



User Guide

450Mbps Wireless N Access Point
TL-WA901N

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About This Guide

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

When using this guide, please notice that features available of the access point may vary by model and software version. It may also vary by region or ISP. All images, steps, and descriptions in this guide are only examples and may not reflect your actual experience.

Conventions

In this guide the following conventions are used:

Convention	Description
<u>Underlined</u>	Underlined words or phrases are hyperlinks. You can click to redirect to a website or a specific section.
Teal	Contents to be emphasized and texts on the web page are in teal, including the menus, items, buttons and so on.
>	The menu structures to show the path to load the corresponding page. For example, Advanced > Wireless > MAC Filtering means the MAC Filtering 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.
 Tips:	Indicates important information that helps you make better use of your device.

More Info

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

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

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

A TP-Link Community is provided for you to discuss our products at <https://community.tp-link.com>.

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

Chapter 1

Get to Know About Your Access Point

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

It contains the following sections:

- [Product Overview](#)
- [Panel Layout](#)

1.1. Product Overview

The TP-Link Wireless N Access Point, with multiple operation modes, is designed to establish or expand a scalable high-speed wireless N network or to connect an Ethernet enabled device such as a game console, digital media adapter, printer, or network attached storage device to a wireless network. The AP supports a host of different functions that make your wireless networking experience more flexible than ever before. Now, you can enjoy a better internet experience when downloading, gaming, video streaming or with any other application that you may wish to use.




1.2. Panel Layout

1.2.1. Top View



The access point's LEDs (view from left to right) are located on the front panel. You can check the access point's working status by following the LED Explanation table.

LED Explanation

Name	Status	Indication
 (Power)	On	Power is on.
	Flashing	The system is starting up or the firmware is being upgraded. Do not disconnect or power off your access point.
	Off	Power is off.
 (Ethernet)	On	The ETHERNET port is connected to a powered-on device.
	Off	The ETHERNET port is not connected to a powered-on device.
 (Wireless)	On	The wireless function is enabled.
	Off	The wireless function is disabled.

1.2.2. The Back Panel



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

Ports or Buttons	Description
ON/OFF	To power on or off the access point.
POWER	For connecting the access point to a power socket via the provided power adapter.
ETHERNET	One LAN 10/100Mbps RJ45 port connects to a network device, such as a switch or a router.

Ports or Buttons	Description
WPS	If your client devices, such as wireless adapters, support Wi-Fi Protected Setup, then you can press this button to quickly establish a connection between the access point and the client devices and automatically configure wireless security for your wireless network.
RESET	Press and hold this button until all the LEDs turn on momentarily.
Antennas	Used for wireless operation and data transmitting. Upright them for the best Wi-Fi performance.

Chapter 2

Connect the Hardware

This chapter contains the following sections:

- [Position Your Access Point](#)
- [Connect Your Access Point](#)

2.1. Position Your Access Point

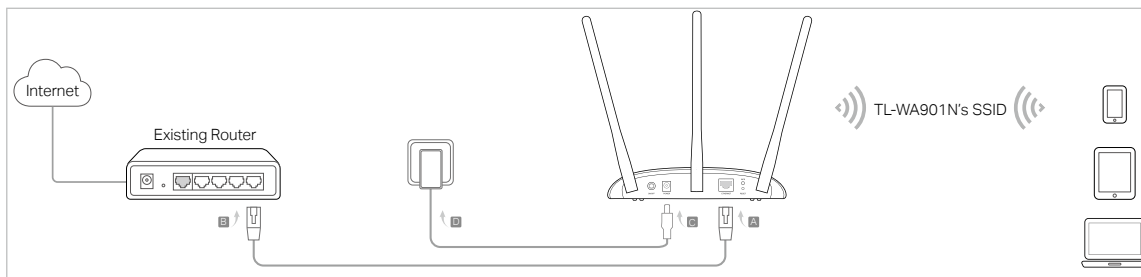
- The product should not be located in a place where it will be exposed to moisture or excessive heat.
- Place the access point in a location where it can be connected to various devices as well as to a power source.
- Make sure the cables and power cord are safely placed out of the way so they do not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

2.2. Connect Your Access Point

There are four operation modes supported by this access point: Access Point, Range Extender, Client and Multi-SSID. Please determine which operation mode you need and carry out the corresponding steps.

2.2.1. Access Point Mode

In access point mode, the access point transforms your existing wired network to a wireless one. This mode is suitable for dorm rooms or homes where there's already a wired router but you need a wireless network.



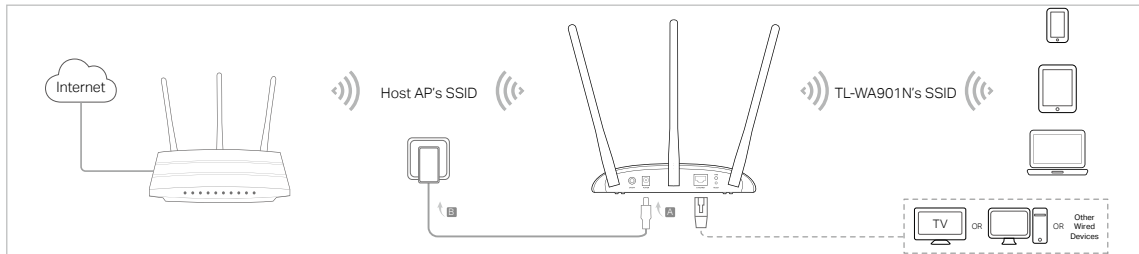
1. Connect the AP device according to steps in the diagram.
2. Power on the access point, wait until the Power (🔌) and Wireless (📶) LEDs are lit and stable, and use the default SSID and Password printed on the label of the access point to join its Wi-Fi network.

Note:

You can surf the internet now. For your wireless network security, it is recommended to change the default SSID (network name) and the password of your Wi-Fi network.

2.2.2. Range Extender Mode

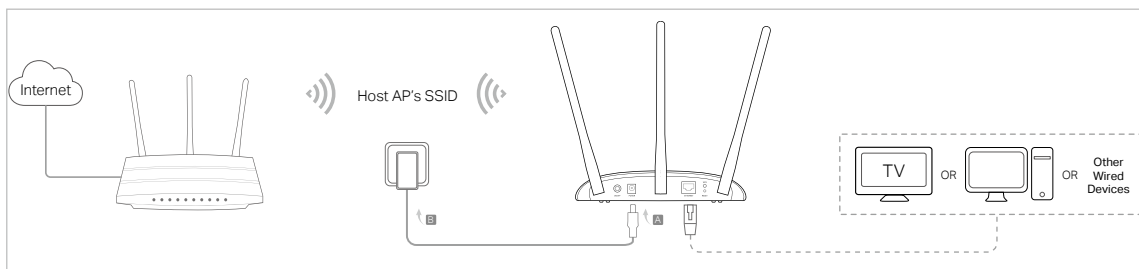
In Range Extender mode, the access point extends the range of an existing Wi-Fi network. This mode is suitable when you are in a Wi-Fi dead-zone or a place with weak wireless signal, and you want to have a larger effective range of the wireless signal throughout your home or office.



1. Connect the AP device according to steps in the diagram.
2. Power on the access point, wait until the Power (🔌) and Wireless (📶) LEDs are lit and stable, and use the default SSID and Password printed on the label of the access point to join its Wi-Fi network.

2.2.3. Client Mode

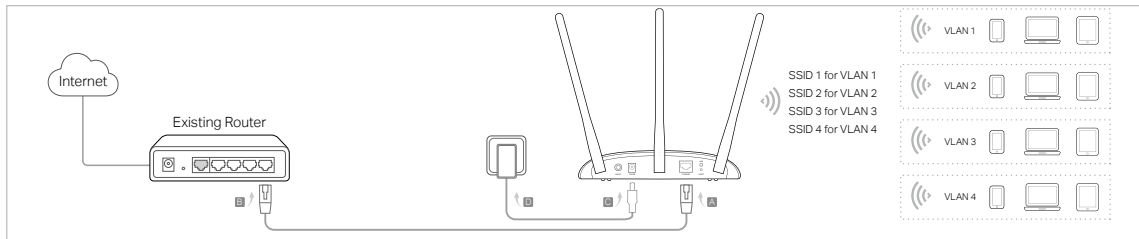
In Client mode, the access point connects your wired devices to a wireless network. This mode is suitable when you have a wired device with an Ethernet port and no wireless capability, for example, a smart TV, Media Player, or game console and you want to connect it to the internet wirelessly.



1. Connect the AP device according to steps in the diagram.
2. Power on the access point, wait until the Power (🔌) and Wireless (📶) LEDs are lit and stable, and use the default SSID and Password printed on the label of the access point to join its Wi-Fi network.

2.2.4. Multi-SSID Mode

In Multi-SSID mode, the access point creates multiple wireless networks to provide different security and VLAN groups. This mode is suitable when you want your devices connected to different wireless networks and become isolated by VLANs.



1. Connect the AP device according to steps in the diagram.
2. Power on the access point, wait until the Power (🔌) and Wireless (📶) LEDs are lit and stable, and use the default SSID and Password printed on the label of the access point to join its Wi-Fi network.

Chapter 3

Set Up Internet Connection Via Quick Setup Wizard

This chapter introduces how to connect your access point to the internet via the web-based Quick Setup Wizard.

It contains the following sections:

- [Log In to the Access Point](#)
- [Configure the Access Point](#)

3. 1. Log In to the Access Point

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

Follow the steps below to log in to your access point.

1. Visit <http://tplinkap.net>, and create a password to log in.

Note:

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

3. 2. Configure the Access Point

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

1. Go to [Quick Setup](#) and click [Next](#) to start.
2. Choose the operation mode you need and click [Next](#). Then follow the corresponding steps to configure your access point.

3. 2. 1. Access Point Mode

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

Start | Mode | **Wireless Settings** | Network Settings | Finish

Access AP Mode Settings:

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

Channel:

Wireless Security Mode:

Wireless Password:

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

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

Start | Mode | Wireless Settings | **Network Settings** | Finish

Type:

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

IP Address:

Subnet Mask:

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

DHCP Server: Disable Enable

3. Click **Finish** to complete the configuration. Reconnect your wireless devices to the new Wi-Fi network.

Start | Mode | Wireless Settings | Network Settings | **Finish**

Confirm the configuration you have set. If anything is wrong, please go **BACK** to reset.

It's recommended to take a note of these settings that you'll need later for reference.

Wireless Settings

Operation Mode: Access Point

Wireless Network Name(SSID): TP-LINK_AP_0919

Channel: Auto (Current channel 10)

Wireless Security Mode: Most Secure(WPA/WPA2-PSK)

Wireless Password: 12345670

Network Settings

Default Access: http://tplinkap.net

LAN IP Address: 192.168.0.254

Save these settings as a text file for future reference

3.2.2. Range Extender Mode

1. If you select **Range Extender** mode, the AP will automatically detect wireless networks within its range. Find your host network in the AP list and click **Connect**.
2. Enter the host network's password in the **Wireless Password** field. In the **Local Wireless Setting** section, either customize your **Local Wireless Network Name** and **Wireless Password** or keep the default ones, and then click **Next**.

The screenshot shows the 'Range Extender Mode Settings' page. At the top, there is a navigation bar with 'Start', 'Mode', 'Wireless Settings' (highlighted), 'Network Settings', and 'Finish'. Below the navigation bar, the 'Range Extender Mode Settings' section contains the following fields:

- Main Router/AP Wireless Network Name (SSID): TP-Link_
- MAC Address of Main Router/AP (BSSID):
- WDS Mode: Auto
- Wireless Security Mode: WPA-PSK/WPA2-PSK(Recomm)
- Wireless Password: 12345678

A note below the password field states: "Please ensure that the wireless security mode and wireless password is the same as those for the main route/AP."

The 'Local Wireless Setting' section contains the following fields:

- Local Wireless Network Name: TP-LINK_AP_0919 (also called SSID)
- Wireless Security Mode: WPA-PSK/WPA2-PSK(Recomm)
- Wireless Password: 123456789

A note below the password field states: "You can enter ASCII or Hexadecimal characters. For Hexadecimal, the length should be between 8 and 64 characters; for ASCII, the length should be between 8 and 63 characters. For good security it should be of ample length and should not be a commonly known phrase."

At the bottom of the page, there are 'Back' and 'Next' buttons.

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

The screenshot shows the 'Network Settings' page. At the top, there is a navigation bar with 'Start', 'Mode', 'Wireless Settings', 'Network Settings' (highlighted), and 'Finish'. Below the navigation bar, the 'Network Settings' section contains the following fields:

- Type: Smart IP(DHCP)
- Note: The IP parameters cannot be configured if you have chosen Smart IP (DHCP) (In this situation the device will help you configure the IP parameters automatically as you need).
- IP Address: 192.168.0.254
- Subnet Mask: 255.255.255.0
- Note: We recommend you configure this AP with the same IP subnet and subnet mask, but different IP address from your root AP/Router.
- DHCP Server: Disable Enable

At the bottom of the page, there are 'Back' and 'Next' buttons.

4. Click **Finish** to complete the configuration.

Start | Mode | Wireless Settings | Network Settings | **Finish**

Confirm the configuration you have set. If anything is wrong, please go BACK to reset.
 It's recommended to take a note of these settings that you'll need later for reference.

Wireless Settings

Operation Mode: Range Extender

Main Router/AP Wireless Network Name(SSID): TP-Link_

Main Router/AP MAC Address(BSSID):

Main Router/AP Security Mode: Most Secure(WPA/WPA2-PSK)

Wireless Password: 12345678

Local Wireless Name(SSID): TP-LINK_AP_0919

Channel: 4

Wireless Security Mode: Most Secure(WPA/WPA2-PSK)

Wireless Password: 123456789

Network Settings

Default Access: http://tplinkap.net

LAN IP Address: 192.168.0.254

Save these settings as a text file for future reference

5. Relocate the access point to a good place. Connect your wireless devices to the Wi-Fi network using the access point's SSID and password.

3. 2. 3. Client Mode

1. If you select Client mode, the AP will automatically detect wireless networks within its range. Find your host network in the AP list and click **Connect**.
2. Enter the host network's password in the **Wireless Password** field, and then click **Next**.

Start | Mode | **Wireless Settings** | Network Settings | Finish

Client Mode Settings:

Main Router/AP Wireless Network Name(SSID): TP-Link_

MAC Address of Main Router/AP(BSSID):

Enable WDS

Wireless Security Mode: WPA-PSK/WPA2-PSK(Recomn ▾)

Wireless Password:

Please ensure that the wireless security mode and wireless password is the same as those for the main router/AP.

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

The screenshot shows the 'Network Settings' step in a configuration wizard. At the top, a breadcrumb trail includes 'Start', 'Mode', 'Wireless Settings', 'Network Settings' (highlighted), and 'Finish'. The main content area has a 'Type:' dropdown menu set to 'Smart IP(DHCP)'. Below this is a note: 'Note: The IP parameters cannot be configured if you have chosen Smart IP (DHCP) (In this situation the device will help you configure the IP parameters automatically as you need)'. There are input fields for 'IP Address:' (192.168.0.254) and 'Subnet Mask:' (255.255.255.0). A note below these fields says: 'We recommend you configure this AP with the same IP subnet and subnet mask, but different IP address from your root AP/Router.' The 'DHCP Server:' section has radio buttons for 'Disable' and 'Enable', with 'Enable' selected. At the bottom, there are 'Back' and 'Next' buttons.

4. Click **Finish** to complete the configuration. Now your wired connected devices can enjoy the Internet surfing.

The screenshot shows the 'Finish' step of the configuration wizard. The breadcrumb trail at the top includes 'Start', 'Mode', 'Wireless Settings', 'Network Settings', and 'Finish' (highlighted). A confirmation message reads: 'Confirm the configuration you have set. If anything is wrong, please go BACK to reset. It's recommended to take a note of these settings that you'll need later for reference.' Below this, the 'Wireless Settings' section lists: 'Operation Mode: Client', 'Main Router/AP Wireless Network Name(SSID): TP-Link_', 'Main Router/AP MAC Address(BSSID):', 'Wireless Security Mode: Most Secure(WPA/WPA2-PSK)', and 'Wireless Password: 12345678'. The 'Network Settings' section lists: 'Default Access: http://tplinkap.net' and 'LAN IP Address: 192.168.0.254'. A 'Save' button is present with the text 'Save these settings as a text file for future reference'. At the bottom, there are 'Back' and 'Finish' buttons.

3. 2. 4. Multi-SSID Mode

1. Enable the VLAN function and check SSIDs you want to enable. Customize the SSIDs and the passwords according to your needs and click **Next**.

Start | Mode | **Wireless Settings** | Network Settings | Finish

Multi-SSID Mode Settings:

Enable VLAN: OFF ON

Channel: Auto

SSID1: TP-LINK_AP_0919 VLAN ID: 1

Wireless Security Mode: WPA-PSK/WPA2-PSK(Recomm)

Wireless Password: 12345678

SSID2: TP-LINK_AP_0919_2 VLAN ID: 1

Wireless Password: 12345678

SSID3: TP-LINK_AP_0919_3 VLAN ID: 1

Wireless Password: 12345678

SSID4: TP-LINK_AP_0919_4 VLAN ID: 1

Wireless Password: 12345678

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

Back Next

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

Start | Mode | Wireless Settings | **Network Settings** | Finish

Type: Smart IP(DHCP)

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

IP Address: 192.168.0.254

Subnet Mask: 255.255.255.0

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

DHCP Server: Disable Enable

Back Next

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

Start | Mode | Wireless Settings | Network Settings | **Finish**

Confirm the configuration you have set. If anything is wrong, please go **BACK** to reset.
It's recommended to take a note of these settings that you'll need later for reference.

Wireless Settings

Operation Mode:	Multi-SSID
Channel:	Auto (Current channel 4)
SSID 1:	TP-LINK_AP_0919
Wireless Security Mode:	Most Secure(WPA/WPA2-PSK)
Wireless Password:	123456789
SSID 2:	TP-LINK_AP_0919_2
Wireless Security Mode:	Most Secure(WPA/WPA2-PSK)
Wireless Password:	87654321

Network Settings

Default Access:	http://tplinkap.net
LAN IP Address:	192.168.0.254

Save these settings as a text file for future reference

4. Connect your wireless devices to the different Wi-Fi networks to be isolated by VLANs.

Chapter 4

Configure the Access Point

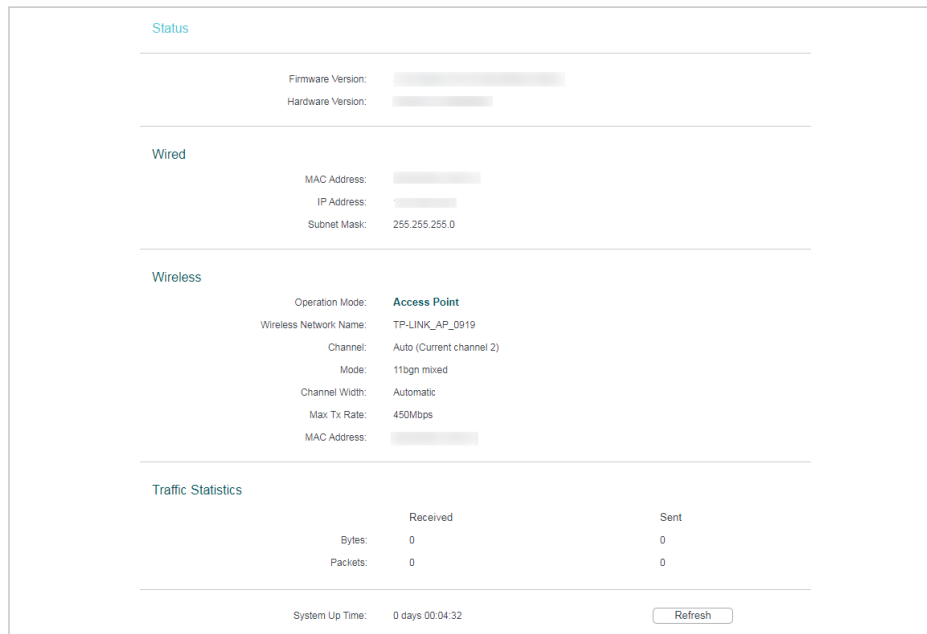
This chapter presents how to configure the various features of your access point.

It contains the following sections:

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

4.1. Status

1. Visit <http://tplinkap.net>, and log in using the password you created.
2. Go to [Status](#). You can view the current status information of the access point.



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

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

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

4.2. Operation Mode

If you want to change the mode of your access point after it has been first configured, you can select the mode you want in [Operation Mode](#).

1. Visit <http://tplinkap.net>, and log in using the password you created.
2. Go to [Operation Mode](#).
3. Select the mode you want.

Operation Mode

- Access Point** - Transform your existing wired network to a wireless network.
- Range Extender** - Extend the range of an existing Wi-Fi.
- Client** - Acting as a "Wireless Adapter" to connect your wired devices (e.g. Xbox/PS3) to a wireless network.
- Multi-SSID** - Create multiple wireless networks to provide different security and VLAN groups.

Save

4.3. Network

4.3.1. LAN

1. Visit <http://tplinkap.net>, and log in using the password you created.
2. Go to [Network](#) > [LAN](#).
3. Configure the IP parameters of the LAN and click [Save](#).

LAN

MAC Address:

Type: **Smart IP(DHCP)** ▼

IP Address:

Subnet Mask: ▼

Gateway:

Allow remote access

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

Save

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

Note:

- If you have changed the IP address, you must use the new IP address to login.
- If you select **Smart IP(DHCP)**, settings of the DHCP server is unchangable.
- 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.

4.3.2. DHCP Settings

1. Visit <http://tplinkap.net>, and log in using the password you created.
2. Go to **Network > DHCP Settings**.
3. Specify DHCP server settings and click **Save**.

DHCP Settings

DHCP Server: Disable Enable

Start IP Address:

End IP Address:

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

Default Gateway: (Optional)

Default Domain: (Optional)

Primary DNS: (Optional)

Secondary DNS: (Optional)

- **DHCP Server** - Enable or disable the DHCP server. If disabled, you must have another DHCP server within your network or else you must configure the computer manually.
- **Start IP Address** - Specify an IP address for the DHCP Server to start with when assigning IP addresses. 192.168.0.100 is the default start address.
- **End IP Address** - Specify an IP address for the DHCP Server to end with when assigning IP addresses. 192.168.0.199 is the default end address.
- **Address Lease Time** - The Address Lease Time is the amount of time a network user will be allowed to connect to the access point 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 1.

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

Note:

- To use the DHCP server function of the access point, you must configure all computers on the LAN as [Obtain an IP Address automatically](#).
- When you choose [Smart IP \(DHCP\)](#) in [Network > LAN](#), settings of the DHCP server is unchangeable. You will see the page as below.

DHCP Settings

DHCP Server: Disable Enable

Start IP Address:

End IP Address:

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

Default Gateway: (Optional)

Default Domain: (Optional)

Primary DNS: (Optional)

Secondary DNS: (Optional)

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

4.3.3. DHCP Client List

1. Visit <http://tplinkap.net>, and log in using the password you created.
2. Go to [DHCP > DHCP Client List](#) to view the information of the clients connected to the access point.

DHCP Client List

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

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

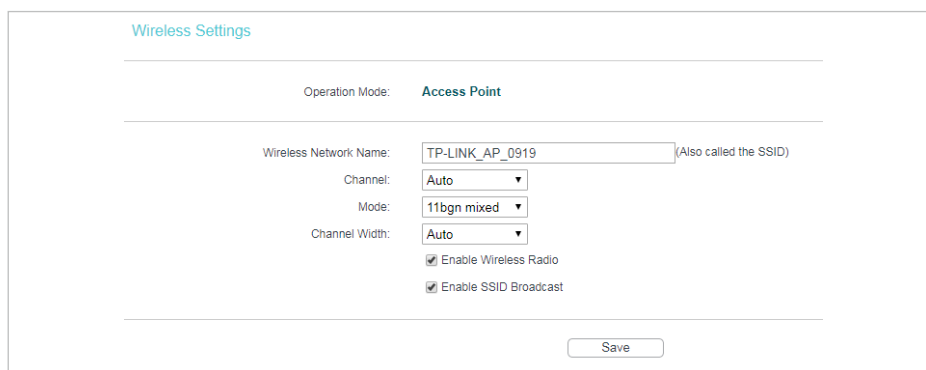
You cannot change any of the values on this page. To update this page and show the current attached devices, click [Refresh](#).

4.4. Wireless

4.4.1. Wireless Settings

1. Visit <http://tplinkap.net>, and log in using the password you created.
2. Go to **Wireless > Wireless Settings**.
3. Four operation modes are supported here, including **Access Point**, **Multi-SSID**, **Client**, and **Range Extender**.

Access Point Mode



Wireless Settings

Operation Mode: **Access Point**

Wireless Network Name: (Also called the SSID)

Channel:

Mode:

Channel Width:

Enable Wireless Radio

Enable SSID Broadcast

- **Wireless Network Name** - Identifies your wireless network name. Create a name up to 32 characters and make sure all wireless points in the wireless network with the same SSID. The default SSID is TP-LINK_AP_XXXX (XXXX indicates the last unique four characters of each device's MAC address). This value is case-sensitive. For example, TEST is NOT the same as test.
- **Channel** - Determines the operating frequency to be used. It is not necessary to change the wireless channel unless you notice interference problems with another nearby access point.
- **Mode** - Select the desired wireless mode. The options are:
 - **11b only** - Only 802.11b wireless stations can connect to the device.
 - **11g only** - Only 802.11g wireless stations can connect to the device.
 - **11n only** - Only 802.11n wireless stations can connect to the device.
 - **11bg mixed** - Both 802.11b and 802.11g wireless stations can connect to the device.
 - **11bgn mixed** - All 802.11b, 802.11g and 802.11n wireless stations can connect to the device.
- **Channel Width** - Determines the channel width to be used. It is unnecessary to change the default value unless required.

- **Enable Wireless Radio** - Select or deselect this check box to allow or deny wireless stations to access the device.
- **Enable SSID Broadcast** - Select or deselect this check box to allow or deny the device to broadcast its name (SSID) on the air. If it's allowed, when wireless clients survey the local area for wireless networks to associate with, they will detect the SSID broadcast by the device.

Multi-SSID Mode

The screenshot shows the 'Wireless Settings' page with the following configuration:

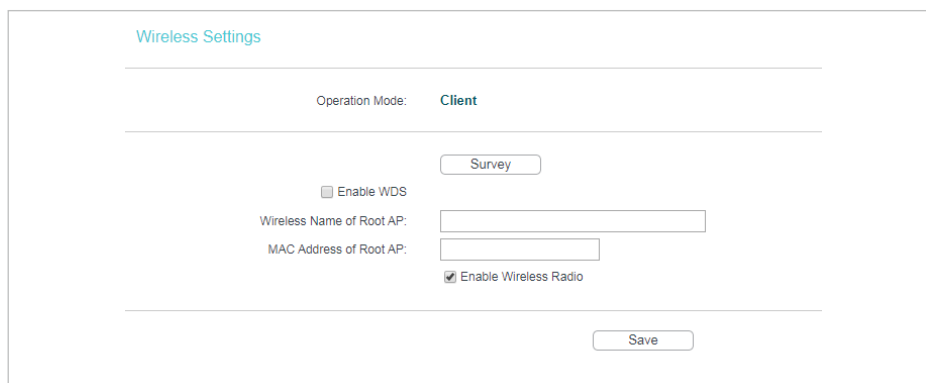
- Operation Mode: **Multi-SSID**
- Enable VLAN:
- SSID1: TP-LINK_AP_0919, VLAN ID: 1
- SSID2: TP-LINK_AP_0919_2, VLAN ID: 1
- SSID3: TP-LINK_AP_0919_3, VLAN ID: 1
- SSID4: TP-LINK_AP_0919_4, VLAN ID: 1
- Channel: Auto
- Mode: 11bgn mixed
- Channel Width: Auto
- Enable Wireless Radio
- Enable SSID Broadcast

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

- **Enable VLAN** - Check this box and then you can change the VLAN ID of each SSID. If you want to configure the Guest and Internal networks on VLAN, the switch you are using must support VLAN. As a prerequisite step, configure a port on the switch for handling VLAN tagged packets as described in the IEEE802.1Q standard, and enable this field.
- **SSID (1-4)** - Up to four SSIDs for each BSS (Basic Service Set) can be entered in the filed SSID1 ~ SSID4. The name can be up to 32 characters. The same name (SSID) must be assigned to all wireless devices in your network. If Enable VLAN is checked, the wireless stations connecting to SSID of different VLANID can not communicate with each other.
- **VLAN ID (1-4)** - Provide a number between 1 and 4095 for VLAN. This will cause the device to send packets with VLAN tags. The switch connecting with the device must support VLAN IEEE802.1Q frames. The wireless stations connecting to the SSID of a specified VLAN ID can communicate with the PC connecting to the port with the same VLAN ID on the Switch.
- **Channel** - Determines the operating frequency to be used. It is not necessary to change the wireless channel unless you notice interference problems with another nearby access point.
- **Mode** - This field determines the wireless mode which the device works on.
 - **11b only** - Only 802.11b wireless stations can connect to the device.

- **11g only** - Only 802.11g wireless stations can connect to the device.
 - **11n only** - Only 802.11n wireless stations can connect to the device.
 - **11bg mixed** - Both 802.11b and 802.11g wireless stations can connect to the device.
 - **11bgn mixed** - All 802.11b, 802.11g and 802.11n wireless stations can connect to the device.
- **Channel Width** - Determines the channel width to be used. It is unnecessary to change the default value unless required.
 - **Enable Wireless Radio** - Select or deselect this check box to allow or deny wireless stations to access the device.
 - **Enable SSID Broadcast** - Select or deselect this check box to allow or deny the device to broadcast its name (SSID) on the air. If it's allowed, when wireless clients survey the local area for wireless networks to associate with, they will detect the SSID broadcast by the device.

Client Mode



The screenshot shows the 'Wireless Settings' page for Client Mode. The 'Operation Mode' is set to 'Client'. There is a 'Survey' button. Below it, there is an unchecked checkbox for 'Enable WDS'. Underneath, there are two input fields: 'Wireless Name of Root AP' and 'MAC Address of Root AP'. Below these fields, there is a checked checkbox for 'Enable Wireless Radio'. At the bottom right, there is a 'Save' button.

- **Enable WDS** - The AP client can connect to AP with WDS enabled or disabled. If WDS is enabled, all traffic from wired networks will be forwarded in the format of WDS frames consisting of four address fields. If WDS is disabled, three address frames are used. If your AP supports WDS well, please enable this option.
- **Wireless Name of Root AP** - Enter the SSID of AP that you want to access or click **Survey** to find the network you want to connect to.
- **MAC Address of Root AP** - Enter the MAC address of AP that you want to access.
- **Enable Wireless Radio** - Select or deselect this check box to enable or disable wireless function.
- Click the **Survey** button to detect the SSIDs in the local area.

Range Extender Mode

Wireless Settings

Operation Mode: **Range Extender**

Wireless Bridge Setting

Wireless Name of Remote AP:

MAC Address of Remote AP: Example:00-1D-0F-11-22-33

WDS Mode:

Key type:

Local Wireless AP Setting

Local Wireless Name: (Also called the SSID)

Mode:

Channel Width:

Enable Wireless Radio

Enable SSID Broadcast

Wireless Bridge Settings

- **Wireless Name of Remote AP** - Enter the SSID of AP that you want to access or click [Survey](#) to find the network you want to connect to.
- **MAC Address of Remote AP** - Enter the MAC address of AP that you want to access. Click the [Survey](#) button to detect the SSIDs in the local area.
- **WDS Mode** - This field determines which WDS Mode will be used. It is not necessary to change the WDS Mode unless you notice network communication problems with root AP. If you select Auto, then Router will choose the appropriate WDS Mode automatically.
- **Key type** - This option should be chosen according to the AP's security configuration. It is recommended that the security type is the same as your AP's security type.
- **Password** - If the Remote AP that your device is going to connect needs password, you need to fill the password in this blank.

Local Wireless AP Setting

- **Local Wireless Name** - Name for the AP.
- **Mode** - This field determines the wireless mode which the device works on.
 - **11b only** - Only 802.11b wireless stations can connect to the device.
 - **11g only** - Only 802.11g wireless stations can connect to the device.
 - **11n only** - Only 802.11n wireless stations can connect to the device.

- **11bg mixed** - Both 802.11b and 802.11g wireless stations can connect to the device.
- **11bgn mixed** - All 802.11b, 802.11g and 802.11n wireless stations can connect to the device.
- **Channel Width** - Determines the channel width to be used. It is unnecessary to change the default value unless required.
- **Enable Wireless Radio** - Select or deselect this check box to allow or deny wireless stations to access the device.
- **Enable SSID Broadcast** - Select or deselect this check box to allow or deny the device to broadcast its name (SSID) on the air. If it's allowed, when wireless clients survey the local area for wireless networks to associate with, they will detect the SSID broadcast by the device.

4.4.2. Wireless Security

1. Visit <http://tplinkap.net>, and log in using the password you created.
2. Go to **Wireless > Wireless Security**.
3. Configure the security settings of your wireless network and click **Save**. The security options are different for different operation mode.

Access Point

Wireless Security

Operation Mode: **Access Point**

Disable Security

WPA/WPA2 - Personal(Recommended)

Version: **WPA2-PSK**

Encryption: **AES**

Wireless Password:

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

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

WPA/WPA2 - Enterprise

Version: **Automatic**

Encryption: **Automatic**

Radius Server IP:

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

Radius Password:

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

WEP

Type: **Open System**

WEP Key Format: **Hexadecimal**

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

- **Disable Security** - Check this box radio button to disable wireless security. If disabled, the wireless stations will be able to connect this device without encryption. It is strongly recommended that you choose one of the security types to enable security.
- **WPA/WPA2-Personal(Recommended)** - Select WPA/WPA2 based on Radius Server.

- **Version** - You can select one of following versions.
 - **Automatic (Recommended)** - Select WPA-Personal or WPA2-Personal automatically based on the wireless station's capability and request.
 - **WPA-PSK** - Pre-shared key of WPA.
 - **WPA2-PSK** - Pre-shared key of WPA2.
- **Encryption** - You can select either Automatic(Recommended), TKIP or AES.
- **Wireless password** - You can enter ASCII or Hexadecimal characters. For Hexadecimal, the length should be between 8 and 64 characters; for ASCII, the length should be between 8 and 63 characters.
- **Group Key Update Period** - Specify the group key update interval in seconds. The value can be either 0 or at least 30. Enter 0 to disable the update.
- **WPA/WPA2-Enterprise** - Select WPA/WPA2 based on Radius Server.
 - **Version** - You can select one of following versions.
 - **Automatic** - Select WPA or WPA2 automatically based on the wireless station's capability and request.
 - **WPA** - Wi-Fi Protected Access.
 - **WPA2** - WPA version 2.
 - **Encryption** - You can select either Automatic, TKIP or AES.
 - **Radius Server IP** - Enter the IP address of the Radius Server.
 - **Radius Port** - Enter the port used by radius service.
 - **Radius password** - Enter the password for the Radius Server.
 - **Group Key Update Period** - Specify the group key update interval in seconds. The value can be either 0 or at least 30. Enter 0 to disable the update.
- **WEP** - Select 802.11 WEP security.
 - **Type** - You can select one of following types.
 - **Automatic** - Select Shared Key or Open System authentication type automatically based on the wireless station's capability and request.
 - **Shared Key** - Select 802.11 Shared Key authentication type.
 - **Open System** - Select 802.11 Open System authentication.
 - **WEP Key Format** - You can select ASCII or Hexadecimal format. ASCII format stands for any combination of keyboard characters in the specified length. Hexadecimal format stands for any combination of hexadecimal digits (0-9, a-f, A-F) in the specified length.
 - **WEP Key** - Select which of the four keys will be used and enter the matching WEP key information for your network in the selected key radio button. These values must be identical on all wireless stations in your network.

- **Key Type** - You can select the WEP key length (64-bit, or 128-bit, or 152-bit.) for encryption. "Disabled" means this WEP key entry is invalid.
 - For **64-bit** encryption - You can enter 10 hexadecimal digits (any combination of 0-9, a-f, A-F, zero key is not permitted) or 5 ASCII characters.
 - For **128-bit** encryption - You can enter 26 hexadecimal digits (any combination of 0-9, a-f, A-F, zero key is not permitted) or 13 ASCII characters.
 - For **152-bit** encryption - You can enter 32 hexadecimal digits (any combination of 0-9, a-f, A-F, zero key is not permitted) or 16 ASCII characters.

Note:

- If you do not set the key, the wireless security function is still disabled even if you have selected Shared Key as Authentication Type.

Multi-SSID

Wireless Security

Operation Mode: **Multi-SSID** TP-Link_AP_0919 ▼

Disable Security

WPA/WPA2 - Personal(Recommended)

Version: WPA2-PSK ▼

Encryption: AES ▼

Wireless Password: 12345670

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

Group Key Update Period: 0 Seconds

(Keep it default if you are not sure, minimum is 30, 0 means no update)

WPA/WPA2 - Enterprise

Version: Automatic ▼

Encryption: Automatic ▼

Radius Server IP:

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

Radius Password:

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

Save

You can choose which SSID to configure wireless security settings for in the blank behind **Operation Mode**.

- **Disable Security** - Check this box radio button to disable wireless security. If disabled, the wireless stations will be able to connect this device without encryption. It is strongly recommended that you choose one of the security types to enable security.
- **WPA/WPA2-Personal (Recommended)** - Select WPA/WPA2 based on Radius Server.
 - **Version** - You can select one of following versions.

- **Automatic (Recommended)** - Select WPA-Personal or WPA2-Personal automatically based on the wireless station's capability and request.
- **WPA-PSK** - Pre-shared key of WPA.
- **WPA2-PSK** - Pre-shared key of WPA2.
- **Encryption** - You can select either Automatic(Recommended), TKIP or AES.
- **Wireless password** - You can enter ASCII or Hexadecimal characters. For Hexadecimal, the length should be between 8 and 64 characters; for ASCII, the length should be between 8 and 63 characters.
- **Group Key Update Period** - Specify the group key update interval in seconds. The value can be either 0 or at least 30. Enter 0 to disable the update.
- **WPA/WPA2-Enterprise** - Select WPA/WPA2 based on Radius Server.
 - **Version** - You can select one of following versions.
 - **Automatic** - Select WPA or WPA2 automatically based on the wireless station's capability and request.
 - **WPA** - Wi-Fi Protected Access.
 - **WPA2** - WPA version 2.
 - **Encryption** - You can select either Automatic, TKIP or AES.
 - **Radius Server IP** - Enter the IP address of the Radius Server.
 - **Radius Port** - Enter the port used by radius service.
 - **Radius password** - Enter the password for the Radius Server.
- **Group Key Update Period** - Specify the group key update interval in seconds. The value can be either 0 or at least 30. Enter 0 to disable the update.

Client

Wireless Security

Operation Mode: **Client**

Disable Security

WPA/WPA2 - Personal(Recommended)

Version:

Encryption:

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

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

WEP

Type:

WEP Key Format:

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

- **Disable Security** - Check this box radio button to disable wireless security. If disabled, the wireless stations will be able to connect this device without encryption. It is strongly recommended that you choose one of the security types to enable security.
- **WPA/WPA2-Personal (Recommended)** - Select WPA/WPA2 based on Radius Server.
 - **Version** - You can select one of following versions.
 - **Automatic (Recommended)** - Select WPA-Personal or WPA2-Personal automatically based on the wireless station's capability and request.
 - **WPA-PSK** - Pre-shared key of WPA.
 - **WPA2-PSK** - Pre-shared key of WPA2.
 - **Encryption** - You can select either Automatic(Recommended), TKIP or AES.
 - **Wireless password** - You can enter ASCII or Hexadecimal characters. For Hexadecimal, the length should be between 8 and 64 characters; for ASCII, the length should be between 8 and 63 characters.
 - **Group Key Update Period** - Specify the group key update interval in seconds. The value can be either 0 or at least 30. Enter 0 to disable the update.
- **WEP** - Select 802.11 WEP security.
 - **Type** - You can select one of following types.
 - **Automatic** - Select Shared Key or Open System authentication type automatically based on the wireless station's capability and request.
 - **Shared Key** - Select 802.11 Shared Key authentication type.
 - **Open System** - Select 802.11 Open System authentication.
 - **WEP Key Format** - You can select ASCII or Hexadecimal format. ASCII format stands for any combination of keyboard characters in the specified length. Hexadecimal format stands for any combination of hexadecimal digits (0-9, a-f, A-F) in the specified length.
 - **WEP Key** - Select which of the four keys will be used and enter the matching WEP key information for your network in the selected key radio button. These values must be identical on all wireless stations in your network.
 - **Key Type** - You can select the WEP key length (64-bit, or 128-bit, or 152-bit.) for encryption. "Disabled" means this WEP key entry is invalid.
 - For **64-bit** encryption - You can enter 10 hexadecimal digits (any combination of 0-9, a-f, A-F, zero key is not permitted) or 5 ASCII characters.
 - For **128-bit** encryption - You can enter 26 hexadecimal digits (any combination of 0-9, a-f, A-F, zero key is not permitted) or 13 ASCII characters.
 - For **152-bit** encryption - You can enter 32 hexadecimal digits (any combination of 0-9, a-f, A-F, zero key is not permitted) or 16 ASCII characters.

Note:

- If you do not set the key, the wireless security function is still disabled even if you have selected Shared Key as Authentication Type.

Range Extender

Operation Mode: **Range Extender**

Disable Security

WPA/WPA2 - Personal(Recommended)

Version:

Encryption:

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

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

WPA/WPA2 - Enterprise

Version:

Encryption:

Radius Server IP:

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

Radius Password:

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

WEP

Type:

WEP Key Format:

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

- **Disable Security** - Check this box radio button to disable wireless security. If disabled, the wireless stations will be able to connect this device without encryption. It is strongly recommended that you choose one of the security types to enable security.
- **WPA/WPA2-Personal(Recommended)** - Select WPA/WPA2 based on Radius Server.
 - **Version** - You can select one of following versions.
 - **Automatic (Recommended)** - Select WPA-Personal or WPA2-Personal automatically based on the wireless station's capability and request.
 - **WPA-PSK** - Pre-shared key of WPA.
 - **WPA2-PSK** - Pre-shared key of WPA2.
 - **Encryption** - You can select either Automatic(Recommended), TKIP or AES.
 - **Wireless password** - You can enter ASCII or Hexadecimal characters. For Hexadecimal, the length should be between 8 and 64 characters; for ASCII, the length should be between 8 and 63 characters.
 - **Group Key Update Period** - Specify the group key update interval in seconds. The value can be either 0 or at least 30. Enter 0 to disable the update.
- **WPA/WPA2-Enterprise** - Select WPA/WPA2 based on Radius Server.
 - **Version** - You can select one of following versions.
 - **Automatic** - Select WPA or WPA2 automatically based on the wireless station's capability and request.
 - **WPA** - Wi-Fi Protected Access.
 - **WPA2** - WPA version 2.

- **Encryption** - You can select either Automatic, TKIP or AES.
- **Radius Server IP** - Enter the IP address of the Radius Server.
- **Radius Port** - Enter the port used by radius service.
- **Radius password** - Enter the password for the Radius Server.
- **Group Key Update Period** - Specify the group key update interval in seconds. The value can be either 0 or at least 30. Enter 0 to disable the update.
- **WEP** - Select 802.11 WEP security.
 - **Type** - You can select one of following types.
 - **Automatic** - Select Shared Key or Open System authentication type automatically based on the wireless station's capability and request.
 - **Shared Key** - Select 802.11 Shared Key authentication type.
 - **Open System** - Select 802.11 Open System authentication.
 - **WEP Key Format** - You can select ASCII or Hexadecimal format. ASCII format stands for any combination of keyboard characters in the specified length. Hexadecimal format stands for any combination of hexadecimal digits (0-9, a-f, A-F) in the specified length.
 - **WEP Key** - Select which of the four keys will be used and enter the matching WEP key information for your network in the selected key radio button. These values must be identical on all wireless stations in your network.
 - **Key Type** - You can select the WEP key length (64-bit, or 128-bit, or 152-bit.) for encryption. "Disabled" means this WEP key entry is invalid.
 - For **64-bit** encryption - You can enter 10 hexadecimal digits (any combination of 0-9, a-f, A-F, zero key is not permitted) or 5 ASCII characters.
 - For **128-bit** encryption - You can enter 26 hexadecimal digits (any combination of 0-9, a-f, A-F, zero key is not permitted) or 13 ASCII characters.
 - For **152-bit** encryption - You can enter 32 hexadecimal digits (any combination of 0-9, a-f, A-F, zero key is not permitted) or 16 ASCII characters.

■ **Note:**

- If you do not set the key, the wireless security function is still disabled even if you have selected Shared Key as Authentication Type.

4.4.3. WPS

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

■ **Note:**

- The WPS function cannot be configured if the wireless function of the access point is disabled. Please make sure the wireless function is enabled before configuration.
- When working in Client mode, the WPS function of the access point is disabled.

1. Visit <http://tplinkap.net>, and log in using the password you created.
2. Go to [WPS](#).
3. Follow one of the following three methods to connect your client device to the access point's Wi-Fi network.

Method ONE: Press the WPS Button on Your Client Device

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

WPS (Wi-Fi Protected Setup)

Operation Mode: **Access Point**

WPS Status: **Enabled** [Disable WPS](#)

Current PIN: **12345670** [Restore PIN](#) [Gen New PIN](#)
 Disable PIN of this device

Add a new device: [Add Device](#)

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

Add A New Device

Enter the new device's PIN.
PIN:

Press the button of the new device in two minutes.

[Back](#) [Connect](#)

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

Method TWO: Enter the Client's PIN

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

WPS (Wi-Fi Protected Setup)

Operation Mode: **Access Point**

WPS Status: **Enabled** [Disable WPS](#)

Current PIN: **12345670** [Restore PIN](#) [Gen New PIN](#)
 Disable PIN of this device

Add a new device: [Add Device](#)

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

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

Method Three: Enter the Access Point's PIN

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

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

4. 4. 4. Wireless MAC Filtering

Wireless MAC Filtering is used to deny or allow specific wireless client devices to access your network by their MAC addresses. This function is not available when the operation is set to Client. As the configuration is the same in each operation mode, here we just take the Access Point for example.

I want to:

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

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

1. Visit <http://tplinkap.net>, and log in using the password you created.
2. Go to **Wireless > Wireless MAC Filtering**.
3. Click **Enable** to enable the Wireless MAC Filtering function.

4. Select [Allow the stations specified by any enabled entries in the list to access](#) as the filtering rule.
5. Delete all or disable all entries if there are any entries already.
6. Click [Add New](#) and fill in the blank.
 - 1) Enter the MAC address 00-0A-EB-B0-00-0B/00-0A-EB-00-07-5F in the MAC Address field.
 - 2) Enter wireless client A/B in the Description field.
 - 3) Select [Enabled](#) in the Status drop-down list.
 - 4) Click [Save](#) and click [Back](#).
7. The configured filtering rules should be listed as the picture shows below.

ID	MAC Address	Status	Description	Modify
1	00-0A-EB-B0-00-0B	Enabled	Client A	Modify Delete
2	00-0A-EB-00-07-5F	Enabled	Client B	Modify Delete

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

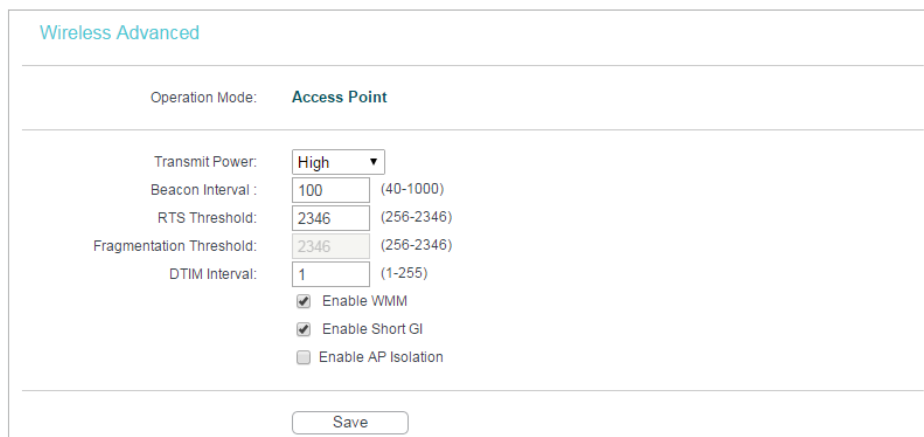
4.4.5. Wireless Advanced

The configuration for each operation mode is almost the same, we take Access Point mode for example here.

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

Note:

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



Wireless Advanced

Operation Mode: **Access Point**

Transmit Power: High

Beacon Interval: 100 (40-1000)

RTS Threshold: 2346 (256-2346)

Fragmentation Threshold: 2346 (256-2346)

DTIM Interval: 1 (1-255)

Enable WMM

Enable Short GI

Enable AP Isolation

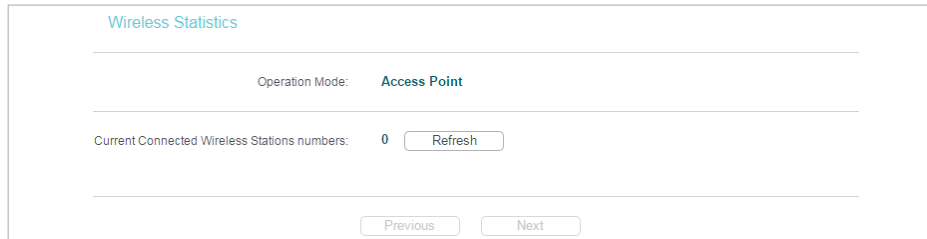
Save

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

4.4.6. Wireless Statistics

The configuration for each operation mode is almost the same, we take Access Point mode for example here.

1. Visit <http://tplinkap.net>, and log in using the password you created.
2. Go to **Wireless > Wireless Statistics** to check the data packets sent and received by each client device connected to the access point.



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

4.4.7. Throughput Monitor

1. Visit <http://tplinkap.net>, and log in using the password you created.
2. Go to **Wireless > Throughput Monitor** to view the wireless throughput information.



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

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

4.5. System Tools

4.5.1. SNMP

Simple Network Management Protocol (SNMP) is a popular network monitoring and management protocol.

1. Visit <http://tplinkap.net>, and log in using the password you created.

1. Go to **System Tools > SNMP**.

The screenshot shows the 'SNMP Settings' configuration page. At the top, there is a title 'SNMP Settings'. Below it, the 'SNMP Agent' section has two radio buttons: 'Enable' and 'Disable', with 'Disable' selected. Underneath are three text input fields: 'SysContact', 'SysName', and 'SysLocation'. The next section contains four more text input fields: 'Get Community' (with 'public' entered), 'Get Source' (with '0.0.0.0' entered), 'Set Community' (with 'private' entered), and 'Set Source' (with '0.0.0.0' entered). At the bottom center, there is a 'Save' button.

- **SNMP Agent** - Select the radio button before Enable will enable this function if you want to have remote control through SNMPv1/v2 agent with MIB-II. Select the radio button before Disable will disable this function. The default setting is Disable.
- **SysContact** - The textual identification of the contact person for this managed node.
- **SysName** - An administratively-assigned name for this managed node.
- **SysLocation** - The physical location of this node.

Note:

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

- **Get Community** - Enter the community name that allows Read-Only access to the Device's SNMP information. The community name can be considered a group password. The default setting is "public".
- **Get Source** - Get source defines the IP address or subnet for management systems that can read information from this 'get' community device.

- **Set Community** - Enter the community name that allows Read/Write access to the Device's SNMP information. The community name can be considered a group password. The default setting is "private".
- **Set Source** - Set source defines the IP address or subnet for management systems that can control this 'set' community device.

Note:

A restricted source can be a specific IP address (e.g. 10.10.10.1), or a subnet - represented as IP/BITS (e.g. 10.10.10.0/24). If an IP Address of 0.0.0.0 is specified, the agent will accept all requests under the corresponding community name.

4.5.2. Diagnostic

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

1. Visit <http://tplinkap.net>, and log in using the password you created.
2. Go to **System Tools > Diagnostic**.

Diagnostic Tools

Diagnostic Parameters

Diagnostic Tool: Ping Traceroute

IP Address/ Domain Name:

Ping Count: (1-50)

Ping Packet Size: (4-1472 Bytes)

Ping Timeout: (100-2000 Milliseconds)

Traceroute Max TTL: (1-30)

Diagnostic Results

This device is ready.

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

Note:

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

- **IP Address/Domain Name** - Enter the destination IP address (such as 192.168.0.254) or Domain name (such as www.tp-link.com).
 - **Pings Count** - The number of Ping packets for a Ping connection.
 - **Ping Packet Size** - The size of Ping packet.
 - **Ping Timeout** - Set the waiting time for the reply of each Ping packet. If there is no reply in the specified time, the connection is overtime.
 - **Traceroute Max TTL** - The max number of hops for a Traceroute connection.
3. Click **Start** to check the connectivity of the Internet.
 4. The **Diagnostic Results** page displays the diagnosis result. If the result is similar to the following figure, the connectivity of the Internet is fine.

```

Diagnostic Results

Pinging 192.168.0.254 with 64 bytes of data:

Reply from 192.168.0.254: bytes=64 time=1    TTL=64  seq=1
Reply from 192.168.0.254: bytes=64 time=1    TTL=64  seq=2
Reply from 192.168.0.254: bytes=64 time=1    TTL=64  seq=3
Reply from 192.168.0.254: bytes=64 time=1    TTL=64  seq=4

Ping statistics for 192.168.0.254
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss)
    Approximate round trip times in milliseconds:
        Minimum = 1, Maximum = 1, Average = 1

```

Note:

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

4.5.3. Ping Watch Dog

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

1. Visit <http://tplinkap.net>, and log in using the password you created.
2. Go to **System Tools > Ping Watch Dog**. Configure the settings and click **Save**.

Ping Watch Dog Utility

Enable:

IP Address:

Interval: (10-300) seconds

Delay: (60-300) seconds

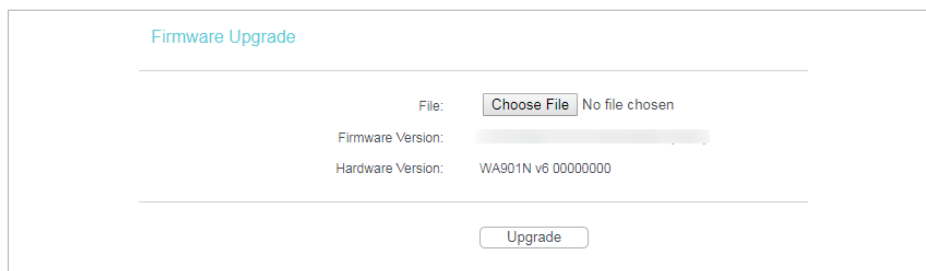
Fail Count: (1-65535)

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

4.5.4. Firmware Upgrade

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

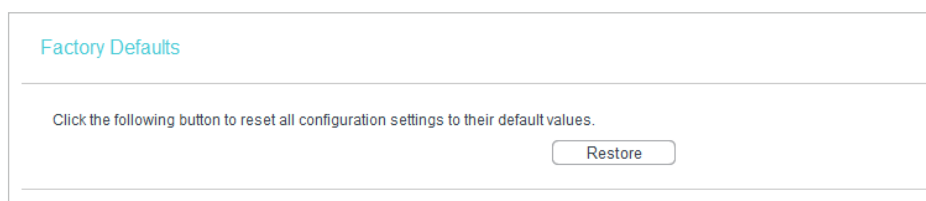
1. Download the latest firmware file for the access point from our website www.tp-link.com.
2. Visit <http://tplinkap.net>, and log in using the password you created.
3. Go to [System Tools > Firmware Upgrade](#).
4. Click [Choose File](#) to locate the downloaded firmware file, and click [Upgrade](#).



The screenshot shows the 'Firmware Upgrade' page. At the top, the title 'Firmware Upgrade' is displayed. Below the title, there is a 'File:' label followed by a 'Choose File' button and the text 'No file chosen'. Underneath, the 'Firmware Version:' field is empty, and the 'Hardware Version:' field contains the text 'WA901N v6 00000000'. At the bottom of the form, there is an 'Upgrade' button.

4.5.5. Factory Defaults

1. Visit <http://tplinkap.net>, and log in using the password you created.
2. Go to [System Tools > Factory Defaults](#). Click [Restore](#) to reset all settings to the default values.



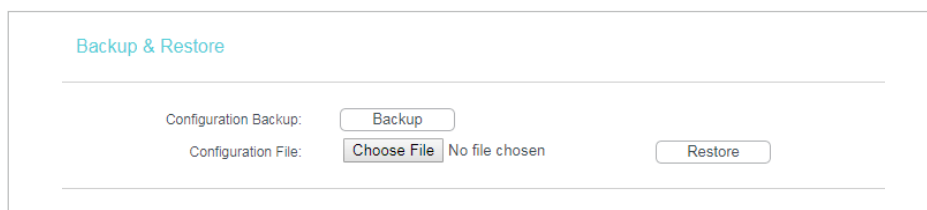
The screenshot shows the 'Factory Defaults' page. At the top, the title 'Factory Defaults' is displayed. Below the title, there is a message: 'Click the following button to reset all configuration settings to their default values.' At the bottom of the form, there is a 'Restore' button.

- The default **IP Address**: 192.168.0.254
- The default **Subnet Mask**: 255.255.255.0

4.5.6. Backup & Restore

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

1. Visit <http://tplinkap.net>, and log in using the password you created.
1. Go to [System Tools > Backup & Restore](#).



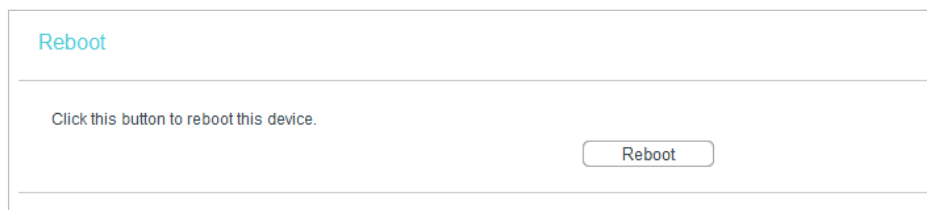
- To backup configuration settings:
Click [Backup](#) to save a copy of the current settings in your local computer. A ".bin" file of the current settings will be stored in your computer.
- To restore configuration settings:
 1. Click [Choose File](#) to locate the backup configuration file stored in your computer, and click [Restore](#).
 2. Wait a few minutes for the restoring and rebooting.

Note:

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

4.5.7. Reboot

1. Visit <http://tplinkap.net>, and log in using the password you created.
2. Go to [System Tools > Reboot](#), and you can restart your access point.



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

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

4.5.8. Password

1. Visit <http://tplinkap.net>, and log in using the password you created.
2. Go to [System Tools](#) > [Password](#), and you can change the factory default username and password of the access point.

Note:

The new password must be 6-32 characters long and not include any spacing.

3. Click [Save](#).

4.5.9. System Log

1. Visit <http://tplinkap.net>, and log in using the password you created.
2. Go to [System Tools](#) > [System Log](#), and you can view the logs of the access point.

Index	Time	Type	Level	Log Content
1	1st day 16:49:33	OTHER	INFO	User clear system log.

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

The screenshot shows a web form titled "Mail Account Settings". It includes the following fields and options:

- From:** Text input field.
- To:** Text input field.
- SMTP Server:** Text input field.
- Authentication**
- User Name:** Text input field.
- Password:** Text input field.
- Confirm The Password:** Text input field.
- Enable Auto Mail Feature**
- Everyday, mail the log at : (HH:MM)
- Mail the log every hours

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

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

Note:

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

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

Click **Save** to apply your settings.

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

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

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

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

4. 6. Logout

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

FAQ

Q1. How do I restore the access point to its factory default settings?

With the access point powered on, use a pin to press and hold the Reset button until the Power LED starts blinking, then release the button.

Note:

Upon resetting, all previous configurations will be cleared, and the access point will reset to the default Access Point Mode.

Q2. What should I do if I forget my wireless password?

The default wireless password is printed on the label of the access point. If the password has been altered, please connect your computer to the access point using an Ethernet cable and follow the steps below:

1. Visit <http://tplinkap.net>, and log in using the password you created.
2. Go to [Wireless > Wireless Security](#) to retrieve or reset your wireless password.

Q3. What should I do if I forget my login password of the web management page?

1. Reset the access point to its factory default settings: use a pin to press and hold the Reset button until the Power LED starts blinking, then release the button.
2. Visit <http://tplinkap.net>, and create a password to log in.

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

Q4. What should I do if my wireless is not stable?

It may be caused by too much interference, you can try the following:

- Set your wireless channel to a different one.
- Move the AP device to a new location away from Bluetooth devices and other household electronics, such as cordless phones, microwaves, and baby monitors, to minimize signal interference.

Q5. What can I do to maximize my signal strength in Range Extender mode?

When choosing an ideal location to optimize wireless signal in Repeater/ Bridge mode, please refer to the following recommendations.

- The Best Way is Halfway


Generally, the ideal location for the repeater is about halfway between your wireless router and your wireless clients and make sure that the location you choose is within

the range of the host router. If that is not possible, place it closer to your wireless router to ensure stable performance.

- **Less Obstacles Ensure Better Performance**

Choose a location with less obstacles that may block the signal between the access point and the host network. An open corridor or a spacious location is ideal.

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FCC compliance information statement



Product Name: 450Mbps Wireless N Access Point

Model Number: TL-WA901N

Component Name	Model
I.T.E. Power Supply	T090085-2B1

Responsible party:

TP-Link USA Corporation, d/b/a TP-Link North America, Inc.

Address: 145 South State College Blvd. Suite 400, Brea, CA 92821

Website: <http://www.tp-link.com/us/>

Tel: +1 626 333 0234

Fax: +1 909 527 6803

E-mail: sales.usa@tp-link.com

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."

We, TP-Link USA Corporation, has determined that the equipment shown as above has been shown to comply with the applicable technical standards, FCC part 15. There is no unauthorized change is made in the equipment and the equipment is properly maintained and operated.

Issue Date: (2019.12.17)

FCC compliance information statement



Product Name: I.T.E. Power Supply

Model Number: T090085-2B1

Responsible party:

TP-Link USA Corporation, d/b/a TP-Link North America, Inc.

Address: 145 South State College Blvd. Suite 400, Brea, CA 92821

Website: <http://www.tp-link.com/us/>

Tel: +1 626 333 0234

Fax: +1 909 527 6803

E-mail: sales.usa@tp-link.com

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.

Issue Date: (2019.12.17)

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)

2412MHz—2483.5MHz(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 2011/65/EU and (EU)2015/863.

The original EU declaration of conformity may be found at

<https://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 RSS standard(s). Operation is subject to the following two conditions:

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

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, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Radiation Exposure Statement:

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

Déclaration d'exposition aux radiations:

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

Industry Canada Statement

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

安全諮詢及注意事項

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

限用物質含有情況標示聲明書

產品元件 名稱	限用物質及其化學符號					
	鉛 Pb	鎘 Cd	汞 Hg	六價鉻 CrVI	多溴聯苯 PBB	多溴二苯醚 PBDE
PCB	○	○	○	○	○	○
外殼	○	○	○	○	○	○
電源供應器	—	○	○	○	○	○


備考1. “超出0.1wt%”及“超出0.01wt%”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. “—”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.










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.
-  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
	AC voltage
	Indoor use only
	Class II equipment
	Polarity of output terminals
	Energy efficiency Marking
	<p>RECYCLING</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>