



# User Guide

AC1900 Wireless Dual Band DOCSIS 3.0  
Cable Modem Router  
CR1900

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# About This Guide

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

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>Teal Underlined</u>	Hyperlinks are in teal and underlined. You can click to redirect to a website or a specific section.
Teal	Contents to be emphasized and texts on the web page are in teal, including the menus, items, buttons, etc.
>	The menu structures to show the path to load the corresponding page. For example, <a href="#">Advanced</a> > <a href="#">Wireless 2.4GHz</a> > <a href="#">MAC Filtering</a> means the MAC Filtering function page is under the Wireless 2.4GHz menu that is located in the Advanced tab.
■ Note:	Ignoring this type of note might result in a malfunction or damage to the device.
💡 Tips:	Indicates important information that helps you make better use of your device.
Symbols on the web page	<ul style="list-style-type: none"><li>✎ click to edit the corresponding entry.</li><li>🗑️ click to delete the corresponding entry.</li><li>💡 click to enable or disable the corresponding entry.</li></ul>

## More Info

- The latest software, management app and utility can be found at [Download Center](#) at <http://www.tp-link.com/support>.
- The Quick Installation Guide (QIG) 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 <http://www.tp-link.com/support>.

## Chapter 1

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# Get to Know Your Modem Router

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This chapter introduces the modem router and shows its appearance.

This chapter contains the following sections:

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

## 1.1. Product Overview

TP-Link's Cable Modem Router is a combined wired/wireless network connection device with integrated wireless router and DOCSIS 3.0 modem, reducing hassle of configuration and saving space.

With Ethernet ports and antennas, the modem router provides wired and wireless access for multiple computers and mobile devices.


With various features and functions, the modem router is the perfect hub of your home or business network.








## 1.2. Product Appearance

### 1.2.1. Front Panel



The front panel provides LEDs. You can check the modem router's working status by following the LED Explanation table.

LED	Status	Indication
 Power	On	Power is on.
	Off	Power is off. Please ensure that the power adapter is connected correctly.

LED	Status	Indication
 Downstream	Green	The modem router has synchronized more than one channel.
	White	The modem router has synchronized one channel.
	Flashing	The modem router is scanning for downstream channels.
	Off	The synchronization has not started or has failed. Please refer to <a href="#">Note 1</a> for troubleshooting.
 Upstream	Green	The modem router has synchronized more than one channel.
	White	The modem router has synchronized one channel.
	Flashing	The modem router is synchronizing upstream channels.
	Off	The initialization has not started or has failed. Please refer to <a href="#">Note 1</a> for troubleshooting.
 Internet	On	The modem router is connected to the internet.
	Off	There is no internet connection. Please refer to <a href="#">Note 2</a> for troubleshooting.
	Flashing	The modem router is starting up.
 LAN	On	At least one LAN port is connected to a powered-on device.
	Off	No LAN port is connected to a powered-on device.
 USB	On	The inserted USB device is ready to use.
	Off	No USB device is plugged into the USB port.
	Flashing	A USB device is being identified.
 Wireless	On	The Wireless function is enabled.
	Off	The Wireless function is disabled.
 WPS	On	A wireless device has been successfully added to the network by WPS.
	Flashing	A wireless device is trying to connect to the network by WPS. This process may take up to 2 minutes. Please press the WPS button on the wireless devices that you want to add to the network while the LED is flashing.
	Off	A WPS connection has been established for more than 5 minutes or a wireless device has failed to be added to the network by WPS.

**Note:**

1. If the Downstream LED or Upstream LED is off, check your internet connection first. Refer to [Connect Your Modem Router](#) for more information about how to make internet connection correctly. If you have already made a right connection, contact your ISP to make sure your internet service is available now.

2. If the Internet LED is off, check your Downstream LED and Upstream LED first. If they are also off, please refer to [Note 1](#). If the Downstream LED and Upstream LED are on, check your internet configuration. You may need to check this part of information with your ISP and make sure everything has been input correctly.

## 1.2.2. Back Panel



The back panel provides buttons and connection ports. Refer to the following for detailed instructions.

Item	Description
Reset Button	With the modem router powered on, use a pin to press and hold the Reset button for at least 8 seconds until all LEDs turn back on, then release the button. And the modem router will restore to its factory default settings.
WPS Button	Press to start a WPS synchronization.
Wi-Fi ON/OFF Button	Press to turn the Wi-Fi on or off.
USB1 and USB2 Ports	For connecting to USB storage devices or USB printers.
LAN1, LAN2, LAN3, and LAN4 Ports	For connecting to your PCs or other Ethernet network devices.
Cable Port	For connecting to a coaxial cable.



Item	Description
DC Port	For connecting the modem router to power socket via the provided power adapter.
Power On/Off Button	Press to power on or off the modem router.

## Chapter 2

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# Quick Start

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This chapter contains the following sections:

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

## 2.1. Position Your Modem Router

With the modem router, you can access your network from anywhere within the wireless network coverage. However, the wireless signal strength and coverage vary depending on the actual environment of your modem router. Many obstacles may limit the range of the wireless signal, for example, concrete structures or thick walls.

For your safety and best Wi-Fi performance, please:

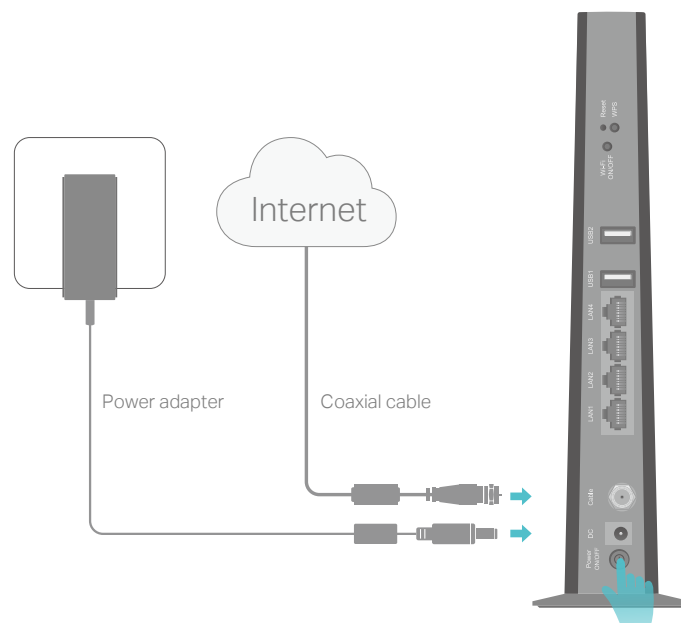
- Do Not locate the modem router in the place where it will be exposed to moisture or excessive heat.
- Keep away from the strong electromagnetic radiation and the device of electromagnetic sensitive.
- Place the modem router where it can be connected to the various devices as well as to a power source.
- Make sure the cables and power cord are safely placed out of the way to avoid a tripping hazard.

◆ Tips: The modem router can be placed on a shelf or desktop.

## 2.2. Connect Your Modem Router

Before connecting the device, please make sure your broadband cable service provided by your ISP is available. If there is any problem, please contact your ISP. Also, keep your hands dry during connection. Follow the steps below to connect your modem router.

1. Connect the coaxial cable and power adapter to the modem router, then power on your modem router.



2. Wait for about 1 minute until the following LEDs are solid on.



3. Connect your computer to the modem router.

### Method 1: Wired

Connect your computer's Ethernet port to a LAN port on the modem router via an Ethernet cable.

### Method 2: Wireless

Connect wirelessly by using the default SSID (Wireless Network Name) and Wireless Password printed on the Information Card or the product label of the modem router.

### Method 3: Use the WPS button

Wireless devices that support WPS, including Android phones, tablets, most USB network cards, can be connected to your router through this method. (WPS is not supported by iOS devices.)

#### Note:

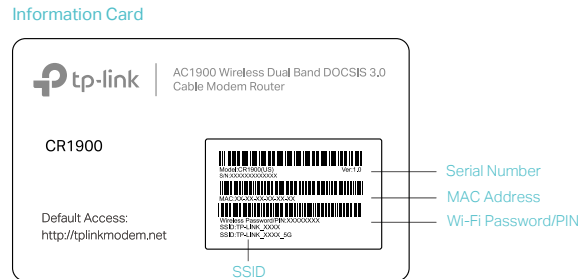
The WPS function cannot be configured if the wireless function of the modem router is disabled. Also, the WPS function will be disabled if your wireless encryption is WEP. Please make sure the wireless function is enabled and is configured with the appropriate encryption before configuring the WPS.

- 1) Tap the WPS icon on the device's screen.
- 2) Immediately press the WPS button on your modem router.
- 3) The WPS LED flashes for about two minutes during the WPS process.
- 4) When the WPS LED is on, the client device has successfully connected to the modem router.



## 2.3. Activate Your Modem Router

1. Get your internet service account information and the modem router's Information Card ready.



2. Make sure your computer is set to dynamically obtain an IP address. If not, refer to [Appendix: Troubleshooting](#) for instructions.
3. Launch a web browser, and visit any website. You will be automatically redirected to your service provider's self-activation page.
4. Follow the on-screen instructions to activate the modem router.

If you have any problem activating your modem router, please contact your Internet Service Provider (ISP).

Contact information of major cable ISPs:

Xfinity by Comcast:	Check your bill for the support number
Spectrum:	1-855-757-7328
Cox:	1-800-234-3993

The listed contact information may change. You can also find the contact information in your monthly internet service billing statement.

5. After activating your modem router successfully, wait for about 10 minutes till these LEDs become solid on, then you can enjoy the internet.

**Note:**

1. If you are unable to access the internet, refer to [Appendix: Troubleshooting](#) > T4 for instructions.
2. The product should be connected to cable distribution system that grounded (earthed) in accordance with ANSI/NFPA 70, the National Electrical Code (NEC), in particular Section 820.93 - Grounding of Outer Conductive Shield of a Coaxial Cable.

## **Chapter 3**

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# **Log In to Your Modem Router**

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

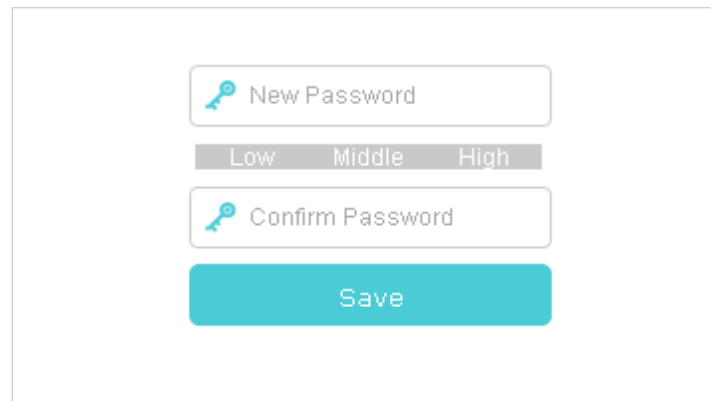
Follow the steps below to log in to your modem router.

1. If the TCP/IP Protocol on your computer is set to the static (fixed) IP address, you need to change it to obtain an IP address automatically. Refer to [Appendix: Troubleshooting > T7](#) to configure your computer.
2. Launch a web browser and go to <http://tplinkmodem.net> or <http://192.168.1.1>. Set a strong password using 1-15 characters and click **Save**.

■ Note: If the login page does not appear, please refer to [Appendix: Troubleshooting > T3](#).



Address



New Password

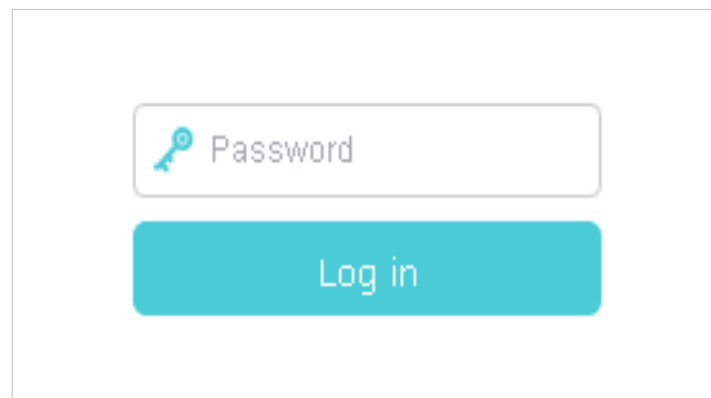
Low Middle High

Confirm Password

Save

3. Enter the password you set and click **Log in**.

■ Note: For subsequent logins, use the password that you have created.



Password

Log in

## Chapter 4

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# Configure Internet Connections

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This chapter introduces how to manually configure your internet settings. Furthermore, you can also set up an IPv6 connection if your ISP provides IPv6 service.

This chapter includes the following sections:

- [Set Up an IPv6 Connection](#)
- [Test Internet Connectivity](#)
- [Operation Modes](#)



## 4.1. Set Up an IPv6 Connection

If your ISP has provided a line that supports IPv6 connection as well as some detailed IPv6 parameters, you can manually set up an IPv6 connection.

Follow the steps below to set up an IPv6 connection:

1. Make sure you have set up an internet connection by referring to [Quick Start](#) before setting up an IPv6 connection.
2. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
3. Go to [Advanced > Network > IPv6 LAN Settings](#). In the [DHCPv6 Server](#) section, configure the following parameters provided by your ISP.

DHCPv6 Server

DHCPv6 Server:  Enable

LAN Delegated Prefix: 2001:1:4:f800::/64

Starting IP Address:

Number of Addresses:

Address Lease Time:

Rapid Commit:  Enable

Unicast:  Enable

Stateless DHCPv6:  Enable

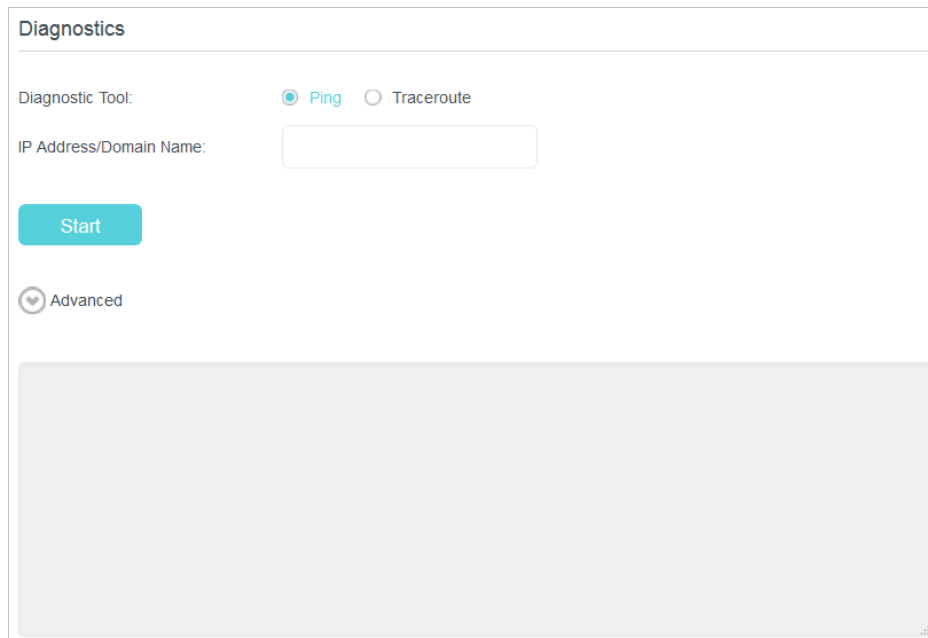
- **DHCPv6 Server:** Select the checkbox to enable DHCPv6 server.
- **Starting IP Address:** Enter a value for the DHCPv6 server to start with when issuing IP addresses.
- **Number of Addresses:** Enter a value between 0-255 for DHCPv6 server preference. The default value is 255.
- **Address Lease Time:** The Address Lease Time is the amount of time in which a network user will be allowed connection to the modem router with their current dynamic IP address. Enter the amount of time, in seconds, then the user will be assigned this dynamic IP address. After the dynamic IP address is expired, the user will be automatically assigned a new dynamic IP address. The default is 3600 seconds.
- **Rapid Commit:** Select the checkbox to enable the prefix fast distribution function.
- **Unicast:** Select the checkbox to enable the unicast function. The default setting is disabled.

- **Stateless DHCPv6:** Stateless DHCPv6 is a combination of “Stateless Address Autoconfiguration” and “Dynamic Host Configuration Protocol for IPv6” and is specified by RFC3736. Select the checkbox to enable this function.
4. Click **Save** to make the settings effective. Now IPv6 service is available for your network.

## 4.2. Test Internet Connectivity

After manually setting up an internet connection, you need to test the internet connectivity. The modem router provides two diagnostic tools to help you locate the malfunction.

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



3. Select **Ping** or **Traceroute** as the diagnostic tool and enter the parameter according to your needs.

- **Ping** is used to test the connectivity between the router and the tested host, and measure the round-trip time.

**IP Address/Domain Name:** Enter the IP Address/Domain Name that you want to ping.

Enter the optional parameters in the Advanced section:

**Ping Count:** Enter the number of times you want to ping the target device.

**Ping Packet Size:** Enter the size of the ping packet you want to use.

**Ping Timeout:** Enter the time period when the ping times out.

- **Traceroute** is used to display the route (path) your router has passed to reach the tested host, and measure transit delays of packets across an internet protocol network.

**IP Address/Domain Name:** Enter the IP Address/Domain Name you want to trace.

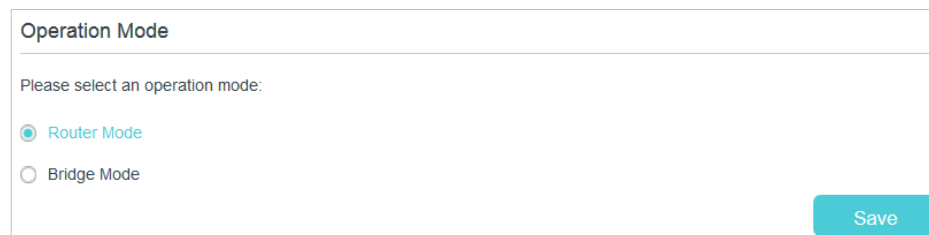
Enter the optional parameter in the Advanced section:

**Traceroute Max TTL:** Enter the maximum number of hops (to be reached).

4. Click **Start** to check the connectivity of the internet. The page will display the result of diagnosis.

### 4.3. Operation Modes

The modem router supports two operation modes: Router Mode and Bridge Mode. The modem router uses the Router Mode by default, and it shares internet wirelessly over the crystal clear 5GHz band and 2.4GHz band.



Operation Mode

Please select an operation mode:

Router Mode

Bridge Mode

Save

You can also use the Bridge mode. In this mode, the modem router can be configured to act as a bridging device between your LAN and your ISP. Bridges are devices that enable two or more networks to communicate as if they are two segments of the same physical LAN. If you were in Bridge Mode, change the computer settings to obtain an IP address automatically. You could then log in to the web management page at 192.168.100.1.

## Chapter 5

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# Network Security

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This chapter guides you on how to protect your home network from unauthorized users by implementing the following network security functions. You can block certain data from getting through your network, control certain client devices' access to the internet, view log events locally or remotely, and let a certain device use an IP address exclusively.

- [Use Firewall](#)
- [View Log Locally or Remotely](#)
- [Access Control](#)
- [IP & MAC Binding](#)

## 5.1. Use Firewall

You can detect certain attacks with some firewall features and block certain data from getting through your network with different protection levels.

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to [Advanced](#) > [Security](#) > [Firewall](#).
3. Configure the basic firewall settings according to the following explanations:

Firewall Settings

Firewall Protection:  Enable

Protection Level: High

Block Fragmented IP Packets:  Enable

Port Scan Detection:  Enable

DoS Protection:  Enable

Save

Allow Services

Service	Start Port	End Port	Protocol
DNS TCP	53	53	TCP

- **Firewall Protection:** Select the checkbox to enable Firewall Protection. It is recommended that you keep this feature enabled.
  - **Protection Level:** Select the firewall protection level appropriate to your needs. All the allowed services will be shown in the [Allow Services](#) section according to the firewall protection level you select.
  - **Block Fragmented IP Packets:** This feature helps to protect your private local network against fragmented IP packets from flooding the network with server requests. Select the checkbox to enable this feature.
  - **Port Scan Detection:** This feature can protect your private local network from internet based hackers who attempt to gain unsolicited access to your network by detecting open IP ports on your gateway. Select the checkbox to enable this feature. You can check details of detection on the [Firewall Log](#) page.
  - **DoS Protection:** This feature can protect your private local network against DoS (denial of service) attacks from flooding the network with server requests. Select the checkbox to enable this feature.
4. Click [Save](#).

## 5.2. View Log Locally or Remotely

Firewall Log records events that you want the router to record. You can also send the log to an email and analyze it as long as you have access to the email.

➤ **To record certain events:**

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to **Advanced > Security > Firewall Log** and focus on the **Log Events** section.

Log Events	
Permitted Connections:	<input checked="" type="checkbox"/> Enable
Blocked Connections:	<input checked="" type="checkbox"/> Enable
Known Internet Attacks:	<input checked="" type="checkbox"/> Enable
Configuration Events:	<input checked="" type="checkbox"/> Enable

3. Select the checkbox to record the corresponding events in the router.

➤ **To view log locally:**

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to **Advanced > Security > Firewall Log**. The **Local Log** table displays details of the recorded log.

Local Log				
<a href="#">Email Log</a>		<a href="#">Clear Log</a>		
Description	Count	Last Occurrence	Target	Source
--	--	--	--	--

◆ **Tips:** Click [Clear Log](#) to delete all the log.

➤ **To email local log:**

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to **Advanced > Security > Firewall Log** and focus on the **Email Log** section.

Email Log

Contact Email Address:

SMTP Server Name:

SMTP Username:

SMTP Password:

Auto Mail:  Enable

Save

3. Enter your email address in the [Contact Email Address](#) field.
4. Enter the name of your SMTP sever in the [SMTP Server Name](#) field.
5. Enter the default admin/admin or specify new username and password in the [SMTP Username](#) and [SMTP Password](#) fields.
6. If you want the router to send you the log regularly, enable [Auto Mail](#). Specify how often the router sends the log, either once every day or once every several hours.
7. Click [Save](#).
8. Click [Email Log](#) in the [Local Log](#) section to send the log immediately.

Local Log

[Email Log](#) [Clear Log](#)

Description	Count	Last Occurrence	Target	Source
--	--	--	--	--

### 5.3. Access Control

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

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

**How can I do that?**

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to [Advanced](#) > [Security](#) > [Access Control](#) and enable [Access Control](#).

**Access Control**

Access Control:

**Access Mode**

Access Mode:  Blacklist  Whitelist

[Save](#)

**Devices in Blacklist**

[+ Add](#) [- Delete](#)

<input type="checkbox"/>	ID	Device Name	MAC Address	Status	Modify
<input type="checkbox"/>	--	--	--	--	--

**Online Devices**

[Refresh](#) [Block](#)

<input type="checkbox"/>	ID	Device Name	IP Address	MAC Address	Connection Type
<input type="checkbox"/>	1	WNIC-CLIENT	192.168.1.10	D0:67:E5:0F:9B:75	Wired

3. Select the access mode to either block (recommended) or allow the device(s) in the list.

#### To block specific device(s)

- 1) Select **Blacklist** and click **Save**.
- 2) Select the device(s) to be blocked in the **Online Devices** table.
- 3) Click **Block** above the **Online Devices** table. The selected devices will be added to **Devices in Blacklist** automatically.

#### To allow specific device(s)

- 1) Select **Whitelist** and click **Save**.
- 2) Click **Add**.

**Devices in Whitelist**

[+ Add](#) [- Delete](#)

<input type="checkbox"/>	ID	Device Name	MAC Address	Status	Modify
<input type="checkbox"/>	--	--	--	--	--

Device Name:

MAC Address:

Enable This Entry

[Cancel](#) [OK](#)



- 3) Enter the [Device Name](#) and [MAC Address](#). You can copy and paste the information from the [Online Devices](#) table if the device is connected to your network.
- 4) Select [Enable This Entry](#).
- 5) Click [OK](#).

**Done!**

Now you can block or allow specific client devices to access your network (via wired or wireless) using the [Blacklist](#) or [Whitelist](#).

## 5.4. IP & MAC Binding

IP & MAC Binding enables you to bind a specific IP address to your network device's MAC address, and is also known as Address Resolution Protocol (ARP) Binding. It protects your home network from ARP Spoofing, one kind of ARP attacks. By ARP Spoofing, an attacker can modify and even stop your internet traffic. ARP Spoofing is often followed by more serious cyber attacks. When you bind an IP address to your network device, it has exclusive use of the IP address. The attacking device deliberately associating its MAC address with the bound IP address is denied from accessing your network. To keep your home network safe from ARP Spoofing, you can rely on IP & MAC Binding.

**I want to:**

Prevent ARP spoofing.

**How can I do that?**

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to [Advanced](#) > [Security](#) > [IP & MAC Binding](#) and enable [IP & MAC Binding](#).

**IP & MAC Binding**

IP & MAC Binding:

**Binding List**

[+ Add](#) [- Delete](#)

<input type="checkbox"/>	ID	MAC Address	IP Address	Status	Enable	Modify
<input type="checkbox"/>	--	--	--	--	--	--

**ARP List**

[Refresh](#) [Bind](#)

<input type="checkbox"/>	ID	MAC Address	IP Address	Status
<input type="checkbox"/>	1	d0:67:e5:0f:9b:75	192.168.1.10	Unbound

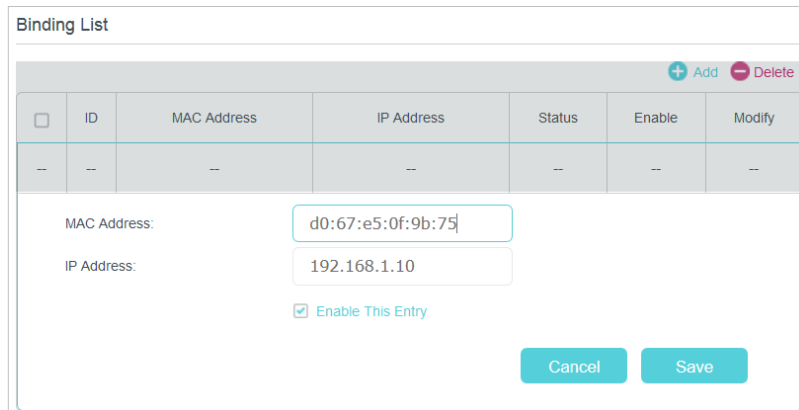
3. Bind your device(s) according to your needs.

**To bind the connected device(s)**

- 1) Select the device(s) to be bound in the [ARP List](#).
- 2) Click [Bind](#) to add to the [Binding List](#).

**To bind the unconnected device**

- 1) Click [Add](#).



The screenshot shows the 'Binding List' interface. At the top, there are '+ Add' and '- Delete' buttons. Below is a table with columns: ID, MAC Address, IP Address, Status, Enable, and Modify. The table is currently empty. Below the table, there is a form to add a new entry. The form has two input fields: 'MAC Address' with the value 'd0:67:e5:0f:9b:75' and 'IP Address' with the value '192.168.1.10'. There is a checkbox labeled 'Enable This Entry' which is checked. At the bottom right, there are 'Cancel' and 'Save' buttons.

- 2) Enter the [MAC address](#) and [IP address](#) that you want to bind. If you don't know your device's MAC address, you can use the [Network Map](#) ([Basic](#) > [Network Map](#)) to help find it.
- 3) Select [Enable This Entry](#) and click [Save](#).

**Note:**

1. To keep the IP & MAC Binding entries effective all the time, it is recommended to use [Address Reservation](#) ([Advanced](#) > [Network](#) > [LAN Settings](#)) to reserve the bound IP address to your device or set your device to the bound IP address.
2. Your device has exclusive use of the IP address bound to its MAC address. If you want to bind several IP addresses to your device's MAC address, just add more binding entries.

**Done!**

Now you don't need to worry about ARP spoofing.

## Chapter 6

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# USB Settings

---

This chapter describes how to share and access USB devices connected to the modem router among different clients.

The modem router supports USB external flash drives, hard drives and USB printers.

This chapter contains the following sections:

- [Local Storage Sharing](#)
- [Remote Access via FTP Server](#)
- [Media Sharing](#)
- [Printer Sharing](#)

## 6.1. Local Storage Sharing

Share your USB storage devices with different users on the network.

### 6.1.1. Access the USB Disk

#### 1. Connect Your USB Disk

Insert your USB storage device into the modem router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.

##### ◆ Tips:

- If you use USB hubs, make sure no more than 4 devices are connected to the modem router.
- If the USB storage device requires using bundled external power, make sure the external power has been connected.
- If you use a USB hard drive, make sure its file system is FAT32 or NTFS.
- Before you physically disconnect a USB device from the modem router, safely remove it to avoid data damage: Go to [Advanced](#) > [USB Sharing](#) > [USB Storage Device](#) and click [Remove](#).

#### 2. Access Your USB Disk

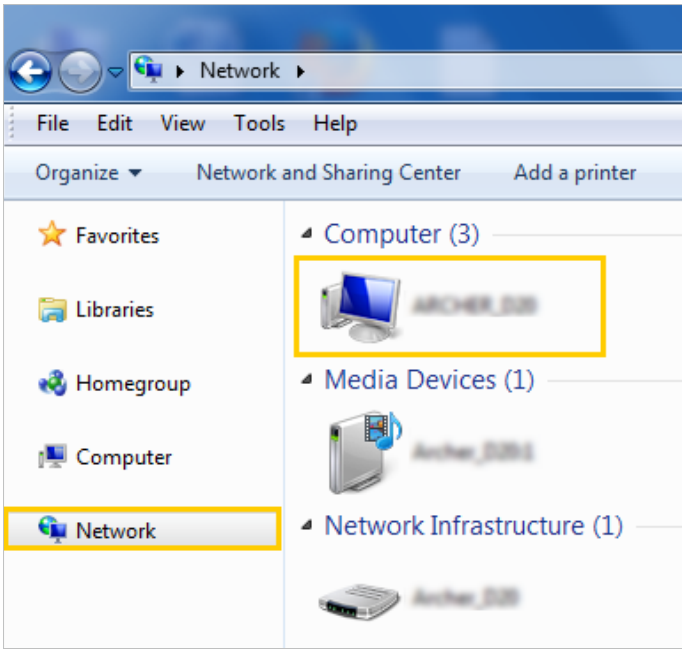
By default, all the network clients can access all folders on your USB disk. Refer to the following table for access instructions. You can also customize your sharing content and set a sharing account by referring to [Customize Your Settings](#).

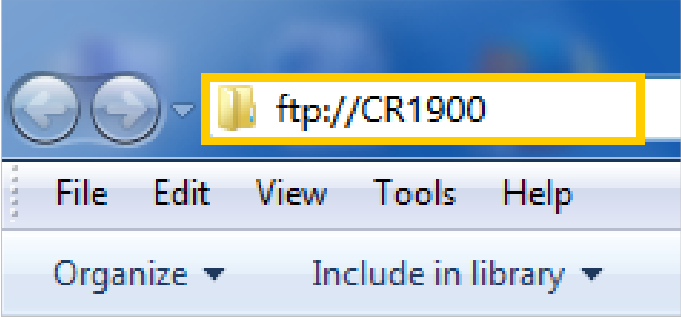
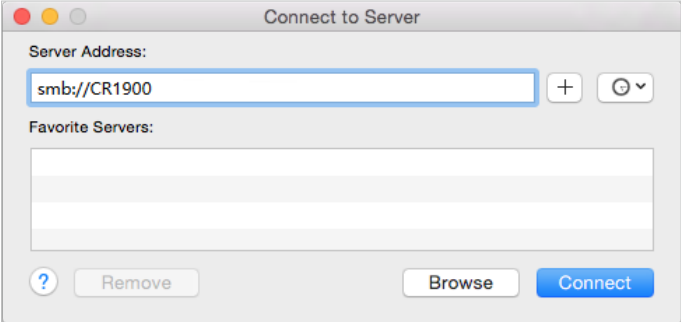
Windows Computer

➤ **Method 1:**

Go to [Computer](#) > [Network](#), then click the Network Server Name ([model number](#) by default) in the [Computer](#) section.

■ Note:  
Operations in different systems are similar. Here we take Windows 7 as an example.



<p><b>Windows Computer</b></p>	<p>➤ <b>Method 2:</b></p> <p>Open a web browser (or go to <a href="#">Computer</a>) and type the server address <code>\\CR1900</code> or <code>ftp://CR1900</code> in the address bar, then press <b>Enter</b>.</p> 
<p><b>Mac</b></p>	<ol style="list-style-type: none"> <li>1) Select <a href="#">Go &gt; Connect to Server</a></li> <li>2) Type the server address <code>smb://CR1900</code></li> <li>3) Click <a href="#">Connect</a></li> </ol>  <ol style="list-style-type: none"> <li>4) When prompted, select the <a href="#">Guest</a> radio box. (If you have set up a username and a password to deny anonymous access to the USB disks, you should select the <a href="#">Registered User</a> radio box. To learn how to set up an account for the access, refer to <a href="#">To Set up Authentication for Data Security</a>.)</li> </ol>
<p><b>Tablet</b></p>	<p>Use a third-party app for network files management.</p>

◆ **Tips:**

You can also access your USB disk by using your Network/Media Server Name as the server address. Refer to [To Customize the Address of the USB Disk](#) to learn more.

## 6.1.2. Customize Your Settings


### ➤ To Only Share Specific Content

By default, [Share All](#) is enabled so all content on the USB disk is shared. If you want to only share specific folders, follow the steps below:

1. Visit <http://tplinkmodem.net>, then log in with the password you set for the router.
2. Select [Advanced](#) > [USB Sharing](#) > [Sharing Access](#). Focus on the [Folder Sharing](#) section. Click the button to disable [Share All](#), then click [Add](#) to add a new sharing folder.

3. Select the [Volume Name](#) and [Folder Path](#), then enter a [Folder Name](#) as you like.
4. Decide the way you share the folder:
  - [Enable Authentication](#): Tick to enable authentication for this folder sharing, and you will be required to use a username and password to access the USB disk. Refer to [To Set up Authentication for Data Security](#) to learn more.
  - [Enable Write Access](#): If you tick this checkbox, network clients can modify this folder.
  - [Enable Media Sharing](#): Tick to enable media sharing for this folder, and you can view photos, play music and watch movies stored on the USB disk directly from DLNA-supported devices. Click [Media Sharing](#) to learn more.
5. Click [Save](#).


💡 **Tips:**

The modem router can share eight volumes at most. You can click  on the [USB Storage Device](#) page to detach the corresponding volume you do not need to share.

Device Settings

[Scan](#)

Device Name: ADATA USB Flash Drive [Remove](#)

ID	Volume Name	Total Capacity	Available Capacity	Enable
1	sda4	14.7 GB	13.81 GB	

➤ **To Set up Authentication for Data Security**

If you enable [Authentication](#), network clients will be required to enter the username and password you set when accessing the USB disk.

1. Visit <http://tplinkmodem.net>, then log in with the password you set for the router.
2. Select [Advanced](#) > [USB Settings](#) > [Sharing Access](#).

Sharing Account

Sharing content safely requires a sharing account and enabling Authentication. Create an account here and enable Authentication in the Folder Sharing section.

Username:

Password:   
Low Middle High

Confirm Password:

[Save](#)

3. Specify an account and click [Save](#).

▀ **Note:**

For Windows users, do not set the sharing username the same as the Windows username. Otherwise, Windows credential mechanism may cause the following problems:

- If the sharing password is also the same as the Windows password, authentication will not work since the Windows will automatically use its account information for USB access.
- If the sharing password is different from the Windows password, the Windows will be unable to remember your credentials and you will always be required to enter the sharing password for USB access.

4. Enable [Authentication](#) to apply the account you just set.
  - If you leave [Share All](#) enabled, click the button to enable [Authentication](#) for all folders.

Folder Sharing

Share All:

Authentication:

- If **Share All** is disabled, enable **Authentication** for specific folders.

Share All:

+ Add - Delete

<input type="checkbox"/>	ID	Folder Name	Folder Path	Media Sharing	Volume Name	Status	Modify
--	--	--	--	--	--	--	--

Volume Name:

Folder Path:

Folder Name:

Enable Authentication

Enable Write Access

Enable Media Sharing

■ **Note:**

Due to Windows credential mechanism, you might be unable to access the USB disk after changing Authentication settings. Please log out from the Windows and try to access again. Or you can change the address of the USB disk by referring to [To Customize the Address of the USB Disk](#).

➤ **To Customize the Address of the USB Disk**

You can customize the server name and use the name to access your USB disk.

1. Visit <http://tplinkmodem.net>, then log in with the password you set for the router.
2. Select **Advanced > USB Settings > Sharing Access**.
3. In the **Sharing Settings** section, make sure **Network Neighborhood** is ticked, and enter a **Network/Media Server Name** as you like, such as Myshare, then click **Save**.



Sharing Settings

Network/Media Server Name:

Enable	Access Method	Access Address	Port
<input checked="" type="checkbox"/>	Media Server	--	--
<input checked="" type="checkbox"/>	Network Neighborhood	\\Myshare	--
<input checked="" type="checkbox"/>	FTP	ftp://Myshare:21	<input type="text" value="21"/>
<input type="checkbox"/>	FTP(via Internet)	ftp://172.16.5.113:21	21

4. Now you can access the USB disk by visiting `\\Myshare` (for Windows) or `smb://Myshare` (for Mac).

## 6.2. Remote Access via FTP Server

You can access your USB disk outside the local area network.

For example:

- Share photos and other large files with your friends without logging in to (and paying for) a photo-sharing site or email system.
- Get a safe backup for the materials for a presentation.
- Remove the files on your camera's memory card from time to time during the journey.

### Note:


If your ISP assigns a private WAN IP address (such as 192.168.x.x or 10.x.x.x), you cannot use this feature because private addresses are not routed on the internet.

### 6.2.1. Access the USB Disk

#### 1. Connect Your USB Disk

Insert your USB storage device into the modem router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.

#### Tips:

- If you use USB hubs, make sure no more than 4 devices are connected to the modem router.
- If the USB storage device requires using bundled external power, make sure the external power has been connected.
- If you use a USB hard drive, make sure its file system is FAT32 or NTFS.
- Before you physically disconnect a USB device from the modem router, safely remove it to avoid data damage: Select **Advanced** > **USB Sharing** > **USB Storage Device** and click  **Remove**.

## 2. Enable Authentication for Data Security

It is strongly recommended that you set and apply a sharing account for data security.

- 1) Visit <http://tplinkmodem.net>, then log in with the password you set for the router.
- 2) Select [Advanced](#) > [USB Sharing](#) > [Sharing Access](#).
- 3) Specify an account and click [Save](#).

### Sharing Account

Sharing content safely requires a sharing account and enabling Authentication. Create an account here and enable Authentication in the Folder Sharing section.

Username:

Password:

Confirm Password:

#### Note:

For Windows users, do not set the sharing username the same as the Windows username. Otherwise, Windows credential mechanism may cause the following problems:

- If the sharing password is also the same as the Windows password, authentication will not work since Windows will automatically use its account information for USB access.
- If the sharing password is different from the Windows password, the Windows will be unable to remember your credentials and you will always be required to enter the sharing password for USB access.

#### 4) Enable [Authentication](#) to apply the sharing account.

- If you leave [Share All](#) enabled, click the button to enable [Authentication](#) for all folders.

### Folder Sharing

Share All:

Authentication:

- If [Share All](#) is disabled, enable [Authentication](#) for specific folders.

Share All:

+ Add - Delete

<input type="checkbox"/>	ID	Folder Name	Folder Path	Media Sharing	Volume Name	Status	Modify
--	--	--	--	--	--	--	--

Volume Name:

Folder Path:

Folder Name:

Enable Authentication

Enable Write Access

Enable Media Sharing

**Note:**

Due to Windows credential mechanism, you might be unable to access the USB disk after changing Authentication settings. Please log out from the Windows and try to access again.

### 3. Enable the FTP (via Internet)

Select the check box to enable [FTP\(via Internet\)](#), then click [Save](#).

Sharing Settings

Network/Media Server Name:

Enable	Access Method	Access Address	Port
<input checked="" type="checkbox"/>	Media Server	--	--
<input checked="" type="checkbox"/>	Network Neighborhood	--	--
<input checked="" type="checkbox"/>	FTP	ftp://CR1900:21	<input type="text" value="21"/>
<input checked="" type="checkbox"/>	FTP(via Internet)	ftp://59.40.2.243:21	21

### 4. Access Your USB Disk via Internet

Now different clients with internet connection can access the USB disk:

Computer	<ol style="list-style-type: none"> <li>1) Open a web browser (or go to <a href="#">Computer</a>, only for Windows users).</li> <li>2) Type the server address in the address bar: Type in <code>ftp://&lt;WAN IP address of the modem router&gt;:&lt;port number&gt;</code> (such as <code>ftp://59.40.2.243:21</code>). If you have specified the domain name of the modem router, you can also type in <code>ftp://&lt;domain name&gt;:&lt;port number&gt;</code> (such as <code>ftp://MyDomainName:21</code>)</li> </ol> <div data-bbox="676 562 1152 783" style="text-align: center;">  </div> <p style="text-align: center; color: #007080;">The Address Bar of the Windows Explorer (Windows 7)</p> <ol style="list-style-type: none"> <li>3) Press <a href="#">Enter</a> on the keyboard.</li> <li>4) Access with the username and password you set in <a href="#">Step 2 Enable Authentication for Data Security</a>.</li> </ol> <p>◆ <b>Tips:</b> You can also access the USB disk via a third-party app for network files management, which can resume broken file transfers.</p>
Tablet	<p>Use a third-party app for network files management.</p>

◆ **Tips:**

Click [Set Up a Dynamic DNS Service Account](#) to learn how to set up a domain name for you modem router.

## 6.2.2. Customize Your Settings

### ➤ To Only Share Specific Content

By default, [Share All](#) is enabled so all content on the USB disk is shared. If you want to only share specific folders, follow the steps below:

1. Visit <http://tplinkmodem.net>, then log in with the password you set for the router.
2. Select [Basic](#) > [USB Sharing](#) > [Sharing Access](#). Focus on the section of [Folder Sharing](#). Click the button to disable [Share All](#), then click [Add](#) to add a new sharing folder.

Folder Sharing

Share All:

+ Add - Delete

ID	Folder Name	Folder Path	Media Sharing	Volume Name	Status	Modify
--	--	--	--	--	--	--

Volume Name:

Folder Path:  Browse

Folder Name:

Enable Authentication


Enable Write Access

Enable Media Sharing

Cancel
Save

3. Select the **Volume Name** and **Folder Path**, then specify the **Folder Name** as you like.
4. Tick **Enable Authentication**.
5. If you allow network clients to modify this folder, tick **Enable Write Access**.
6. Click **Save**.


💡 **Tips:**

The modem router can share eight volumes at most. You can click  on the **USB Storage Device** page to detach the corresponding volume you do not need to share.

Device Settings

Scan

Device Name: ADATA USB Flash Drive Remove

ID	Volume Name	Total Capacity	Available Capacity	Enable
1	sda4	14.7 GB	13.81 GB	

## 6.3. Media Sharing


The feature of **Media Sharing** allows you to view photos, play music and watch movies stored on the USB disk directly from DLNA-supported devices, such as your computer, tablet and PS2/3/4.

### 6.3.1. Access the USB Disk

#### 1. Connect Your USB Disk

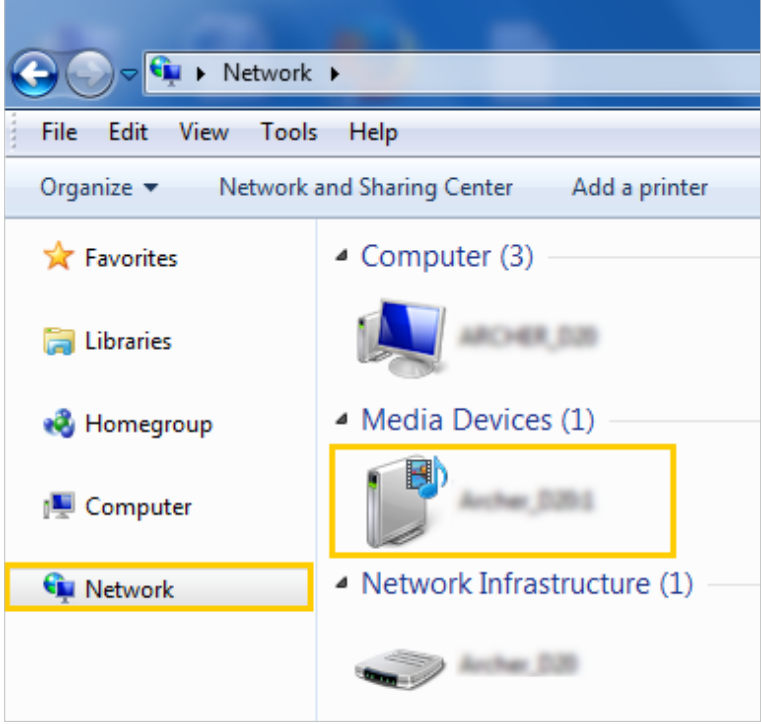
Insert your USB storage device into the modem router's USB port directly or using a USB cable. Wait several seconds until the USB LED becomes solid on.

##### ◆ Tips:

- If you use USB hubs, make sure no more than 4 devices are connected to the modem router.
- If the USB storage device requires using bundled external power, make sure the external power has been connected.
- If you use a USB hard drive, make sure its file system is FAT32 or NTFS.
- Before you physically disconnect a USB device from the modem router, safely remove it to avoid data damage: Go to [Advanced](#) > [USB Sharing](#) > [USB Storage Device](#) and click  [Remove](#).

#### 2. Access the Media Files on Your USB Disk

Now the DLNA-supported devices (such as your computer and tablet) connected to the modem router can detect and play the media files on the USB disks.

Windows Computer	<ul style="list-style-type: none"> <li>• Go to <a href="#">Computer</a> &gt; <a href="#">Network</a>, then click the Media Server Name (<a href="#">model number</a> by default) in the <a href="#">Media Devices</a> section.</li> </ul> <p>▮ Note: Here we take Windows 7 as an example.</p>
	 <p>The screenshot shows a Windows 7 Network folder window. The address bar shows 'Network'. The left sidebar has 'Network' selected and highlighted with a yellow box. The main pane shows a tree view with 'Computer (3)', 'Media Devices (1)', and 'Network Infrastructure (1)'. Under 'Media Devices (1)', a device icon labeled 'Archer_2011' is highlighted with a yellow box.</p>
Tablet	<ul style="list-style-type: none"> <li>• Use a third-party DLNA-supported player.</li> </ul>

### 6.3.2. Customize Your Settings

#### ➤ To Only Share Specific Content

By default, **Share All** is enabled so all content on the USB disk is shared. If you want to only share specific folders, follow the steps below:

1. Visit <http://tplinkmodem.net>, then log in with the password you set for the router.
2. Select **Advanced > USB Sharing > Sharing Access**.
3. Focus on the section of **Folder Sharing**. Click the button to disable **Share All**, then click **Add** to add a new sharing folder.

Folder Sharing

Share All:

[+ Add](#) [- Delete](#)

<input type="checkbox"/>	ID	Folder Name	Folder Path	Media Sharing	Volume Name	Status	Modify
--	--	--	--	--	--	--	--

Volume Name:

Folder Path:  [Browse](#)

Folder Name:

Enable Authentication

Enable Write Access


Enable Media Sharing

[Cancel](#) [Save](#)

4. Select the **Volume** and **Folder Path**, then enter a **Share Name** as you like.

5. Tick **Enable Media Sharing** and click **Save**.


#### 💡 Tips:

The modem router can share eight volumes at most. You can click  on the page to detach the corresponding volume you do not need to share.

Device Settings

[Scan](#)

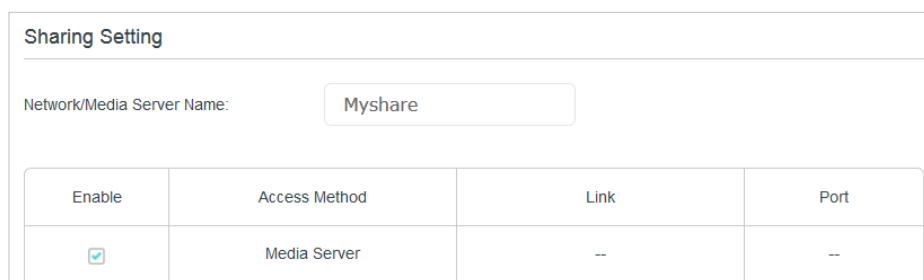
Device Name: ADATA USB Flash Drive [Remove](#)

ID	Volume Name	Total Capacity	Available Capacity	Enable
1	sda4	14.7 GB	13.81 GB	

### ➤ To Specify the Media Server

You can also modify the media server name or disable the feature of Media Sharing as needed.

1. Visit <http://tplinkmodem.net>, then log in with the username (admin) and password (admin or the one customized by you).
2. Select **Advanced > USB Settings > Folder Sharing**.
3. Enter a **Network/Media Server Name** as you like, such as **Myshare**. You can deselect the checkbox of Media Server to disable the media server feature.



Enable	Access Method	Link	Port
<input checked="" type="checkbox"/>	Media Server	--	--

4. Click **Save**.

## 6.4. Printer Sharing

The feature of Printer Sharing helps you share a printer with different computers connected to the modem router.

### ■ Note:

Printers unlisted on this page may be incompatible with the modem router:

<http://www.tp-link.com/common/compatible/print-server/>.

### 1. Install the Driver of the Printer

Make sure you have installed the driver of the printer on each computer that needs printer service.

If you do not have the driver, contact the printer manufacturer.

### 2. Connect the Printer

Cable a printer to the USB port with the USB cable. Wait several seconds until the USB LED becomes solid on.

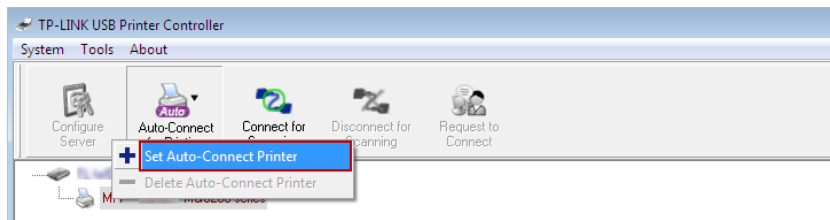
### 3. Install the TP-Link USB Printer Controller Utility

TP-Link USB Printer Controller Utility helps you access the shared printer. Download and Install the utility on each computer that needs printer service.

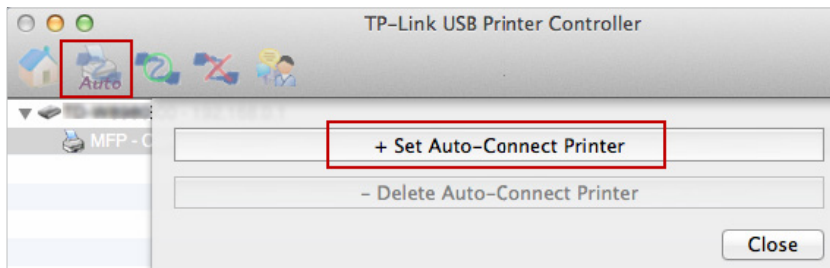
- 1) Visit <http://www.tp-link.com/app/usb/>.
- 2) Click **PC Utility** (for Windows users) or **Mac Utility** to download the installation file and uncompress it.





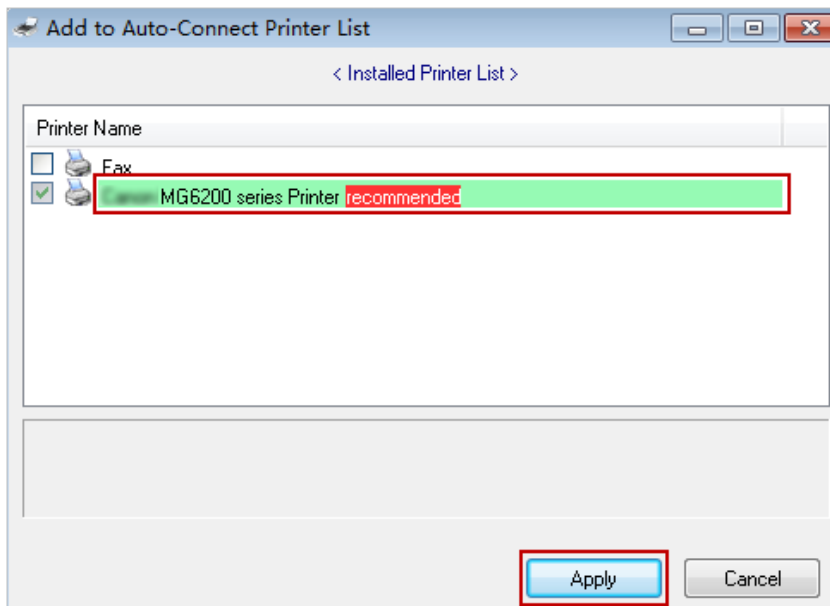


### Windows

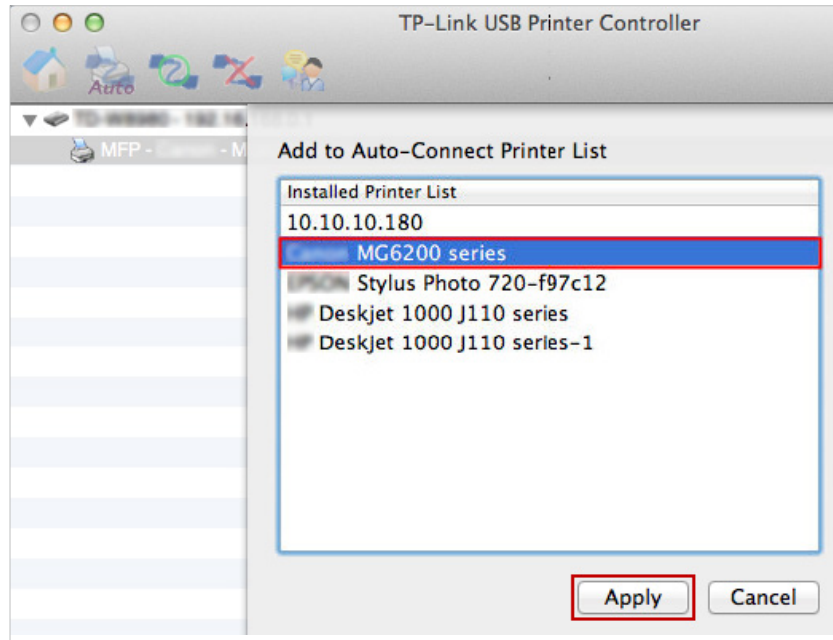


### Mac

- 4) Select the printer you share, then click [Apply](#).

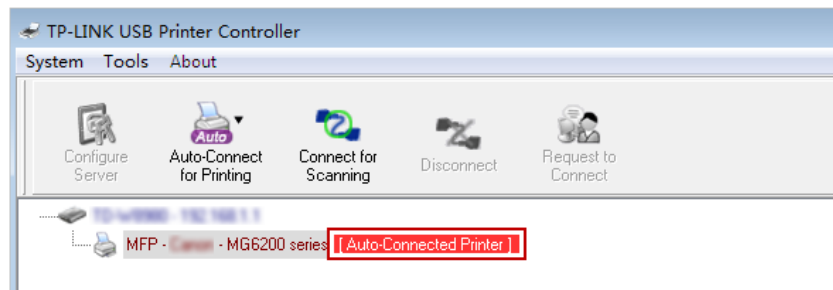


### Windows

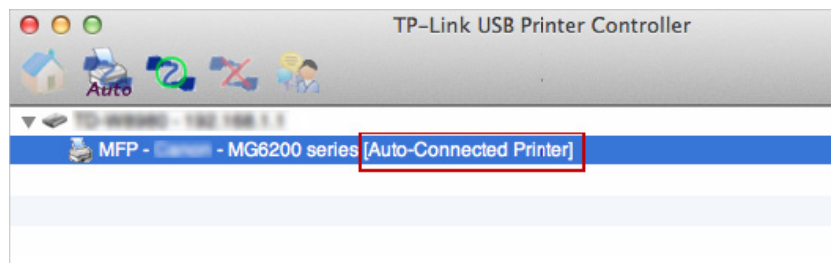


## Mac

- 5) You will see the printer marked as **Auto-Connect Printer**. Now you can print with this printer.



## Windows



## Mac

◆ **Tips:**

The Print Server also allows different clients to share the scan feature of MFPs (Multi-Function Printers). To scan with TP-Link USB Printer Controller, right-click the printer and select **Network Scanner**. Then, a scanning window will pop up. Finish the scanning process by following the on-screen instructions.

## Chapter 7

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# Parental Controls

---

This function allows you to block inappropriate, explicit and malicious websites, and control access to specified websites at specified time.

**I want to:** Control what types of websites my children or other home network users can visit and even the time of day they are allowed to access the internet.

**For example,** I want to allow my children's devices (e.g. a computer or a tablet) to access only [www.tp-link.com](http://www.tp-link.com) and [wikipedia.org](http://wikipedia.org) from 18:00 (6PM) to 22:00 (10PM) on weekdays and not other time.

**How can I do that?**

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to **Basic** or **Advanced** > **Parental Controls** and enable **Parental Controls**.

Parental Controls

Parental Controls:

Devices Under Parental Controls

The Effective Time is based on the time of the router. The time can be set in "Advanced > System Tools > Time Settings". [+ Add](#) [- Delete](#)

<input type="checkbox"/>	ID	Device Name	MAC Address	Effective Time	Description	Status	Modify
--	--	--	--	--	--	--	--

Content Restriction

Restriction Policy:  Blacklist  Whitelist

[+ Add a New Keyword \(not case-sensitive\)](#)

[-](#)

[Save](#)

3. Click **Add**.

[+ Add](#) [- Delete](#)

<input type="checkbox"/>	ID	Device Name	MAC Address	Effective Time	Description	Status	Modify
--	--	--	--	--	--	--	--

Device Name:  [Scan](#)


MAC Address:

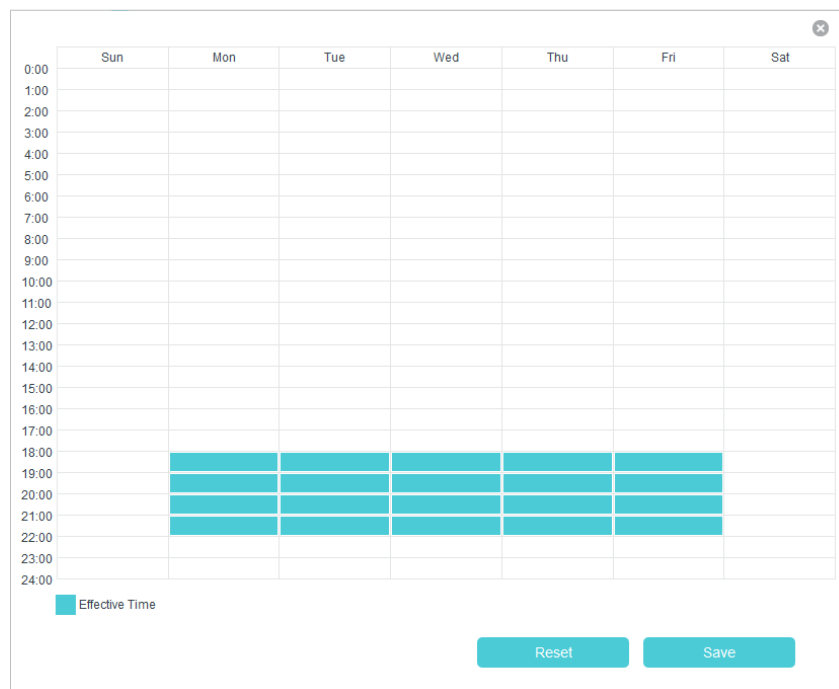
Effective Time:

Description:

Enable This Entry

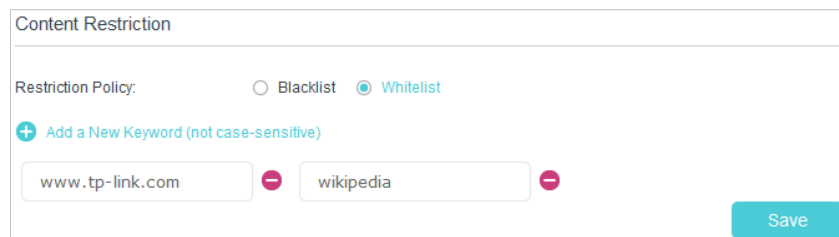
[Cancel](#) [Save](#)

4. Click [Scan](#), and select the device to be controlled. Or, enter the [Device Name](#) and [MAC Address](#) manually.
5. Click the  icon to set the [Effective Time](#). Select the appropriate cell(s) and click [Save](#).



The image shows a calendar grid for setting an effective time. The vertical axis represents time from 0:00 to 24:00 in one-hour increments. The horizontal axis represents the days of the week: Sun, Mon, Tue, Wed, Thu, Fri, and Sat. A legend at the bottom left indicates that teal-colored blocks represent 'Effective Time'. These blocks are currently set for Monday through Friday, from 18:00 to 22:00. At the bottom right, there are two buttons: 'Reset' and 'Save'.

6. Enter a [Description](#) for the entry.
7. Select the checkbox to enable this entry and click [Save](#).
8. Select the [Restriction Policy](#).
  - 1) When [Blacklist](#) is selected, the controlled devices cannot access any websites containing the specified keywords during the Effective Time period.
  - 2) When [Whitelist](#) is selected, the controlled devices can only access websites containing the specified keywords during the Effective Time period.



The image shows the 'Content Restriction' configuration screen. At the top, it says 'Content Restriction'. Below that, there is a 'Restriction Policy' section with two radio buttons: 'Blacklist' (unselected) and 'Whitelist' (selected). Underneath, there is a '+ Add a New Keyword (not case-sensitive)' button. Below this, there are two input fields containing the keywords 'www.tp-link.com' and 'wikipedia', each with a red minus sign to its right. A 'Save' button is located at the bottom right.

9. Click [Add a New Keyword](#). You can add up to 200 keywords for both [Blacklist](#) and [Whitelist](#). Below are some sample entries to allow access.

- 1) Enter a web address (e.g. www.tp-link.com) or a web address keyword (e.g. wikipedia) to only allow or block access to the websites containing that keyword.
- 2) If you wish to block all internet browsing access, do not add any keyword to the Whitelist.

10. Enter the keywords or websites you want to add and click [Save](#).

**Done!**

Now you can control your children's internet access according to your needs.

## Chapter 8

---

# Guest Network

---

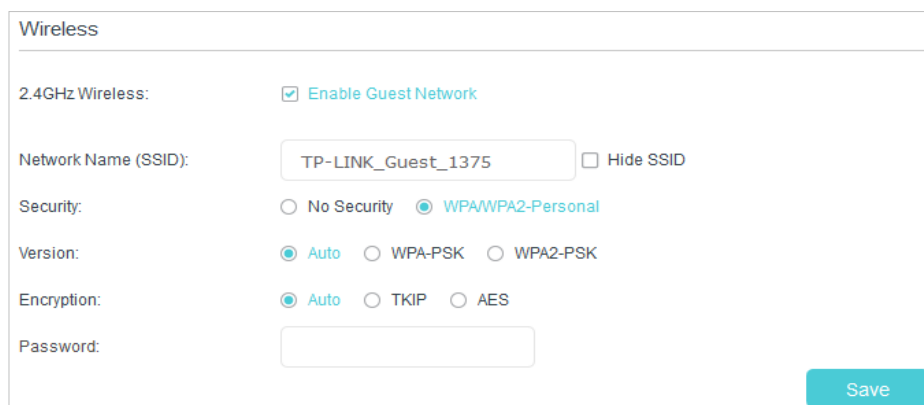
This function allows you to provide Wi-Fi access for guests without disclosing your main network. When you have guests in your house, apartment, or workplace, you can create a guest network for them. In addition, you can assign network authorities for guests to ensure network security and privacy.

- [Create a Network for Guests](#)
- [Customize Guest Network Options](#)



## 8.1. Create a Network for Guests

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to [Advanced](#) > [2.4GHz Wireless](#) or [5GHz Wireless](#) > [Guest Network](#). Locate the [Wireless](#) section.
3. Create a 2.4GHz or 5GHz guest network according to your needs.



Wireless

2.4GHz Wireless:  Enable Guest Network

Network Name (SSID):   Hide SSID

Security:  No Security  WPA/WPA2-Personal

Version:  Auto  WPA-PSK  WPA2-PSK

Encryption:  Auto  TKIP  AES

Password:

Save

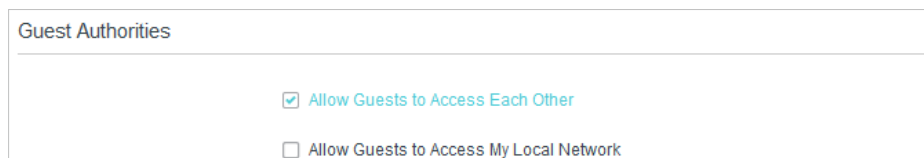
- 1) Select [Enable Guest Network](#).
- 2) Set an easy-to-identify SSID. Don't select [Hide SSID](#) unless you want your guests and other people to manually input this SSID for Wi-Fi access.
- 3) Set [Security](#) to [WPA/WPA2 Personal](#), keep the default [Version](#) and [Encryption](#) values, and set an easy-to-remember password.
4. Click [Save](#). Now your guests can access your guest network using the SSID and password you set!

### ◆ Tips:

To view guest network information, go to [Advanced](#) > [Status](#) and find the [Guest Network](#) section.

## 8.2. Customize Guest Network Options

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to [Advanced](#) > [2.4GHz Wireless](#) or [5GHz Wireless](#) > [Guest Network](#). Locate the [Guest Authorities](#) section.



Guest Authorities

Allow Guests to Access Each Other

Allow Guests to Access My Local Network

3. Assign network authorities according to your needs.
  - [Allow Guests to Access Each Other](#)

Select this checkbox to allow the clients in your guest network to access each other.

- [Allow Guests to Access My Local Network](#)

Select this checkbox to allow the clients in your guest network to access your local network, not just internet access.

4. Click [Save](#) in the [Wireless](#) section. Now users in your guest network can enjoy only the network authorities you assigned!

◆ **Tips:**

To view guest network information, go to [Advanced](#) > [Status](#) and find the [Guest Network](#) section.

## Chapter 9

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# NAT Forwarding

---

Modem 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 host cannot initiatively communicate with the specified device in the local network.

With forwarding feature the modem router can penetrate the isolation of NAT and allows the external hosts in the internet to initiatively communicate with the devices in the local network, thus to realize some special functions.

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

This chapter contains the following sections:

- [Share Local Resources over the Internet by Virtual Servers](#)
- [Open Ports Dynamically by Port Triggering](#)
- [Free Applications from Port Restriction by DMZ](#)
- [Translate Address and Port by ALG](#)

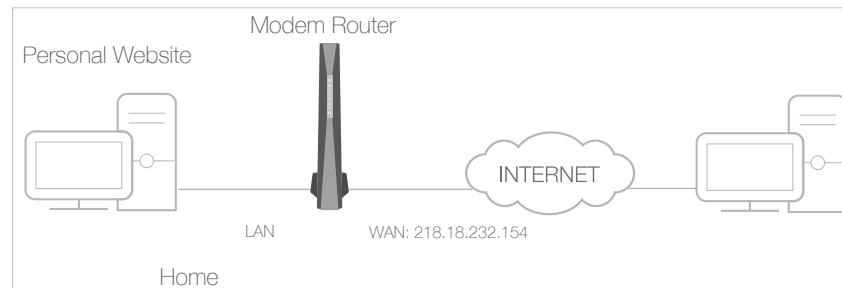
## 9.1. Share Local Resources over the Internet by Virtual Servers

When you build up a server in the local network and want to share it over the internet, Virtual Servers can realize the service and provide it for the 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 for setting 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 (192.168.1.100). I hope that my friends can visit my website. The PC is connected to the modem router with the WAN IP address 218.18.232.154.



**How can I do that?**

1. Assign a static IP address to your PC, for example 192.168.1.100.
2. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
3. Go to **Advanced > NAT Forwarding > Virtual Servers**, click **Add**.

Virtual Servers

+ Add - Delete

<input type="checkbox"/>	ID	Service Type	External Port	Internal IP	Internal Port	Protocol	Status	Modify
--	--	--	--	--	--	--	--	--

Service Type:

External Port:  (XX-XX or XX)

Internal IP:

Internal Port:  (XX or Blank, 1-65535)

Protocol:  ▼

Enable This Entry

4. Click [Scan](#) to select a service from the list to automatically populate the appropriate port number in the [External Port](#) and [Internal Port](#) fields. If the service is not listed, enter the service manually, and enter the External Port number (e.g. 21) or a range of ports (e.g. 21-25). Leave the Internal Port blank if it is the same as the External Port; or enter a specific port number (e.g. 21) if the External Port is a single port. Here we take [HTTP](#) as an example.
5. Enter the IP address of the PC running the service application in the [Internal IP](#) field. Here is 192.168.1.100.
6. Select the corresponding protocol for the service application: TCP, UDP, or All from the [Protocol](#) drop-down list.
7. Select [Enable This Entry](#).
8. Click [Save](#).

◆ **Tips:**

1. You should verify the port number that the service needs.
2. You can add multiple port forwarding rules if you want to provide several services in a modem router. Please note that the [External Port](#) cannot be overlapped.

## Done!

Users in the internet can enter [http:// WAN IP: External Port](#) (in this example: [http://218.18.232.154:80](#)) to visit your personal website.

◆ **Tips:**

WAN IP should be a public IP address. For the WAN IP is assigned dynamically by ISP, it is recommended to apply and register a domain name for the WAN by DDNS, go to [Set Up a Dynamic DNS Service Account](#) for more information. Then you can use [http:// Domain Name: External Port](#) to visit the website.

## 9.2. Open Ports Dynamically by Port Triggering

Port Triggering can specify a trigger port and its corresponding external ports. When a host in the local network initiates a connection to the trigger port, all the external ports will be opened for subsequent connections. The modem router can record the IP address of the host. When the data from the internet return to the external ports, the modem 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:

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to [Advanced](#) > [NAT Forwarding](#) > [Port Triggering](#) and click [Add](#).

Port Triggering

+ Add - Delete

ID	Application	Triggering Port	Triggering Protocol	External Port	External Protocol	Status	Modify
--	--	--	--	--	--	--	--

Application: MSN Gaming Zone Scan

Triggering Port: 47624 (XX,1-65535)

Triggering Protocol: TCP

External Port: 2300-2400,28800-29000 (XX or XX-XX,1-65535)

External Protocol: TCP

Enable This Entry

Cancel Save

3. Click [Scan](#) to select an application from the list to automatically populate the default values into the appropriate fields. If you want to add an unlisted application, manually enter the [Application](#), [Triggering Port](#), [Triggering Protocol](#), [External Port](#) and select the [External Protocol](#).
4. Select [Enable This Entry](#).
5. Click [Save](#).

■ Note:

1. When the triggering connection is released, the corresponding opened ports will be closed.
2. Each rule can only be used by one host on the LAN at a time. The triggering connection of other hosts on the LAN will be refused.
3. External Port ranges of different entries cannot overlap each other.

## 9.3. Free Applications from Port Restriction by DMZ

When a PC is set to be a DMZ (Demilitarized Zone) host in the local network, it is totally exposed to the internet. This 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, like 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:** Allow the home PC to 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 with all ports opened.

**How can I do that?**

1. Assign a static IP address to your PC, for example 192.168.1.100.
2. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
3. Go to [Advanced](#) > [NAT Forwarding](#) > [DMZ](#).



DMZ

DMZ:  Enable

DMZ Host IP Address: 192.168.1.

Save

4. Enable DMZ.
5. Enter the IP address 192.168.1.100 in the [DMZ Host IP Address](#) field.
6. Click [Save](#).

**Done!**

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

## 9.4. Translate Address and Port by ALG

ALG (Application Layer Gateway) allows customized NAT (Network Address Translation) traversal filters to be plugged into the gateway to support address and port translation for certain application layer “control/data” protocols: FTP, TFTP, H225 etc. Enabling ALG is recommended.

Visit <http://tplinkmodem.net>, and log in with the password you set for the router. Go to **Advanced > NAT Forwarding > ALG**.

ALG	
IPSec Passthrough	<input checked="" type="checkbox"/> Enable
PPTP Passthrough	<input checked="" type="checkbox"/> Enable
Multicast ALG	<input checked="" type="checkbox"/> Enable
UPnP ALG	<input checked="" type="checkbox"/> Enable
FTP ALG	<input checked="" type="checkbox"/> Enable
TFTP ALG	<input checked="" type="checkbox"/> Enable
H225 ALG	<input checked="" type="checkbox"/> Enable
PPTP ALG	<input checked="" type="checkbox"/> Enable
SIP ALG	<input checked="" type="checkbox"/> Enable

Save

- **IPSec Passthrough:** If enabled, it allows IPSec (Internet Protocol Security) to be tunneled through an IP network and passed through the router. IPSec uses cryptographic security services to ensure private and secure communications over IP networks.
- **PPTP Passthrough:** If enabled, it allows Point-to-Point sessions to be tunneled through an IP network and passed through the router.
- **Multicast ALG:** If enabled, it allows Multicast clients and servers to transfer data via NAT.
- **UPnP ALG:** If enabled, it allows UPnP (Universal Plug and Play) clients and servers to transfer data via NAT.
- **FTP ALG:** If enabled, it allows FTP (File Transfer Protocol) clients and servers to transfer data via NAT.
- **TFTP ALG:** If enabled, it allows TFTP (Trivial File Transfer Protocol) clients and servers to transfer data via NAT.
- **H225 ALG:** If enabled, it allows H225 messages to be transferred via NAT.



- **PPTP ALG:** If enabled, it allows Point-to-Point sessions to be tunneled via NAT.
- **SIP ALG:** If enabled, it allows clients communicate with SIP (Session Initiation Protocol) servers via NAT.

## Chapter 10

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# Specify Your Network Settings

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This chapter introduces how to change the default settings or adjust the basic configuration of the modem router using the web management page.

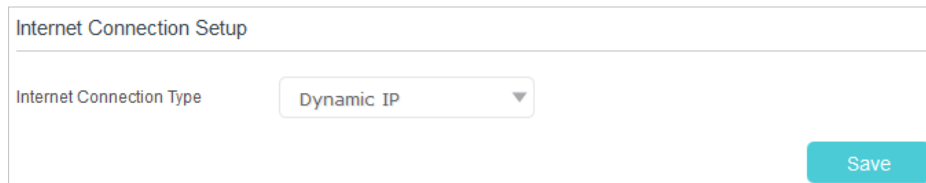
This chapter contains the following sections:

- [Internet Settings](#)
- [LAN Settings](#)
- [Wireless Settings](#)
- [Set Up a Dynamic DNS Service Account](#)

## 10.1. Internet Settings

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to **Basic** > **Internet** page. Select the **Internet Connection Type** and enter the information provided by your ISP.

■ Note: Do not change the settings unless necessary.



The screenshot shows a web form titled "Internet Connection Setup". Below the title, there is a label "Internet Connection Type" followed by a dropdown menu currently displaying "Dynamic IP". To the right of the dropdown is a teal "Save" button.

3. Click **Save** to make the settings effective, and you can refer to [Test Internet Connectivity](#) to test the internet connection.

## 10.2. LAN Settings

### 10.2.1. Change the LAN IP Address

The modem router is preset with a default LAN IP 192.168.1.1, which you can use to log in to its web management page. The LAN IP address together with the Subnet Mask (255.255.255.0) defines the subnet that the connected devices are on. If the IP address conflicts with another device in your local network, you can change it.

Follow the steps below to change your IP address.

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to **Advanced** > **Network** > **LAN Settings** page and locate the **LAN** section.

LAN

IP Address: 192.168.1.1

MAC Address: 18:D6:C7:DB:13:75

DHCP Server

DHCP Server:  Enable

Start IP Address: 192.168.1.100

End IP Address: 192.168.1.199

Address Lease Time: 60 (1-2880 minutes)

Primary DNS: 0.0.0.0 (Optional)

Secondary DNS: 0.0.0.0 (Optional)

Save

3. Type in a new [IP Address](#) appropriate to your needs.
4. Click [Save](#) in the [DHCP Server](#) section to make the settings effective.

### 10.2.2. Use the Modem Router as a DHCP Server

You can configure the modem router to act as a DHCP server to assign IP addresses to its clients. To use the DHCP server function of the modem router, you must configure all computers on the LAN to obtain an IP address automatically.

Follow the steps below to configure DHCP server.

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to [Advanced](#) > [Network](#) > [LAN Settings](#) page and locate the [DHCP Server](#) section.

DHCP Server

DHCP Server:  Enable

Start IP Address: 192.168.1.100

End IP Address: 192.168.1.199

Address Lease Time: 60 (1-2880 minutes)

Primary DNS: 0.0.0.0 (Optional)

Secondary DNS: 0.0.0.0 (Optional)

Save

3. Select **Enable** to enable the DHCP Server function.
4. Specify the **Start IP Address** and **End IP Address** which must be on the same subnet with the LAN IP. The modem router will assign addresses within this specified range to its clients. It is from 192.168.1.100 to 192.168.1.199 by default.
5. Enter a value for the **Address Lease Time**. The **Address Lease Time** is the amount of time in which a DHCP client can lease its current dynamic IP address assigned by the modem router. After the dynamic IP address expires, the user will be automatically assigned a new dynamic IP address. The default is 60 minutes.
6. Keep the rest of the settings as default and click **Save**.

## 10.3. Wireless Settings

### 10.3.1. Specify Basic Wireless Settings

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

Visit <http://tplinkmodem.net>, and log in with the password you set for the router. Go to **Basic > Wireless** page.

Wireless Settings

2.4GHz Wireless Network:  **Enable**

Network Name (SSID):   Hide SSID

Password:

5GHz Wireless Network:  **Enable**

Network Name (SSID):   Hide SSID

Password:

➤ **To enable or disable the wireless function:**

Enable the 2.4 GHz or 5GHz Wireless Network. If you don't want to use the wireless function, just deselect the box. If you disable the wireless function, all the wireless settings won't be effective.

➤ **To change the wireless network name (SSID) and wireless password:**

Enter a new SSID using up to 32 characters. Enter a new password using 8 to 63 characters. These fields are case-sensitive.

**Note:**

If you use a wireless device to change the wireless settings, you will be disconnected after the new settings are effective. Please write down the new SSID and password for future use.

**➤ To hide SSID:**

Select Hide SSID, and your SSID will not broadcast. Your SSID won't display on your wireless device when you scan for local wireless network list and you need to manually join the network.

**➤ To change the mode or channel:**

Go to [Advanced > 2.4GHz Wireless](#) or [5GHz Wireless > Basic Settings](#) page.

**Transmit Power:** Select the transmit power of the modem router. You can select 25%, 50%, 75% and 100% as you like. 100% is the default setting and is recommended.

**Mode:** Select the desired mode.

- 802.11n only: Select only if all of your wireless clients are 802.11n devices.
- 802.11gn mixed: Select if you are using both 802.11g and 802.11n wireless clients.
- 802.11bgn mixed: Select if you are using a mix of 802.11b, 11g, and 11n wireless clients.

**Note:**

When 802.11n only mode is selected, only 802.11n wireless clients can connect to the modem router. It is strongly recommended that you select 802.11bgn mixed, and all of 802.11b, 802.11g, and 802.11n wireless clients can connect to the modem router.

- 802.11ac only (5GHz): Select only if all of your wireless clients are 802.11ac devices.
- 802.11ac/n mixed (5GHz): Select if you are using both 802.11ac and 802.11n wireless clients.
- 802.11a/n/ac mixed (5GHz): Select if you are using a mix of 802.11a, 802.11n and 802.11ac wireless clients. It is strongly recommended that you select 11a/n/ac mixed.

**Channel:** Select the channel you want to use from the drop-down list. This field determines which operating frequency will be used. It is not necessary to change the wireless channel unless you notice interference problems with another nearby access point.

**Channel Width:** Select the channel width from the drop-down list. The default setting is [Auto](#) for both 2.4GHz wireless network and 5GHz wireless network, which can adjust the channel width for your clients automatically.

**➤ To change the security option:**

1. Go to [Advanced > 2.4GHz Wireless](#) or [5GHz Wireless > Primary Network](#) page.
2. Select an option from the [Security](#) drop-down list. The router provides four options, No Security, WPA/WPA2 Personal (Recommended), WPA/WPA2 Enterprise, WEP. WPA2 uses the newest standard and the security level is the highest. We don't recommend you to change the default settings unless necessary.

### 10.3.2. Use WPS for Wireless Connection

You can use WPS (Wi-Fi Protected Setup) feature to add a new wireless device to your existing network quickly.

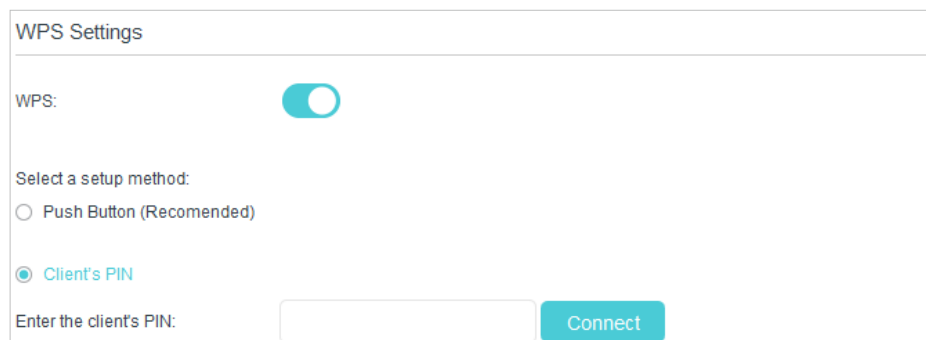
#### Method 1 Use the WPS Button

Use this method if your client device has a WPS button.

1. Press the WPS button on the modem router for 1 second.
2. Press the WPS button of the client device directly.
3. The WPS LED flashes for about 2 minutes during the WPS process.
4. When the WPS LED is on, the client device has successfully connected to the modem router.

#### Method 2 Enter the client device's PIN on the modem router

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to [Advanced > 2.4GHz Wireless](#) or [5GHz Wireless > Primary Network](#) page. Locate the [WPS Settings](#) section.



3. Keep the default WPS status as Enabled and select [Client's PIN](#).
4. Enter the client device's PIN in the field on the above WPS screen. Then click [Connect](#).
5. [Device has been added successfully](#) will appear on the above screen, which means the client device has successfully connected to the modem router.

#### Method 3 Enter the modem router's PIN on your client device

Use this method if your client device asks for the modem router's PIN.

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to [Advanced > 2.4GHz Wireless](#) or [5GHz Wireless > Primary Network](#) page. Locate the [Router's PIN](#) section.

3. Keep the Router's PIN status as enabled. Take a note of the Current PIN of the modem router. You can also click [Generate](#) to get a new PIN.
4. On the client device, enter the modem router's PIN. (The default PIN is also printed on the label of the modem router.)
5. The WPS LED flashes for about 2 minutes during the WPS process.
6. When the WPS LED is on, the client device has successfully connected to the modem router.

▀ Note:

1. The WPS LED on the modem router will light on for 5 minutes if the device has been successfully added to the network.
2. The WPS function cannot be configured if the wireless function of the modem router is disabled. Please make sure the wireless function is enabled before configuring WPS.

### 10.3.3. View Wireless Information

➤ To view the detailed wireless network settings:

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to [Advanced](#) > [Status](#) page. You can see the [Wireless](#) section.
3. Select [2.4GHz](#) or [5GHz](#) to view the wireless details.

◆ Tips: You can also see the wireless details by clicking the router icon on [Basic](#) > [Network Map](#).

➤ To view the detailed information of the connected wireless clients:



1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to **Basic** > **Network Map** page and click the **Wireless Clients** icon.
3. You can view the detailed information of the wireless clients, including its name, IP address and MAC address.

### 10.3.4. Advanced Wireless Settings

Advanced wireless settings are for those who have a network concept. If you are not familiar with the settings on this page, it's strongly recommended that you keep the provided default values; otherwise it may result in lower wireless network performance.

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to **Advanced** > **2.4GHz Wireless** or **5GHz Wireless** > **Advanced Settings** page.



The screenshot shows the 'Advanced Settings' page for wireless network configuration. It includes the following settings:

Setting	Value	Range
Beacon Interval:	100	(25-1000)
RTS Threshold:	2346	(1-2346)
DTIM Interval:	1	(1-255)
Group Key Update Period:	0	seconds
Short GI:	<input checked="" type="checkbox"/> Enable	
AP Isolation	<input type="checkbox"/> Enable	

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

- **Beacon Interval:** Enter a value between 25 and 1000 in milliseconds to determine the duration between which beacon packets are broadcasted by the router to synchronize the wireless network. The default is 100 milliseconds.
- **RTS Threshold:** Enter a value between 1 and 2346 to determine the packet size of data transmission through the router. By default, the RTS (Request to Send) Threshold size is 2346. If the packet size is larger than the preset threshold, the router sends Request to Send frames to a particular receiving station and negotiates the sending of a data frame, or else the packet will be sent immediately.
- **DTIM Interval:** Enter a value between 1 and 255 to determine the interval of the Delivery Traffic Indication Message (DTIM). 1 indicates the DTIM Interval is the same as **Beacon Interval**.
- **Group Key Update Period:** Enter the number of seconds (minimum 30) to control the time interval for the encryption key to renew automatically. The default is 0, indicating no key renewal.
- **Short GI:** This feature is enabled by default and recommended to increase the data capacity by reducing the Guard Interval (GI) time.

- **AP Isolation:** If you want to confine and restrict all wireless devices connected to the network from interacting with each other, but still able to access the internet, select the checkbox to enable AP Isolation.

3. Click [Save](#).

## 10.4. Set Up a Dynamic DNS Service Account

Most ISPs assign a dynamic IP address to the router and you can use this IP address to access your router remotely. However, the IP address can change any time and you don't know when it changes. In this case, you might need the DDNS (Dynamic Domain Name Server) feature on the router to allow you and your friends to access your router and local servers (FTP, HTTP, etc.) using domain name, in no need of checking and remembering the IP address.

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

To set up DDNS, please follow the instructions below:

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to [Advanced](#) > [Network](#) > [Dynamic DNS](#).
3. Select a [Service Provider](#) (Dyndns or NO-IP). If you don't have a DDNS account, you need to register an account on the provider's official website first.

Dynamic DNS Settings

Service Provider:  Dyndns  NO-IP [Go to register.](#)

Username:

Password:

Domain Name:

Disconnected

4. Enter the username, password and host name (domain name) of the account (such as lisa.ddns.net).
5. Click [Log In](#).
6. When it's connected, click [Save](#).

## Chapter 11

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# Administrate Your Network

---

This chapter introduces how to view basic information, change the system settings and administrate your modem router's network.

This chapter contains the following sections:

- [View Basic Information](#)
- [Set System Time](#)
- [Back Up and Restore Configuration Settings](#)
- [Change the Administrator Account](#)
- [Remote Management](#)
- [System Log](#)

## 11. 1. View Basic Information

### 11. 1. 1. View System Information

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to **Advanced > System Tools > Network Information** page, then you can view the network information.

Network Information	
System Up Time	0 days 00h:06m:06s
Current System Time	
Network Access	Allowed
Cable Modem IP Address	10.0.0.23

### 11. 1. 2. View Device Information

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to **Advanced > System Tools > Device Information** page, then you can view the device information.

Device Information	
Standard	DOCSIS 3.0
Hardware Version	V1.0
Firmware Version	v1.0.0 Build 20170309 Rel332290
MAC Address	18:D6:C7:DB:13:71
Serial Number	2016121000012
Certificate	Installed

### 11. 1. 3. View Connection Status

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

- Go to [Advanced](#) > [System Tools](#) > [Connection Information](#) page, then you can view the information of startup procedure, downstream bonded channels and upstream bonded channels.

Startup Procedure		
Procedure	Status	Comment
Acquire Downstream Channel	159000000 Hz	Locked
Connectivity State	OK	Operational
Boot State	OK	Operational
Configuration File	OK	cm_common_upgrade.cfg
Security	Enabled	BPI+

Downstream Bonded Channels						
Channel	Status	Modulation	Channel ID	Frequency	Power	SNR
1	Locked	QAM256	1	111000000 Hz	-4.6 dBmV	43.5 dB
2	Locked	QAM256	2	117000000 Hz	-4.1 dBmV	42.5 dB
3	Locked	QAM256	3	123000000 Hz	-4.0 dBmV	42.4 dB
4	Locked	QAM256	4	129000000 Hz	-4.0 dBmV	45.0 dB
5	Locked	QAM256	5	135000000 Hz	-3.8 dBmV	44.1 dB
6	Locked	QAM256	6	141000000 Hz	-3.9 dBmV	44.4 dB
7	Locked	QAM256	7	147000000 Hz	-3.9 dBmV	44.0 dB
8	Locked	QAM256	8	153000000 Hz	-3.9 dBmV	42.6 dB
9	Locked	QAM256	9	159000000 Hz	-3.4 dBmV	41.2 dB
10	Locked	QAM256	10	165000000 Hz	-3.5 dBmV	42.4 dB

Upstream Bonded Channels						
Channel	Status	Channel Type	Channel ID	Symbol Rate	Frequency	Power
1	Locked	ATDMA	1	5120 ksym/sec	8200000 Hz	41.8 dBmV
2	Locked	ATDMA	2	5120 ksym/sec	14600000 Hz	42.5 dBmV
3	Locked	ATDMA	3	5120 ksym/sec	21000000 Hz	42.8 dBmV
4	Locked	ATDMA	4	5120 ksym/sec	27400000 Hz	43.3 dBmV
5	Locked	ATDMA	5	5120 ksym/sec	33800000 Hz	43.3 dBmV
6	Locked	ATDMA	6	5120 ksym/sec	40200000 Hz	43.5 dBmV
7	Locked	ATDMA	7	5120 ksym/sec	46600000 Hz	43.5 dBmV
8	Locked	ATDMA	8	5120 ksym/sec	53000000 Hz	43.5 dBmV

## 11.2. Set System Time

System time is the time displayed while the modem router is running. The system time you configure here will be used for other time-based functions such as Parental Controls. You can manually set how to get the system time.

Follow the steps below to set your system time.

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to [Advanced](#) > [System Tools](#) > [Time Settings](#) page.

System Time

Enable SNTP:

Current Time: Tue Jan 06 04:03:56 1970

System Start Time: Thu Jan 01 00:00:00 1970

Time Server 1:

Time Server 2:

Time Server 3:

Time Zone:

Enable Daylight Saving Time

Start: 1970

End: 1970

3. Select **Enable SNTP**.
4. Enter the IP address or domain name of **Time Server 1**, **Time Server 2** or **Time Server 3**, and the router will get the time from the NTP Server automatically. In addition, the router has some common built-in NTP Servers that will synchronize automatically once it connects to the internet.
5. Select your local time zone from the **Time Zone** drop-down list.
6. Click **Save**.
7. After setting the system time, you can set **Daylight Saving Time** according to your needs. Select the check box to enable **Daylight Saving Time**, set the start and end time and then click **Save**.

## 11.3. Back Up and Restore Configuration Settings

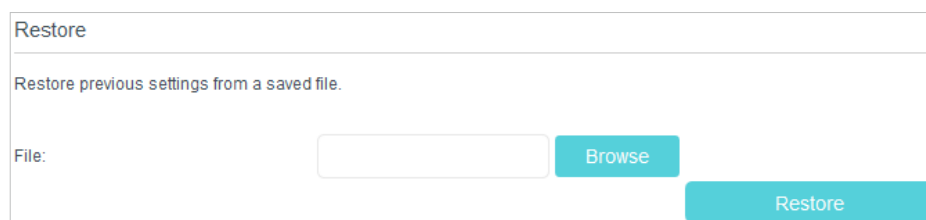
The configuration settings are stored as a configuration file in the router. You can back up the configuration file to your computer for future use and restore the modem router to a previous settings from the backup file when needed. Moreover, if needed you can erase the current settings and reset the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

### To back up configuration settings

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Click **Advanced** > **System Tools** > **Backup & Restore** page.
3. Click **Backup** to save a copy of the current settings to your local computer. A conf. bin file will be stored to your computer.

### To restore configuration settings

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Click **Advanced** > **System Tools** > **Backup & Restore** page.



Restore

Restore previous settings from a saved file.

File:  **Browse**

**Restore**

3. Click **Browse** to locate the previous backup configuration file, and click **Restore**.
4. Wait for the restoring and then the modem router will automatically reboot.

### To reset the modem router to factory default settings

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

2. Click [Advanced](#) > [System Tools](#) > [Backup & Restore](#) page.
3. Click [Factory Restore](#) to reset the modem router.
4. Wait for the resetting and then the modem router will automatically reboot.

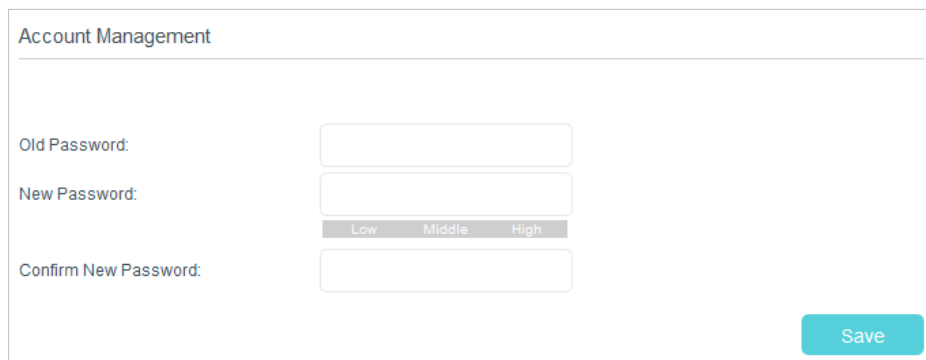
■ **Note:**

1. During the resetting process, do not turn off the modem router.
2. We strongly recommend you back up the current configuration settings before resetting the modem router.

## 11.4. Change the Administrator Account

Admin account is used to log in to the modem router's web management page. You can change it on the web management page.

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to [Advanced](#) > [System Tools](#) > [Administration](#) page. Locate the [Account Management](#) section.



Account Management

Old Password:

New Password:

Low Middle High

Confirm New Password:

Save

3. Enter the old password. Enter the new password and enter again to confirm.
4. Click [Save](#).

## 11.5. Remote Management

By default, the remote devices are not allowed to manage the modem router from the internet.

Follow the steps below to allow remote devices to manage the modem router.

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to [Advanced](#) > [System Tools](#) > [Administration](#) page. Locate the [Remote Management](#) section.



Remote Management

---

Note: When you enable Remote Management and want to visit the web management page from the WAN side, please use 8080 port instead of 80 port.

Remote Management:  Enable

[Save](#)

3. Select the checkbox to enable [Remote Management](#).
4. Click [Save](#) to make the settings effective. Now, all devices on the internet can log in to <http://modem router's WAN IP address : 8080> (such as <http://113.116.60.229:8080>) to manage the modem router.

💡 **Tips:**

1. You can find the WAN IP address of the router on [Basic > Network Maps > Internet](#).
2. The router's WAN IP is usually a dynamic IP. Please refer to [Set Up a Dynamic DNS Service Account](#) if you want to log in to the router through a domain name.
3. If you don't want devices on the public network to ping the WAN IP address of the router, enable [WAN Blocking](#) on this page.

WAN Blocking

---

WAN Blocking:  Enable

[Save](#)

## 11.6. System Log

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

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Click [Advanced > System Tools > System Log](#) page, then you can view the system logs.

System Log

---

[Refresh Log](#)
[Clear Log](#)

Time	Priority	Description
Time Not Established	Critical (3)	SYNC Timing Synchronization failure - Failed to acquire QAM/QPSK symbol timing;;CM-MAC=18:d6:c7:db:13:71;CMTS-MAC=00:00:00:0...

Click [Refresh Log](#) to refresh the log list.

Click [Clear Log](#) to delete all the system logs.

# Appendix: Troubleshooting

## T1. How do I restore my modem router's configuration to its factory default settings?

There are two ways to reset the modem router:

- Method 1: Use the Reset button. With the modem router powered on, use a pin to press and hold the Reset button for at least 8 seconds until all LEDs turn back on, then release the button. And the modem router will restore to its factory default settings.
- Method 2: Use the [Backup & Restore](#) page. For details, refer to the instructions in [To reset the modem router to factory default settings](#).

■ **Note:** Once the modem router is reset, the current configuration settings will be lost and you will need to re-configure the modem router.

## T2. What should I do if I forgot my password?

### Web management page password:

Refer to [T1](#) to restore the modem router to its factory default settings and then visit <http://tplinkmodem.net> to create a new login password.

### Wireless network password:

1. The default Wireless Password/PIN is printed on the Information Card and the product label of the modem router.
2. If the default wireless password has been changed, log in to the modem router's web management page and go to [Basic](#) > [Wireless](#) to retrieve or reset your password.

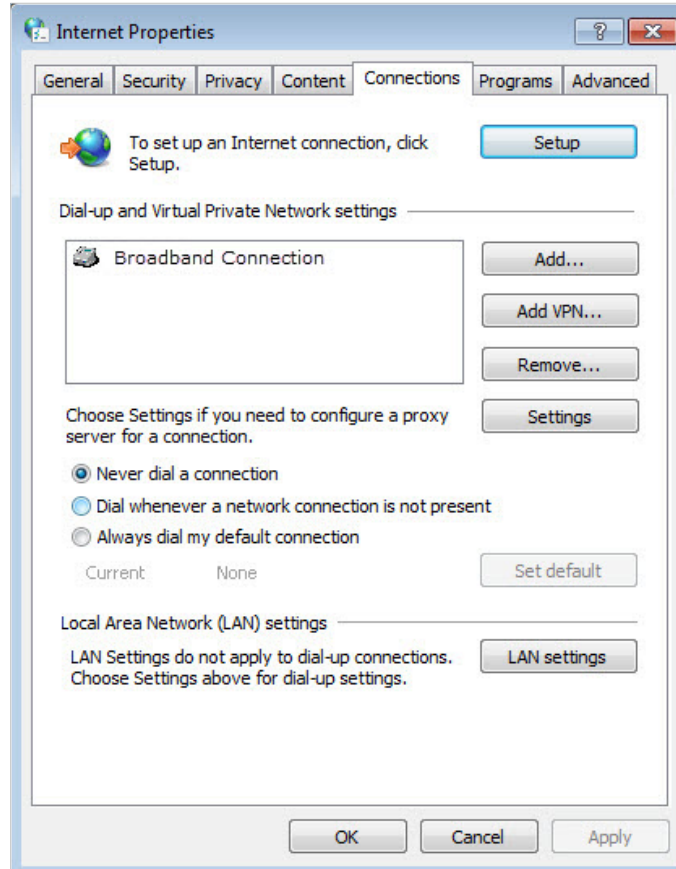
### Guest network password:

Log in to the web management page and go to [Basic](#) > [Guest Network](#) to retrieve or reset the password.

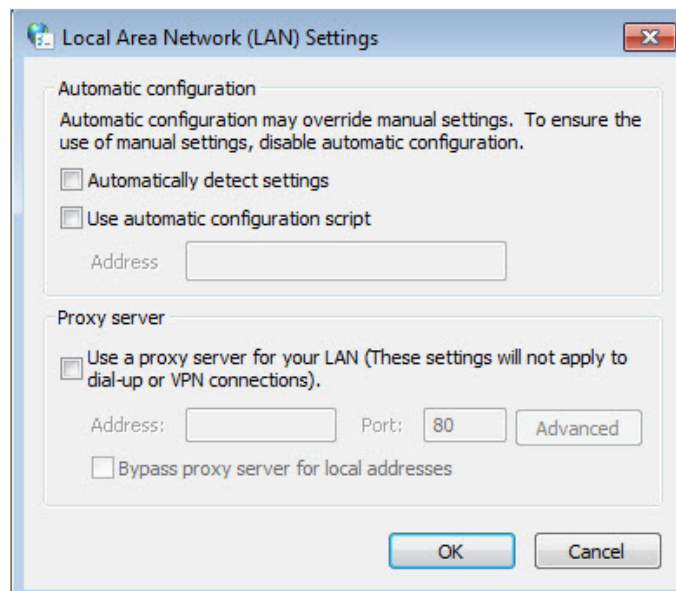
## T3. What should I do if I cannot log in to the modem router's web management page?

- Make sure the modem router connects to the computer correctly and the corresponding LED indicator(s) light up.
- Make sure the IP address of your computer is configured to obtain an IP address automatically and obtain DNS server address automatically.
- Make sure the default access <http://tplinkmodem.net> or <http://192.168.1.1> is correctly input.
- Check your computer's settings:
  - 1) Go to [Start](#) > [Control Panel](#) > [Network and Internet](#), and click [View network status and tasks](#);
  - 2) Click [Internet Options](#) on the bottom left;

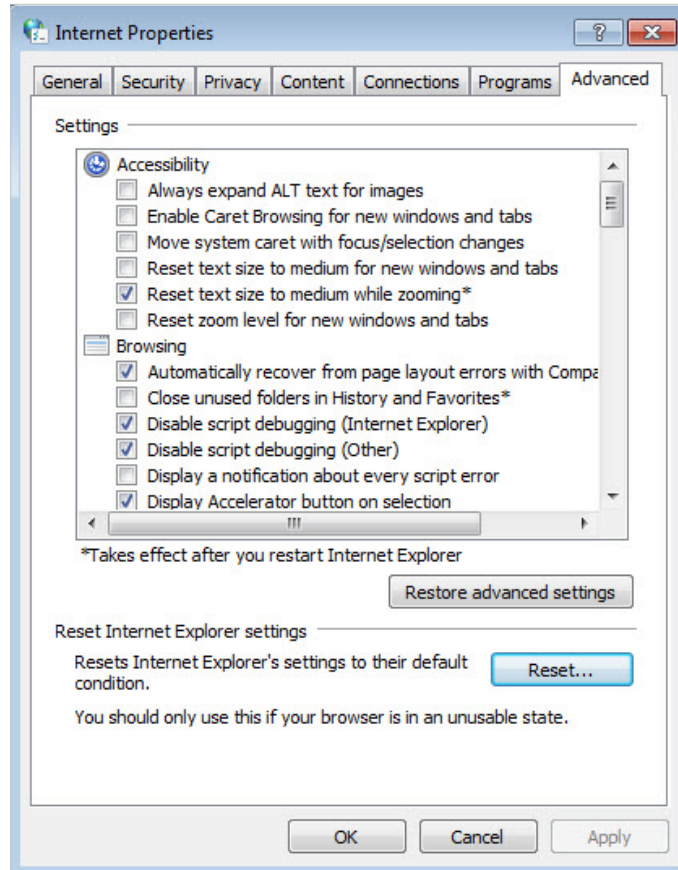
3) Click [Connections](#), select [Never dial a connection](#);



4) Click [LAN settings](#), deselect the following three options and click [OK](#);



5) Go to [Advanced](#) > [Restore advanced settings](#), click [OK](#) to save the settings.



- Change a web browser or computer and log in again.
- Reset the modem router to factory default settings. Open a web browser and log in again. If login fails, please contact the technical support.

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

#### T4. What can I do if I cannot access the internet?

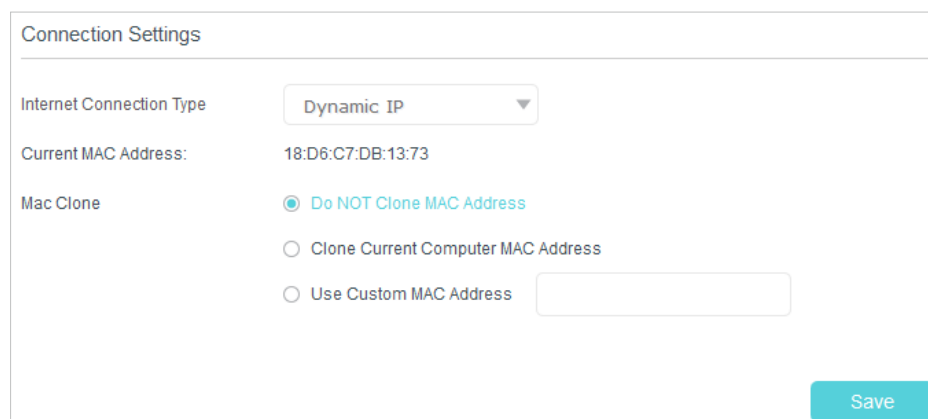
1. Check to see if all the connectors are connected properly, including the coaxial cable, Ethernet cables and power adapter.
2. Check to see if you can log in to the web management page of the modem router. If you can, try the following steps. If you cannot, please set your computer by referring to [T3](#) and then try to see if you can access the internet. If the problem persists, please go to the next step.
3. Consult your ISP and make sure the modem router is activated.
4. Refer to [T5](#) to clone the MAC address.
5. If you still cannot access the internet, please restore your modem router to its factory default settings and reconfigure your modem router by following the instructions in [Quick Start](#).

6. Please contact our Technical Support if the problem persists.

## T5. How to configure MAC Clone?

You can manually change the MAC address of the modem router. It is helpful when your internet access account provided by your ISP is bound to one specific MAC address. In other words, your ISP just permits only one computer with the authenticated MAC address to access the internet. In this case, you can use MAC Clone to allow more computers to access the internet via the same account.

1. Visit <http://tplinkmodem.net>, and log in with the password you set for the router.
2. Go to **Advanced > Network > Internet** page. Locate the **Connection Settings** section.



Connection Settings

Internet Connection Type: Dynamic IP

Current MAC Address: 18:D6:C7:DB:13:73

Mac Clone

- Do NOT Clone MAC Address
- Clone Current Computer MAC Address
- Use Custom MAC Address

Save

- If you are using the computer with the authenticated MAC address to access the modem router, please select **Clone Current Computer MAC Address**.
  - If you know the authenticated MAC address, please select **Use Custom MAC Address** and then enter the address.
3. Click **Save**.

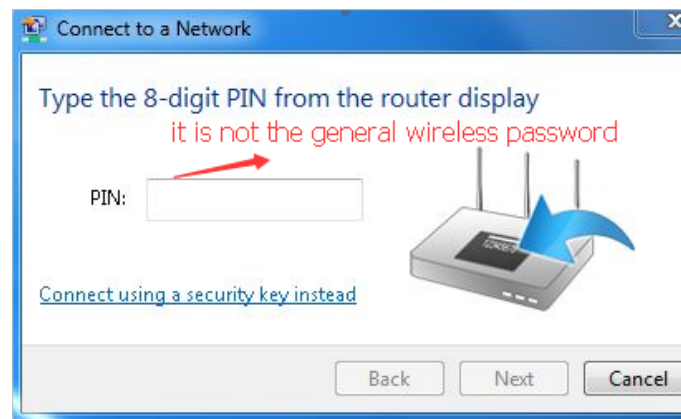
## T6. What should I do if I cannot find my wireless network or I cannot connect the wireless network?

- **If you fail to find any wireless network, follow the steps below:**
  1. Make sure your laptop's wireless function is enabled if you're using a laptop with built-in wireless adapter. You can refer to the relevant document or contact the laptop manufacturer.
  2. Make sure the wireless adapter driver is installed successfully and the wireless adapter is enabled. You can refer to the relevant document or contact the wireless adapter manufacturer.
- **If you can find other wireless network except your own, follow the steps below:**
  1. Check the Wi-Fi LED indicator on your router/modem;

2. Make sure your computer/device is still in the range of your router/modem, move closer if it is currently too far away;
3. Go to [Basic](#) > [Wireless](#) page, and check the wireless settings, make sure your Network Name (SSID) is not hidden.
4. Connect to wireless network.

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

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



- 2) If you cannot find the PIN or PIN failed, you may choose "[Connecting using a security key instead](#)", and then type in the Network Security Key/Wireless Password;



- 3) If it continues saying network security key mismatch, it is suggested to confirm the wireless password on your modem router.

■ Note: Wireless password/Network Security Key is case-sensitive.



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

## **T7. How can I change my computer's setting to obtain an IP address automatically?**


To change the computer's network settings, follow the steps below.

- For MAC OS X:
  - 1) Click the Apple icon, and select [System Preferences](#) from the drop-down list.
  - 2) Click the Network icon.
  - 3) Select [Ethernet](#) (for wired connection) or [Wi-Fi](#) (for wireless connection) in the left panel, then click [Advanced](#).
  - 4) Click [TCP/IP](#).
  - 5) From the [Configure IPv4](#) drop-down list, select [Using DHCP](#).
  - 6) Click [OK](#).
- For Windows 7/8/8.1/10:
  - 1) Right-click the Network icon on the system tray and select [Open Network and Sharing Center > Change adapter settings](#).
  - 2) Right-click your network connection (wired or wireless) and select [Properties](#).
  - 3) Double-click [Internet Protocol Version 4 \(TCP/IPv4\)](#).

- 4) Select both [Obtain an IP address automatically](#) and [Obtain DNS server address automatically](#), then click [OK](#).
- 5) Click [OK](#) again to save your configuration.
  - For Windows XP:
    - 1) Right-click the Network icon on the system tray and select [Open Network Connections](#).
    - 2) Right-click your network connection (wired or wireless) and select [Properties](#).
    - 3) Double-click [Internet Protocol \(TCP/IP\)](#).
    - 4) Select both [Obtain an IP address automatically](#) and [Obtain DNS server address automatically](#), then click [OK](#).
    - 5) Click [OK](#) again to save your configuration.



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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."

## 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.
- Adapter shall be installed near the equipment and shall be easily accessible.
- The plug considered as disconnect device of adapter.
- The product should be connected to cable distribution system that grounded (earthed) in accordance with ANSI/NFPA 70, the National Electrical Code (NEC), in particular Section 820.93 - Grounding of Outer Conductive Shield of a Coaxial Cable.

## Explanation of the symbols on the product label

Symbol	Explanation
	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>