

# **User Guide**

300Mbps Wi-Fi Router TL-WR820N

REV1.0.0 1910012464

# Contents

| Abou  | ut This Guide1                         |
|-------|--|
| Chap  | oter 1. Get to Know About Your Router2 |
| 1. 1. | Product Overview                       |
| 1. 2. | Panel Layout                           |
|       | 1. 2. 1.Top Panel                      |
|       | 1. 2. 2.Back Panel                     |
| Chap  | oter 2. Quick Setup6                   |
| 2. 1. | Position Your Router                   |
| 2. 2. | Connect the Hardware                   |
| 2.3.  | Set Up the Router                      |
| Chap  | oter 3. Log In to the Router           |
| Chap  | oter 4. Configure the Router 12        |
| 4. 1. | Device                                 |
| 4. 2. | Network                                |
|       | 4. 2. 1.WAN Settings                   |
|       | 4. 2. 2.LAN Settings25                 |
|       | 4. 2. 3. IPv6                          |
|       | 4. 2. 4. IPTV                          |
|       | 4. 2. 5.MAC Address Settings           |
|       | 4. 2. 6.DHCP Server                    |
|       | 4. 2. 7.IP & MAC Binding               |
| 4.3.  | Wireless                               |
|       | 4. 3. 1.Host Network                   |
|       | 4. 3. 2.Guest Network                  |
| 4.4.  | Network Control                        |
|       | 4. 4. 1.Parental Controls              |
|       | 4. 4. 2.Access Control                 |
| 4. 5. | Advanced Users                         |

|      | 4. 5. 1.Virtual Server          |    |
|------|---------------------------------|----|
|      | 4. 5. 2.DMZ Server              |    |
|      | 4. 5. 3.UPnP Settings           | 41 |
|      | 4. 5. 4.Advanced Routing        | 41 |
|      | 4. 5. 5.Dynamic DNS             |    |
| 4.6. | System Tools                    | 43 |
|      | 4. 6. 1.Web Management          | 43 |
|      | 4. 6. 2.Time Settings           | 45 |
|      | 4. 6. 3.Firmware Upgrade        | 45 |
|      | 4. 6. 4.Factory Default Restore | 46 |
|      | 4. 6. 5.Backup & Restore        | 46 |
|      | 4. 6. 6.Reboot                  |    |
|      | 4. 6. 7.Change Login Password   |    |
|      | 4. 6. 8.Diagnostic Tools        |    |
|      | 4. 6. 9.System Log              | 50 |
| 4.7. | Logout                          | 50 |
|      |                                 |    |
| FAQ. |                                 |    |

# **About This Guide**

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

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

# Conventions

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

In this guide the following conventions are used:

# More Info

The latest firmware is available from the Download Center at <u>www.tp-link.com/support</u>.

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

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

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

Our Technical Support contact information can be found at the <u>Contact Technical</u> <u>Support</u> page at <u>www.tp-link.com/support</u>.

## Speed/Coverage Disclaimer

Maximum wireless signal rates are the physical rates derived from IEEE Standard 802.11 specifications. Actual wireless data throughput and wireless coverage are not guaranteed and will vary as a result of 1) environmental factors, including building materials, physical objects, and obstacles, 2) network conditions, including local interference, volume and density of traffic, product location, network complexity, and network overhead, and 3) client limitations, including rated performance, location, connection, quality, and client condition.

# Chapter 1

# Get to Know About Your Router

This chapter introduces what the router can do and shows its appearance. It contains the following sections:

- Product Overview
- Panel Layout

# 1.1. Product Overview

The TP-Link router is designed to fully meet the need of Small Office/Home Office (SOHO) networks and users demanding higher networking performance. The powerful antennas ensure continuous Wi-Fi signal to all your devices while boosting widespread coverage throughout your home, and the built-in Ethernet ports supply high-speed connection to your wired devices.

Moreover, it is simple and convenient to set up and use the TP-Link router due to its intuitive web interface.

# 1.2. Panel Layout

# 1.2.1. Top Panel



The router's LEDs are located on the top panel. You can check the router's working status by following the LED explanation table.

| LED                 | Indication |  |  |
|---------------------|------------|--|--|
| <b>D</b><br>LAN LED | Green      | Solid on: At least one LAN port is connected.  |  |
| Ø                   | Orange     | Solid on:<br>The WAN port is connected, but internet is not available.<br>Blinking:<br>The WAN port is not connected.    |  |
| Internet LED        | Green      | Solid on:<br>Internet is available.<br>Blinking:<br>The system is starting up or firmware is being upgraded*.            |  |
| Ri-Fi LED           | Green      | Solid on:<br>Wireless function is enabled.<br>Blinking:<br>WPS connection is in progress. This may take up to 2 minutes. |  |

\* To avoid device damage, do not disconnect or power off your router during the upgrade.

# 1. 2. 2. Back Panel



The following parts (view from left to right) are located on the rear panel.

| ltem                  | Description   |
|-----------------------|---|
| POWER Port            | For connecting the router to a power socket via the provided power adapter.   |
| WAN Port              | For connecting to a DSL/Cable modem, or an Ethernet port.   |
| Ethernet Ports (1, 2) | For connecting your PCs or other wired network devices to the router.   |
| WPS/RESET Button      | To enable the WPS function, press this button for 1 second. If you have a WPS-supported device, you can press this button to quickly establish connection between the router and the client device and automatically configure wireless security for your wireless network. |
|                       | Press and hold this button for more than 5 seconds until the Internet LED blinks to reset the router to its factory default settings.   |
| Antennas              | Used for wireless operation and data transmitting. Upright them for the best Wi-Fi performance.   |

# Chapter 2

# **Quick Setup**

This chapter contains the following sections:

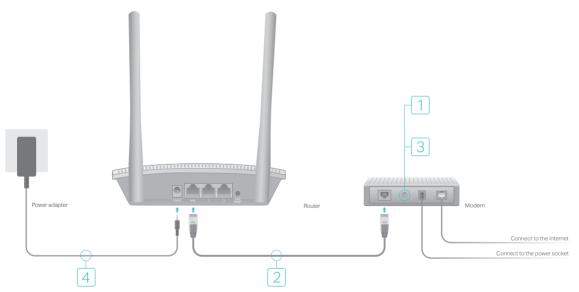
- Position Your Router
- Connect the Hardware
- Set Up the Router

# 2.1. Position Your Router

- The product should not be located in a place where it will be exposed to moisture or excessive heat.
- Place the router in a location where it can be connected to multiple devices as well as to a power source.
- Make sure the cables and power cord are safely placed out of the way so they do not create a tripping hazard.
- The router can be placed on a shelf or desktop.
- Keep the router away from strong devices with strong electromagnetic interference, such as Bluetooth devices, cordless phones and microwaves.

# 2.2. Connect the Hardware

If your internet connection is through an Ethernet cable directly from the wall, instead of through a modem, connect the Ethernet cable to the router's WAN port, and skip steps 1, 2, and 3 below.



- 1. Turn off the modem, and remove the backup battery if it has one.
- 2. Connect the modem to the router's WAN port with an Ethernet cable.
- 3. Turn on the modem, and then wait about 2 minutes for it to restart.
- 4. Connect the power adapter to the router.
- 5. Verify that the  $\mathfrak{O}$  LED turns solid on before continuing with the configuration.

Smart Device

# 2.3. Set Up the Router

- 1. Connect your computer to the router.
  - Method 1: Wired

Turn off the Wi-Fi on your computer and connect the devices as shown below.



- Method 2: Wireless
- 1) Find the SSID (Network Name) printed on the label at the bottom of the router.
- 2) Click the network icon of your computer or go to Wi-Fi Settings of your smart device, and then select the SSID to join the network.

#### Computer

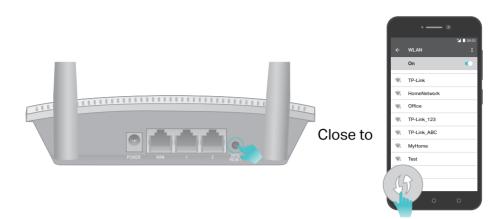
```
44
                                                   < Settings
                                                                    Wi-Fi
       Connections are available
Wireless Network Connection
                                                    Wi-Fi
                                      OR
                                                     CHOOSE A NETWORK ...
TP-Link_XXXX
                                    лЩ
✓ Connect automatically
                              Connect
                                                     TP-Link_XXXX
                                                                                   ? (i)
                                                     Other...
                R
                               <u>s</u>1
```

#### 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.

#### Note:

- WPS is not supported by iOS devices.
- The WPS function cannot be configured if the wireless function of the 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) Tab the WPS icon on the device's screen. Here we take an Android phone as an example.
- 2) Immediately press the WPS button on your router.



2. Enter <u>http://tplinkwifi.net</u> in the address bar of a web browser. Create a password to log in.

| ← → C ⋒ 🗅 http://tplinkwif | i.net                 | = |
|----------------------------|-----------------------|---|
| Ptp-link                   |                       |   |
|                            |                       |   |
|                            | restant sures of      |   |
|                            | Create Login Password |   |
|                            | New Password:         |   |
|                            | Confirm Password:     |   |
|                            |                       |   |
|                            | LOG IN                |   |
|                            |                       |   |
|                            |                       |   |
|                            |                       |   |

Note:

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

- 3. Follow the step-by-step instructions to set up the internet connection.
- 4. Enjoy! For wireless devices, you may have to reconnect to the wireless network if you have customized the SSID (wireless name) and password during the configuration.

# Chapter 3

# Log In to the Router

This chapter introduces how to log in to the web management page of the router.

With the web-based utility, it is easy to configure and manage the router. The web-based utility can be used on any Windows, Mac OS 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 router.

- 1. Set up the TCP/IP Protocol in Obtain an IP address automatically mode on your computer.
- 2. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.

| ← → C ▲ ☐ http://tplinkw | ifi.net                    |                | ≣ |
|--------------------------|----------------------------|----------------|---|
| Ptp-link (               |                            |                |   |
|                          |                            |                |   |
|                          | Log In                     |                |   |
|                          | Password:                  |                |   |
|                          |                            |                |   |
|                          | LOG IN<br>Forget Password? | and the second |   |
|                          |                            |                |   |
|                          |                            |                |   |

#### Note:

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

# Chapter 4

# **Configure the Router**

This chapter presents how to configure the various features of the router.

It contains the following sections:

- Device
- <u>Network</u>
- Wireless
- <u>Network Control</u>
- Advanced Users
- System Tools
- Logout

# 4.1. Device

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Device to view and manage the connected and blocked devices of the router.

## **Connected devices:**

| Device             |          | Rate     | Upstream     | Downstream   | Block |
|--------------------|----------|----------|--------------|--------------|-------|
|                    | ß        | ↑ 66 B/s | $(\uparrow)$ | 0            | Host  |
| IP 192.168.1.100   | Wired    | ↓ 0 B/s  | U            | ( <b>1</b> ) | 1051  |
| 1 Mars             | ß        | † 78 B/s |              | 0            | 0     |
| V IP 192.168.1.101 | Wineless | 4 0 B/s  | U            | 4            | O     |

- Device Displays the name and IP address of the connected device. You can click to edit the device name.
- Rate Displays the current upstream and downstream speed of the device.
- Upstream/Downstream You can click the 1/ button to limit the upstream or downstream speed for the device.
- Block Click 🛇 to block the device to access your network.

### **Blocked devices:**

| Connected Devices 2 Blocked Devices 1 |         |
|---------------------------------------|---------|
| Device                                | Allow   |
| MAC 58-1F-28-DA-E6-40                 | $\odot$ |

- Device Displays the name and MAC address of the blocked device. You can click to edit the device name.
- Allow Click  $\bigcirc$  to allow the device to access your network.

# 4.2. Network

## 4.2.1. WAN Settings

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Network for basic WAN settings, or go to Advanced > Network > WAN Settings for advanced WAN settings.

3. Select the Connection Type according to your ISP, configure related settings, and click Save.

#### **PPPoE**

Select this type if you use DSL (Digital Subscriber Line) service and are provided with a username and password by the ISP.

#### **Basic PPPoE Settings:**

| Connection Type | PPPoE     |   |
|-----------------|-----------|---|
| Username        | NyGerrane |   |
| Password        | •••••     | • |
| IP Address      | 1111      |   |
| DNS Server      |           |   |

• Username/Password - Enter the user name and password provided by your ISP. These fields are case-sensitive.

#### Advanced PPPoE settings:



Click Disconnect to disconnect the internet immediately.

Click Connect to connect the internet immediately.

| Sec | ondary Connect | on           |             |  |
|-----|----------------|--------------|-------------|--|
|     | None           | 🔵 Dynamic IP | O Static IP |  |
|     |                | $\bigcirc$   |             |  |
|     |                | Save         |             |  |

• Secondary Connection - If your ISP provides an extra connection type, select Dynamic IP or Static IP to activate the secondary connection.

| Co | Connection Type         |  |
|----|-------------------------|--|
|    | Connect On Demand       |  |
| N  | V Connect Automatically |  |
|    | Connect Manually        |  |
| 1  | $\bigtriangledown$      |  |

#### Connection Type

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

#### Note:

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

| PPPoE Advanced settings      |                  | 0   |
|------------------------------|------------------|---|
| MTU Size (in bytes)          | 1480             | The default value is 1480. Do<br>NOT change unless necessary. |
| WAN Rate Settings            | Auto Negotiation | •   |
| Service Name                 |                  |   |
| Server Name                  |                  |   |
| Use ISP Specified IP Address |                  |   |
| ISP Specified IP Address     | 0.0.0            |   |
| Manually set DNS server      |                  |   |
| Primary DNS                  | 0.0.0.0          |   |
| Secondary DNS                | 0.0.0            | Optional  |

- MTU Size (in bytes) The default MTU size is 1480 bytes. Do not change the default MTU size unless required by your ISP.
- WAN Rate Settings Select the rate and duplex mode for the WAN port. It is recommended to keep the default auto mode.
- Service Name/Server Name The service name and server name should not be configured unless you are sure it is necessary for your ISP. In most cases, leaving these fields blank will work.
- Use ISP Specified IP Address If your ISP does not automatically assign IP addresses to the router, select this check box and enter the IP address provided by your ISP in dotted-decimal notation.
- Manually set DNS server If your ISP provides you one or two DNS addresses, select this check box and enter the primary and secondary DNS addresses into the correct fields. Otherwise, the DNS servers will be assigned automatically from your ISP.

### **Dynamic IP**

Select this type if your ISP provides the DHCP service, and the router will automatically get IP parameters from your ISP.

# Basic Dynamic IP Settings:

| Connection Type | Dynamic IP 🗸 🔻 |
|-----------------|----------------|
| IP Address      | ****           |
| Gateway         |                |
| Subnet Mask     | ****           |
| DNS Server      |                |

## Advanced Dynamic IP Settings:

| Dynamic IP 👻  |
|---|
|   |
| Read .  |
| 1000  |
| 4144.NEM  |
|   |
| Release   |
| 1500 The default value is 1500. Do NOT change unless necessary. |
|   |
| 0.0.0.0   |
| 0.0.0.0 Opti  |
| 1,41803   |
| KOT select unless<br>Issairy                                    |
| Auto Negotiation 👻  |
|   |

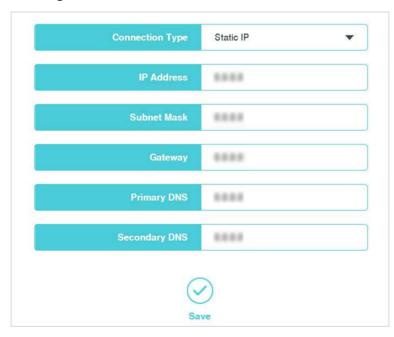
Click Renew to renew the IP parameters from your ISP.

Click Release to release the IP parameters.

- MTU Size (in bytes) The default MTU size is 1500 bytes. Do not change the default MTU size unless required by your ISP.
- Manually set DNS server If your ISP provides you one or two DNS addresses, select this check box and enter the primary and secondary DNS addresses into the correct fields. Otherwise, the DNS servers will be assigned automatically from your ISP.
- Host Name This option specifies the name of the router.
- Get IP with Unicast DHCP A few ISPs' DHCP servers do not support the broadcast applications. If you cannot get the IP address normally, you can choose this option. (It is rarely required.)
- WAN Rate Settings Select the rate and duplex mode for the WAN port. It is recommended to keep the default auto mode.

## Static IP

Select this type if your ISP provides a static IP address, subnet mask, gateway and DNS settings.



### **Basic Static IP Settings:**

- IP Address Enter the IP address in dotted-decimal notation provided by your ISP.
- Subnet Mask Enter the subnet mask in dotted-decimal notation provided by your ISP. Normally 255.255.255.0 is used as the subnet mask.
- Gateway Enter the gateway IP address in dotted-decimal notation provided by your ISP.

 Primary DNS/Secondary DNS - Enter one or two DNS addresses in dotted-decimal notation provided by your ISP.

#### Advanced Static IP Settings:

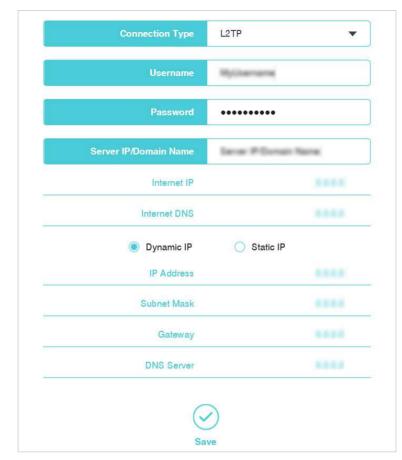
| Connection Type     | Static IP        | •  |
|---------------------|------------------|--|
| IP Address          | 8888             |  |
| Subnet Mask         | 8884             |  |
| Gateway             | 10.00            |  |
| Primary DNS         | 10.0.0           |  |
| Secondary DNS       | ****             | Optiona  |
| MTU Size (in bytes) |                  | fault value is 1500. Do NOT<br>unless necessary. |
| WAN Rate Settings   | Auto Negotiation | •  |

- MTU Size (in bytes) The default MTU size is 1500 bytes. Do not change the default MTU size unless required by your ISP.
- WAN Rate Settings Select the rate and duplex mode for the WAN port. It is recommended to keep the default auto mode.

#### L2TP

Select this type if you connect to an L2TP VPN Server and are provided with a username, password, and IP address/domain name of the server by the ISP.

### **Basic L2TP Settings:**



- Username/Password Enter the username and password provided by your ISP. These fields are case-sensitive.
- Server IP/Domain Name Enter the VPN server's IP address or domain name provided by your ISP.
- Dynamic IP/Static IP Choose the address type provided by your ISP.

#### Advanced L2TP Settings:

| L2TP 💌                 |
|------------------------|
| Njilemane              |
| •••••                  |
| Senier IP Durnain Name |
|                        |
| 1011.1011              |
| O Static IP            |
| ****                   |
|                        |
|                        |
| 4888.8884              |
| Save                   |
|                        |

Click Disconnect to disconnect the internet immediately.

Click Connect to connect to the internet immediately.

| Connection Type         |              |  |
|-------------------------|--------------|--|
| Connect On Demand       |              |  |
| √ Connect Automatically |              |  |
| Connect Manually        |              |  |
|                         | $\bigotimes$ |  |
|                         | Save         |  |

- Connection Type
  - Connect Automatically In this mode, the internet connection can be reestablished automatically when it is down.
  - Connect on Demand In this mode, the internet connection can be terminated automatically after a specified inactivity period (Max Idle Time) and be re-

established when you attempt to access the internet again. If you want to keep your internet connection active all the time, please enter 0 in the Max Idle Time field. Otherwise, enter the number of minutes you want to have elapsed before your internet access disconnects.

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

#### Note:

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

| MTU Size (in bytes) | 1460         | The default is 1460, do no<br>change unless necessary |
|---------------------|--------------|---|
| WAN Rate Settings   | Auto Negotia | ation 💌   |

- MTU Size (in bytes) The default MTU size is 1460 bytes. Do not change the default MTU size unless required by your ISP.
- WAN Rate Settings Select the rate and duplex mode for the WAN port. It is recommended to keep the default auto mode.

## PPTP

Select this type if you connect to a PPTP VPN Server and are provided with a username, password, and IP address/domain name of the server by the ISP.

#### **Basic PPTP Settings:**

| Connection Type       | РРТР                      |
|-----------------------|---------------------------|
| Username              | NyGuerrame                |
| Password              | •••••                     |
| Server IP/Domain Name | Terrer II Terrer Terret X |
| Internet IP           |                           |
| Internet DNS          |                           |
| Oynamic IP            | O Static IP               |
| IP Address            |                           |
| Subnet Mask           |                           |
| Gateway               |                           |
| DNS Server            | ****                      |
|                       |                           |
| (~                    | 0                         |

- Username/Password Enter the username and password provided by your ISP. These fields are case-sensitive.
- Server IP/Domain Name Enter the VPN server's IP address or domain name provided by your ISP.
- Dynamic IP/Static IP Choose the address type provided by your ISP.

#### Advanced PPTP Settings:

| e 1999 X |
|----------|
| e Taos 🗙 |
| n Tana 🗙 |
|          |
|          |
|          |
| 5        |
|          |
|          |
|          |
|          |
|          |
|          |

Click Disconnect to disconnect the internet immediately.

Click Connect to connect the internet immediately.

| Connection Type         |            |  |
|-------------------------|------------|--|
| Connect On Demand       |            |  |
| √ Connect Automatically |            |  |
| Connect Manually        |            |  |
|                         | $\bigcirc$ |  |
|                         | Save       |  |

- Connection Type
  - Connect Automatically In this mode, the internet connection can be reestablished automatically when it is down.
  - Connect on Demand In this mode, the internet connection can be terminated automatically after a specified inactivity period (Max Idle Time) and be re-

established when you attempt to access the internet again. If you want to keep your internet connection active all the time, please enter 0 in the Max Idle Time field. Otherwise, enter the number of minutes you want to have elapsed before your internet access disconnects.

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

#### Note:

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

| WAN Rate Settings Auto Negotiation | MTU Size (in bytes) | 1420       | The default is 1420, do not<br>change unless necessary. |
|------------------------------------|---------------------|------------|---|
| The regeleter                      | WAN Rate Settings   | Auto Negot | iation 🔻  |

- MTU Size (in bytes) The default MTU size is 1460 bytes. Do not change the default MTU size unless required by your ISP.
- WAN Rate Settings Select the rate and duplex mode for the WAN port. It is recommended to keep the default auto mode.

### 4.2.2. LAN Settings

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > Network > LAN Settings.

| LAN Settings |                 |                    | 2 |
|--------------|-----------------|--------------------|---|
|              | MAC Address     |                    |   |
|              | LAN IP Settings | Auto (Recommended) | • |
|              | IP Address      | 192.168.0.1        |   |
|              | Subnet Mask     | 255.255.255.0      |   |

- MAC Address The unique physical address assigned to the Ethernet (LAN) port of the router.
- LAN IP Settings Select Auto or Manual. In Auto mode, the router will automatically detect the LAN-WAN IP address confliction. In Manual mode, you can set the IP address and subnet mask of the router.
- IP Address Enter the LAN IP address of the router.
- Subnet Mask Enter the subnet mask, which is normally 255.255.255.0.

Note:

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

## 4.2.3. IPv6

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > Network > IPv6.
- 3. Select a working mode according to your ISP network topology.

### Pass-Through (Bridge)

If your ISP uses Pass-Through (Bridge) network deployment, select Pass-Through (Bridge). No configuration is required for this type of connection.



# Router

For other connection types, select Router and complete the IPv6 configuration.

| IPv6                     |            |
|--------------------------|------------|
| Mode                     | Router 🔻   |
|                          |            |
| WAN                      |            |
| WAN Connection Type      | Normal     |
|                          |            |
| Get IPv6 Address         | Auto 🔻     |
| Manually set DNS server  |            |
| Link-Local Address       |            |
| Global Address           |            |
| Gateway                  |            |
| Primary DNS              |            |
| Secondary DNS            |            |
|                          |            |
| LAN                      |            |
|                          |            |
| Enable Prefix Delegation |            |
| Link-Local Address       |            |
| Prefix                   |            |
|                          |            |
| $\frown$                 | $\bigcirc$ |

- WAN Connection Type Select an appropriate WAN connection type according to the information provided by your ISP.
- Normal Select this type for normal IPv6 internet connection.
- PPPoE Select this type if your ISP uses PPPoEv6 for assigning address, and provides a username and password.

- Tunnel 6to4 Select this type if your ISP uses 6to4 deployment for assigning address.
- Get IPv6 Address Select Auto or Static according to the information provided by your ISP.
- Address The IPv6 address of the router's WAN interface.
- Prefix Length The IPv6 prefix length of the router's WAN interface.
- Gateway The default IPv6 gateway for the router's WAN interface.
- Use the same PPPoE session as IPv4 Select to use the same PPPoE session as IPv4. Make sure your IPv4 WAN connection is PPPoE before you select this option.
- Username/Password The username and password provided by your ISP.
- Manually set DNS server The DNS addresses will be automatically assigned to the router. You can also set manually according to your needs.
- Primary/Secondary DNS Enter the primary/Secondary IPv6 DNS server address provided by your ISP.
- Enable Prefix Delegation Select to get a prefix delegation by DHCPv6 server from the ISP. Clients in LAN will generate an IPv6 address with this prefix.

# 4. 2. 4. IPTV

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > Network > IPTV.
- 3. Select the appropriate mode according to your ISP.

Select Bridge if your ISP is not listed and no other parameters are required.

Select Custom if your ISP is not listed but provides necessary parameters.

| IPTV   |         |        | 0 |
|--------|---------|--------|---|
|        | Mode    | Bridge | • |
| Port F | or IPTV | LAN2   | • |
|        | Sa      | ive    |   |

- 4. After you have selected a mode, the necessary parameters, including the LAN port for IPTV connection, are predetermined.
- 5. Click Save.
- 6. Connect the set-top box to the corresponding LAN port which is predetermined or you have specified.

# 4. 2. 5. MAC Address Settings

Some ISPs will register the MAC address of your computer the first time you access the internet through their cable modem. When you add a router into the network to share internet connection, the ISPs may not accept it since its MAC address is not the registered one. In this case, you need to clone your computer's MAC address to the router.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > Network > MAC Address Settings.
- 3. Use the current computer's MAC address, or manually set the MAC address. Then click Save.

| MAC Address Settings                                | 0 |
|---|---|
| ◯ Use the router's MAC address:                     |   |
| Use the current computer's MAC address (MAC Clone): |   |
| O Manually set MAC address:                         |   |
| Save  |   |

#### Note:

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

## 4.2.6. DHCP Server

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

Note:

- To use the DHCP server function of the router, you must configure all computers on the LAN as Obtain an IP Address automatically.
- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > Network > DHCP Server.
- 3. Specify DHCP server settings and click Save.

|              | Start IP Address   | 192.168.0.100          |                               |
|--------------|--------------------|------------------------|-------------------------------|
|              | End IP Address     | 192.168.0.199          |                               |
|              | Address Lease Time | 120 minutes<br>default | (1-2880, the<br>value is 120) |
|              | Gateway            | 8200                   |                               |
| (            | Primary DNS        | 13.5.5                 |                               |
|              |                    |                        |                               |
|              | Secondary DNS      | ****                   |                               |
| CP Equipme   | Secondary DNS      | ve                     |                               |
| CP Equipment | Secondary DNS      | 3                      | Effective Time                |

- DHCP Server Enable or disable the DHCP server. If disabled, you must have another DHCP server within your network or else you must configure the computer manually.
- Start IP Address Specify an IP address for the DHCP Server to start with when assigning IP addresses. 192.168.0.100 is the default start address.
- End IP Address Specify an IP address for the DHCP Server to end with when assigning IP addresses. 192.168.0.199 is the default end address.
- Address Lease Time The Address Lease Time is the amount of time a network user will be allowed to connect to the router with the current dynamic IP Address. When time is up, the user will be automatically assigned a new dynamic IP address. The range of the time is 1 ~ 2880 minutes. The default value is 120.
- Gateway It is recommended to input the IP address of the LAN port of the router. The default value is 192.168.0.1.
- Primary DNS Input the DNS IP address provided by your ISP.
- Secondary DNS Server Input the IP address of another DNS server if your ISP provides two DNS servers.
- DHCP Equipment Displays the information of the DHCP client.
- Host The name of the DHCP client.

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

Click Refresh to show the current attached devices.

# 4. 2. 7. IP & MAC Binding

IP & MAC Binding (also known as ARP Binding) is useful for controlling access of a specific computer in the LAN by binding the IP address and the MAC address of the device together. IP & MAC binding also prevents other devices from using a specific IP address.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > Network > IP & MAC Binding.
- 3. In the IP & MAC List, find your device and click Bind. Or you can click Add under the IP & MAC Binding table and manually add an binding entry.

|            |      | MAC Address | IP Address    | Status    | Bind              |
|------------|------|-------------|---------------|-----------|-------------------|
| 10000      | E.   | 10.44       | 192.168.0.100 | Not Bound | 0                 |
| & Mac Bind | ding | Refn        | esh           |           | 0                 |
|            | lost | MAC Addres  | s IP /        | Address   | Edit<br>Cancel Sa |
| ł          |      |             |               |           |                   |

# 4.3. Wireless

## 4.3.1. Host Network

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Network for basic host network settings, and go to Advanced > Wireless > Host Network for advanced host network settings.

## **Basic host network settings**



## Advanced host network settings

| Host Network        |               | ON O                               | 0 |                       |
|---------------------|---------------|------------------------------------|---|-----------------------|
|                     | SSID          | TP-Link_8B07                       |   | Enable SSID Broadcast |
|                     | Security      | WPA/WPA2-Personal<br>(Recommended) | • |                       |
|                     | Version       | Auto                               | • |                       |
|                     | Encryption    | AES                                | • |                       |
|                     | Password      | ExamplePassword                    |   |                       |
|                     | Channel       | Auto                               | • |                       |
|                     | Mode          | 11bgn mixed                        | • |                       |
| C                   | Channel Width | Auto                               | • |                       |
|                     |               |                                    | 1 |                       |
| Тл                  | ansmit Power  | High                               | - |                       |
| Tre<br>AP Isolation | ansmit Power  | High                               | • |                       |

- SSID You can leave the default wireless network name (SSID) as it is, or create a new name (up to 32 characters). This field is case-sensitive.
- Security Select a security option:

| s | ecurity | No Security | - |
|---|---------|-------------|---|
|   |         | No ocounty  | • |

No Security: Select this option to disable the wireless security.

| Security   | WPA/WPA2-<br>Personal(Recommended) | • |
|------------|------------------------------------|---|
| Version    | Auto                               | • |
| Encryption | Auto                               | • |
| Password   | Europathere et                     |   |

WPA/WPA2-Personal: Select this option to enable the standard authentication method based on a Pre-shared Key (PSK), also called passphrase. If you select this option, configure the following parameters:

- Version Select a security version for your wireless network.
- Encryption Select a security encryption type: TKIP(Temporal Key Integrity Protocol), AES(Advanced Encryption Standard), or Auto (for both TKIP and AES).
- Password Enter 8-63 characters using a combination of numbers, letters and symbols.

| Security         | WPA/WPA2-Enterprise | • |
|------------------|---------------------|---|
| Version          | Auto                | • |
| Encryption       | Auto                | • |
| RADIUS Server IP | 8858                |   |
| RADIUS Port      | 8.812               |   |
| RADIUS Password  | Europal associat    |   |

WPA/WPA2-Enterprise: Select this option to enable the more advanced authentication method using a RADIUS (Remote Authentication Dial In User Service) server. If you select this option, configure the following parameters:

- Version Select a security version for your wireless network.
- Encryption Select a security encryption type: TKIP(Temporal Key Integrity Protocol), AES(Advanced Encryption Standard), or Auto (for both TKIP and AES).
- RADIUS Server IP Enter the IP address of the Radius server.

- RADIUS Port Enter the port that the Radius server uses.
- RADIUS Password Enter the password for the Radius server.

| Security       | WEP          | • |
|----------------|--------------|---|
| Туре           | Auto         | • |
| WEP Key Format | Hexadecimal  | • |
| Кеу Туре       | 64-bit       | • |
| Key Value      | Europhese of |   |

WEP: Select this option to enable basic authentication method if any of your client devices can only access the wireless using WEP (Wired Equivalent Privacy). If you select this option, configure the following parameters:

- Type Select an authentication type for your wireless network. The default is Auto, which automatically chooses Open System or Shared Key based on the capability and access request of the wireless client.
- WEP Key Format Either use ASCII format or select Hexadecimal. ASCII format is a combination of alphabetic and numeric characters. Hexadecimal format is a combination of the number (0-9) and letters (A-F, a-f).
- Key Type/Key Value Select a key type option and enter a key value. The 64bit option allows you to enter 10 hexadecimal digits (0-9, A-F, a-f) or 5 ASCII characters into the Key Value field. The 128-bit option allows you to enter 26 hexadecimal digits (0-9, A-F, a-f) or 13 ASCII characters into the Key Value field.
- Channel Select an operating channel for the wireless network. The default channel is Auto. Do not change it unless you are experiencing the intermittent wireless connection issue.
- Mode Select a transmission mixed mode.
- Channel Width Select a channel width (bandwidth) for the wireless network.
- Transmit Power Select either High, Middle, or Low to specify the data transmit power. The default and recommended setting is High.
- AP Isolation Select this checkbox to enable the AP Isolation feature that allows you to confine and restrict all wireless devices on your network from interacting with each other, but still able to access the Internet. AP isolation is disabled by default.
- Enable WMM The WMM function guarantees the packets with high-priority messages being transmitted preferentially. It is enabled by default and highly recommended.

# 4. 3. 2. Guest Network

Guest Network allows you to set up a separate wireless network with a separate network name (SSID) and password that your guests can use to access the Internet.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > Wireless > Guest Network.

|                 |      | TPGuest_8B07 | SSID                    |
|-----------------|------|--------------|-------------------------|
| 🔽 No Security   |      |              | Password                |
|                 | •    | No           | Access my local network |
| 0 means no limi | KB/s | 0            | Upstream Bandwidth      |
| 0 means no limi | KB/s | 0            | Downstream Bandwidth    |
|                 | •    | No           | Set Guest Access Time   |

- SSID/Password Set the network name and password for Guest Network. Password may contain 8-63 characters. It is recommended you use a combination of numbers, letters and symbols.
- Access my local network Select whether to allow wireless devices on the guest network to access your local network. The default value is No.
- Upstream Bandwidth/Downstream Bandwidth Configure the total upload/download speed of the guest network.
- Set Guest Access Time Set the time period to enable guest network.

# 4.4. Network Control

## 4.4.1. Parental Controls

Parental Controls allows you to restrict internet access time for devices under control.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > Network Control > Parental Controls.

|                      |            |  | Parental Devices |    |  |         |   |   | E  |   |     | dit       |    |    |    |    |    |    |    |     |
|----------------------|------------|--|------------------|----|--|---------|---|---|----|---|-----|-----------|----|----|----|----|----|----|----|-----|
|                      |            |  | (-<br>A          | +) |  | (<br>De | × | ) | De | ( | Sel | )<br>ecte | d  |    |    |    |    |    |    |     |
| lease s<br>Ø<br>Ion. | e eff<br>2 |  |                  |    |  |         |   |   |    |   |     |           | 17 | 18 | 19 | 20 | 21 | 22 | 23 | Ног |
| ue.<br>/ed.          |            |  |                  |    |  |         |   |   |    |   |     |           |    |    |    |    |    |    |    |     |
| hur.                 |            |  |                  |    |  |         |   |   |    |   |     |           |    |    |    |    |    |    |    |     |
| rî.<br>at.           |            |  |                  |    |  |         |   |   |    |   |     |           |    |    |    |    |    |    |    |     |
| un.                  |            |  |                  |    |  |         |   |   |    |   |     |           |    |    |    |    |    |    |    |     |

- 3. Click Add and select one or more parental devices. All devices except the parental devices will be restricted.
- 4. Turn on Parental Controls.
- 5. Click and drag across the cells to set the effective time period during which the restriction applies.
- 6. Click Save.

### 4.4.2. Access Control

Access Control allows you to restrict access to the internet contents for local devices.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > Network Control > Access Controls.
- 3. Enable Access Control.
- 4. Select Whitelist or Blacklist to allow or block only the internet activities specified in the table.
- 5. Click Add and enter a brief description for the rule.

| Acces | s Control   | ON                  |           |           | 0           |
|-------|-------------|---------------------|-----------|-----------|-------------|
| Rule  |             |                     |           |           |             |
| • Wł  | nitelist    |                     |           |           |             |
| O Bla | acklist     |                     |           |           |             |
|       | Description | Hosts Under Control | Target    | Schedule  | Edit        |
|       |             | Configure           | Gonfigure | Configure | Cancel Save |

6. Click Configure in the Hosts Under Control column, then add one or more hosts by specifying IP address ranges or MAC addresses.

| Host Description |            |  |
|------------------|------------|--|
| Mode             | IP Address |  |
| IP Address Range |            |  |
|                  |            |  |

- Host Description In this field, create a unique description for the host.
- Mode Here are two options, IP Address and MAC Address. You can select either of them from the drop-down list.

If IP Address is selected, you can see the following item:

• IP Address Range - Enter the IP address or address range of the host in dotteddecimal format (e.g. 192.168.1.23).

If MAC Address is selected, you can see the following item:

- MAC Address Enter the MAC address of the host in XX-XX-XX-XX-XX-XXformat (e.g. 00-11-22-33-44-AA).
- 7. Click Configure in the Target column, then click Any Target to add all internet contents or click Add to add speficied internet contents.

| O Any Target     |            |   |
|------------------|------------|---|
| Add              |            |   |
| Description      |            |   |
| Mode             | IP Address | • |
| IP Address Range |            |   |
|                  |            |   |
| Common Service   | Select     | • |
| Port             |            |   |
| _                |            |   |
| Protocol         | ALL        | • |

- Description In this field, create a description for the target. Note that this description should be unique.
- Mode Here are two options, IP Address and Website Domain. You can choose either of them from the drop-down list.

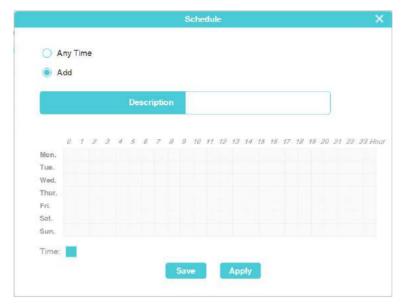
If the IP Address is selected, you will see the following items:

- IP Address Range Enter the IP address (or address range) of the target (targets) in dotted-decimal format.
- Common Service Here lists some common service ports. Select one from the drop-down list, and the corresponding port number will be filled in the Port field automatically. For example, if you select HTTP, 80 will be filled in the Port automatically.
- Port Specify the port or port range for the target. For some common service ports, you can make use of the Common Service item above.
- Protocol Here are three options, All, TCP and UDP. Select one of them from the drop-down list for the target.

If the Website Domain is selected, you will see the following items:

• Website Domain 1/2/3/4 - Here you can enter 4 domain names, either the full name or the keywords (for example, tp-link). Any domain name with keywords in it (www.tp-link.com) will be blocked or allowed.

8. Click Configure in the Schedule column, then click Any Time to add all time or click Add to add speficied time.



- Description In this field, create a description for the schedule. Note that this description should be unique.
- Time Click and drag across the cells to set the effective time periods.
- 9. Save the rule to complete the settings.

# 4.5. Advanced Users

### 4.5.1. Virtual Server

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

- 1. Set the computer running the service application to a static IP address, for example 192.168.0.100.
- 2. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 3. Go to Advanced > Advanced Users > Virtual Server.
- 4. Click Add.

| Common Server | External Port | Internal Port | IP Address | Protoc | loc |        | Edit |
|---------------|---------------|---------------|------------|--------|-----|--------|------|
| Select 🔻      |               |               |            | ALL    | •   | Cancel | Sav  |

- 5. Select a service from the Common Server drop-down list to automatically populate the appropriate port number in the External Port field. If the service is not listed, enter the external port number (e.g. 21) or a range of ports (e.g. 21-25).
- 6. 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.
- 7. Enter the IP address of the computer running the service application in the dotted decimal format into the IP Address field.
- 8. Select a protocol for the service application: TCP, UDP, or All from the Protocol dropdown list.
- 9. Click Save.

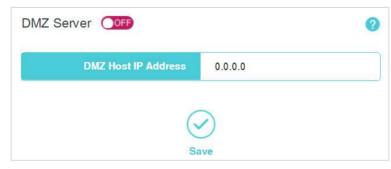
Note:

Please make sure the external port is different from the port used for local and remote management, or the virtual server may not be working properly.

# 4.5.2. DMZ Server

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

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > Advanced Users > DMZ Server.



3. Enter the IP address of the local computer that is to be the DMZ host.

4. Click Save.

5. Enable DMZ.

## 4.5.3. UPnP Settings

The Universal Plug and Play (UPnP) feature allows the devices, such as Internet computers, to access the local host resources or devices as needed. UPnP devices can be automatically discovered by the UPnP service application on the LAN.

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

2. Go to Advanced > Advanced Users > UPnP Settings.

| PnP Settings 🛛 🔍 🔍      |               |          |               |            |       |
|-------------------------|---------------|----------|---------------|------------|-------|
| Application Description | External Port | Protocol | Internal Port | IP Address | Statu |
|                         |               | 0        | )             |            |       |
|                         |               | Refre    |               |            |       |

- Application Description Displays a brief description of the application in the UPnP request.
- External Port Displays the external port the router opened for the application.
- Protocol Displays the network protocol type that is used by the local host.
- Internal Port Displays the internal port the router opened for the application.
- IP Address Displays the IP address of the local host.
- Status Displays whether the port is enabled.

### Note:

Please make sure the UPnP feature is supported by your router, operating system and the application.

# 4. 5. 4. Advanced Routing

Advanced Routing is used to predetermine a fixed route for the network information packets to reach a specific host or network.

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

|      | Destination Address | Subnet Mask    | Next Hop        | Edit<br>Cancel Save |
|------|---------------------|----------------|-----------------|---------------------|
| yste | em Routing List     | Add Delete All | Delete Selected |                     |
| D    | estination Address  | Subnet Mask    | Next Hop        | Port                |
|      | 192.168.0.0         | 255.255.255.0  | 192.168.0.1     | LANWLAN             |

- 3. Click Add.
- 4. Enter a destination IP address to assign the static route for this entry.
- 5. Enter a subnet mask to determine the network portion and host portion of the IP address.
- 6. Enter an next hop IP address to connect the router to the network or host.
- 7. Click Save.

## 4.5.5. Dynamic DNS

Dynamic DNS (Domain Name System) allows you to assign a fixed host and domain name to a dynamic Internet IP address. It is useful when you are hosting your own website, FTP server, or another server behind the router. To begin, you need to sign up with a Dynamic DNS service provider such as www.dyndns.com. Then, enter your registration information.

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > Advanced Users > Dynamic DNS.

| Dynamic DNS        |                          | 0 |                |
|--------------------|--------------------------|---|----------------|
| Service Provider   | DynDNS                   | • | Go to register |
| Dynamic DNS Client | Enable                   | • |                |
| Usemame            |                          |   |                |
| Password           |                          |   |                |
| Domain Name        |                          |   |                |
| (                  | $\overline{\mathcal{O}}$ |   |                |
| Sa                 | ive                      |   |                |

- 3. Select your Dynamic DNS service provider.
- 4. Enable the Dynamic DNS client.
- 5. Enter the username and password of your Dynamic DNS account. If you do not have an account, click Go to register... to register an account.
- 6. Enter domain name you registered with the Dynamic DNS service provider.
- 7. Click Save.

# 4.6. System Tools

### 4. 6. 1. Web Management

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

2. Go to Advanced > System Tools > Web Management.

### Local Management

By default, the router allow all devices on the local network to access and manage the router.

To allow only specific devices to access and manage the router locally, follow these steps:

1. Select Allow specified local devices.

| ocal Management                | 0                                |
|--------------------------------|----------------------------------|
| Local Management               | Allow specified local devices. 🔻 |
| MAC Address1                   | 00-00-00-00-00                   |
| MAC Address2                   | 00-00-00-00-00                   |
| MAC Address3                   | 00-00-00-00-00                   |
| MAC Address4                   | 00-00-00-00-00                   |
| Current Computer's MAC Address | -                                |

- 2. Enter one or more MAC addresses. You can click to add your current computer's MAC address to the list above.
- 3. Click Save.

### **Remote Management**

By default, the router doesn't allow devices to access and manage the router remotely from the Internet.

To enable remote management, follow these steps:

1. Select Allow all remote devices to enable remote management for all devices. Or select Allow specified remote devices and enter the IP address of the remote device to be allowed to access the router.

| Remote Management | 0                                  |
|-------------------|------------------------------------|
| Remote Management | Allow specified remote<br>devices. |
| IP Address        | 0.0.0.0                            |
| Port              | 8888                               |
| Sa                | ave                                |

# 2. Enter the port number to be used to access the router between 1024 and 65535. The default value is 8888.

### 3. Click Save.

### Note:

- 1. To access the router, you should type your router's WAN IP address into your browser's address field, followed by a colon and the custom port number (e.g. http://202.96.12.8:8080). After entering the correct password, you will be able to access the router's web management page.
- 2. Be sure to set a very secure password for the router.

# 4. 6. 2. Time Settings

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

2. Go to Advanced > System Tools > Time Settings.

| Time Zone | (GMT+00:00 | ) Greenwich Mean Time: Dubli |
|-----------|------------|------------------------------|
|           | Date       | 2018-8-18                    |
|           | Time       | 04:39:15                     |

3. Select your local time zone from this drop-down list. The router will automatically obtain GMT from the internet based on the time zone you select.

### 4. Click Save.

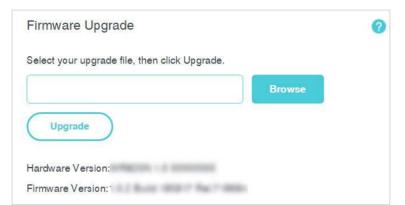
Note:

This setting will be used for some time-based functions such as Parental Controls and Access Control. Please verify your time zone before you configure these functions.

# 4. 6. 3. Firmware Upgrade

TP-Link is dedicated to improving and richening the product features, giving users a better network experience. We will release the latest firmware at TP-Link official website www.tp-link.com. You can download the lastest firmware file from the Support page of our website and upgrade the firmware to the latest version.

- 1. Download the latest firmware file for the router from our website www.tp-link.com.
- 2. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 3. Go to Advanced > System Tools > Firmware Upgrade.



4. Click Browse to locate and select the downloaded firmware file.

### 5. Click Upgrade. The router will reboot automatically after the upgrade.

Note:

To avoid any damage, it is important to keep router powered on during the entire process.

## 4. 6. 4. Factory Default Restore

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > System Tools > Factory Default Restore.



- 3. Click the Restore button to restore all the settings to their default values.
- Default IP address: 192.168.1.1
- Default Subnet Mask: 255.255.255.0

## 4. 6. 5. Backup & Restore

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

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > System Tools > Backup & Restore.

| Click to save a copy of your current settings. Backup Restore Select a configuration file and click Restore.   | Restore   | Backup   |  |
|--|---|----------|--|
|  | Select a configuration file and click Restore. Browse | $\frown$ |  |
| Select a configuration file and click Restore.   | Browse  | Restore  |  |
|  |   |          |  |
| Caution:<br>1. All current configurations will be lost once the router is restored.<br>2. To avoid any damage, keep the device powered on during the process |   |          | 20 seconds), the device will reboot automatically. |

### To backup configuration settings:

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

### To restore configuration settings:

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

### 4.6.6. Reboot

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

2. Go to Advanced > System Tools > Reboot.

| Reboot                |                 |       |  |
|-----------------------|-----------------|-------|--|
|                       |                 |       |  |
| Reboot                | S               |       |  |
| $\square$             |                 |       |  |
| Click the button to r | reboot this dev | rice. |  |

3. Click Reboot.

### 4. 6. 7. Change Login Password

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > System Tools > Change Login Password.

| Change Login Password |     |
|-----------------------|-----|
| Old Password          |     |
| New Password          |     |
| Confirm New Password  |     |
| Se                    | ave |

- 3. Enter the old password of the router.
- 4. Enter a new password and confirm it.
- 5. Click Save.

### Note:

For subsequent logins, use the new password you have set.

# 4. 6. 8. Diagnostic Tools

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

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

| arameters               | s Settings             |     |                            |
|-------------------------|------------------------|-----|----------------------------|
| Select                  | Ping O Tracert         |     |                            |
|                         | IP Address/Domain Name |     |                            |
|                         | Ping Packet Number     | 4   | (1-50)                     |
|                         | Ping Packet Size       | 64  | (4-1472 bytes)             |
|                         | Ping Timeout           | 800 | (100-2000<br>milliseconds) |
|                         | Tracert Max Hops       | 20  | (1-30)                     |
| Diagnostic<br>The route | ris ready.             |     |                            |
|                         |                        |     |                            |

- Ping This diagnostic tool troubleshoots connectivity, reachability, and name resolution to a given host or gateway.
- Tracert This diagnostic tool tests the performance of a connection.

### Note:

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

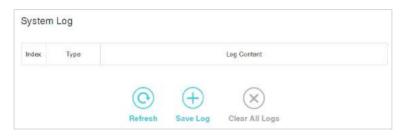
- IP Address/Domain Name Enter the IP address or domain name of the PC whose connection you wish to diagnose.
- Pings Packet Number Specifies the number of Echo Request messages sent. The default is 4.
- Ping Packet Size Specifies the number of data bytes to be sent. The default is 64.
- Ping Timeout Time to wait for a response, in milliseconds. The default is 800.

• Tracert Max Hops - Set the maximum number of hops (max TTL to be reached) in the path to search for the target (destination). The default is 20.

Click Start to check the connectivity of the internet. Diagnostic results will be displayed.

# 4.6.9. System Log

- 1. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2. Go to Advanced > System Tools > System Log.



- Refresh Refresh the page to show the latest log list.
- Save Log Click to save all the logs in a txt file.
- Clear All Logs All the logs will be deleted from the router permanently, not just from the page.

# 4.7. Logout

Click Logout at the upper right corner, and you will log out of the web management page and return to the login window.

# FAQ

# Q1. What should I do if I forget my wireless password?

- 1. Connect your computer to the router using an Ethernet cable.
- 2. Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 3. Go to Wireless to retrieve or reset your wireless password.

# Q2. What should I do if I forget my login password of the web management page?

1. Reset the router to its factory default settings.

### 2. Visit http://tplinkwifi.net, and create a password to log in.

Note: You'll need to reconfigure the router to surf the Internet once the router is reset, and please mark down your new password for future use.

# Q3. What should I do if I cannot log in to the router's web management page?

This can happen for a variety of reasons. Please try the methods below to log in again.

- Make sure your computer has connected to the router correctly and the corresponding LED light up.
- Make sure the IP address of your computer is configured as Obtain an IP address automatically and Obtain DNS server address automatically.
- Make sure you enter the correct IP address to log in: <u>http://tplinkwifi.net</u> or 192.168.0.1.
- 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 and select Never dial a connection.

| eneral   | Security                 | Privacy      | Content                      | Connections             | Programs | Advanced |
|----------|--------------------------|--------------|------------------------------|-------------------------|----------|----------|
| Dislup   | Setup.                   |              | net connec<br>Network se     |                         | Set      | up       |
|          | anu virtua<br>Broadbar   | Solosuperses | 641.4.0846763.8885           | cungs                   | Add      | •        |
|          |                          |              | cellon                       |                         | Add V    |          |
|          |                          |              |                              |                         |          |          |
| 77       |                          |              |                              |                         | Remo     | ve       |
|          | e Settings<br>for a conr |              | ed to config                 | jure a proxy            | Sett     | ings     |
| Ne       | ver dial a (             | connectio    | n                            |                         |          |          |
| 🔘 Dia    | l wheneve                | r a netwo    | ork connect                  | ion is not prese        | ent      |          |
| Alv      | vays dial m              | y default    | connection                   | 1                       |          |          |
| Curr     | ent                      | None         |                              |                         | Set de   | fault    |
| Local Ar | rea Netwo                | rk (LAN) s   | settings —                   |                         |          |          |
|          |                          |              | r to dial-up<br>r dial-up se | connections.<br>ttings. | LAN se   | ttings   |
|          |                          |              |                              |                         |          |          |
|          |                          |              |                              |                         |          |          |

4) Click LAN settings and deselect the following three options, and click OK.

|             | guration may over<br>ettings, disable au |             |          |                  |
|-------------|--|-------------|----------|------------------|
| Automatical | y detect settings                        |             |          |                  |
| Use automa  | tic configuration so                     | ript        |          |                  |
| Address [   |  |             |          |                  |
| S           |  |             |          |                  |
| roxy server |  |             |          |                  |
| Use a proxy | server for your LA<br>N connections).    | N (These se | ttings w | ill not apply to |
| Use a proxy |  | N (These se |          | Il not apply to  |
| Address:    |  | Port; 8     | 0        |                  |

5) Go to Advanced > Restore advanced settings, and click OK.

| General | Security  | Privacy  | Content  | Connections  | Programs  | Advanced |
|---------|---|--|--|--|---|----------|
| Setting | s   |  |  |  |   | -        |
|         | Enable<br>Move<br>Reset<br>Reset<br>Browsing<br>Autom<br>Close<br>Disable | s expand<br>caret Br<br>system ca<br>text size<br>text size<br>zoom leve<br>natically re<br>unused for<br>e script de<br>e script de | aret with fo<br>to medium<br>to medium<br>el for new<br>ecover fron<br>olders in His<br>ebugging ()<br>ebugging () | new windows a<br>ocus/selection of<br>for new window<br>while zooming <sup>3</sup><br>windows and ta<br>n page layout e<br>story and Favor<br>Internet Explore | hanges<br>ws and tabs<br>abs<br>errors with Co<br>rites*<br>er) |          |
|         | V Displa  | y Accelera   | ator buttor  | on selection   | -   |          |
| *Tal    | kes effect a  | after you  | restart Int  | ernet Explorer   |   | 10       |
|         |   |  |  | Restore  | advanced s  | ettings  |
| Reset I | internet Ex   | plorer set   | tings —  |  |   |          |
|         | ets Internet<br>lition.   | t Explorer   | 's settings  | to their default   | Rese  | et       |
| You     | should only   | use this i   | f your bro   | wser is in an un   | usable state  | -0       |

- Use another web browser or computer to log in again.
- Reset the router to factory default settings and try again. If the login still fails, please contact the technical support.

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

# Q4. What should I do if I cannot access the internet even though the configuration is finished?

- 1. Visit <u>http://tplinkwifi.net</u>, and log in to with the password you set for the router.
- 2. Go to Network to check WAN status:

### If IP address is a valid one, please try the methods below and try again:

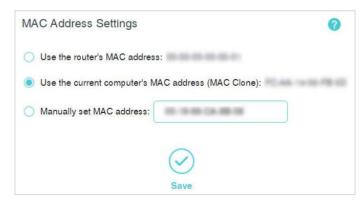
- Your computer might not recognize any DNS server addresses, please manually configure DNS server.
  - 1) Go to Advanced > Network > DHCP Server.
  - 2) Enter 8.8.8.8 as Primary DNS, and click Save.
  - Tips: 8.8.8.8 is a safe and public DNS server operated by Google.

| Start IP Address   | 192.168.0.100                                  |
|--------------------|--|
| End IP Address     | 192.168.0.199                                  |
| Address Lease Time | 120 minutes (1-2890, the default value is 120) |
| Gateway            |  |
| Primary DNS        | 8.8.8.8  |
| Secondary DNS      | 8848   |

- Restart the modem and the router.
  - 1) Power off your modem and the router, and leave them off for 1 minute.
  - 2) Power on your modem first, and wait about 2 minutes.
  - 3) Power on the router, and wait another 1 or 2 minutes and check the Internet access.
- Reset the router to factory default settings and reconfigure the router.
- Upgrade the firmware of the router.
- Check the TCP/IP settings on the particular device if all other devices can get internet from the router.

### If the IP address is 0.0.0.0, please try the methods below and try again:

- Make sure the physical connection between the router and the modem is proper.
- Clone the MAC address of your computer.
  - 1) Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
  - 2) Go to Advanced > Network > MAC Address Settings, select Use the current computer's MAC address (MAC Clone) and click Save.



### Note:

- Some ISP will register the MAC address of your computer when you access the Internet for the first time through their Cable modem, if you add a router into your network to share your Internet connection, the ISP will not accept it as the MAC address is changed, so we need to clone your computer's MAC address to the router.
- The MAC addresses of a computer in wired connection and wireless connection are different.

### • Modify the LAN IP address of the router.

### Note:

Most TP-Link routers use 192.168.0.1/192.168.1.1 as their default LAN IP address, it may conflict with the IP range of your existent ADSL modem/router. If so, the router is not able to communicate with your modem and cause you can't access the Internet. To resolve this problem, we need to change the LAN IP address of the router to avoid such conflict, for example, 192.168.2.1.

- 1) Visit <u>http://tplinkwifi.net</u>, and log in with the password you set for the router.
- 2) Go to Advanced > Network > LAN Settings.
- 3) Modify the LAN IP address as the follow picture shows. Here we take 192.168.2.1 as an example.
- 4) Click Save.

| AN Settings     |                |
|-----------------|----------------|
| MAC Address     | 00-00-00-00-00 |
| LAN IP Settings | Manual 🗸       |
| IP Address      | 192.168.2.1    |
| Subnet Mask     | 255.255.255.0  |

- Restart the modem and the router.
  - 1) Power off your modem and the router, and leave them off for 1 minute.
  - 2) Power on your modem first, and wait about 2 minutes.
  - 3) Power on the router, and wait another 1 or 2 minutes and check the internet access.
- Double check the Internet Connection Type.
  - 1) Confirm your Internet Connection Type, which can be learned from the ISP.
  - 2) Visit http://tplinkwifi.net, and log in with the password you set for the router.
  - 3) Go to Advanced > Network > WAN Settings.
  - 4) Select your WAN Connection Type and fill in other parameters.

- 5) Click Save.
- 6) Restart the modem and the router.
- Please upgrade the firmware of the router.

If you've tried every method above but cannot access the internet, please contact the technical support.

# Q5. What should I do if I cannot find my wireless network or I cannot connect to the wireless network?

### If you fail to find any wireless network, please follow the steps below:

- Make sure the wireless function of your device is enabled if you're using a laptop with a built-in wireless adapter. You can refer to the relevant document or contact the laptop manufacturer.
- 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, please follow the steps below:

• Make sure your computer/device is still in the range of your router/modem. Move closer if it is currently too far away.

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

- Authenticating problem/password mismatch:
  - Sometimes you will be asked 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 router.

| Connect to a Network       | ×  |
|----------------------------|--|
|                            | from the router display<br>the general wireless password |
| PIN:                       |  |
| Connect using a security k |  |
|                            | Back Next Cancel   |

2) If you cannot find the PIN or PIN failed, you may choose Connecting using a security key instead, and then type in the Wireless Password/Network Security Key.

3) If it continues to show note of Network Security Key Mismatch, it is suggested to confirm the wireless password of your wireless router.

Note: Wireless Password/Network Security Key is case sensitive.

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

# **COPYRIGHT & TRADEMARKS**

Specifications are subject to change without notice.  $\mathbf{P}_{\text{tp-link}}$  is a registered trademark of TP-Link Technologies Co., Ltd. Other brands and product names are trademarks or registered trademarks of their respective holders.

No part of the specifications may be reproduced in any form or by any means or used to make any derivative such as translation, transformation, or adaptation without permission from TP-Link Technologies Co., Ltd. Copyright © 2018 TP-Link Technologies Co., Ltd. All rights reserved.

# CE Mark Warning

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

# **OPERATING FREQUENCY (the maximum transmitted power)**

2400 MHz -2483.5 MHz (20dBm)

# EU Declaration of Conformity

TP-Link hereby declares that the device is in compliance with the essential requirements and other relevant provisions of directives 2014/53/EU, 2009/125/EC and 2011/65/EU.

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

# **RF Exposure Information**

This device meets the EU requirements (2014/53/EU Article 3.1a) on the limitation of exposure of the general public to electromagnetic fields by way of health protection.

The device complies with RF specifications when the device used at 20 cm from your body.

# **Canadian Compliance Statement**

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

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

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

- 1. l'appareil ne doit pas produire de brouillage;
- 2. l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement.

Antenna 2 fixed Omni Directional Antennas

# **Radiation Exposure Statement:**

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

## Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

### **Industry Canada Statement**

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

### Korea Warning Statements:

당해 무선설비는 운용중 전파혼신 가능성이 있음.

### NCC Notice & BSMI Notice:

注意!

依據 低功率電波輻射性電機管理辦法

第十二條 經型式認證合格之低功率射頻電機,非經許可,公司、商號或使用者均不得擅 自變更頻率、加大功率或變更原設計之特性或功能。

第十四條 低功率射頻電機之使用不得影響飛航安全及干擾合法通信;經發現有干擾現象時,應立即停用,並改善至無干擾時方得繼續使用。前項合法通信,指依電信規定作業之無線電信。低功率射頻電機需忍受合法通信或工業、科學以及醫療用電波輻射性電機設備之干擾。

安全諮詢及注意事項

- 請使用原裝電源供應器或只能按照本產品注明的電源類型使用本產品。
- 清潔本產品之前請先拔掉電源線。請勿使用液體、噴霧清潔劑或濕布進行清潔。
- 注意防潮,請勿將水或其他液體潑灑到本產品上。
- 插槽與開口供通風使用,以確保本產品的操作可靠並防止過熱,請勿堵塞或覆蓋開口。
- 請勿將本產品置放於靠近熱源的地方。除非有正常的通風,否則不可放在密閉位置中。
- 請不要私自打開機殼,不要嘗試自行維修本產品,請由授權的專業人士進行此項工作。

|                  | 11111111   |            |            |            |            |            |
|------------------|------------|------------|------------|------------|------------|------------|
| 產品元件名            |            |            | 限用物質       | 及其化學符號     | ŝ          |            |
| 座 叩 儿 什 石<br>  稱 | 鉛          | 鎘          | 汞          | 六價鉻        | 多溴聯苯       | 多溴二苯醚      |
| 11.1             | Pb         | Cd         | Hg         | CrVI       | PBB        | PBDE       |
| PCB              | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| 外殼               | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| 電源適配器            |            | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

### 限用物質含有情況標示聲明書

備考 1. "超出 0.1 wt %"及 "超出 0.01 wt %"系指限用物質之百分比含量超出百分 比含量基準值。 備考 2. "○"系指該項限用物質之百分比含量未超出百分比含量基準值。 備考 3. "一"系指該項限用物質為排除項目。



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

# EHE

# **Safety Information**

- Keep the device away from water, fire, humidity or hot environments.
- Do not attempt to disassemble, repair, or modify the device.
- Do not use damaged charger or USB cable to charge the device.
- Do not use any other chargers than those recommended
- Do not use the device where wireless devices are not allowed.
- Adapter shall be installed near the equipment and shall be easily accessible.
- Lil Use only power supplies which are provided by manufacturer and in the original packing of this product. If you have any questions, please don't hesitate to contact us.

Please read and follow the above safety information when operating the device. We cannot guarantee that no accidents or damage will occur due to improper use of the device. Please use this product with care and operate at your own risk.

## Explanations of the symbols on the product label

| Symbol | Explanation   |
|--------|---|
|        | DC voltage  |
|        | Indoor use only   |
| X      | RECYCLING<br>This product bears the selective sorting symbol for Waste electrical and electronic equipment<br>(WEEE). This means that this product must be handled pursuant to European directive 2012/19/<br>EU in order to be recycled or dismantled to minimize its impact on the environment.<br>User has the choice to give his product to a competent recycling organization or to the retailer<br>when he buys a new electrical or electronic equipment. |