2. Go to [System Tools > Password](#), and you can change the factory default username and password of the router.

The screenshot shows the 'Password' configuration page. At the top, there is a red warning message: 'Username and password can contain between 1 - 15 characters and may not include spaces.' Below this, there are six input fields arranged in two columns. The left column contains 'Old User Name:', 'Old Password:', 'New User Name:', 'New Password:', and 'Confirm New Password:'. The right column contains corresponding empty input boxes. At the bottom of the form, there are two buttons: 'Save' and 'Clear All'.

It is strongly recommended that you change the default username and password of the router, for all users that try to access the router's web-based utility or Quick Setup will be prompted for the router's username and password.

**Note:**

The new username and password must not exceed 15 characters and not include any spacing.

3. Click [Save](#).

## 7.6.8. System Log

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > System Log](#), and you can view the logs of the router.

The screenshot shows the 'System Log' page. At the top, there is a 'System Log' title. Below it, there are several controls: 'Auto Mail Feature: Disabled' with a 'Mail Settings' button, 'Log Type: ALL' dropdown, and 'Log Level: ALL' dropdown. A text box below these controls says 'Log is Empty.' Below that, there is a 'Time =' field, followed by 'H-Ver =', 'S-Ver =', and 'L = 192.168.0.118 : M = 255.255.255.0'. At the bottom, there is a row of buttons: 'Refresh', 'Save Log', 'Mail Log', and 'Clear Log'. At the very bottom, there are 'Previous' and 'Next' buttons, and a 'Current No. 1 Page' dropdown.

- [Auto Mail Feature](#) - Indicates whether the auto mail feature is enabled or not.
- [Mail Settings](#) - Set the receiving and sending mailbox address, server address, validation information as well as the timetable for Auto Mail Feature.

- **From** - Your mail box address. The router will connect it to send logs.
- **To** - Recipient's mail address. The destination mailbox which will receive logs.
- **SMTP Server** - Your smtp server. It corresponds with the mailbox filled in the **From** field. You can log on the relevant website for help if you are not clear with the address.
- **Authentication** - Most SMTP Server requires Authentication. It is required by most mailboxes that need user name and password to log in.

**Note:**

Only when you select Authentication, do you have to enter the user name and password in the following fields.

- **User Name** - Your mail account name filled in the From field. The part behind @ is included.
- **Password** - Your mail account password.
- **Confirm The Password** - Enter the password again to confirm.
- **Enable Auto Mail Feature** - Select it to mail logs automatically. You could mail the current logs either at a specified time everyday or by intervals, but only one could be the current effective rule. Enter the desired time or intervals in the corresponding field.

Click **Save** to apply your settings.

Click **Back** to return to the previous page.

- **Log Type** - By selecting the log type, only logs of this type will be shown.
- **Log Level** - By selecting the log level, only logs of this level will be shown.
- **Refresh** - **Refresh** the page to show the latest log list.

- [Save Log](#) - Click to save all the logs in a txt file.
- [Mail Log](#) - Click to send an email of current logs manually according to the address and validation information set in Mail Settings.
- [Clear Log](#) - All the logs will be deleted from the router permanently, not just from the page.

Click [Next](#) to go to the next page, or click [Previous](#) to return to the previous page.

## 7.7. Logout

Click [Logout](#) at the bottom of the main menu, and you will log out of the web page and return to the login window.

## Chapter 8

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# Configure the Router in Hotspot Router Mode

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This chapter presents how to configure the various features of the router working as a Hotspot Router.

This chapter contains the following sections:

- [Status](#)
- [WPS](#)
- [Working Mode](#)
- [Network](#)
- [Wireless](#)
- [DHCP](#)
- [Forwarding](#)
- [Security](#)
- [Parental Controls](#)
- [Advanced Routing](#)
- [Bandwidth Control](#)
- [IP&MAC Binding](#)
- [Dynamic DNS](#)
- [System Tools](#)
- [Logout](#)

## 8.1. Status

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Status](#). You can view the current status information of the router in Hotspot Router Mode.

Status		
Firmware Version:	3.16.9 Build 160729 Rel.64608n	
Hardware Version:	WR810N v3 00000000	
LAN		
MAC Address:	00-0A-EB-13-09-19	
IP Address:	192.168.0.254	
Subnet Mask:	255.255.255.0	
Wireless		
Wireless Radio:	Enable	
Name (SSID):	TP-LINK_0919	
Channel:	11	
Mode:	11bgn mixed	
Channel Width:	Automatic	
MAC Address:	00-0A-EB-13-09-19	
Client Status:	Init...	
WAN		
MAC Address:	00-0A-EB-13-09-1A	Dynamic IP
IP Address:	0.0.0.0	
Subnet Mask:	0.0.0.0	
Default Gateway:	0.0.0.0	
DNS Server:	0.0.0.0 , 0.0.0.0	
Traffic Statistics		
	Received	Sent
Bytes:	0	0
Packets:	0	0
System Up Time:	0 days 00:02:10	
	<input type="button" value="Refresh"/>	

- **Firmware Version** - The version information of the router's firmware.
- **Hardware Version** - The version information of the router's hardware.
- **LAN** - This field displays the current settings of the LAN, and you can configure them on the [Network > LAN](#) page.
  - **MAC address** - The physical address of the router.
  - **IP address** - The LAN IP address of the router.
  - **Subnet Mask** - The subnet mask associated with the LAN IP address.
- **Wireless** - This field displays the basic information or status of the wireless function, and you can configure them on the [Wireless > Wireless Settings](#) page.
  - **Wireless Radio** - Indicates whether the wireless feature is enabled or not.
  - **Name (SSID)** - The SSID of the router.
  - **Channel** - The current wireless channel in use.
  - **Mode** - The current wireless working mode in use.
  - **Channel Width** - The current wireless channel width in use.

- **MAC Address** - The physical address of the router.
- **Client Status** - The status of client. **Init**: Connection is down; **Scan**: Try to find the AP; **Auth**: Try to authenticate; **ASSOC**: Try to associate; **Run**: Associated successfully.
- **WAN** - This field displays the current settings of the WAN, and you can configure them on the **Network > WAN** page.
  - **MAC Address** - The physical address of the WAN port.
  - **IP Address** - The current WAN (Internet) IP Address. This field will be blank or 0.0.0.0 if the IP Address is assigned dynamically and there is no Internet connection.
  - **Subnet Mask** - The subnet mask associated with the WAN IP Address.
  - **Default Gateway** - The Gateway currently used is shown here. When you use Dynamic IP as the Internet connection type, click **Renew** or **Release** here to obtain new IP parameters dynamically from the ISP or release them.
  - **DNS Server** - The IP addresses of DNS (Domain Name System) server.
- **Traffic Statistics** - The router's traffic statistics.
  - **Received (Bytes)** - Traffic in bytes received from the WAN port.
  - **Received (Packets)** - Traffic in packets received from the WAN port.
  - **Sent (Bytes)** - Traffic in bytes sent out from the WAN port.
  - **Sent (Packets)** - Traffic in packets sent out from the WAN port.
- **System Up Time** - The length of the time since the router was last powered on or reset.

Click **Refresh** to get the latest status and settings of the router.

## 8.2. WPS

WPS (Wi-Fi Protected Setup) can help you to quickly and securely connect to a network. This section will guide you to add a new wireless device to your router's network quickly via WPS.

**Note:**

The WPS function cannot be configured if the wireless function of the router is disabled. Please make sure the wireless function is enabled before configuration.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **WPS**.
3. Follow one of the following three methods to connect your client device to the router's Wi-Fi network.

### Method ONE: Press the WPS Button on Your Client Device

1. Keep the WPS Status as **Enabled** and click **Add Device**.

WPS (Wi-Fi Protected Setup)

SSID: **TP-LINK\_F360**

WPS Status: **Enabled**

Current PIN: **80834601**

Disable PIN of this device

Add a new device:

2. Select [Press the button of the new device in two minutes](#) and click [Connect](#).

Add A New Device

Enter the new device's PIN.  
PIN:

Press the button of the new device in two minutes.

3. Within two minutes, press the WPS button on your client device.
4. A success message will appear on the WPS page if the client device has been successfully added to the router's network.

## Method TWO: Enter the Client's PIN

1. Keep the WPS Status as [Enabled](#) and click [Add Device](#).

WPS (Wi-Fi Protected Setup)

SSID: **TP-LINK\_F360**

WPS Status: **Enabled**

Current PIN: **80834601**

Disable PIN of this device

Add a new device:

2. Select [Enter the new device's PIN](#), enter your client device's current PIN in the [PIN](#) field and click [Connect](#).

Add A New Device

Enter the new device's PIN.  
PIN:

Press the button of the new device in two minutes.



3. A success message will appear on the WPS page if the client device has been successfully added to the router's network.

### Method Three: Enter the Router's PIN

1. Keep the WPS Status as **Enabled** and get the **Current PIN** of the router.

WPS (Wi-Fi Protected Setup)

SSID: **TP-LINK\_F360**

WPS Status: **Enabled**

Current PIN: **80834601**

Disable PIN of this device

Add a new device:

2. Enter the router's current PIN on your client device to join the router's Wi-Fi network.

## 8.3. Working Mode

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Working Mode**.
3. Select the working mode as needed and click **Save**.

Working Mode

- Standard Wireless Router** - Enable multiple users to share Internet connection via ADSL/Cable Modem
- Access Point** - Transform your existing wired network to a wireless network
- Repeater** - Extend your existing wireless coverage by relaying wireless signal
- Client** - Acting as a "Wireless Adapter" to connect your wired devices (e.g. Xbox/PS3) to a wireless network
- Hotspot Router** - Enable multiple users to share Internet connection from WISP

## 8.4. Network

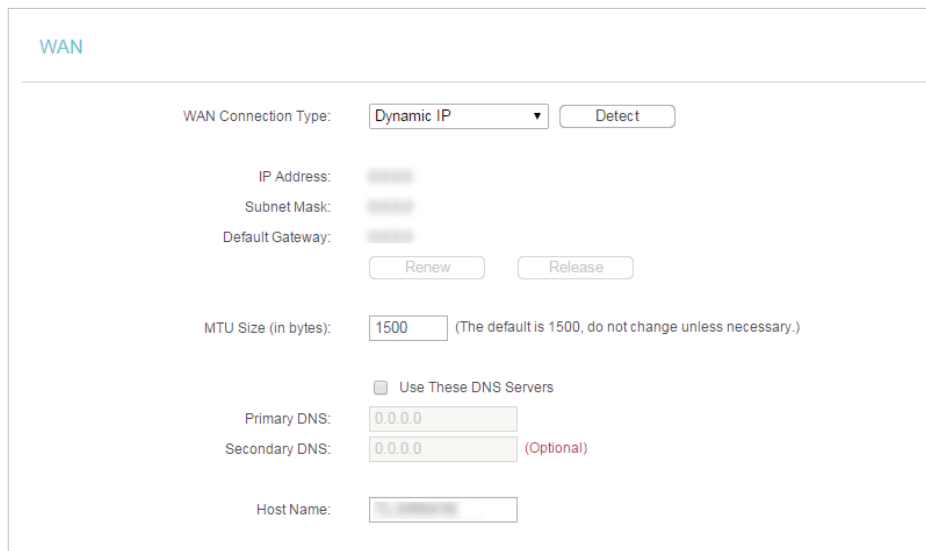
### 8.4.1. WAN

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Network > WAN**.
3. Configure the IP parameters of the LAN and click **Save**.

#### Dynamic IP

If your ISP provides the DHCP service, please select **Dynamic IP**, and the router will automatically get IP parameters from your ISP.

Click [Renew](#) to renew the IP parameters from your ISP. Click [Release](#) to release the IP parameters.

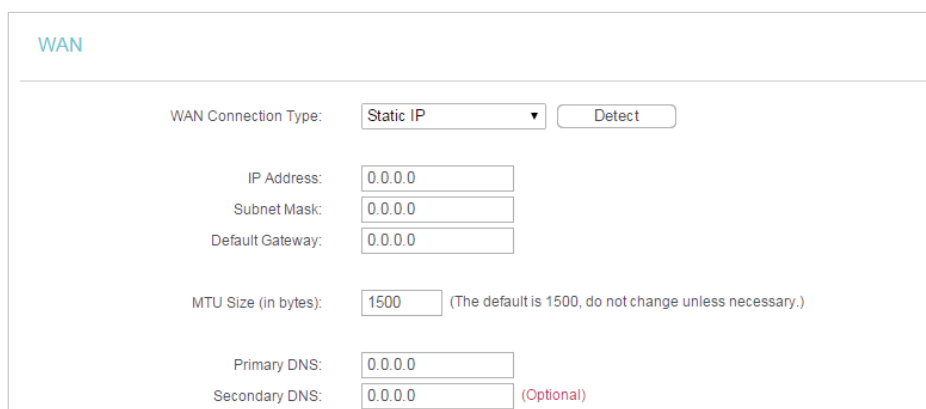


The screenshot shows the WAN configuration interface. At the top, the title "WAN" is displayed. Below it, the "WAN Connection Type" is set to "Dynamic IP" with a dropdown arrow and a "Detect" button. The "IP Address:", "Subnet Mask:", and "Default Gateway:" fields are all masked with grey boxes. Below these fields are "Renew" and "Release" buttons. The "MTU Size (in bytes)" is set to "1500" with a note: "(The default is 1500, do not change unless necessary.)". There is a checkbox labeled "Use These DNS Servers" which is unchecked. Below it, the "Primary DNS:" and "Secondary DNS:" fields are both set to "0.0.0.0", with "(Optional)" written in red next to the secondary field. The "Host Name:" field is also masked with a grey box.

- **MTU Size** - The normal MTU (Maximum Transmission Unit) value for most Ethernet networks is 1500 Bytes. It is not recommended that you change the default MTU Size unless required by your ISP.
- **Use These DNS Servers** - If your ISP provides you one or two DNS addresses, select [Use These DNS Servers](#) and enter the primary and secondary addresses. Otherwise, the DNS servers will be assigned dynamically from your ISP.
- **Host Name** - This option specifies the name of the router.
- **Get IP with Unicast DHCP** - A few ISPs' DHCP servers do not support the broadcast applications. If you cannot get the IP address normally, you can choose this option. (It is rarely required.)

## Static IP

If your ISP provides a static or fixed IP address, subnet mask, default gateway and DNS setting, please select [Static IP](#).



The screenshot shows the WAN configuration interface with "Static IP" selected. The "WAN Connection Type" dropdown is set to "Static IP" with a "Detect" button. The "IP Address:", "Subnet Mask:", and "Default Gateway:" fields are all set to "0.0.0.0". The "MTU Size (in bytes)" is set to "1500" with a note: "(The default is 1500, do not change unless necessary.)". The "Use These DNS Servers" checkbox is unchecked. The "Primary DNS:" and "Secondary DNS:" fields are both set to "0.0.0.0", with "(Optional)" written in red next to the secondary field. The "Host Name:" field is masked with a grey box.

- **IP Address** - Enter the IP address in dotted-decimal notation provided by your ISP.
- **Subnet Mask** - Enter the subnet mask in dotted-decimal notation provided by your ISP. Normally 255.255.255.0 is used as the subnet mask..
- **Default Gateway** - Enter the gateway IP address in dotted-decimal notation provided by your ISP.
- **MTU Size** - The normal MTU (Maximum Transmission Unit) value for most Ethernet networks is 1500 Bytes. It is not recommended that you change the default MTU size unless required by your ISP.
- **Primary/Secondary DNS** - (Optional) Enter one or two DNS addresses in dotted-decimal notation provided by your ISP.

## PPPoE/Russia PPPoE

If your ISP provides a PPPoE connection, select **PPPoE/Russia PPPoE**.

The screenshot shows the WAN configuration interface for PPPoE/Russia PPPoE. The 'WAN Connection Type' is set to 'PPPoE/Russia PPPoE' with a 'Detect' button. Under 'PPPoE Connection', there are input fields for 'User Name', 'Password', and 'Confirm Password'. The 'Secondary Connection' section has radio buttons for 'Disabled' (selected), 'Dynamic IP', and 'Static IP'. The 'Wan Connection Mode' section has radio buttons for 'Connect on Demand', 'Connect Automatically' (selected), and 'Connect Manually'. The 'Connect on Demand' mode includes a 'Max Idle Time' field set to '15' minutes. The 'Time-based Connecting' mode includes a 'Period of Time' field set from '00:00' to '23:59'.

- **User Name/Password** - Enter the user name and password provided by your ISP. These fields are case-sensitive.
- **Confirm Password** - Enter the Password provided by your ISP again to ensure the password you entered is correct.
- **Secondary Connection** - It's available only for PPPoE connection. If your ISP provides an extra connection type, select **Dynamic IP** or **Static IP** to activate the secondary connection.
- **WAN Connection Mode**
  - **Connect on Demand** - In this mode, the Internet connection can be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the Internet again. If you want to keep your Internet connection active all the time, please enter 0 in the **Max Idle Time** field. Otherwise, enter the number of minutes you want to have elapsed before your Internet access disconnects.

- **Connect Automatically** - The connection can be re-established automatically when it is down.
- **Time-based Connecting** - The connection will only be established in the period from the start time to the end time (both are in HH:MM format).
- **Connect Manually** - You can click **Connect/Disconnect** to connect/disconnect immediately. This mode also supports the **Max Idle Time** function as **Connect on Demand** mode. The Internet connection can be disconnected automatically after a specified inactivity period (Max Idle Time) and not be able to re-establish when you attempt to access the Internet again.

**Note:**

1. Only when you have configured the system time on the **System Tools > Time Settings** page, will the Time-based Connecting function take effect.
2. Sometimes the connection cannot be terminated although you have specified the **Max Idle Time** because some applications are visiting the Internet continually in the background.

If you want to do some advanced configurations, please click **Advanced**.

PPPoE Advanced Settings

---

MTU Size (in bytes):  (The default is 1480, do not change unless necessary.)

Service Name:

AC Name:

Use IP Address Specified by ISP

ISP Specified IP Address:

Detect Online Interval:  Seconds (0 ~ 120 seconds, the default is 0, 0 means not detecting.)

Use The Following DNS Servers

Primary DNS:

Secondary DNS:  (Optional)

---

- **MTU Size** - The default MTU size is 1480 bytes. It is not recommended that you change the default MTU size unless required by your ISP.
- **Service Name/AC Name** - The service name and AC (Access Concentrator) name should not be configured unless you are sure it is necessary for your ISP. In most cases, leaving these fields blank will work.
- **ISP Specified IP Address** - If your ISP does not automatically assign IP addresses to the router, please select **Use IP address specified by ISP** and enter the IP address provided by your ISP in dotted-decimal notation.
- **Detect Online Interval** - The router will detect Access Concentrator online at every interval. The default value is 0. You can input the value between 0 and 120. The value 0 means no detect.

- **Primary DNS/Secondary DNS** - If your ISP does not automatically assign DNS addresses to the router, please select **Use the following DNS servers** and enter the IP address in dotted-decimal notation of your ISP's primary DNS server. If a secondary DNS server address is available, enter it as well.

## BigPond Cable

If your ISP provides BigPond cable connection, please select **BigPond Cable**.

The screenshot shows the WAN configuration interface for a BigPond Cable connection. The 'WAN Connection Type' is set to 'BigPond Cable'. The 'User Name' and 'Password' fields are empty. The 'Auth Server' is set to 'sm-server' and the 'Auth Domain' is empty. The 'MTU Size (in bytes)' is set to '1500' with a note that the default is 1500. The 'Connection Mode' is set to 'Connect Automatically' with a 'Max Idle Time' of '15' minutes. There are 'Connect', 'Disconnect', and 'Disconnected!' buttons, and a 'Save' button at the bottom.

- **User Name/Password** - Enter the user name and password provided by your ISP. These fields are case-sensitive.
- **Auth Server** - Enter the authenticating server IP address or host name.
- **Auth Domain** - Type in the domain suffix server name based on your location.
- **MTU Size** - The default MTU size is 1480 bytes. It is not recommended that you change the default MTU Size unless required by your ISP.
- **Connection Mode**
  - **Connect on Demand** - In this mode, the Internet connection can be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the Internet again. If you want to keep your Internet connection active all the time, please enter 0 in the **Max Idle Time** field. Otherwise, enter the number of minutes you want to have elapsed before your Internet access disconnects.
  - **Connect Automatically** - The connection can be re-established automatically when it is down.

- **Connect Manually** - You can click **Connect/Disconnect** to connect/disconnect immediately. This mode also supports the **Max Idle Time** function as **Connect on Demand** mode. The Internet connection can be disconnected automatically after a specified inactivity period (Max Idle Time) and not be able to re-establish when you attempt to access the Internet again.

■ **Note:**

Sometimes the connection cannot be terminated although you have specified the **Max Idle Time** because some applications are visiting the Internet continually in the background.

## L2TP/Russia L2TP

If your ISP provides L2TP connection, please select **L2TP/Russia L2TP**.

WAN

---

WAN Connection Type: L2TP/Russia L2TP ▼

User Name:

Password:

Confirm Password:

Disconnected!

Dynamic IP
  Static IP

Server IP Address/Name:

IP Address: 0.0.0.0

Subnet Mask: 0.0.0.0

Gateway: 0.0.0.0

DNS: 0.0.0.0 , 0.0.0.0

Internet IP Address: 0.0.0.0

Internet DNS: 0.0.0.0 , 0.0.0.0

MTU Size (in bytes): 1460 (The default is 1460, do not change unless necessary.)

Max Idle Time: 15 minutes (0 means remain active at all times.)

Connection Mode:
   
 Connect on Demand
   
 Connect Automatically
   
 Connect Manually

---

- **User Name/Password** - Enter the user name and password provided by your ISP. These fields are case-sensitive.
- **Confirm Password** - Enter the Password provided by your ISP again to ensure the password you entered is correct.
- **Connect/Disconnect** - Click this button to connect or disconnect immediately.
- **Dynamic IP/ Static IP** - Select either as required by your ISP. If **Static IP** is selected, please enter the IP address, subnet mask, gateway and DNS also provided by your ISP.

- **Internet IP Address/ Internet DNS** - The Internet IP address and DNS server address assigned by L2TP server.
- **Connection Mode**
  - **Connect on Demand** - In this mode, the Internet connection can be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the Internet again. If you want to keep your Internet connection active all the time, please enter 0 in the **Max Idle Time** field. Otherwise, enter the number of minutes you want to have elapsed before your Internet access disconnects.
  - **Connect Automatically** - The connection can be re-established automatically when it is down.
  - **Connect Manually** - You can click **Connect/Disconnect** to connect/disconnect immediately. This mode also supports the **Max Idle Time** function as **Connect on Demand** mode. The Internet connection can be disconnected automatically after a specified inactivity period (Max Idle Time) and not be able to re-establish when you attempt to access the Internet again.

■ **Note:**

Sometimes the connection cannot be terminated although you have specified the **Max Idle Time** because some applications are visiting the Internet continually in the background.

## PPTP/Russia PPTP

If your ISP provides PPTP connection, please select [PPTP/Russia PPTP](#).

WAN

---

WAN Connection Type: PPTP/Russia PPTP ▼

User Name:

Password:

Confirm Password:

Disconnected!

Dynamic IP
  Static IP

Server IP Address/Name:

IP Address: 0.0.0.0

Subnet Mask: 0.0.0.0

Gateway: 0.0.0.0

DNS: 0.0.0.0, 0.0.0.0

Internet IP Address: 0.0.0.0

Internet DNS: 0.0.0.0, 0.0.0.0

MTU Size (in bytes):  (The default is 1420, do not change unless necessary.)

Max Idle Time:  minutes (0 means remain active at all times.)

Connection Mode:
   
 Connect on Demand
   
 Connect Automatically
   
 Connect Manually

- [User Name/Password](#) - Enter the user name and password provided by your ISP. These fields are case-sensitive.
- [Confirm Password](#) - Enter the Password provided by your ISP again to ensure the password you entered is correct.
- [Connect/Disconnect](#) - Click this button to connect or disconnect immediately.
- [Dynamic IP/ Static IP](#) - Select either as required by your ISP. If [Static IP](#) is selected, please enter the IP address, subnet mask, gateway and DNS also provided by your ISP.
- [Internet IP Address/ Internet DNS](#) - The Internet IP address and DNS server address assigned by L2TP server.
- [Connection Mode](#)
  - [Connect on Demand](#) - In this mode, the Internet connection can be terminated automatically after a specified inactivity period (Max Idle Time) and be re-established when you attempt to access the Internet again. If you want to keep your Internet connection active all the time, please enter 0 in the [Max Idle Time](#)



field. Otherwise, enter the number of minutes you want to have elapsed before your Internet access disconnects.

- **Connect Automatically** - The connection can be re-established automatically when it is down.
- **Connect Manually** - You can click **Connect/Disconnect** to connect/disconnect immediately. This mode also supports the **Max Idle Time** function as **Connect on Demand** mode. The Internet connection can be disconnected automatically after a specified inactivity period (Max Idle Time) and not be able to re-establish when you attempt to access the Internet again.

**Note:**

Sometimes the connection cannot be terminated although you have specified the **Max Idle Time** because some applications are visiting the Internet continually in the background.

## 8.4.2. MAC Clone

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Network > LAN**.
3. Configure the WAN MAC address and click **Save**.

MAC Clone	
WAN MAC Address:	<input type="text" value="0C-4A-08-45-F3-61"/> <input type="button" value="Restore Factory MAC"/>
Your PC's MAC Address:	<input type="text" value="74-D4-35-98-42-A8"/> <input type="button" value="Clone MAC Address"/>
<input type="button" value="Save"/>	

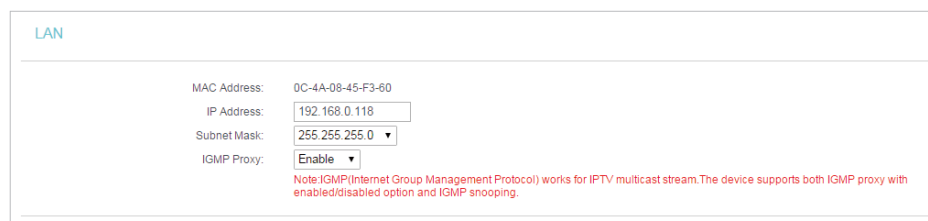
- **WAN MAC Address** - This field displays the current MAC address of the WAN port. If your ISP requires you to register the MAC address, please enter the correct MAC address in this field. Click **Restore Factory MAC** to restore the MAC address of WAN port to the factory default value.
- **Your PC's MAC Address** - This field displays the MAC address of the PC that is managing the router. If the MAC address is required, you can click **Clone MAC Address** and this MAC address will be filled in the **WAN MAC Address** field.

**Note:**

1. You can only use the MAC Address Clone function for PCs on the LAN.
2. If you have changed the WAN MAC address when the WAN connection is PPPoE, it will not take effect until the connection is re-established.

## 8.4.3. LAN

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Network > LAN**.
3. Configure the IP parameters of the LAN and click **Save**.



LAN

MAC Address: 0C-4A-08-45-F3-60

IP Address:

Subnet Mask:

IGMP Proxy:

Note:IGMP(Internet Group Management Protocol) works for IPTV multicast stream.The device supports both IGMP proxy with enabled/disabled option and IGMP snooping.

- **MAC Address** - The physical address of the LAN ports. The value can not be changed.
- **IP Address** - Enter the IP address in dotted-decimal notation of your router (factory default - 192.168.0.254).
- **Subnet Mask** - An address code that determines the size of the network. Normally 255.255.255.0 is used as the subnet mask.
- **IGMP Proxy** - The Internet Group Management Protocol (IGMP) feature allow you to watch TV on IPTV-supported devices in the LAN .

■ **Note:**

1. If you have changed the IP address, you must use the new IP address to login.
2. If the new IP address you set is not in the same subnet as the old one, the IP Address pool in the DHCP Server will be configured automatically, but the Virtual Server and DMZ Host will not take effect until they are re-configured.

## 8.5. Wireless

### 8.5.1. Wireless Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless > Wireless Settings](#).
3. Configure the basic settings for the wireless network and click [Save](#).

**Wireless Settings**

---

**Client Setting**

SSID:

BSSID:  Example:00-1D-0F-11-22-33

Key type:

WEP Index:

Auth type:

Password:

---

**AP Setting**

Local SSID:

Enable Wireless Router Radio

Enable SSID Broadcast

Disable Local Wireless Access

- **Client Settings** - The settings of the public Wi-Fi your router is going to connect to.
  - **SSID** - The SSID of the public Wi-Fi your router is going to connect to as a client.
  - **BSSID** - The MAC address of the public Wi-Fi your router is going to connect to as a client.
  - **Survey** - Click this button to search the public Wi-Fi.
  - **Key type** - Select the key type according to the public Wi-Fi's security configuration. It is recommended that the key type is the same as the public Wi-Fi's security type.
  - **WEP Index** - Select which of the four keys will be used if the key type is WEP (ASCII) or WEP (HEX).
  - **Auth Type** - Select the authorization type if the key type is WEP (ASCII) or WEP (HEX).
  - **Password** - Enter the public Wi-Fi's password if required.

- **AP Settings** - The wireless settings of your router.
  - **Local SSID** - Enter a string of up to 32 characters. It is strongly recommended that you change your network name (SSID). This value is case-sensitive. For example, TEST is NOT the same as test.
  - **Enable Wireless Router Radio** - The wireless radio of the router can be enabled or disabled to allow or deny wireless access. If enabled, the wireless clients will be able to access the router.
  - **Enable SSID Broadcast** - If enabled, the router will broadcast the wireless network name (SSID).
  - **Disable Local Wireless Access** - If you select this option, the wireless clients will not be able to connect to the router.

## 8.5.2. Wireless Security

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Wireless > Wireless Security**.
3. Configure the the security settings of your wireless network and click **Save**.

**Wireless Security**

---

**Disable Security**

**WPA/WPA2 - Personal(Recommended)**

Version:

Encryption:

Wireless Password:

(You can enter ASCII characters between 8 and 63 or Hexadecimal characters between 8 and 64.)

Group Key Update Period:  Seconds

(Keep it default if you are not sure, minimum is 30, 0 means no update)

**WPA/WPA2 - Enterprise**

Version:

Encryption:

Radius Server IP:

Radius Port:  (1-65535, 0 stands for default port 1812)

Radius Password:

Group Key Update Period:  (in second, minimum is 30, 0 means no update)

**WEP**

Type:

WEP Key Format:

Key Selected	WEP Key	Key Type
Key 1: <input checked="" type="radio"/>	<input type="text"/>	<input type="text" value="Disabled"/>
Key 2: <input type="radio"/>	<input type="text"/>	<input type="text" value="Disabled"/>
Key 3: <input type="radio"/>	<input type="text"/>	<input type="text" value="Disabled"/>
Key 4: <input type="radio"/>	<input type="text"/>	<input type="text" value="Disabled"/>

- **Disable Security** - The wireless security function can be enabled or disabled. If disabled, wireless clients can connect to the router without a password. It's strongly recommended to choose one of the following modes to enable security.
- **WPA-PSK/WPA2-Personal** - It's the WPA/WPA2 authentication type based on pre-shared passphrase.
  - **Version** - Select **Automatic**, **WPA-PSK** or **WPA2-PSK**.
  - **Encryption** - Select **Automatic**, **TKIP** or **AES**.
  - **Wireless Password** - Enter ASCII or Hexadecimal characters. For Hexadecimal, the length should be between 8 and 64 characters; for ASCII, the length should be between 8 and 63 characters.
  - **Group Key Update Period** - Specify the group key update interval in seconds. The value can be 0 or at least 30. Enter 0 to disable the update.
- **WPA /WPA2-Enterprise** - It's based on Radius Server.
  - **Version** - Select **Automatic**, **WPA** or **WPA2**.
  - **Encryption** - Select **Automatic**, **TKIP** or **AES**.
  - **Radius Server IP** - Enter the IP address of the Radius server.
  - **Radius Port** - Enter the port that Radius server used.
  - **Radius Password** - Enter the password for the Radius server.
  - **Group Key Update Period** - Specify the group key update interval in seconds. The value should be 30 or above. Enter 0 to disable the update.
- **WEP** - It is based on the IEEE 802.11 standard.
  - **Type** - The default setting is **Automatic**, which can select Shared Key or Open System authentication type automatically based on the wireless client's capability and request.
  - **WEP Key Format** - Hexadecimal and ASCII formats are provided here. Hexadecimal format stands for any combination of hexadecimal digits (0-9, a-f, A-F) in the specified length. ASCII format stands for any combination of keyboard characters in the specified length.
  - **WEP Key (Password)** - Select which of the four keys will be used and enter the matching WEP key. Make sure these values are identical on all wireless clients in your network.
  - **Key Type** - Select the WEP key length (64-bit, 128-bit or 152-bit) for encryption. **Disabled** means this WEP key entry is invalid.
  - **64-bit** - Enter 10 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 5 ASCII characters.
  - **128-bit** - Enter 26 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 13 ASCII characters.

- **152-bit** - Enter 32 hexadecimal digits (any combination of 0-9, a-f and A-F. Null key is not permitted) or 16 ASCII characters.

### 8.5.3. Wireless MAC Filtering

Wireless MAC Filtering is used to deny or allow specific wireless client devices to access your network by their MAC addresses.

**I want to:** Deny or allow specific wireless client devices to access my network by their MAC addresses.

**For example,** you want the wireless client A with the MAC address 00-0A-EB-B0-00-0B and the wireless client B with the MAC address 00-0A-EB-00-07-5F to access the router, but other wireless clients cannot access the router

**How can I do that?**

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Wireless > Wireless MAC Filtering**.
3. Click **Enable** to enable the Wireless MAC Filtering function.
4. Select **Allow the stations specified by any enabled entries in the list to access** as the filtering rule.
5. Delete all or disable all entries if there are any entries already.
6. Click **Add New** and fill in the blank.

Add or Modify Wireless MAC Address Filtering entry

MAC Address:	<input type="text" value="00-0A-EB-00-07-5F"/>
Description:	<input type="text" value="Client B"/>
Status:	<input type="text" value="Enabled"/>

- 1) Enter the MAC address 00-0A-EB-B0-00-0B/00-0A-EB-00-07-5F in the MAC Address field.
  - 2) Enter wireless client A/B in the Description field.
  - 3) Leave the status as **Enabled**.
  - 4) Click **Save** and click **Back**.
7. The configured filtering rules should be listed as the picture shows below.

Filtering Rules

Deny the stations specified by any enabled entries in the list to access.
   
 Allow the stations specified by any enabled entries in the list to access.

ID	MAC Address	Status	Description	Modify
1	00-0A-EB-B0-00-0B	Enabled	Client A	<a href="#">Modify</a> <a href="#">Delete</a>
2	00-0A-EB-00-07-5F	Enabled	Client B	<a href="#">Modify</a> <a href="#">Delete</a>

Done!

Now only client A and client B can access your network.

#### 8.5.4. Wireless Advanced

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Wireless](#) > [Wireless Advanced](#).
3. Configure the advanced settings of your wireless network and click [Save](#).

**Note:**

If you are not familiar with the setting items on this page, it's strongly recommended to keep the provided default values; otherwise it may result in lower wireless network performance.

Wireless Advanced

Transmit Power:	<input type="text" value="High"/>	
Beacon Interval :	<input type="text" value="100"/>	(40-1000)
RTS Threshold:	<input type="text" value="2346"/>	(256-2346)
Fragmentation Threshold:	<input type="text" value="2346"/>	(256-2346)
DTIM Interval:	<input type="text" value="1"/>	(1-255)
	<input checked="" type="checkbox"/> Enable WMM	
	<input checked="" type="checkbox"/> Enable Short GI	
	<input type="checkbox"/> Enable AP Isolation	

- **Transmit Power** - Select **High**, **Middle** or **Low** which you would like to specify for the router. **High** is the default setting and recommended.
- **Beacon Interval** - Enter a value between 40-1000 milliseconds for Beacon Interval here. Beacon Interval value determines the time interval of the beacons. The beacons are the packets sent by the Router to synchronize a wireless network. The default value is 100.
- **RTS Threshold** - Here you can specify the RTS (Request to Send) Threshold. If the packet is larger than the specified RTS Threshold size, the Router will send RTS frames to a particular receiving station and negotiate the sending of a data frame. The default value is 2346.
- **Fragmentation Threshold** - This value is the maximum size determining whether packets will be fragmented. Setting a low value for the Fragmentation Threshold may result in poor network performance because of excessive packets. 2346 is the default setting and is recommended.

- **DTIM Interval** - This value determines the interval of the Delivery Traffic Indication Message (DTIM). A DTIM field is a countdown field informing clients of the next window for listening to broadcast and multicast messages. When the Router has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. You can specify the value between 1-255 Beacon Intervals. The default value is 1, which indicates the DTIM Interval is the same as Beacon Interval.
- **Enable WMM** - WMM function can guarantee the packets with high-priority messages being transmitted preferentially. It is strongly recommended to enable this function.
- **Enable Short GI** - It is recommended to enable this function, for it will increase the data capacity by reducing the guard interval time.
- **Enable AP Isolation** - This function isolates all connected wireless stations so that wireless stations cannot access each other through WLAN. This function will be disabled if WDS/Bridge is enabled.

### 8.5.5. Wireless Statistics

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Wireless > Wireless Statistics** to check the data packets sent and received by each client device connected to the router.

ID	MAC Address	Current Status	Received Packets	Sent Packets	Configure
1	D0-51-62-27-C0-42	WPA2-PSK	65	33	Deny

- **MAC Address** - The MAC address of the connected wireless client.
- **Current Status** - The running status of the connected wireless client.
- **Received Packets** - Packets received by the wireless client.
- **Sent Packets** - Packets sent by the wireless client.
- **Configure** - The button is used for loading the item to the Wireless MAC Filtering list.
  - **Allow** - If the Wireless MAC Filtering function is enabled, click this button to allow the client to access your network.
  - **Deny** - If the Wireless MAC Filtering function is enabled, click this button to deny the client to access your network.

## 8.6. DHCP

By default, the DHCP (Dynamic Host Configuration Protocol) Server is enabled and the router acts as a DHCP server; it dynamically assigns TCP/IP parameters to client devices



from the IP Address Pool. You can change the settings of DHCP Server if necessary, and you can reserve LAN IP addresses for specified client devices.

### 8.6.1. DHCP Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **DHCP > DHCP Settings**.
3. Specify DHCP server settings and click **Save**.

DHCP Settings

DHCP Server:  Disable  Enable

Start IP Address:

End IP Address:

Address Lease Time:  minutes (1~2880 minutes, the default value is 120)

Default Gateway:

Default Domain:  (Optional)

Primary DNS:  (Optional)

Secondary DNS:  (Optional)

- **DHCP Server** - Enable or disable the DHCP server. If disabled, you must have another DHCP server within your network or else you must configure the computer manually.
- **Start IP Address** - Specify an IP address for the DHCP Server to start with when assigning IP addresses. 192.168.0.100 is the default start address.
- **End IP Address** - Specify an IP address for the DHCP Server to end with when assigning IP addresses. 192.168.0.199 is the default end address.
- **Address Lease Time** - The Address Lease Time is the amount of time a network user will be allowed to connect to the Router with the current dynamic IP Address. When time is up, the user will be automatically assigned a new dynamic IP address. The range of the time is 1 ~ 2880 minutes. The default value is 120.
- **Default Gateway (Optional)** - It is suggested to input the IP address of the LAN port of the Router. The default value is 192.168.0.254.
- **Default Domain (Optional)** - Input the domain name of your network.
- **Primary DNS (Optional)** - Input the DNS IP address provided by your ISP.
- **Secondary DNS (Optional)** - Input the IP address of another DNS server if your ISP provides two DNS servers.

**Note:**

To use the DHCP server function of the Router, you must configure all computers on the LAN as [Obtain an IP Address automatically](#).

## 8.6.2. DHCP Client List

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **DHCP > DHCP Client List** to view the information of the clients connected to the router.

ID	Client Name	MAC Address	Assigned IP	Lease Time
1			192.168.0.100	01:22:00
2			192.168.0.101	01:55:07

[Refresh](#)

- **Client Name** - The name of the DHCP client.
- **MAC Address** - The MAC address of the DHCP client.
- **Assigned IP** - The IP address that the router has allocated to the DHCP client.
- **Lease Time** - The time of the DHCP client leased. After the dynamic IP address has expired, a new dynamic IP address will be automatically assigned to the user.

You cannot change any of the values on this page. To update this page and show the current attached devices, click [Refresh](#).

## 8.6.3. Address Reservation

You can reserve an IP address for a specific client. When you specify a reserved IP address for a PC on the LAN, this PC will always receive the same IP address each time when it accesses the DHCP server.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **DHCP > Address Reservation**.
3. Click [Add New](#) and fill in the blank.

ID	MAC Address	Reserved IP Address	Status	Modify
1	74-D4-35-98-42-A8	192.168.0.100	Disabled	<a href="#">Modify</a> <a href="#">Delete</a>

[Add New...](#)
[Enable All](#)
[Disable All](#)
[Delete All](#)

The change of Address Reservation will not take effect until this device reboots, please [click here](#) to reboot.

- 1) Enter the MAC address (in XX-XX-XX-XX-XX-XX format.) of the client for which you want to reserve an IP address.
- 2) Enter the IP address (in dotted-decimal notation) which you want to reserve for the client.
- 3) Leave the status as [Enabled](#).
- 4) Click [Save](#).

## 8.7. Forwarding

Router's NAT (Network Address Translation) feature makes the devices in the LAN use the same public IP address to communicate in the Internet, which protects the local network by hiding IP addresses of the devices. However, it also brings about the problem that external hosts cannot initiatively communicate with the specified devices in the local network.

With the forwarding feature, the router can traverse the isolation of NAT so that clients on the Internet can reach devices in the LAN and realize some specific functions.

TP-LINK router includes four forwarding rules. If two or more rules are set, the priority of implementation from high to low is Virtual Servers, Port Triggering, UPNP and DMZ.

### 8.7.1. Virtual Servers

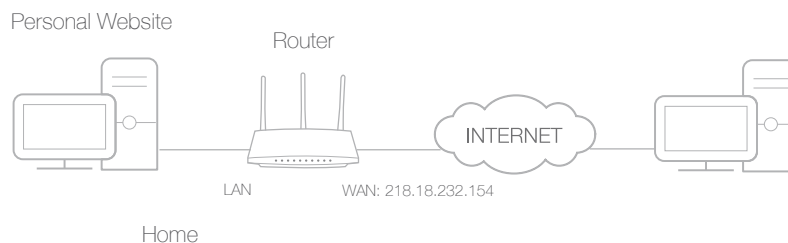
When you build up a server in the local network and want to share it on the Internet, Virtual Servers can realize the service and provide it to Internet users. At the same time virtual servers can keep the local network safe as other services are still invisible from the Internet.

Virtual Servers can be used to set up public services in your local network, such as HTTP, FTP, DNS, POP3/SMTP and Telnet. Different service uses different service port. Port 80 is used in HTTP service, port 21 in FTP service, port 25 in SMTP service and port 110 in POP3 service. Please verify the service port number before the configuration.

I want to:

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

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



1. Set your PC to a static IP address, for example 192.168.0.100.
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
3. Go to **Forwarding > Virtual Servers**.

- Click **Add New**. Select **HTTP** from the **Common Service Port** list. The service port, internal port and protocol will be automatically filled with contents. Enter the PC's IP address 192.168.0.100 in the **IP Address** field.

The screenshot shows a web form titled "Add or Modify a Virtual Server Entry". The form has the following fields and values:

- Service Port: 80 (with a hint "(XX-XX or XX)")
- Internal Port: 80 (with a hint "(XX, Enter a specific port number or leave it blank)")
- IP Address: 192.168.0.100
- Protocol: TCP (dropdown menu)
- Status: Enabled (dropdown menu)
- Common Service Port: HTTP (dropdown menu)

At the bottom of the form, there are two buttons: "Save" and "Back".

- Leave the status as **Enabled** and click **Save**.

**Note:**

- It is recommended to keep the default settings of **Internal Port** and **Protocol** if you are not clear about which port and protocol to use.
- If the service you want to use is not in the **Common Service Port** list, you can enter the corresponding parameters manually. You should verify the port number that the service needs.
- You can add multiple virtual server rules if you want to provide several services in a router. Please note that the **Service Port** should not be overlapped.

Done!

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

**Note:**

If you have changed the default **Service Port**, you should use **http:// WAN IP: Service Port** to visit the website.

## 8.7.2. Port Triggering

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

Follow the steps below to configure the port triggering rules:

- Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
- Go to **Forwarding > Port Triggering**.
- Click **Add New**. Select the desired application from the **Common Applications** list. The trigger port and incoming ports will be automatically filled with contents. The following picture takes application **MSN Gaming Zone** as an example.

Add or Modify a Port Triggering Entry

---

Trigger Port:	<input type="text" value="47624"/>
Trigger Protocol:	<input type="text" value="All"/>
Incoming Ports:	<input type="text" value="2300-2400,28800-29000"/>
Incoming Protocol:	<input type="text" value="All"/>
Status:	<input type="text" value="Enabled"/>
Common Applications:	<input type="text" value="MSN Gaming Zone"/>

4. Leave the status as **Enabled** and click **Save**.

**Note:**

- You can add multiple port triggering rules according to your network need.
- The triggering ports can not be overlapped.
- If the application you need is not listed in the **Common Applications** list, please enter the parameters manually. You should verify the incoming ports the application uses first and enter them in **Incoming Ports** field. You can input at most 5 groups of ports (or port sections). Every group of ports must be set apart with ",". For example, 2000-2038, 2050-2051, 2085, 3010-3030.

### 8.7.3. DMZ

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

**Note:**

DMZ is more applicable in the situation that users are not clear about which ports to open. When it is enabled, the DMZ host is totally exposed to the Internet, which may bring some potential safety hazard. If DMZ is not in use, please disable it in time.

**I want to:** Make the home PC join the Internet online game without port restriction.

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

**How can I do that?**

1. Assign a static IP address to your PC, for example 192.168.0.100.
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.

3. Go to **Forwarding > DMZ**.
4. Select **Enable** and enter the IP address 192.168.0.100 in the **DMZ Host IP Address** field.

DMZ	
Current DMZ Status:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
DMZ Host IP Address:	<input type="text" value="192.168.0.100"/>
<input type="button" value="Save"/>	

5. Click **Save**.

Done!

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

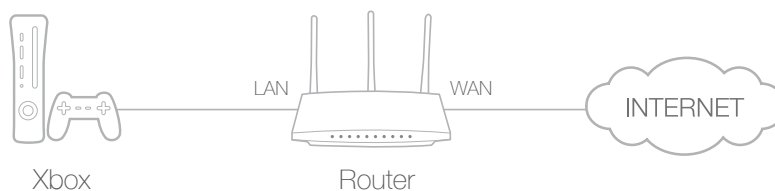
#### 8.7.4. UPnP

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

☛ Tips:

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

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



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

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Forwarding > UPnP**.
3. Click **Disable** or **Enable** according to your needs.

UPnP Status: **Enabled**

UPnP Settings List

ID	App Description	External Port	Protocol	Internal Port	IP Address
<input type="button" value="Refresh"/>					

## 8.8. Security

This function allows you to protect your home network from cyber attacks and unauthorized users by implementing these network security functions.

### 8.8.1. Basic Security

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Security > Basic Security](#), and you can enable or disable the security functions.

**Basic Security**

**Firewall**

SPI Firewall:  Enable  Disable

**VPN**

PPTP Passthrough:  Enable  Disable

L2TP Passthrough:  Enable  Disable

IPSec Passthrough:  Enable  Disable

**ALG**

FTP ALG:  Enable  Disable

TFTP ALG:  Enable  Disable

H323 ALG:  Enable  Disable

RTSP ALG:  Enable  Disable

SIP ALG:  Enable  Disable

- **Firewall** - A firewall protects your network from Internet attacks.
  - **SPI Firewall** - SPI (Stateful Packet Inspection, also known as dynamic packet filtering) helps to prevent cyber attacks by tracking more state per session. It

validates that the traffic passing through the session conforms to the protocol. SPI Firewall is enabled by default.

- **VPN** - VPN Passthrough must be enabled if you want to allow VPN tunnels using IPSec, PPTP or L2TP protocols to pass through the router's firewall.
  - **PPTP Passthrough** - Point-to-Point Tunneling Protocol (PPTP) allows the Point-to-Point Protocol (PPP) to be tunneled through an IP network. If you want to allow PPTP tunnels to pass through the router, you can keep the default (Enabled).
  - **L2TP Passthrough** - Layer 2 Tunneling Protocol (L2TP) is the method used to enable Point-to-Point sessions via the Internet on the Layer 2 level. If you want to allow L2TP tunnels to pass through the router, you can keep the default (Enabled).
  - **IPSec Passthrough** - Internet Protocol Security (IPSec) is a suite of protocols for ensuring private, secure communications over Internet Protocol (IP) networks, through the use of cryptographic security services. If you want to allow IPSec tunnels to pass through the router, you can keep the default (Enabled).
- **ALG** - It is recommended to enable Application Layer Gateway (ALG) because ALG allows customized Network Address Translation (NAT) traversal filters to be plugged into the gateway to support address and port translation for certain application layer "control/data" protocols such as FTP, TFTP, H323 etc.
  - **FTP ALG** - To allow FTP clients and servers to transfer data across NAT, keep the default **Enable**.
  - **TFTP ALG** - To allow TFTP clients and servers to transfer data across NAT, keep the default **Enable**.
  - **H323 ALG** - To allow Microsoft NetMeeting clients to communicate across NAT, keep the default **Enable**.
  - **RTSP ALG** - To allow some media player clients to communicate with some streaming media servers across NAT, click **Enable**.
  - **SIP ALG** - To allow some multimedia clients to communicate across NAT, click **Enable**.

3. Click **Save**.



## 8.8.2. Advanced Security

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Security > Advanced Security](#), and you can protect the router from being attacked by ICMP-Flood, UDP Flood and TCP-SYN Flood.

- **Packets Statistics Interval (5~60)** - The default value is 10. Select a value between 5 and 60 seconds from the drop-down list. The **Packets Statistics Interval** value indicates the time section of the packets statistics. The result of the statistics is used for analysis by SYN Flood, UDP Flood and ICMP-Flood.
- **DoS Protection** - Denial of Service protection. Select Enable or Disable to enable or disable the DoS protection function. Only when it is enabled, will the flood filters be enabled.

**Note:**

Dos Protection will take effect only when the Statistics in [System Tool > Statistics](#) is enabled.

- **Enable ICMP-FLOOD Attack Filtering** - Check the box to enable or disable this function.
- **ICMP-FLOOD Packets Threshold (5~3600)** - The default value is 50. Enter a value between 5 ~ 3600. When the number of the current ICMP-FLOOD packets is beyond the set value, the router will startup the blocking function immediately.
- **Enable UDP-FLOOD Filtering** - Check the box to enable or disable this function.

- **UDP-FLOOD Packets Threshold (5~3600)** - The default value is 500. Enter a value between 5 ~ 3600. When the number of the current UPD-FLOOD packets is beyond the set value, the router will startup the blocking function immediately.
  - **Enable TCP-SYN-FLOOD Attack Filtering** -Check the box to enable or disable this function.
  - **TCP-SYN-FLOOD Packets Threshold (5~3600)** - The default value is 50. Enter a value between 5 ~ 3600. When the number of the current TCP-SYN-FLOOD packets is beyond the set value, the router will startup the blocking function immediately.
  - **Ignore Ping Packet From WAN Port** - The default setting is disabled. If enabled, the ping packet from the Internet cannot access the router.
  - **Forbid Ping Packet From LAN Port** - The default setting is disabled. If enabled, the ping packet from LAN cannot access the router. This function can be used to defend against some viruses.
3. Click **Save**.
  4. Click **Blocked DoS Host List** to display the DoS host table by blocking.

### 8.8.3. Local Management

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **Security > Local Management**, and you can block computers in LAN from accessing the router.

Local Management

Management Rules

All the PCs on the LAN are allowed to access the Router's Web-Based Utility  
 Only the PCs listed can browse the built-in web pages to perform Administrator tasks

MAC 1:

MAC 2:

MAC 3:

MAC 4:

Your PC's MAC Address:

For example, if you want to allow PCs with specific MAC addresses to access the router's web management page locally from inside the network, please follow the instructions below:

- 1) Select **Only the PCs listed can browse the built-in web pages to perform Administrator tasks**.

- 2) Enter the MAC address of each PC separately. The format of the MAC address is XX-XX-XX-XX-XX-XX (X is any hexadecimal digit). Only the PCs with the listed MAC addresses can use the password to browse the built-in web pages to perform administrator tasks.
- 3) Click [Add](#), and your PC's MAC address will also be listed.
- 4) Click [Save](#).

**Note:**

If your PC is blocked but you want to access the router again, press and hold the [Reset](#) button to reset the router to the factory defaults.

### 8.8.4. Remote Management

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Security > Remote Management](#), and you can manage your router from a remote device via the Internet.

Remote Management	
Web Management Port:	<input type="text" value="80"/>
Remote Management IP Address:	<input type="text" value="0.0.0.0"/> (Enter 255.255.255.255 for all)
<input type="button" value="Save"/>	

- **Web Management Port** - Web browser access normally uses the standard HTTP service port 80. This router's default remote management web port number is 80. For higher security, you can change the remote management web port to a custom port by entering a number between 1 and 65534 but do not use the number of any common service port.
- **Remote Management IP Address** - This is the address you will use when accessing your router via a remote device. This function is disabled when the IP address is set to the default value of 0.0.0.0. To enable this function, change 0.0.0.0 to a valid IP address. If it is set to 255.255.255.255, then all the remote devices can access the router from the Internet.

**Note:**

1. To access the router, enter your router's WAN IP address in your browser's address bar, followed by a colon and the custom port number. For example, if your router's WAN address is 202.96.12.8, and the port number used is 8080, please enter <http://202.96.12.8:8080> in your browser. Later, you may be asked for the router's password. After successfully entering the username and password, you will be able to access the router's web management page.
2. Be sure to change the router's default password for security purposes.

## 8.9. Parental Controls

Parental Controls allows you to block inappropriate and malicious websites, and control access to specific websites at specific time for your children's devices.

For example, you want the children's PC with the MAC address 00-11-22-33-44-AA can access [www.tp-link.com](http://www.tp-link.com) on Saturday only while the parent PC with the MAC address 00-11-22-33-44-BB is without any restriction.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Access Control](#) > [Schedule](#).
3. Click [Add New](#) to create a new schedule entry with [Schedule Description](#) as `Schedule_1`, [Day](#) as Sat and [Time](#) as all day-24 hours, and then click [Save](#).

Advance Schedule Settings

Note: The Schedule is based on the time of the Router.

Schedule Description:

Day:  Everyday  Select Days

Mon  Tue  Wed  Thu  Fri  Sat  Sun

Time: all day-24 hours:

Start Time:  (HHMM)

Stop Time:  (HHMM)

4. Go to [Parental Control](#).
5. Select [Enable](#) and enter the MAC address 00-11-22-33-44-BB in the [MAC Address of Parental PC](#) field.
6. Click [Add New](#).
7. Enter appropriate parameters in corresponding fields.

[Add or Modify Parental Control Entry](#)

The Schedule is based on the time of the Router. The time can be set in "System Tools -> [Time settings](#)".

MAC Address of Children's PC:

All MAC Address In Current LAN:

Website Description:

Allowed Website Name:

Effective Time:

The time schedule can be set in "Access Control -> [Schedule](#)"

Status:

- Enter 00-11-22-33-44-AA in the [MAC Address of Children's PC](#) field.
- Enter Allow TP-LINK in the [Website Description](#) field.
- Enter www.tp-link.com in the [Allowed Website Name](#) field.
- Select Schedule\_1 you created from the [Effective Time](#) drop-down list.
- In the [Status](#) field, select [Enable](#).

8. Click [Save](#).

Then you can go back to the [Parental Control](#) Settings page to check the following list.

ID	MAC address	Website Description	Schedule	Status	Modify
1	00-11-22-33-44-AA	TP-LINK	schedule_1	<input checked="" type="checkbox"/>	<a href="#">Edit</a> <a href="#">Delete</a>

## 8. 10. Access Control

Access Control is used to deny or allow specific client devices to access your network with access time and content restrictions.

**I want to:** Deny or allow specific client devices to access my network with access time and content restrictions.

**For example,** If you want to restrict the internet activities of host with MAC address 00-11-22-33-44-AA in the LAN to access www.tp-link.com only, please follow the steps below:

**How can I do that?**

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Access Control](#) > [Host](#) and configure the host settings:

- 1) Click [Add New](#).
- 2) Select [MAC Address](#) as the mode type. Create a unique description (e.g. [host\\_1](#)) for the host in the [Host Description](#) field and enter 00-11-22-33-44-AA in the [MAC Address](#) field.

Add or Modify a Host Entry

Mode:

Host Description:

LAN IP Address:  -

- 3) Click [Save](#).
3. Go to [Access Control](#) > [Target](#) and configure the target settings:

- 1) Click [Add New](#).
- 2) Select [Domain Name](#) as the mode type. Create a unique description (e.g. [target\\_1](#)) for the target in the [Target Description](#) field and enter the domain name, either the full name or the keywords (for example TP-LINK) in the [Domain Name](#) field.

**Note:**

Any domain name with keywords in it (e.g. [www.tp-link.com](#)) will be blocked or allowed.

Add or Modify an Access Target Entry

Mode:

Target Description:

Domain Name:

- 3) Click [Save](#).
4. Go to [Access Control](#) > [Schedule](#) and configure the schedule settings:
  - 1) Click [Add New](#).
  - 2) Create a unique description (e.g. [schedule\\_1](#)) for the schedule in the [Schedule Description](#) field and set the day(s) and time period.

### Advance Schedule Settings

Note: The Schedule is based on the time of the Router.

Schedule Description:

Day:  Everyday  Select Days

Mon  Tue  Wed  Thu  Fri  Sat  Sun

Time: all day-24 hours:

Start Time:  (HHMM)

Stop Time:  (HHMM)

3) Click **Save**.

5. Go to **Access Control > Rule** and add a new access control rule.

1) Click **Add New**.

2) Give a name for the rule in the **Rule Name** field. Select **host\_1** from the host drop-down list; select **target\_1** from the target drop-down list; select **schedule\_1** from the schedule drop-down list.

### Add Internet Access Control Entry

Rule Name:

Host:  [Click Here To Add New Host List](#)

Target:  [Click Here To Add New Target List](#)

Schedule:  [Click Here To Add New Schedule](#)

Status:

3) Leave the status as **Enabled** as click **Save**.

6. Select **Enable Internet Access Control** to enable Access Control function.

7. Select **Allow the packets specified by any enabled access control policy to pass through the Router** as the default filter policy and click **Save**.

### Access Control Rule Management

**Enable Internet Access Control**

**Default Filter Policy**

**Allow** the packets specified by any enabled access control policy to pass through the Router

**Deny** the packets specified by any enabled access control policy to pass through the Router

Done!

Now only the specific host(s) can visit the target(s) within the scheduled time period.

## 8.11. Advanced Routing

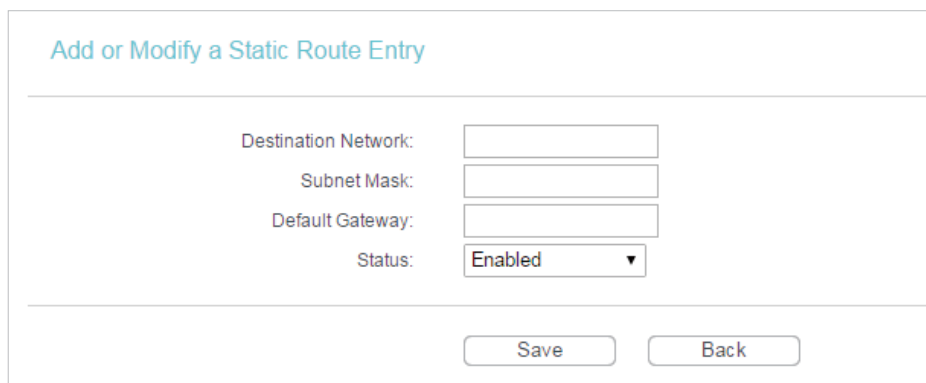
Static Routing is a form of routing that is configured manually by a network administrator or a user by adding entries into a routing table. The manually-configured routing information guides the router in forwarding data packets to the specific destination.

### 8.11.1. Static Routing List

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Advanced Routing > Static Routing](#).

➤ **To add static routing entries:**

1. Click [Add New](#).



The screenshot shows a web form titled "Add or Modify a Static Route Entry". It has four input fields: "Destination Network", "Subnet Mask", "Default Gateway", and "Status". The "Status" field is a dropdown menu with "Enabled" selected. At the bottom of the form are two buttons: "Save" and "Back".

2. Enter the following information.
  - **Destination Network** - The Destination Network is the address of the network or host that you want to assign to a static route.
  - **Subnet Mask** - The Subnet Mask determines which portion of an IP address is the network portion, and which portion is the host portion.
  - **Default Gateway** - This is the IP address of the default gateway device that allows the contact between the router and the network or host.
3. Select [Enabled](#) or [Disabled](#) for this entry on the [Status](#) drop-down list.
4. Click [Save](#).

You can also do the following operations to modify the current settings.

- Click [Delete](#) to delete the entry.
- Click [Enable All](#) to enable all the entries.
- Click [Disable All](#) to disable all the entries.
- Click [Delete All](#) to delete all the entries.
- Click [Previous](#) to view the information on the previous screen and [Next](#) to view the information on the next screen.



## 8.12. Bandwidth Control

### 8.12.1. Control Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Bandwidth Control > Control Settings](#).
3. Configure the bandwidth as needed and click [Save](#).

The values you configure for the Egress Bandwidth and Ingress Bandwidth should be less than 100,000Kbps. For optimal control of the bandwidth, please select the right Line Type and consult your ISP for the total egress and ingress bandwidth.

- [Enable Bandwidth Control](#) - Check this box so that the Bandwidth Control settings can take effect.
- [Line Type](#) - Select the right type for you network connection. If you are not sure, please consult your ISP.
- [Egress Bandwidth](#) - The upload speed through the WAN port.
- [Ingress Bandwidth](#) - The download speed through the WAN port.

### 8.12.2. Rule List

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Bandwidth Control > Rule List](#), and you can view and configure the Bandwidth Control rules.

ID	Description	Egress Bandwidth(Kbps)		Ingress Bandwidth(Kbps)		Enable	Modify
		Min	Max	Min	Max		
The current list is empty.							

- [Description](#) - This is the information about the rules such as address range.
- [Egress Bandwidth](#) - This field displays the max and min upload bandwidth through the WAN port. The default is 0.

- **Ingress Bandwidth** - This field displays the max and min download bandwidth through the WAN port. The default is 0.
- **Enable** - This field displays the status of the rule.
- **Modify** - Click **Modify/Delete** to edit/delete the rule.

➤ **To add a Bandwidth control rule:**

1. Click **Add New**.
2. Enter the information as the figure shown below.

The screenshot shows the 'Bandwidth Control Rule Settings' form. It contains the following fields and controls:

- Enable:** A checked checkbox.
- IP Range:** Two input boxes separated by a hyphen.
- Port Range:** Two input boxes separated by a hyphen.
- Protocol:** A dropdown menu with 'All' selected.
- Min Bandwidth(Kbps):** An input box with '0'.
- Max Bandwidth(Kbps):** An input box with '0'.
- Egress Bandwidth:** An input box with '0'.
- Ingress Bandwidth:** An input box with '0'.
- Buttons:** 'Save' and 'Back' buttons at the bottom right.

3. Click **Save**.

## 8. 13. IP&MAC Binding

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

### 8. 13. 1. Binding Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **IP & MAC Binding > Binding Settings**.
3. Select **Enable** for ARP Binding.

The screenshot shows the 'Binding Settings' form. It contains the following controls:

- ARP Binding:** Two radio buttons, 'Disable' and 'Enable'. The 'Enable' radio button is selected.
- Button:** A 'Save' button at the bottom.

4. Click **Save**.

➤ **To add IP & MAC Binding entries:**

1. Click **Add New**.
2. Select the **Bind** checkbox.

### IP & MAC Binding Settings

---

Bind:

MAC Address:

IP Address:

---

3. Enter the MAC address and IP address.

4. Click [Save](#).

➤ **To modify or delete an existing entry:**

1. Find the desired entry in the table.
2. Click [Modify](#) or [Delete](#) in the Modify column.

➤ **To find an existing entry:**

1. Click [Find](#).
2. Enter the MAC address or IP address in the corresponding field.
3. Click [Find](#) on this page as shown below.

### Find IP & MAC Binding Entry

---

MAC Address:

IP Address:

ID	MAC Address	IP Address	Bind	Link
Now the current list is empty.				

---

## 8.13.2. ARP List

To manage a device, you can observe the device on the LAN by checking its MAC address and IP address on the ARP list, and you can also configure the items. This page displays the ARP list which shows all the existing IP & MAC Binding entries.

### ARP List

---

ID	MAC Address	IP Address	Status	Configure
1	50-E5-49-1E-06-80	192.168.0.200	Unbound	<a href="#">Load Delete</a>

---

- **MAC Address** - The MAC address of the listed computer on the LAN.
- **IP Address** - The assigned IP address of the listed computer on the LAN.
- **Status** - Indicates whether or not the MAC and IP addresses are bound.

- **Configure** - Load or delete an item.
  - **Load** - Load the item to the IP & MAC Binding list.
  - **Delete** - Delete the item.
- Click **Bind All** to bind all the current items.
- Click **Load All** to load all items to the IP & MAC Binding list.
- Click **Refresh** to refresh all items.

**Note:**

An item can not be loaded to the IP & MAC Binding list if the IP address of the item has been loaded before. Error warning will prompt as well. Likewise, **Load All** only loads the items without interference to the IP & MAC Binding list.

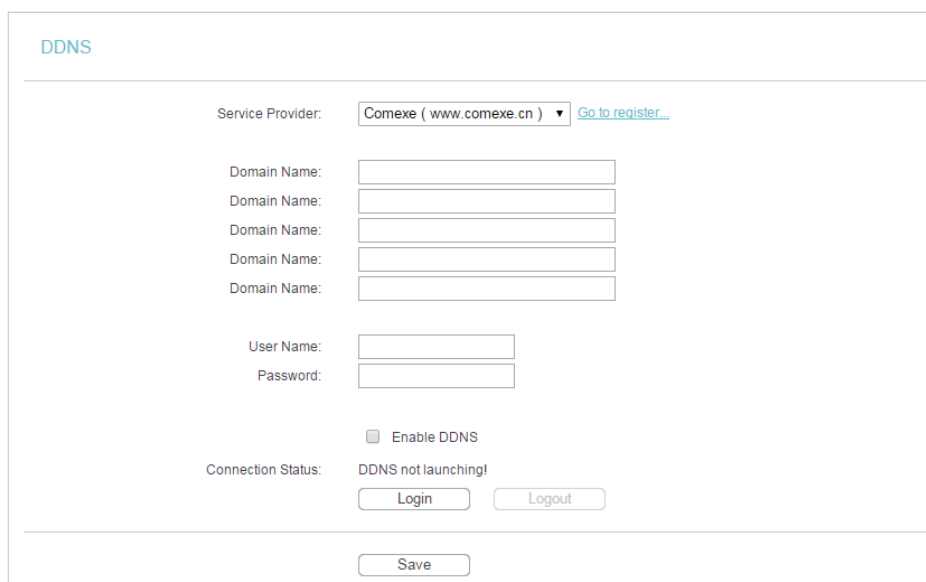
## 8. 14. Dynamic DNS

The router offers the DDNS (Dynamic Domain Name System) feature, which allows the hosting of a website, FTP server, or e-mail server with a fixed domain name (named by yourself) and a dynamic IP address. Thus your friends can connect to your server by entering your domain name no matter what your IP address is. Before using this feature, you need to sign up for DDNS service providers such as [www.comexe.cn](http://www.comexe.cn), [www.dyndns.org](http://www.dyndns.org), or [www.noip.com](http://www.noip.com). The Dynamic DNS client service provider will give you a password or key.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [Dynamic DNS](#).

### Comexe DDNS

If the dynamic DNS Service Provider you select is [www.comexe.cn](http://www.comexe.cn), the following page will appear.



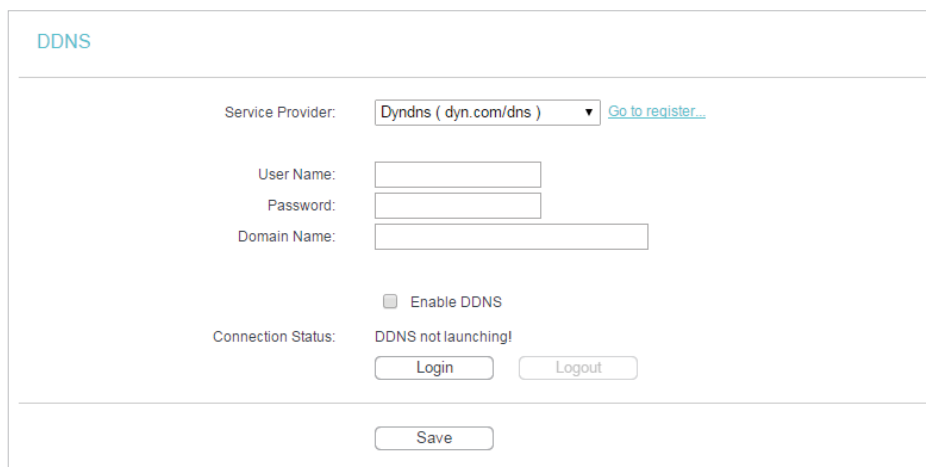
The screenshot shows the DDNS configuration interface. At the top left, the title "DDNS" is displayed. Below it, the "Service Provider" is set to "Comexe ( www.comexe.cn )" with a dropdown arrow and a "Go to register..." link. There are five "Domain Name:" labels, each followed by an empty text input field. Below these are "User Name:" and "Password:" labels, each followed by an empty text input field. A checkbox labeled "Enable DDNS" is currently unchecked. The "Connection Status:" is "DDNS not launching!". At the bottom of the form, there are "Login" and "Logout" buttons, and a "Save" button at the very bottom.

To set up for DDNS, follow these instructions:

1. Enter the [Domain Name](#) received from your dynamic DNS service provider.
  2. Enter the [User Name](#) for your DDNS account.
  3. Enter the [Password](#) for your DDNS account.
  4. Click [Login](#).
  5. Click [Save](#).
- [Connection Status](#) - The status of the DDNS service connection is displayed here.
  - [Logout](#) - Click [Logout](#) to log out of the DDNS service.

## Dyndns DDNS

If the dynamic DNS Service Provider you select is [www.dyn.com](http://www.dyn.com), the following page will appear.



The screenshot shows a web form titled "DDNS" with the following fields and controls:

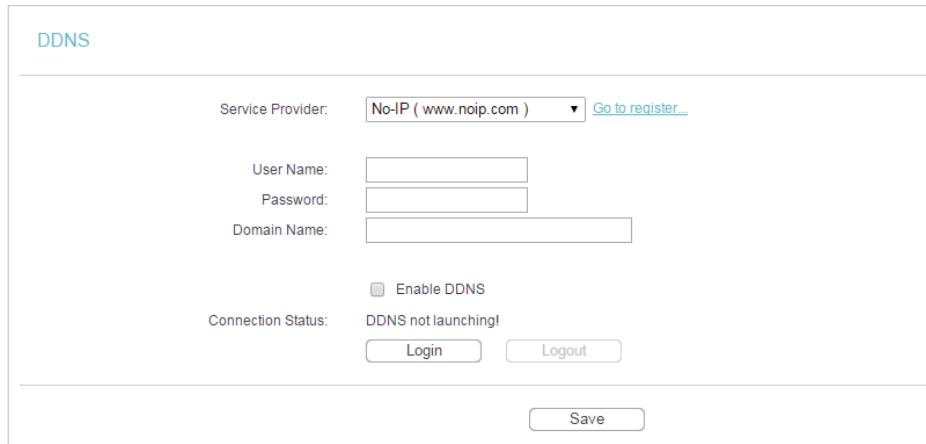
- Service Provider:** A dropdown menu set to "Dyndns ( dyn.com/dns )" with a "Go to register..." link to its right.
- User Name:** A text input field.
- Password:** A text input field.
- Domain Name:** A text input field.
- Enable DDNS:** A checkbox that is currently unchecked.
- Connection Status:** Displays the text "DDNS not launching!".
- Login:** A button.
- Logout:** A button.
- Save:** A button located at the bottom of the form.

To set up for DDNS, follow these instructions:

1. Enter the [User Name](#) for your DDNS account.
  2. Enter the [Password](#) for your DDNS account.
  3. Enter the [Domain Name](#) you received from dynamic DNS service provider here.
  4. Click [Login](#).
  5. Click [Save](#).
- [Connection Status](#) - The status of the DDNS service connection is displayed here.
  - [Logout](#) - Click [Logout](#) to log out of the DDNS service.

## No-ip DDNS

If the dynamic DNS Service Provider you select is [www.noip.com](http://www.noip.com), the following page will appear.



The screenshot shows a web interface for configuring DDNS. At the top left, the word "DDNS" is displayed in blue. Below this, there is a form with the following elements:

- Service Provider:** A dropdown menu currently showing "No-IP ( www.noip.com )" with a small downward arrow. To its right is a blue link that says "Go to register...".
- User Name:** A text input field.
- Password:** A text input field.
- Domain Name:** A text input field.
- Enable DDNS:** A checkbox that is currently unchecked.
- Connection Status:** The text "DDNS not launching!" is displayed.
- Login:** A button with rounded corners.
- Logout:** A button with rounded corners.
- Save:** A button with rounded corners, located at the bottom center of the form area.

To set up for DDNS, follow these instructions:

1. Enter the **User Name** for your DDNS account.
  2. Enter the **Password** for your DDNS account.
  3. Enter the **Domain Name** you received from dynamic DNS service provider.
  4. Click **Login**.
  5. Click **Save**.
- **Connection Status** - The status of the DDNS service connection is displayed here.
  - **Logout** - Click **Logout** to log out of the DDNS service.

## 8. 15. System Tools

### 8. 15. 1. Time Settings

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Time Settings](#) and configure the system time as needed.

The screenshot shows the 'Time Settings' page with the following configuration:

- Time zone: (GMT) Greenwich Mean Time, Dublin, London
- Date: 1/2/2016 (MM/DD/YY)
- Time: 1:44:07 (HH:MM:SS)
- NTP Server 1: 0.0.0.0 (Optional)
- NTP Server 2: 0.0.0.0 (Optional)
- Get GMT button
- Enable DaylightSaving:
- Start: 2016 Mar Last Sun 1am
- End: 2016 Oct Last Sun 1am
- Daylight Saving Status: (Note: Click the "GET GMT" to update the time from the internet with the pre-defined servers or entering the customized server (IP Address or Domain Name) in the above frames.)
- Save button

#### ➤ To set time manually:

3. Select your local [time zone](#).
4. Enter the [Date](#) in Month/Day/Year format.
5. Enter the [Time](#) in Hour/Minute/Second format.
6. Click [Save](#).

#### ➤ To set time automatically:

7. Select your local [time zone](#).
8. Enter the address or domain of the [NTP Server I](#) or [NTP Server II](#).
9. Click [Get GMT](#) to get time from the Internet if you have connected to the Internet.

#### ➤ To set Daylight Saving Time:

1. Select [Enable DaylightSaving](#).
2. Select the start time from the drop-down list in the [Start](#) field.
3. Select the end time from the drop-down list in the [End](#) field.
4. Click [Save](#).

#### 📌 Note:

This setting will be used for some time-based functions such as firewall. You must specify your time zone once you log in to the router successfully; otherwise, time-based functions will not take effect.

## 8.15.2. Diagnostic

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

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Diagnostic**.

**Diagnostic Tools**

**Diagnostic Parameters**

Diagnostic Tool:  Ping  Traceroute

IP Address/ Domain Name:

Ping Count:  (1-50)

Ping Packet Size:  (4-1472 Bytes)

Ping Timeout:  (100-2000 Milliseconds)

Traceroute Max TTL:  (1-30)

**Diagnostic Results**

This device is ready.

- **Diagnostic Tool** - Select one diagnostic tool.
  - **Ping** - This diagnostic tool troubleshoots connectivity, reachability, and name resolution to a given host or gateway.
  - **Tracerouter** - This diagnostic tool tests the performance of a connection.

**Note:**

You can use ping/traceroute to test both numeric IP address or domain name. If pinging/tracerouting the IP address is successful, but pinging/tracerouting the domain name is not, you might have a name resolution problem. In this case, ensure that the domain name you are specifying can be resolved by using Domain Name System (DNS) queries.

- **IP Address/Domain Name** - Enter the destination IP address (such as 192.168.0.1) or Domain name (such as www.tp-link.com).
- **Pings Count** - The number of Ping packets for a Ping connection.
- **Ping Packet Size** - The size of Ping packet.
- **Ping Timeout** - Set the waiting time for the reply of each Ping packet. If there is no reply in the specified time, the connection is overtime.
- **Traceroute Max TTL** - The max number of hops for a Traceroute connection.

3. Click **Start** to check the connectivity of the Internet.

4. The **Diagnostic Results** page displays the diagnosis result. If the result is similar to the following figure, the connectivity of the Internet is fine.



```

Diagnostic Results
-----
Pinging 192.168.0.1 with 64 bytes of data:

Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=1
Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=2
Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=3
Reply from 192.168.0.1: bytes=64 time=1 TTL=64 seq=4

Ping statistics for 192.168.0.1
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss)
Approximate round trip times in milliseconds:
Minimum = 1, Maximum = 1, Average = 1

```

**Note:**

Only one user can use this tool at one time. Options "Number of Pings", "Ping Size" and "Ping Timeout" are used for the Ping function. Option "Tracert Hops" is used for the Tracert function.

### 8.15.3. Firmware Upgrade

TP-LINK is dedicated to improving and enriching the product features, giving users a better network experience. We will release the latest firmware at TP-LINK official website. You can download the latest firmware file from the [Support](#) page of our website [www.tp-link.com](http://www.tp-link.com) and upgrade the firmware to the latest version.

1. Download the latest firmware file for the router from our website [www.tp-link.com](http://www.tp-link.com).
2. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
3. Go to [System Tools > Firmware Upgrade](#).
4. Click [Browse](#) to locate the downloaded firmware file, and click [Upgrade](#).

### 8.15.4. Factory Defaults

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools > Factory Defaults](#). Click [Restore](#) to reset all settings to the default values.

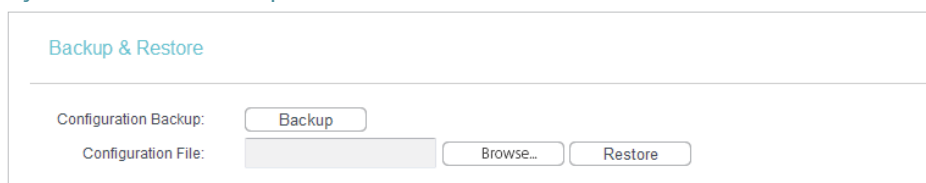
- The default [Username](#): admin
- The default [Password](#): admin

- The default **IP Address**: 192.168.0.1
- The default **Subnet Mask**: 255.255.255.0

### 8.15.5. Backup & Restore

The configuration settings are stored as a configuration file in the router. You can backup the configuration file in your computer for future use and restore the router to the previous settings from the backup file when needed.

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Backup & Restore**.



➤ **To backup configuration settings:**

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

➤ **To restore configuration settings:**

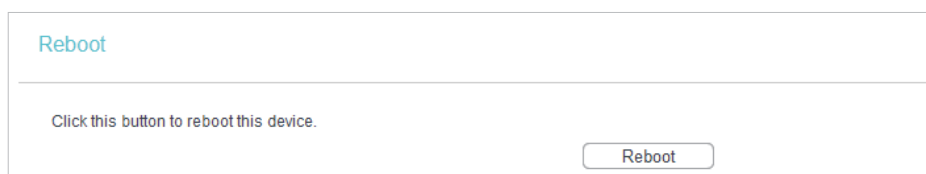
1. Click **Browse...** to locate the backup configuration file stored in your computer, and click **Restore**.
2. Wait a few minutes for the restoring and rebooting.

📌 **Note:**

During the restoring process, do not power off or reset the router.

### 8.15.6. Reboot

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to **System Tools > Reboot**, and you can restart your router.



Some settings of the router will take effect only after rebooting, including:

- Change the LAN IP Address (system will reboot automatically).
- Change the DHCP Settings.
- Change the Web Management Port.
- Upgrade the firmware of the router (system will reboot automatically).
- Restore the router to its factory defaults (system will reboot automatically).
- Update the configuration with the file (system will reboot automatically).

### 8.15.7. Password

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools](#) > [Password](#), and you can change the factory default username and password of the router.

Password

Username and password can contain between 1 - 15 characters and may not include spaces.

Old User Name:

Old Password:

New User Name:

New Password:

Confirm New Password:

Save Clear All

It is strongly recommended that you change the default username and password of the router, for all users that try to access the router's web-based utility or Quick Setup will be prompted for the router's username and password.

**Note:**

The new username and password must not exceed 15 characters and not include any spacing.

3. Click [Save](#).

### 8.15.8. System Log

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools](#) > [System Log](#), and you can view the logs of the router.

System Log

Auto Mail Feature: **Disabled**

Log Type: **ALL** Log Level: **ALL**

Log is Empty.

Time = [redacted]  
 H-Ver = [redacted] : S-Ver = [redacted]  
 L = 192.168.0.118 : M = 255.255.255.0  
 W1 = DHCP : W = 0.0.0.0 : M = 0.0.0.0 : G = 0.0.0.0

Refresh Save Log Mail Log Clear Log

Previous Next Current No. 1 Page

- [Auto Mail Feature](#) - Indicates whether the auto mail feature is enabled or not.
- [Mail Settings](#) - Set the receiving and sending mailbox address, server address, validation information as well as the timetable for Auto Mail Feature.

- **From** - Your mail box address. The router will connect it to send logs.
- **To** - Recipient's mail address. The destination mailbox which will receive logs
- **SMTP Server** - Your smtp server. It corresponds with the mailbox filled in the **From** field. You can log on the relevant website for help if you are not clear with the address.
- **Authentication** - Most SMTP Server requires Authentication. It is required by most mailboxes that need user name and password to log in.

**Note:**

Only when you select Authentication, do you have to enter the user name and password in the following fields.

- **User Name** - Your mail account name filled in the From field. The part behind @ is included.
- **Password** - Your mail account password.
- **Confirm The Password** - Enter the password again to confirm.
- **Enable Auto Mail Feature** - Select it to mail logs automatically. You could mail the current logs either at a specified time everyday or by intervals, but only one could be the current effective rule. Enter the desired time or intervals in the corresponding field.

Click **Save** to apply your settings.

Click **Back** to return to the previous page.

- **Log Type** - By selecting the log type, only logs of this type will be shown.
- **Log Level** - By selecting the log level, only logs of this level will be shown.
- **Refresh** - Refresh the page to show the latest log list.
- **Save Log** - Click to save all the logs in a txt file.

- **Mail Log** - Click to send an email of current logs manually according to the address and validation information set in Mail Settings.
- **Clear Log** - All the logs will be deleted from the router permanently, not just from the page.

Click [Next](#) to go to the next page, or click [Previous](#) to return to the previous page.

### 8.15.9. Statistics

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Go to [System Tools](#) > [Statistics](#), and you can view the statistics of the router, including total traffic and the value of the last Packet Statistic Interval in seconds.

- **Current Statistics Status** - Enable or Disable. The default value is disabled. To enable, click the Enable button. If disabled, the function of DoS protection in Security settings will be disabled.
- **Packets Statistics Interval (5-60)** - The default value is 10. Select a value between 5 and 60 in the drop-down list. The Packets Statistic Interval indicates the time section of the packets statistic.
- **Sorted Rules** – Choose how displayed statistics are sorted.
- Select **Auto-refresh** to refresh automatically. Click **Refresh** to refresh immediately.
- Click **Reset All** to reset the values of all the entries to zero.
- Click **Delete All** to delete all entries in the table.

### Statistics Table

IP/MAC Address	The IP and MAC address are displayed with related statistics.	
Total	Packets	The total number of packets received and transmitted by the router.
	Bytes	The total number of bytes received and transmitted by the router.

Current	Packets	The total number of packets received and transmitted in the last Packets Statistic interval seconds.
	Bytes	The total number of bytes received and transmitted in the last Packets Statistic interval seconds.
	ICMP Tx	The number of the ICMP packets transmitted to WAN per second at the specified Packets Statistics interval. It is shown like "current transmitting rate / Max transmitting rate".
	UDP Tx	The number of UDP packets transmitted to the WAN per second at the specified Packets Statistics interval. It is shown like "current transmitting rate / Max transmitting rate".
	TCP SYN Tx	The number of TCP SYN packets transmitted to the WAN per second at the specified Packets Statistics interval. It is shown like "current transmitting rate / Max transmitting rate".
Modify	Reset	Reset the value of the entry to zero.
	Delete	Delete the existing entry in the table.

## 8. 16. Logout

Click [Logout](#) at the bottom of the main menu, and you will log out of the web management page and return to the login window.

# FAQ

## Q1. What can I do if I cannot access the Internet?

- If using a cable modem, unplug the Ethernet cable and reboot the modem. Wait until its Online LED is on and stable, then reconnect the Ethernet cable to the modem.
- If you're in a hotel room or on a trade show, the Internet may be limited and requires that you authenticate for the service or purchase the Internet access.
- If your Internet access is still not available, contact TP-LINK Technical Support.

## Q2. How do I restore the router to its factory default settings?

With the router powered on, press and hold the [Reset](#) button until the LED starts flashing and then release the button.

**Note:** You'll need to reconfigure the router to surf the Internet once the router is reset

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

- If you have not changed the default Wireless Password, it can be found on the label of the router.
- Otherwise, connect a computer to the router via an Ethernet cable. Log into the Web Management page, and go to [Wireless](#) > [Wireless Security](#) to retrieve or reset your wireless password.

## Q4. What can I do if I forgot my login password of the web management page?

The default username and password of the web management page are [admin](#) (in lowercase). If you have altered the password:

1. Reset the router to factory default settings: With the router powered on, press and hold the [Reset](#) button until the LED starts flashing and then release the button.

2. Visit <http://tplinkwifi.net>, enter [admin](#) (in lowercase) as both username and password to login.

**Note:** You'll need to reconfigure the router to surf the Internet once the router is reset, and please mark down your new password for future use.

## Q5. What do I need to do if I want to use NetMeeting?

If you start NetMeeting as a sponsor, you don't need to do anything with the router. If you start as a response, please follow the steps below to configure the router:

1. Visit <http://tplinkwifi.net>, and log in with the username and password you set for the router.
2. Enable DMZ: Go to [Forwarding](#) > [DMZ](#). Select [Enable](#) and enter your IP address in the [DMZ Host IP Address](#) field, and then Click [Save](#).
3. Enable H323 ALG: Go to [Security](#) > [Basic Security](#), enable [H323 ALG](#) and click [Save](#).

Now you can enjoy your net meeting normally.


### Q6. What can I do if my wireless signal is unstable or weak?

It may be caused by too much interference.

- Set your wireless channel to a different one.
- Choose a location with less obstacles that may block the signal between the router and the host AP. An open corridor or a spacious location is ideal.
- Move the router to a new location away from Bluetooth devices and other household electronics, such as cordless phone, microwave, and baby monitor, etc., to minimize signal interference.
- When in Repeater mode, the ideal location to place the router is halfway between your host AP and the Wi-Fi dead zone. If that is not possible, place the router closer to your host AP to ensure stable performance.



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## 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."

## Canadian Compliance Statement

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

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

Cet appareil est conforme aux norms CNR exemptes de licence d'Industrie Canada. Le fonctionnement est soumis aux deux conditions suivantes:

1. cet appareil ne doit pas provoquer d'interférences et
2. cet appareil doit accepter toute interférence, y compris celles susceptibles de provoquer un fonctionnement non souhaité de l'appareil.

## 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

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

## NCC Notice & BSMI Notice:

注意！

依據 低功率電波輻射性電機管理辦法

第十二條 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性或功能。

第十四條 低功率射頻電機之使用不得影響飛航安全及干擾合法通行；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信規定作業之無線電信。低功率射頻電機需忍受合法通信或工業、科學以及醫療用電波輻射性電機設備之干擾。

## 安全諮詢及注意事項





- 請使用原裝電源供應器或只能按照本產品注明的電源類型使用本產品。
- 清潔本產品之前請先拔掉電源線。請勿使用液體、噴霧清潔劑或濕布進行清潔。
- 注意防潮，請勿將水或其他液體潑灑到本產品上。

- 插槽與開口供通風使用，以確保本產品的操作可靠並防止過熱，請勿堵塞或覆蓋開口。
- 請勿將本產品置放於靠近熱源的地方。除非有正常的通風，否則不可放在密閉位置中。
- 請不要私自打開機殼，不要嘗試自行維修本產品，請由授權的專業人士進行此項工作。

## 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.

## Explanations of the symbols on the product label

Symbol	Explanation
	Class II equipment
	DC voltage
	Indoor use only
	<p><b>RECYCLING</b></p> <p>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.</p> <p>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.</p>