High Power Wi-Fi AP/Router
Concurrent 11AC

Quick Installation Guide

REV.1

Open Source Code

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Introduction :

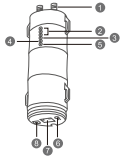
The High Power AC AP/Router is mainly used for providing free Wi-Fi service in big area such as villa, factory, community, street or etc. The AP/Router can take an existing 2.4GHz or 5GHz wireless signal, repeat and extend it to a longer range where it is too far away for the router or access point to reach. The AP/Router simultaneously supports 2.4G and 5G wireless network connection. It has External Antennas providing even better wireless performance, transmission rates, stability technology automatically avoids channel conflicts using its channel selection feature.

Package Contents

Before you starting to use this router, please check if there's anything missing in the package, and contact your dealer of purchase to claim for missing items:

1 x Wi-Fi AP/Router
2 x Omni antenna
1 x Power Adapter
1 x POE Converter
1 x RJ-45 Networking Cable
1 x Main body holder
2 x Cable ties
1 x Screw fittings
1 x Quick Installation

Hardwear Overview



1. RP-SMA Antenna Interface
2. 3 x Wi-Fi Single LED
3. Wi-Fi LED
4. WAN/LAN LED
5. Power LED
6. Reset button
7. WAN/LAN Port (POE)
8. Grounding Terminal

Default Parameters

Default IP: **192.168.10.1**
URL: http://ap.setup
Login Name: **admin**
Password: **admin**

2.4G SSID: **Wireless-N**
5G/AC SSID: **Wireless-AC**
Wireless Key: **no**

LED indicators

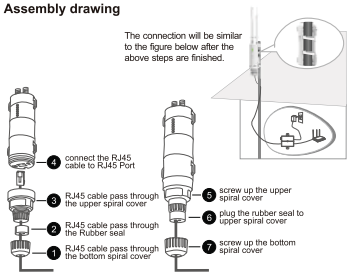
POWER	**ON:** The Device is power on **OFF:** The Device is not receiving electrical power.
WAN/LAN	**ON:** The Ethernet port is connected. **OFF:** The Ethernet port is disconnected. **Flashing:** Transferring data to/from a network device
Wi-Fi LED	**ON:** The Wi-Fi ON. **OFF:** The Wi-Fi OFF. **Flashing:** Transferring data to/from a Wireless device

Wi-Fi Single

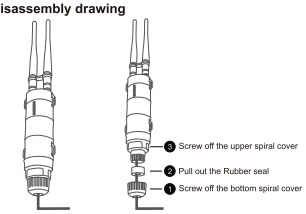
Mode				Description
AP/Router	ON	ON	ON	Wi-Fi Single output power 100%
Repeater WISP	ON	ON	ON	Excellent reception signal strength 50% to 100%
	ON	ON	OFF	Good reception signal strength 25% to 50%
	ON	OFF	OFF	Weak reception signal strength below 25%
	Flashing	OFF	OFF	Disconnected

Installation Instructions

Assembly drawing



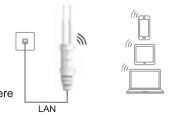
Disassembly drawing



Getting Started

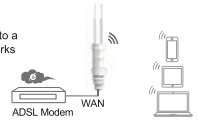
Setting up a Wireless Infrastructure Network
For a typical wireless setup, please do the following:
Login the management interface, select AP/Repeater/WISP/Router mode

Wireless AP Mode
The AP/Router is connected to a wired network then transforms the wired Internet access into wireless so that multiple devices can share the Internet.
So this mode is fit for places where only wired network is available.



Wireless Repeater/WISP Mode
The AP/Router copies and reinforces the existing wireless signal to extend the coverage of the signal. **Don't change** the network's name (SSID) and password **yet**. This mode is especially useful for a large space to eliminate signal-blind corners.
So this mode is fit for large house, office, warehouse or other spaces where the existing signal is weak.

Router Mode
The AP/Router is connected to a DSL or cable modem and works as a regular wireless router.
So this mode is fit for the environment which Internet access from DSL or cable modem is available r one user but more users need to share the Internet

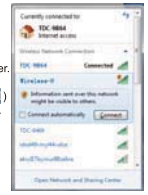


Configure the Wi-Fi Repeater Mode

You can configure the Wi-Fi Repeater Mode by connecting it with your computer/laptop with enclosed LAN cable or wirelessly.

A.Configure the Wi-Fi Repeater Mode wirelessly.

A1. Connect one end of an LAN cable to the POE port of the provided Power adapter, Injector and the other end of the Ethernet cable to the WAN/POE port of the AP/Router.



A2. Click on the network icon (or) on the right bottom of your desktop. You will find the signal from the **Wireless-AC or Wireless-N.** Click on '**Connect**' then wait for a few seconds.

A3. Open web browser and type **http://192.168.10.1** or **http://ap.setup** in the browser address box. This number is the default IP address for this device.

Note: Please check whether the AP/Router accord with factory default settings once you can't entered **http://192.168.10.1**. If you are still not sure what reasons, you can reset the AP/Router, just need to press the reset button for 8 seconds, then try again.

A4. The login screen below will appear. Enter the User Name and Password then click **"Submit"** to login. The default User name is **"admin"** and Password is **"admin"**.

A5. After logging in, you will see the web page below:
Click on the "**Repeater**" button

A6. From the list, select a wireless network with which you want to connect the AP/Router by choosing the corresponding network in the **"Select"** field.

A7. After having selected a wireless network, you must then specify the network key of your wireless router for Security key.

After completing the entry, click on the **"Apply"** button.
After the reboot has been completed, the AP/Router is accessible under the SSID and the Wireless key of your wireless router.

B. Configure the Wi-Fi Repeater Mode with LAN Cable.

1.Connect your computer / laptop with the POE Adapter with LAN Cable.
2.Follow process **A3 to A7** to configure your AP/Router.

Configure the Wireless WISP Mode.

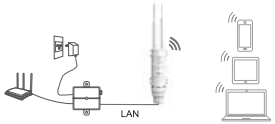
This Device can be connected via Wi-Fi to an Access point or Router to enhance range. Clients can be connected to the Device via Wi-Fi or LAN cable.

1. To ensure that the hardware installation is complete
2. Follow process **A2** to **A4**.
3. After logging in, you will see the web page below:
   Click on the **"WISP"** button

4.Follow process **A6 to A7**.

Configure the Wireless AP Mode.

Use the AP Mode to obtain a "**Wireless Access Point**" The wireless end devices will connect to the AP/Router in this mode. You can also use this mode, for example, to make a formerly non-wireless-enabled router wireless-enabled.



1. To ensure that the hardware installation is complete
2. Follow process **A2 to A4**.
3. After logging in, you will see the web page below:
   Click on the "**AP**" button.

105铜板彩色，双面印刷，折叠，尺寸：70x110mm

The following message will be displayed on your web browser.

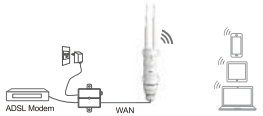
SSID	Wireless SSID of the AP/Router
Security type	Setup the wireless security and encryption to prevent from unauthorized access and monitoring. Supports WPA, WPA2, WPA/WPA2 encryption methods.
Security key	The **"Password"** of the AP/Router

Click on **'Apply'** button, The AP/Router will restart.

After the reboot has been completed, the AP/Router is accessible under the SSID and the Wireless key.

Configure the Wireless Router Mode

The AP/Router is connected to a DSL or cable modem and works as a regular wireless router.
Internet access from DSL or cable modem is available for one user but more users need to share the Internet.



1. To ensure that the hardware installation is complete
2. Connect your DSL Modem with the AP/Router with LAN Cable
3. Follow process **A3 to A4**.
4. After logging in, you will see the web page below:
   Click on the "**Router**" button.

Choose your WAN Connection Type.

If **Dynamic IP** is selected, the Router gets the IP address automatically from the DHCP server or the ISP. No configuration should be set and you can go on with the wireless configuration.

If **DSL Dial-Up (PPPoE)** is selected, please enter the **User Name** and **Password** from your ISP, These fields are case-sensitive.

If **static IP** is selected, please enter the **IP Address, Subnet Mask, Default Gateway, etc.**

Set the wireless parameter. It's recommended that you rename an **SSID**, choose a **Security Mode** and enter a **Key.**

SSID	The **"SSID"** of the AP/Router
Channel	Auto **(recommend)**
Security type	Setup the wireless security and encryption to prevent from unauthorized access and monitoring. Supports WPA, WPA2, WPA/WPA2 encryption methods.
Security key	The "Password" of the AP/Router

Click '**Apply**' button, It will restart.
Wait for a few seconds your AP/Router is ready for use.

Management via Web Browser

Wireless Base Configuration

Please follow the following instructions: Click **"Wi-Fi -> Basic Settings"** located at the web management interface, the following message will be displayed on your web browser:

You could configure the basic setting of Wireless settings for communication, such as Network Name **(SSID)** and Channel. The Access Point can be set simply with only the minimum setting items.

Wireless Enable	Wireless On/Off
SSID	Wireless SSID of the AP/Router
Channel	Wireless data transmission channel
Security type	Setup the Wireless security and encryption to prevent from unauthorized access and monitoring. Supports 64/128-bit WEP, WPA, WPA2, WPA/WPA2 encryption methods.
Security key	The **"Password"** of the AP/Router

Click '***Apply***' button, The AP/Router will restart.

Change Management password

Default password of Wireless Repeater is **"admin"**, and it's displayed on the login prompt when accessed from web browser. There's a security risk if you don't change the default password, since everyone can see it. This is very important when you have wireless function enabled.

To change password, please follow the following instructions:
Please click **'Management -> Password'** menu on the web management interface, the following message will be displayed on your web browser:

If you want to keep original password unchanged, click ***'Cancel'.***

Click ***'Apply'*** button, The AP/Router will log off.

Firmware Upgrade

The system software used by this router is called **'firmware'**, just like any applications on your computer, when you replace the old application with a new one, your computer will be equipped with new function. You can also use this firmware upgrade function to add new functions to your router, even fix the bugs of this router.

Please click ***'Management-> Upgrade Firmware'*** located at the web management interface, and then the following message will be displayed on your web browser:

Click ***'Browse…'*** or ***'Choose File'*** button first; you'll be prompted to provide the filename of firmware upgrade file. Please download the latest firmware file from our website, and use it to upgrade your router.

After a firmware upgrade file is selected, click ***'Upload'*** button, and the router will start firmware upgrade procedure automatically.
The procedure may take several minutes, please be patient.

NOTE: Never interrupt the upgrade procedure by closing the web browser or physically disconnect your computer from router. If the firmware you uploaded is interrupt, the firmware upgrade will fail, and you may have to return this router to the dealer of purchase to ask for help.

(Warranty voids if you interrupted the upgrade procedure).

Factory Default and Settings Backup, Restore

You can backup all Setting of this router to a file, so you can make several copied of router configuration for security reason.

To backup or restore router setting, please follow the following instructions:
Please click ***'Save/Reload setting'*** located at the web management interface, then the following message will be displayed on your web browser:

Save Settings	Press **'Save…'** button, you can save it as another filename for different versions, and keep it in a safe place.
Load Settings	Press **'Browse…'** to pick a previously-saved configuration file from your computer, and then click **'Upload…'**. After the configuration is uploaded, the router's configuration will be replaced by the file you just uploaded.
Reset Settings	Click this ***'Load default'*** button to load default settings

How to connect your computer/ laptop with the AP/Router

Adding a Wireless computers to the AP/Router

1.Log on to the computer.
2.Open Connect to a Network by right-clicking the network icon (or) in the notification area.
3.Choose the wireless network from the list that appears, and then click **Connect.**
4.Type the network security key or passphrase if you are asked to do so, and then click **OK.** You'll see a confirmation message when you are onnected to the network.

5.To confirm that you added the computer, do the following:
Open Network by clicking the **Start** button , and then clicking **Control Panel.** In the search box, type network, and then, under Network and Sharing Center, click **View network computers and devices.** You should see icons for the computer you added and for the other computers and devices that are part of the network.
Note: If you don't see icons in the Network folder, then network discovery and file sharing might be turned off.

Adding a wired (Ethernet) computer to the AP/Router

1. Plug the AP/Router to a socket. Connect your computer / laptop with the POE Adapter's LAN Port with enclosed LAN Cable.
2. To Confirm that you added the computer, do the following:
Open Network by clicking the **Start** button , and then clicking Control Panel. In the search box, type **network**, and then, under Network and Sharing Center, click **View network computers and devices**. You should see icons for the computer you added and for the other computers and devices that are part of the network

For more information:
http://windows.microsoft.com/en-US/windows7/Add-a-device-or-computer-to-a-network
http://windows.microsoft.com/en-US/windows7/Setting-up-a-wireless-network
http://windows.microsoft.com/en-US/windows-vista/Setting-up-a-wireless-network

How to configure your computer/ laptop with the Network IP Address

1.Log on to the computer.

2.Click the **"Start"** button (it should be located at the lower-left corner of your screen), then click **"Control Panel"**. Click "**View Network Status and Tasks"**,and then click **"Manage Network Connections"**. Right-click **"Local Area Network"**, then select **"Properties"**. When the **"Local Area Connection Properties"** window appears, select **"Internet Protocol Version 4 (TCP/IPv4)"** and then click **"Properties"**.

3.Setting IP address manually: Type IP address is **192.168.10.x (x is from 2 to 254),** and Subnet mask is **255.255.255.0**. Type the Router's LAN IP address (the default IP is **192.168.10.1**) into the Default gateway field.

WEEE Directive & Product Disposal

At the end of its serviceable life, this product should not be treated as household or general waste. It should be handed over to the applicable collection point for the recycling of electrical and electronic equipment, or returned to the supplier for disposal.

FCC Radiation Exposure Statement:

This equipment is Point-to-Multipoint (P2M) device, complies with FCC 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.

FCC REQUIREMENT FOR OUTDOOR OPERATIONS: This device requires professional installation for compliance with §15.407(a)(1)(i) requirements including the maximum EIRP at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm). So,

>>> **Professional installers are responsible for reducing the conducted output power to 9.7mW when using the 7dBi omni-directional antenna, product number TX-AN500-6002RS from Tengxiang Technology, Inc. and the antenna always vertical install with the elevation plane.**

FCC Warning

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: 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.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.