

# **WAVLINK**



see the world

**User Manual**

**AX3000 WiFi 6 Outdoor Access Point**

**Model: AERIAL HD10**

**@WavlinkOfficial**

**@WavlinkTechSupport**

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# About This Guide

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

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

## Conventions

In this guide the following conventions are used :

| Convention        | Description                                                                                                                                                                                                                      |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>Underlined</u> | Underlined words or phrases are hyperlinks. You can click to redirect to a website or a specific section.                                                                                                                        |
| <b>Teal</b>       | The content and text that needs to be emphasized on the web page is the theme color <b>#1D428A</b> , including menus, items, buttons, etc.                                                                                       |
| >                 | The menu structures to show the path to load the corresponding page. For example, <b>More &gt; Network &gt; Mode Selection</b> means the Mode Selection function page is under the Network menu that is located in the More tab. |
| Note:             | Do not ignore this type of comment, it is to remind you to better use the device, to avoid the operation of the error that will cause the function to be invalid.                                                                |
| 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 <https://docs.wavlink.xyz/Firmware/> .

A quick installation guide can be found in this guide.

Specifications can be found on the product page at <https://docs.wavlink.xyz/>.

If you encounter any issues, please don't hesitate to email

[contact@wavlink.com](mailto:contact@wavlink.com)/[techsupport@wavlink.com](mailto:techsupport@wavlink.com)/[postsales@wavlink.com](mailto:postsales@wavlink.com) to provide feedbacks or contact online customer service, thank you !

## Speed/Coverage Disclaimer

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

Information in this document is subject to change without notice. The manufacturer does not make any representations or warranties (implied or otherwise) regarding the accuracy and completeness of this document and shall in no event be liable for any loss of profit or any commercial damage, including but not limited to special, incidental, consequential, or other damage.

## Safety Instructions

Always read the safety instructions carefully.

Keep this Quick Start Guide for future reference.

Keep this equipment away from humidity.

If any of the following situation arises, get the equipment checked by a service technician:

☐ The equipment has been exposed to moisture.

☐ The equipment has been dropped and damaged.

☐ The equipment has an obvious sign of breakage.

☐ The equipment has not been working well or you cannot get it work according to Quick start Guide.

## Copyright Statement

No part of this publication may be reproduced in any form by any means without the prior written permission.

Other trademarks or brand names mentioned herein are trademarks or registered trademarks of their respective companies.

## **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.

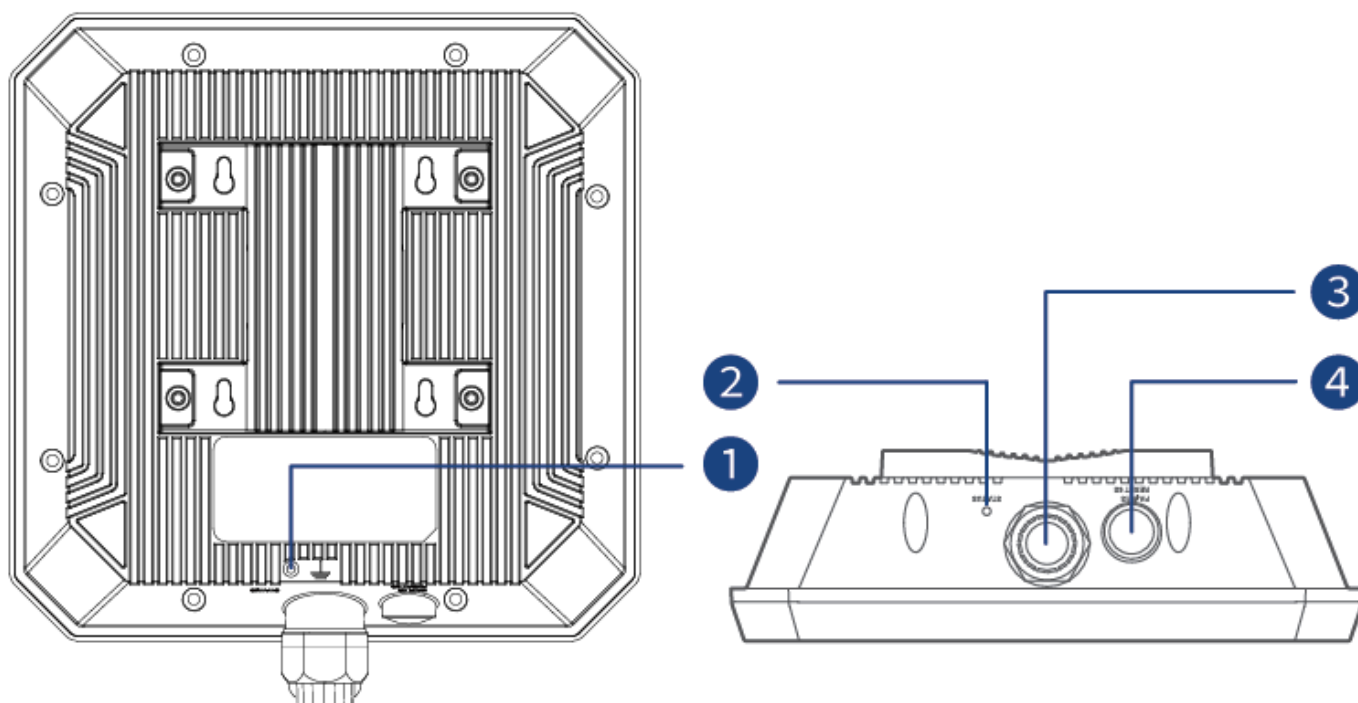


# Chapter 1 Overview

This chapter contains the following sections :

- [Overview](#)
- [Default Parameters](#)
- [LED Indicators](#)

## Overview



- ① Grounding Terminal
- ② Status LED
- ③ WAN/LAN Port (PoE)
- ④ Pair/Reset Button

### Reset Button

Press and hold for **6** seconds to restore the device to default settings.

### Pair Button

Press and hold for **2** seconds to pair with the existing Everything Mesh Wi-Fi system.

# Default Parameters

2.4G SSID: WAVLINK-AX\_XXXX

5G SSID: WAVLINK-AX\_5G\_XXXX

Default IP: 192.168.30.1

Login: <http://waplogin.link>

Official Website: [www.wavlink.com](http://www.wavlink.com)

Technical Support: [support@wavlink.com](mailto:support@wavlink.com)

## LED Indicators

| Mode                     | LED Status    | Description                                                                          |
|--------------------------|---------------|--------------------------------------------------------------------------------------|
| Mesh AP/Mesh Router Mode | Slow blinking | The device is in pair.                                                               |
| Mesh AP/Mesh Router Mode | Solid on      | The device has connected to the Internet.                                            |
| Mesh AP/Mesh Router Mode | Fast blinking | No Internet.                                                                         |
| Repeater Mode            | Slow blinking | The device has connected to the upstream router but no access to the Internet.       |
| Repeater Mode            | Solid on      | The device has connected to the upstream router and the Internet has been connected. |
| Repeater Mode            | Fast blinking | The device has not connected to the upstream router.                                 |
| Mesh Extender Mode       | Slow blinking | The device has connected to the upstream router but no access to the Internet.       |
| Mesh Extender Mode       | Solid on      | The device has connected to the upstream router and the Internet has been connected. |

| Mode               | LED Status    | Description                                            |
|--------------------|---------------|--------------------------------------------------------|
| Mesh Extender Mode | Fast blinking | The device has not connected to the upstream router.   |
| AP Mode            | Solid on      | The device has connected/disconnected to the Internet. |

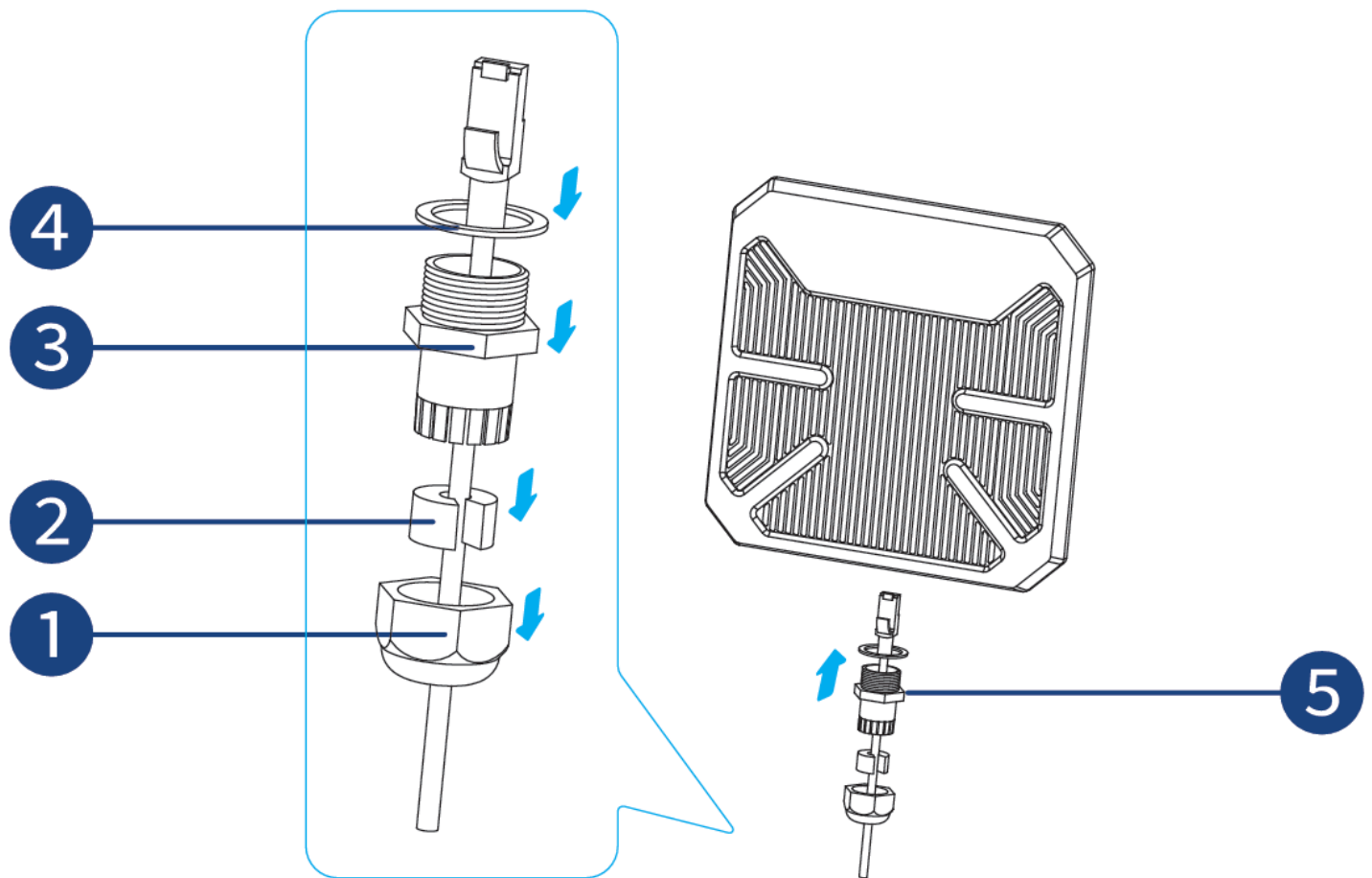
# Chapter 2 How to Use

This chapter contains the following sections :

- [Installation](#)
- [Connection](#)
- [Configuration](#)

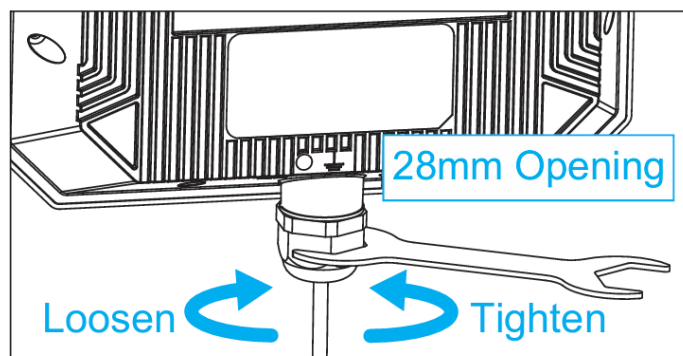
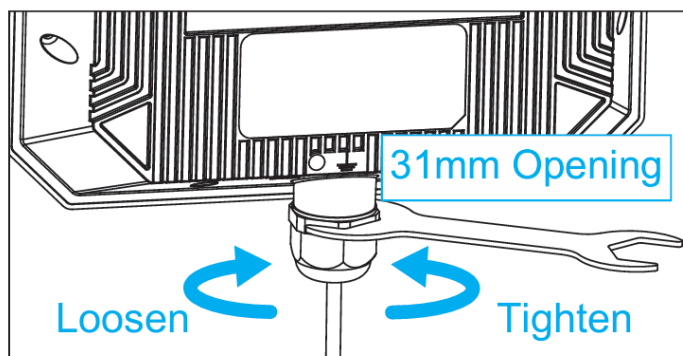
## Installation

### Assembly



- ① Pass the Ethernet cable through the hex cap.
- ② Open the cut part of the sealing plug, and then pass the Ethernet cable through it.
- ③ Pass the Ethernet cable through the hex stud.
- ④ Pass the Ethernet cable through the sealing ring.

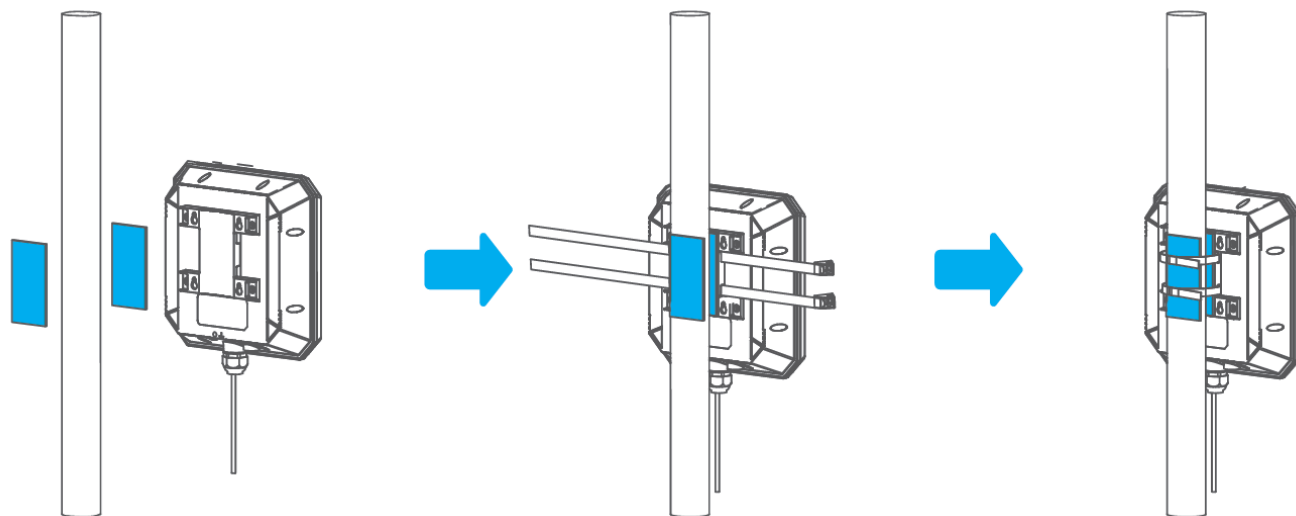
⑤ Connect the Ethernet cable to the WAN/LAN Port.



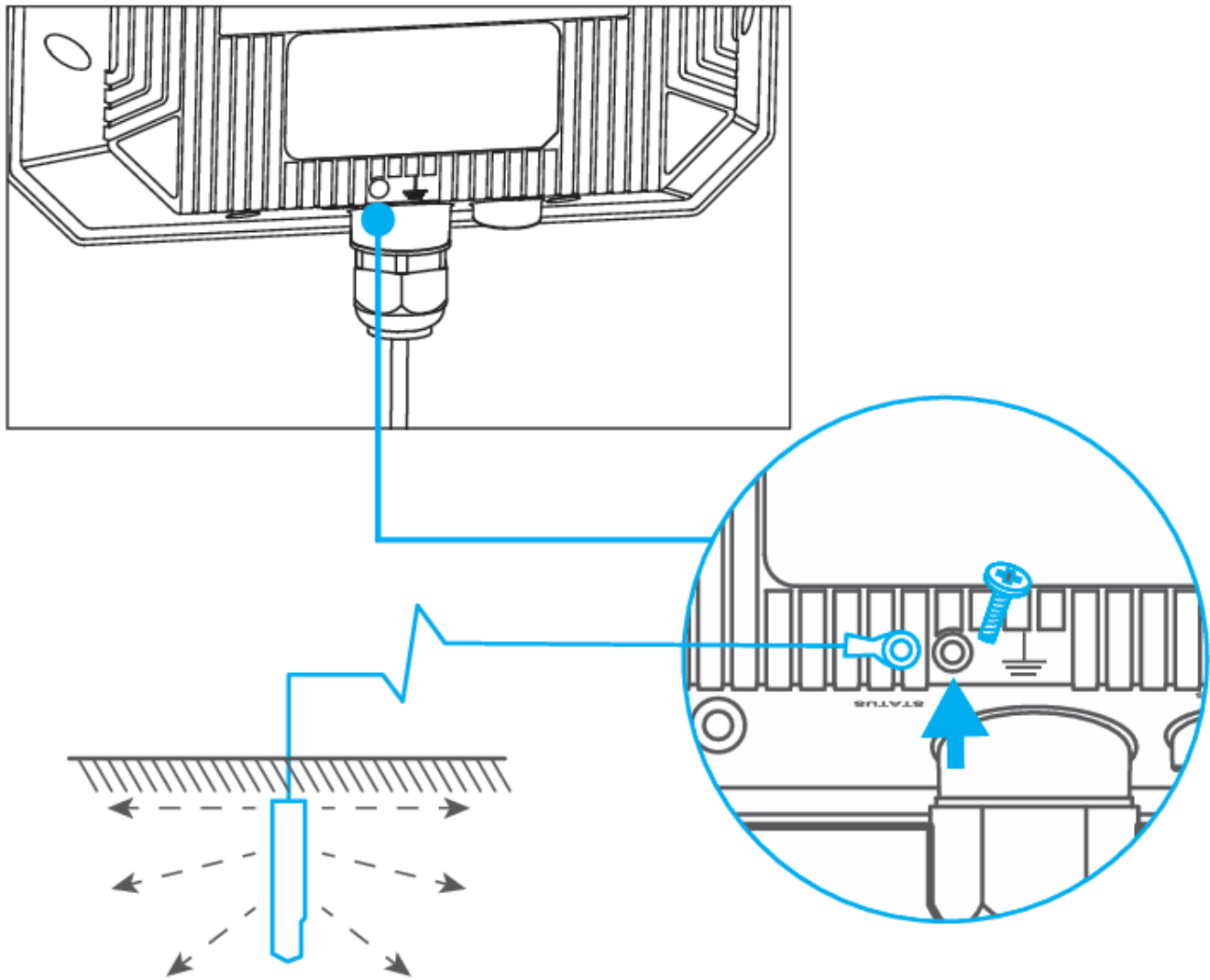
## Outdoor Installation

Fix the device to the post with hose clamps, or fix the device to the wall with screws.

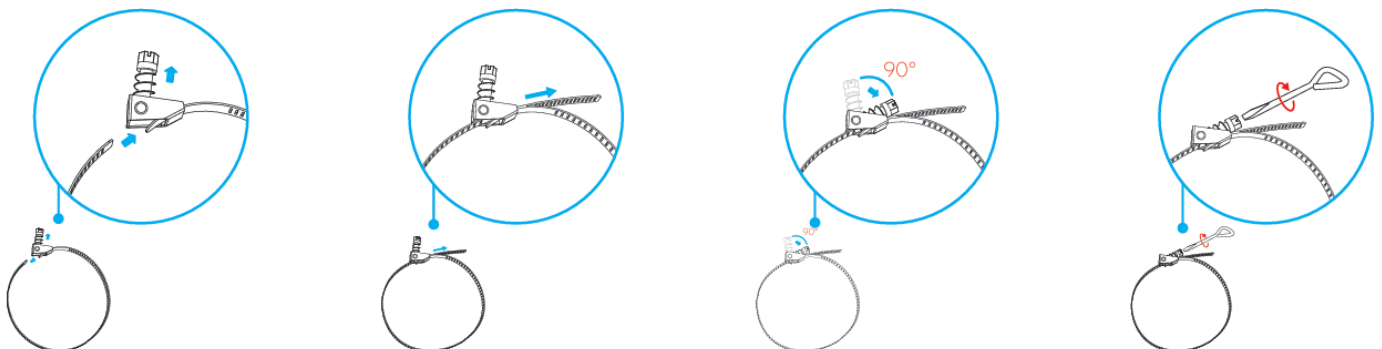
- Step 1: Stick two silicone pads.
- Step 2: Thread the hose clamps.
- Step 3: Tighten the hose clamps.



- Suggestion: grounding wire's copper core:  $\geq 6\text{mm}^2$ ; grounding pin's burial depth:  $\geq 0.8\text{m}$ .



- ① Turn the screw upwards by 90°.
- ② Thread the strap through the hole at the bottom of the fastener and pull the strap tightly.
- ③ Turn the screw downwards by 90° to lock the fastener.
- ④ Turn the screw clockwise to tighten the fastener by using the screwdriver.

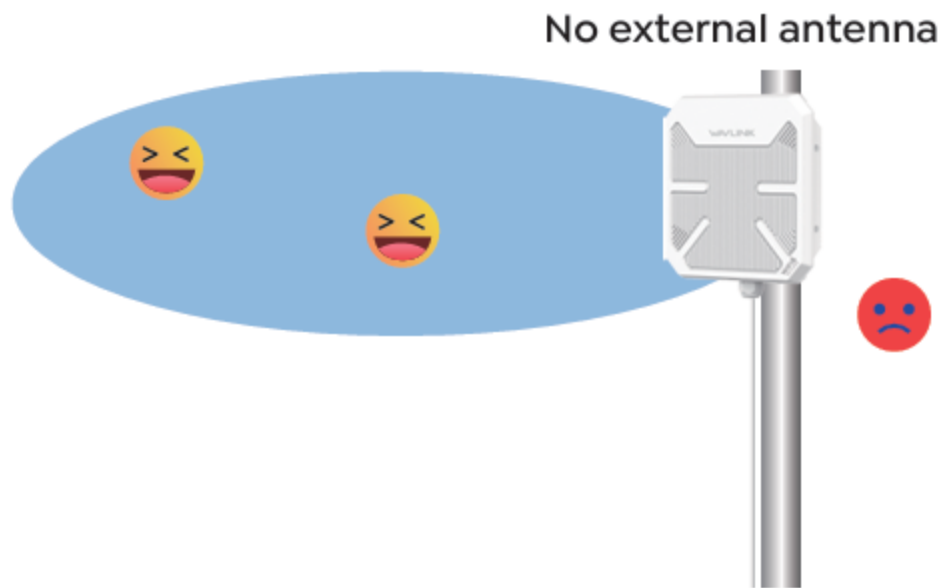


**Before installing outdoor, you should know:**

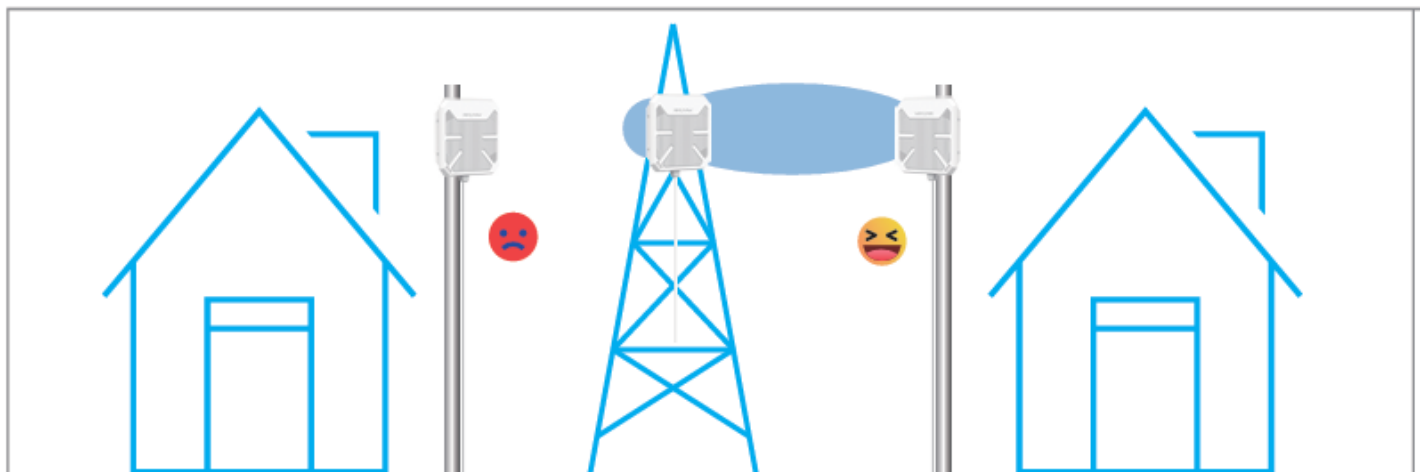
① This outdoor AP is designed for point-to-point transmission over long distances, for better signal coverage, approximately 120° horizontally and 120° vertically from the front of the AP is required for signal acquisition at receiver points and wireless clients.

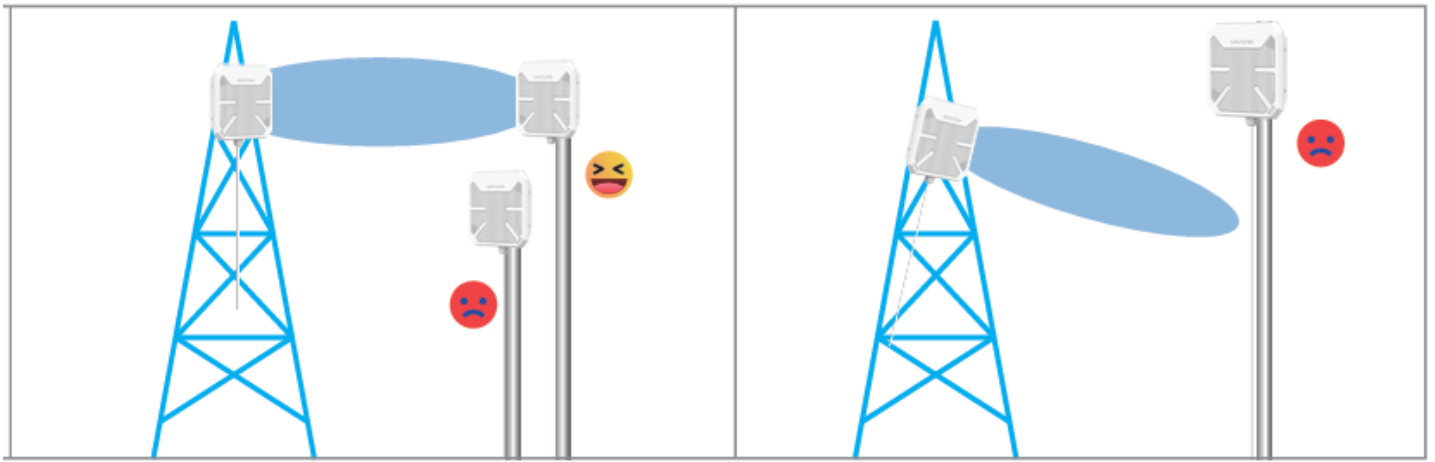


② No signal is emitted from behind the panel. Please ensure your terminal devices are positioned within the 120° signal range in front of it.



③ The AP panels of the signal receiving point and the signal transmitting point should be kept at the same height, and face each other without deviation.

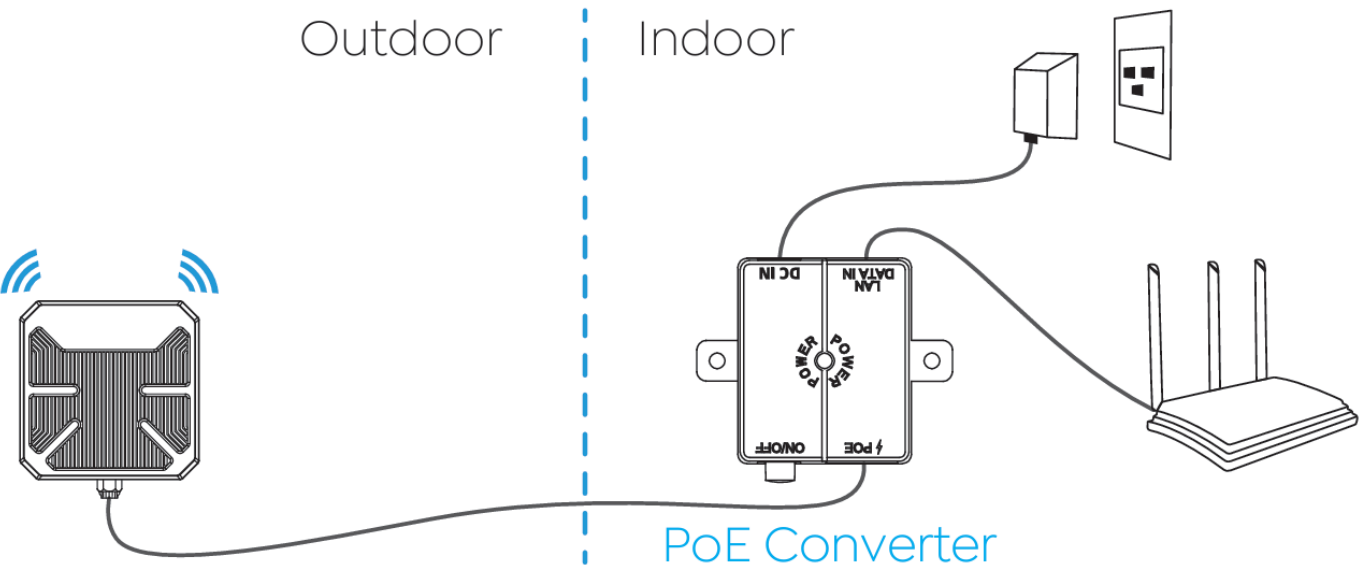




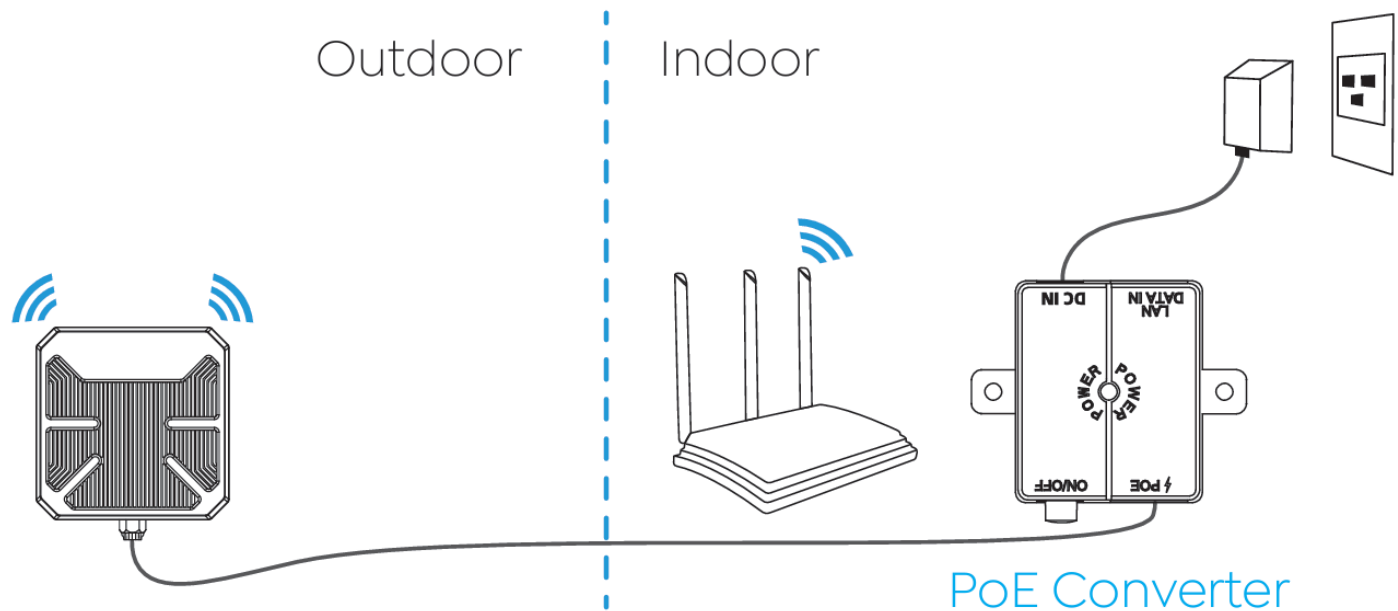
# Connection

## Passive PoE

(1) Wired (For AP/Mesh AP/ Mesh Router Mode)



(2) Wireless (For Repeater/Mesh Extender Mode)

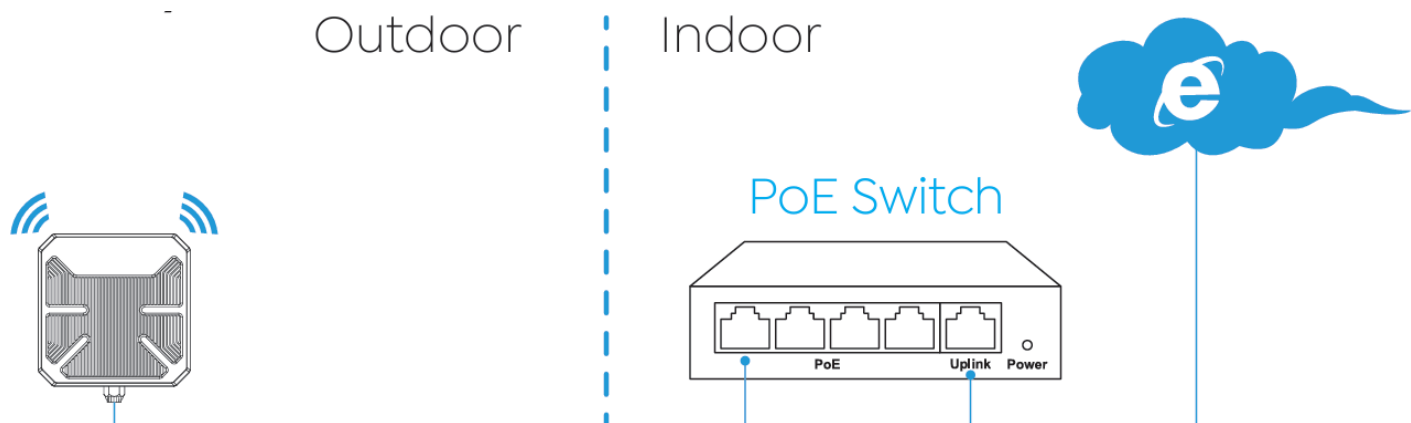


- ① Connect the “PoE” port of the PoE converter with an Ethernet cable to the “WAN/LAN” port of the device.
- ② Connect the PoE converter to power source.
- ③ Connect the indoor router to the PoE converter via an Ethernet cable for AP/Mesh AP/Mesh Router Mode. In Repeater/Mesh Extender Mode, this Ethernet cable is not required.

### **NOTE**

The PoE converter is not waterproof. Please place the “PoE” port facing downwards to avoid water from flowing into the converter.

## **Active PoE (For AP/Mesh AP/Mesh Router Mode)**



### **ATTENTION:**

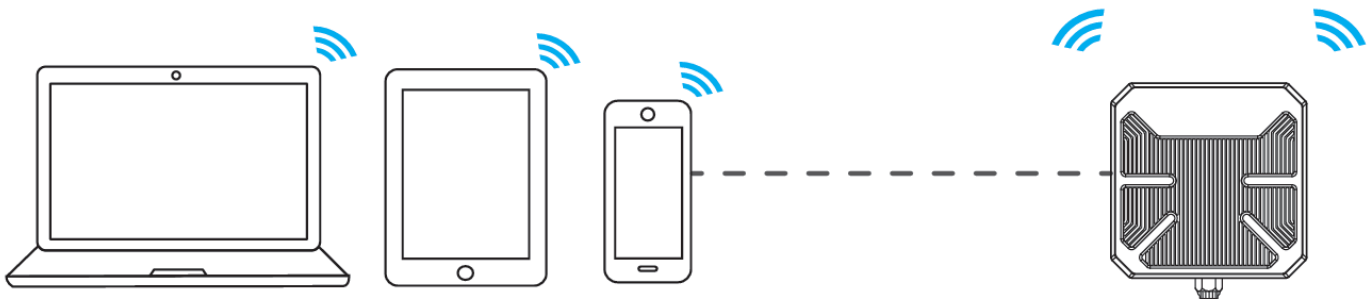
1. Make sure you use a certified CAT6 or higher standard Ethernet cable with RJ45 connectors.

2. Make sure the Ethernet cable length is less than 100 meters (328 feet).

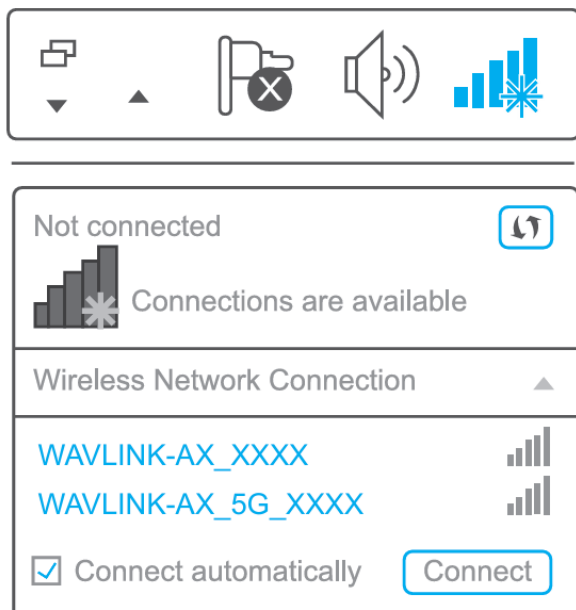
# Configuration

## Connecting to the Network

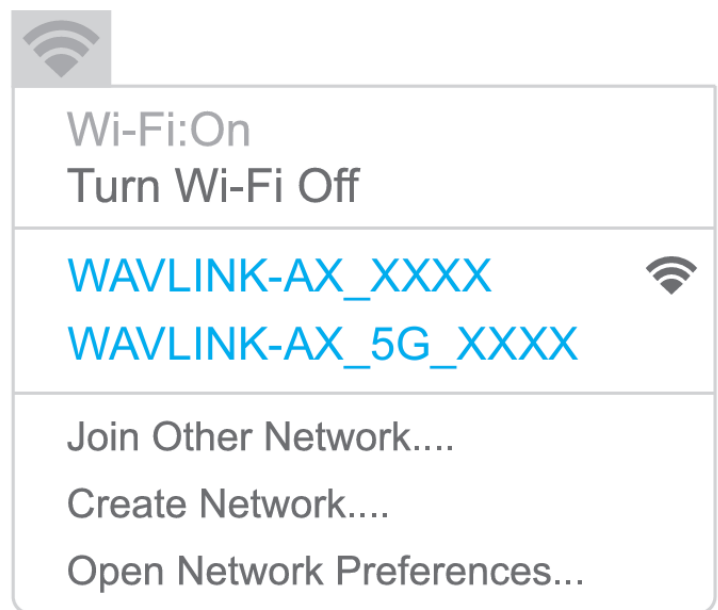
### (1) Via Wireless



- ① Disconnect the Ethernet cable from your computer (if you have one).
- ② Turn on your WiFi, find and connect the SSID of this product.

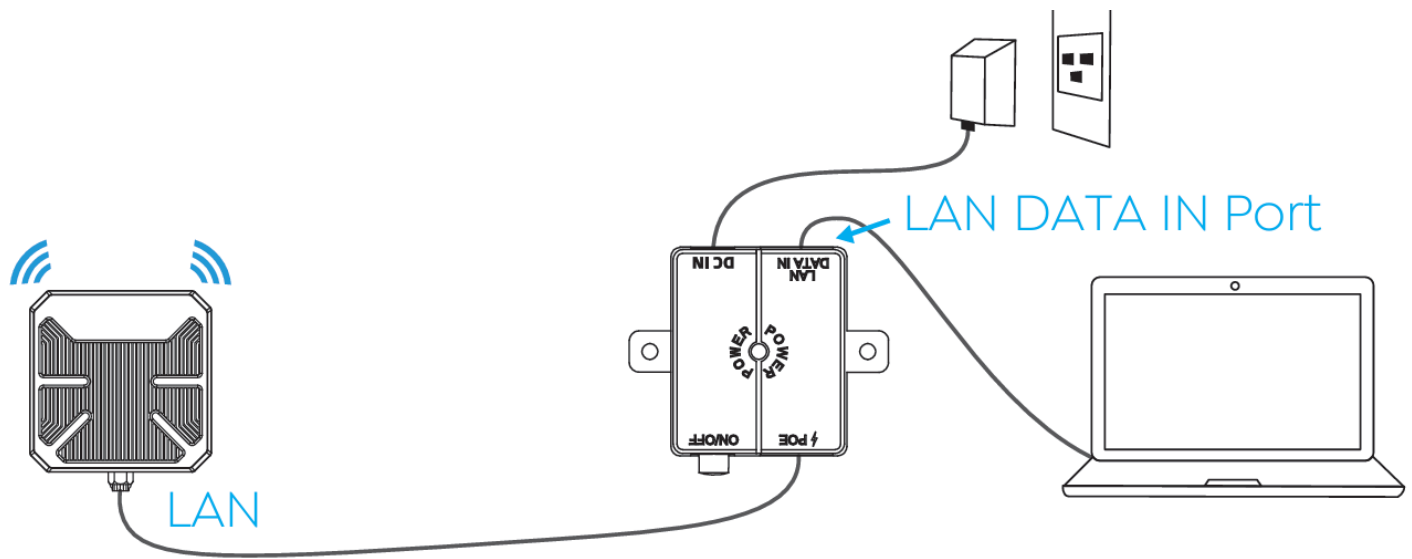


For Windows users



For Mac users

### (2) Via Cable



Connect the Ethernet cable to your PC/laptop and the LAN DATA IN port of your PoE converter, and then you can start configuring the device.

**NOTE:**

If you want to use this device's AP/Mesh AP/Mesh Router Mode function, please finish the configuration of AP/Mesh AP/Mesh Router Mode, and then connect the LAN DATA IN of the PoE converter port to the LAN port of the upstream router.

## Setting up the Device

① The login page will pop up when the router is connected to your devices for the first time. You can also launch a browser from your computer or smartphone and enter <http://waplogin.link> or **192.168.30.1** into the address bar.



**Set a new local management password**

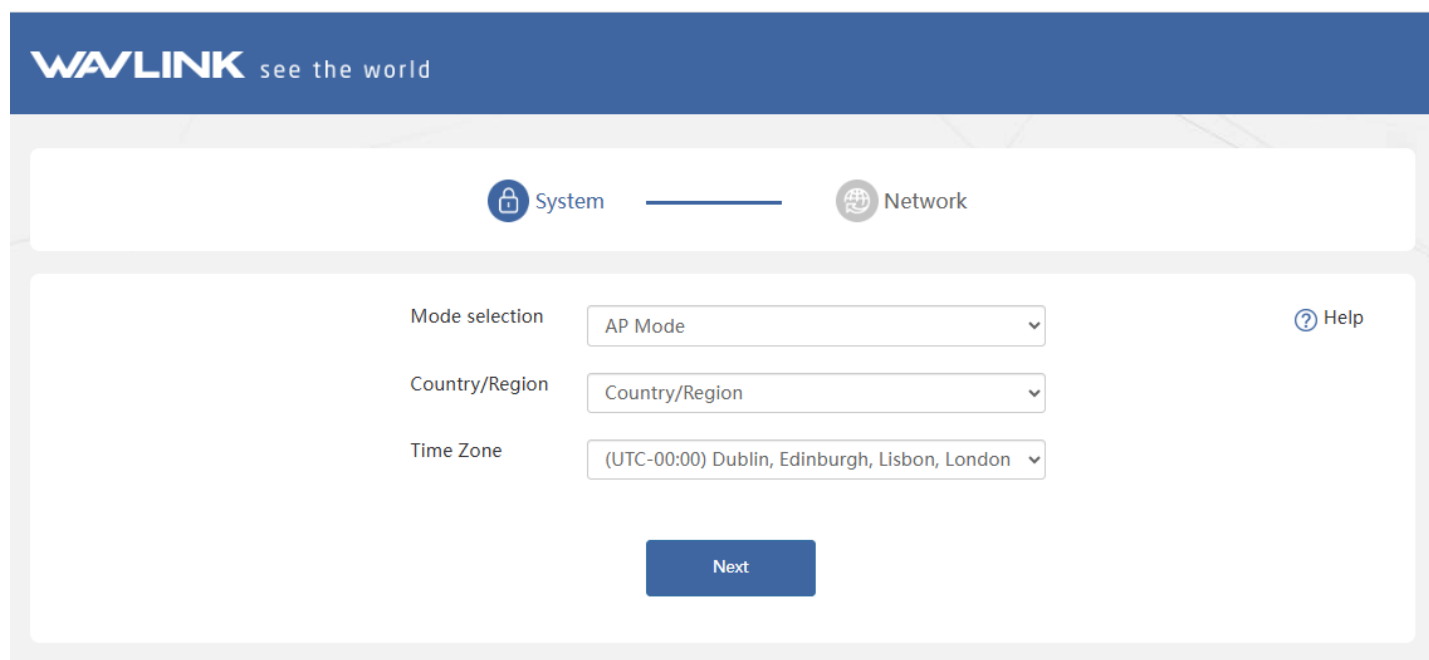
Apply

② Please enter your password to login the web again and start the setup.



The image shows the WAVLINK login interface. At the top is the WAVLINK logo with the tagline "see the world". Below the logo is a text input field with the placeholder "Please enter your password". Underneath the input field is a blue "Login" button.

③ Select your **Country/Region** and **Time Zone**.



The image shows the WAVLINK setup interface. At the top is a blue header with the WAVLINK logo and "see the world". Below the header is a white navigation bar with two tabs: "System" (active) and "Network". The main content area is white and contains three dropdown menus: "Mode selection" (set to "AP Mode"), "Country/Region" (set to "Country/Region"), and "Time Zone" (set to "(UTC-00:00) Dublin, Edinburgh, Lisbon, London"). A blue "Next" button is at the bottom. A "? Help" link is in the top right corner.

## Mode Selection

This product supports 5 modes.

Mode selection

AP Mode

[? Help](#)

Country/Region

Repeater Mode

AP Mode

Time Zone

Mesh Router Mode

Mesh AP Mode

Mesh Extender Mode

Next

## AP Mode



1. The system selects AP mode by default, there is no need to select the AP mode manually. Click **Next**.

Mode selection

AP Mode

[? Help](#)

Country/Region

Global

Time Zone

(UTC-00:00) Dublin, Edinburgh, Lisbon, London

Next

2. Connect the WAN port of this product to the PoE and connect the LAN DATA IN port of the PoE box to the host router via Ethernet cable.
3. Then you can change the SSID or use the default one, the encryption mode recommend is **WPA2-PSK**. For your network security, please create a new

**Password** according to the rule. Then click **Save** and wait for the setting process to complete.

System

Network

Smart DHCP Services

☒

Dual-band convergence

☐

2.4G Wi-Fi Name

WAVLINK-AX\_50F2

2.4G Encryption

WPA2-PSK(Recommend) ▼

2.4G Wi-Fi password

Between 8~63 characters 

5G Wi-Fi Name

WAVLINK-AX\_50F2\_5G

5G Encryption

WPA2-PSK(Recommend) ▼

5G Wi-Fi password

Between 8~63 characters 

☒ Same as the 2.4G Wi-Fi password

LAN Static IP

192.168.254.1

Back

Save

## Note

- **Smart DHCP Services:** With smart DHCP services being enabled, if the upstream device is not been connected or the upstream device is unable to provide IP, the

router will assign the IP automatically. If no automatic IP assignment is needed, it is recommended to disable it.

- **Dual-band convergence:** Turning on it will combine the 2.4G and 5G Wi-Fi dual-band into one, so as to adapt to a better network experience, and turn off it to set the 2.4G network and 5G network respectively.

## Repeater Mode



1. Select **Repeater Mode** and click **Next**.

**WAVLINK** see the world

System

Network

Mode selection

Repeater Mode

?

 Help

Country/Region

Global

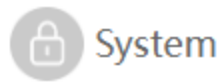
Time Zone

(UTC-00:00) Dublin, Edinburgh, Lisbon, London

Next

### 2.1 Select Wi-Fi

- ①. After scanning, please make sure the Wi-Fi you want to select is listed, and click **Next**, if it isn't, please click **Rescan**.



System



Network

☒ Select Wi-Fi

☐ Manual Input

Please select the wireless signal to be relayed

5G/2.4G

|  |                       |  |                       |
|--|-----------------------|--|-----------------------|
|  | WAVLINK_Touch         |  | <input type="radio"/> |
|  | WAVLINK_0566_5G       |  | <input type="radio"/> |
|  | WAVLINK_17F-BE_623E   |  | <input type="radio"/> |
|  | WAVLINK_2A7A          |  | <input type="radio"/> |
|  | Wavlink Pro Router 5G |  | <input type="radio"/> |
|  | WAVLINK_k3_5G         |  | <input type="radio"/> |
|  | 012345678_EXT5G       |  | <input type="radio"/> |
|  | WAVLINK_05_5G         |  | <input type="radio"/> |

Back

Rescan

Next

②. Enter the password for the wireless network that you have selected. Set the wireless network encryption mode and password for this device. Click **Save**.



System



Network

### Superior wireless network information

Target Network Name

WAVLINK\_0566\_5G

Target Network Password

Between 8~63 characters



### Wireless network information of this device

☒ Set a new SSID and password

☐ Same as the parent router

Connection Type

Bridge-Recommend



2.4G Wi-Fi Name

WAVLINK\_0566\_5G\_EXT2.4G

2.4G Encryption

WPA2-PSK(Recommend)



2.4G Wi-Fi password

Between 8~63 characters



5G Wi-Fi Name

WAVLINK\_0566\_5G\_EXT5G

5G Encryption

WPA2-PSK(Recommend)



5G Wi-Fi password

Between 8~63 characters



Back

Save

## 2.2 Manual Input

There is also an option to manually enter information about the superior wireless network that needs to be relayed.

① Manually add the wireless network you want to connect, enter the device information, and click **Next**.

---

 System

 Network

---

☐ Select Wi-Fi

☒ Manual Input

**Please input the wireless signal to be relayed**

---

Note: If the parent Wi-Fi network name is hidden, please select manual channel input.

Target Network Name

Frequency band

2.4G

▼

Channel

Automatic(Recommend)

▼

Encryption Method

OPEN

▼

Back

Next

---

② Set the wireless network encryption mode and password for this device. Click **Save**.



System



Network

#### Wireless network information of this device

☒ Set a new SSID and password

☐ Same as the parent router

Connection Type

Bridge-Recommend



2.4G Wi-Fi Name

WAVLINK\_0566\_5G\_EXT2.4G

2.4G Encryption

WPA2-PSK(Recommend)



2.4G Wi-Fi password

Between 8~63 characters



5G Wi-Fi Name

WAVLINK\_0566\_5G\_EXT5G

5G Encryption

WPA2-PSK(Recommend)



5G Wi-Fi password

Between 8~63 characters



Back

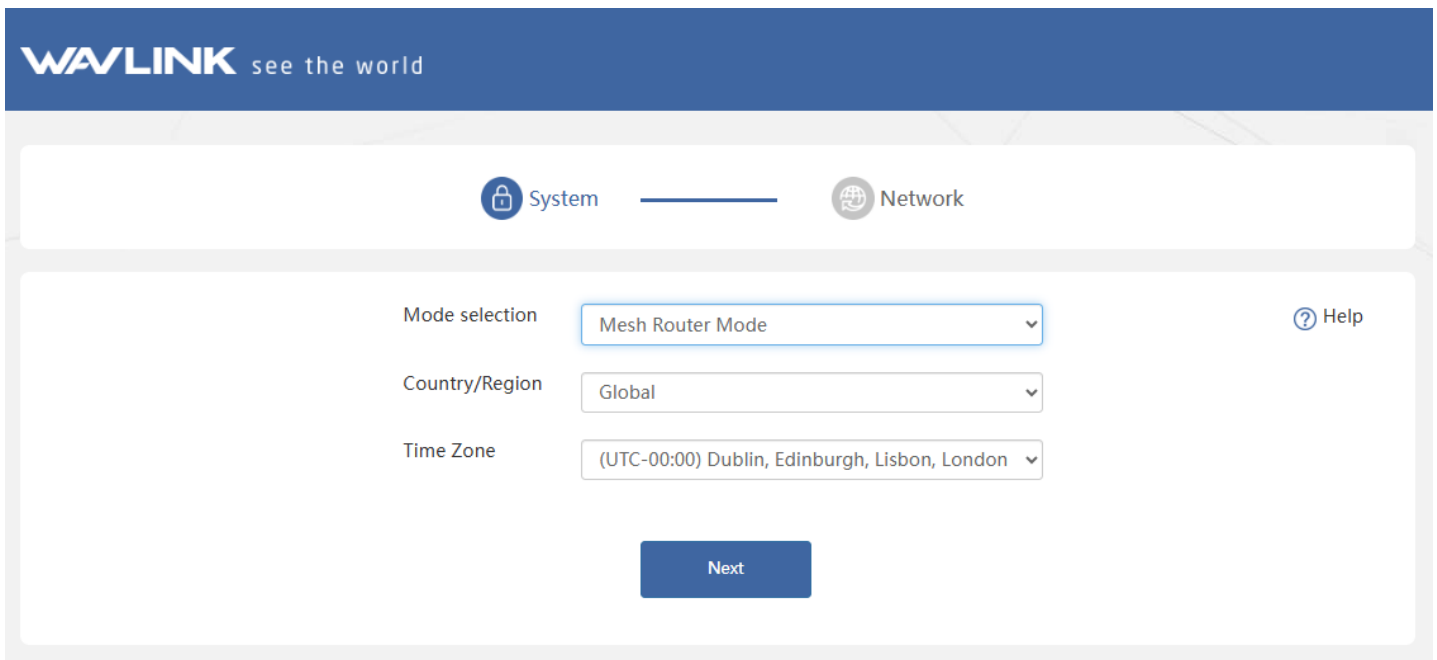
Save

## Mesh Router Mode



Before configuring, please make sure your upper router has connected to the **WAN** port of this product.

1. Choose **Mesh Router Mode**. Click **Next**.



The image shows the WAVLINK web interface for configuring a Mesh Router. The header features the WAVLINK logo and the tagline "see the world". Below the header, there are two tabs: "System" (active) and "Network". The "System" tab contains three dropdown menus: "Mode selection" (set to "Mesh Router Mode"), "Country/Region" (set to "Global"), and "Time Zone" (set to "(UTC-00:00) Dublin, Edinburgh, Lisbon, London"). A "Help" link is located to the right of the "Mode selection" dropdown. A "Next" button is positioned at the bottom center of the configuration area.

WAVLINK see the world

System Network

Mode selection Mesh Router Mode ? Help

Country/Region Global

Time Zone (UTC-00:00) Dublin, Edinburgh, Lisbon, London

Next

2. Configure the corresponding **WAN Type**, **SSID** (Wi-Fi name), **Encryption Method** and **Password**, then click **Save**.



System



Network

Wan Type

DHCP

Dual-band convergence



2.4G Wi-Fi Name

WAVLINK-AX\_50F2

2.4G Encryption

WPA2-PSK(Recommend)

2.4G Wi-Fi password

Between 8~63 characters



5G Wi-Fi Name

WAVLINK-AX\_50F2\_5G

5G Encryption

WPA2-PSK(Recommend)

5G Wi-Fi password

Between 8~63 characters



☒ Same as the 2.4G Wi-Fi password

Custom MTU



MAC Clone



Back

Save

① If you choose **DHCP**, you will need to decide whether to enable the MAC clone. Some ISPs register the MAC address of your computer when you firstly access the Internet through their cable modem, we need to clone the MAC address of your computer to the router. The **Custom MTU(Maximum Transmission Unit)** is the largest size of a data

packet that can be transmitted over the network. If your ISP requires you to adjust the MTU size, enable this option. Otherwise, we recommend you to keep it disabled for optimal network performance.

② If you choose **PPPoE**, enter the **Username** and **Password** provided by your ISP. PPPoE is usually designed for such as DSL or fiber optics.

③ If you choose **Static IP**, enter a specified IP parameters including IP address, Subnet Mask, Gateway, DNS1 and DNS2 provided by your ISP.

## Mesh AP Mode



Before configuration, connect this product's WAN port to the PoE. The PoE switch's LAN port connects to the upper router. This mode also supports mesh topology, which means it can form a mesh network after pairing with other nodes.

1. Select **Mesh AP Mode**, click **Next**.

The screenshot shows the Wavlink configuration web interface. At the top is a blue header with the 'WAVLINK see the world' logo. Below the header is a navigation bar with two tabs: 'System' (active) and 'Network'. The main content area has a light gray background and contains three dropdown menus: 'Mode selection' set to 'Mesh AP Mode', 'Country/Region' set to 'Global', and 'Time Zone' set to '(UTC-00:00) Dublin, Edinburgh, Lisbon, London'. A blue 'Next' button is centered at the bottom of the form. A small '? Help' link is located to the right of the 'Mode selection' dropdown.

2. You can change the **SSID(WiFi Name)** or use the default one. WPA2-PSK is recommended for the **Encryption Method**. For network security, it is recommended to create a new **Password**. Click **Save**, and wait for the configuration to complete.

Smart DHCP Services ☒

Dual-band convergence ☐

2.4G Wi-Fi Name WAVLINK-AX\_50F2

2.4G Encryption WPA2-PSK(Recommend) ▼

2.4G Wi-Fi password Between 8~63 characters 

5G Wi-Fi Name WAVLINK-AX\_50F2\_5G

5G Encryption WPA2-PSK(Recommend) ▼

5G Wi-Fi password Between 8~63 characters 

☒ Same as the 2.4G Wi-Fi password

Back

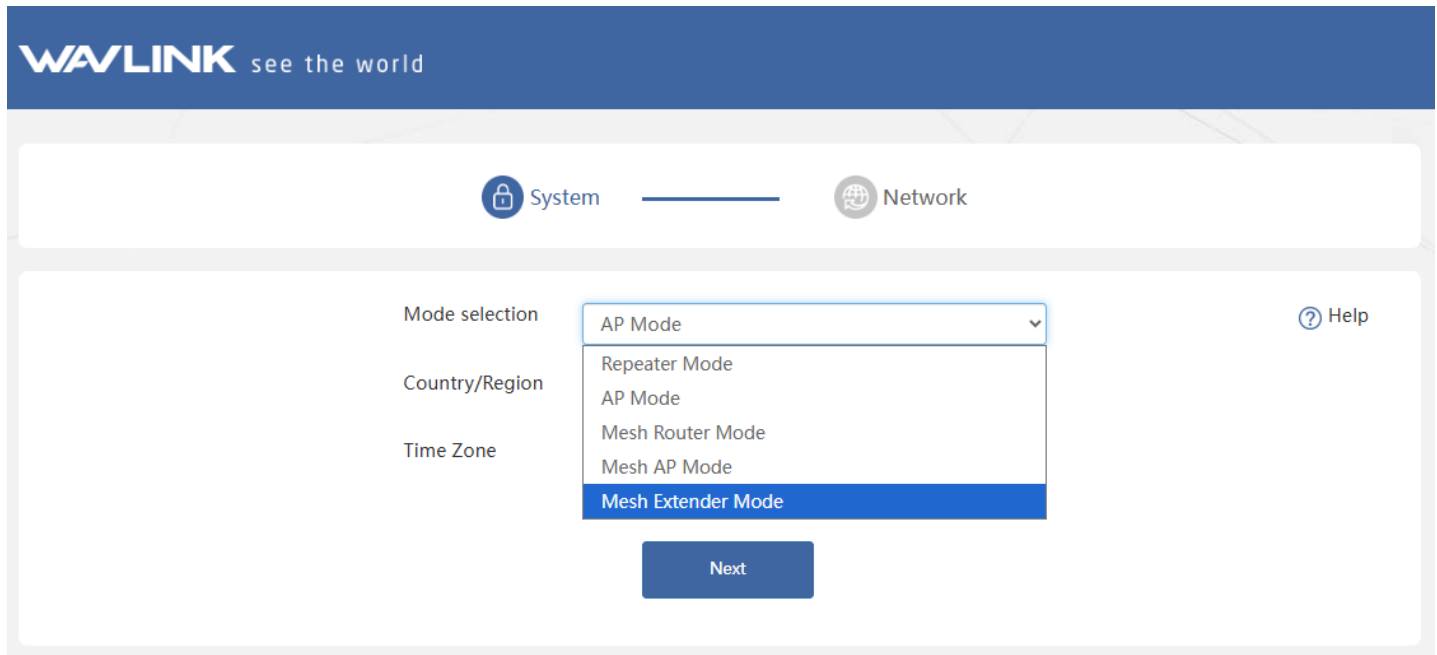
Save

## Mesh Extender Mode



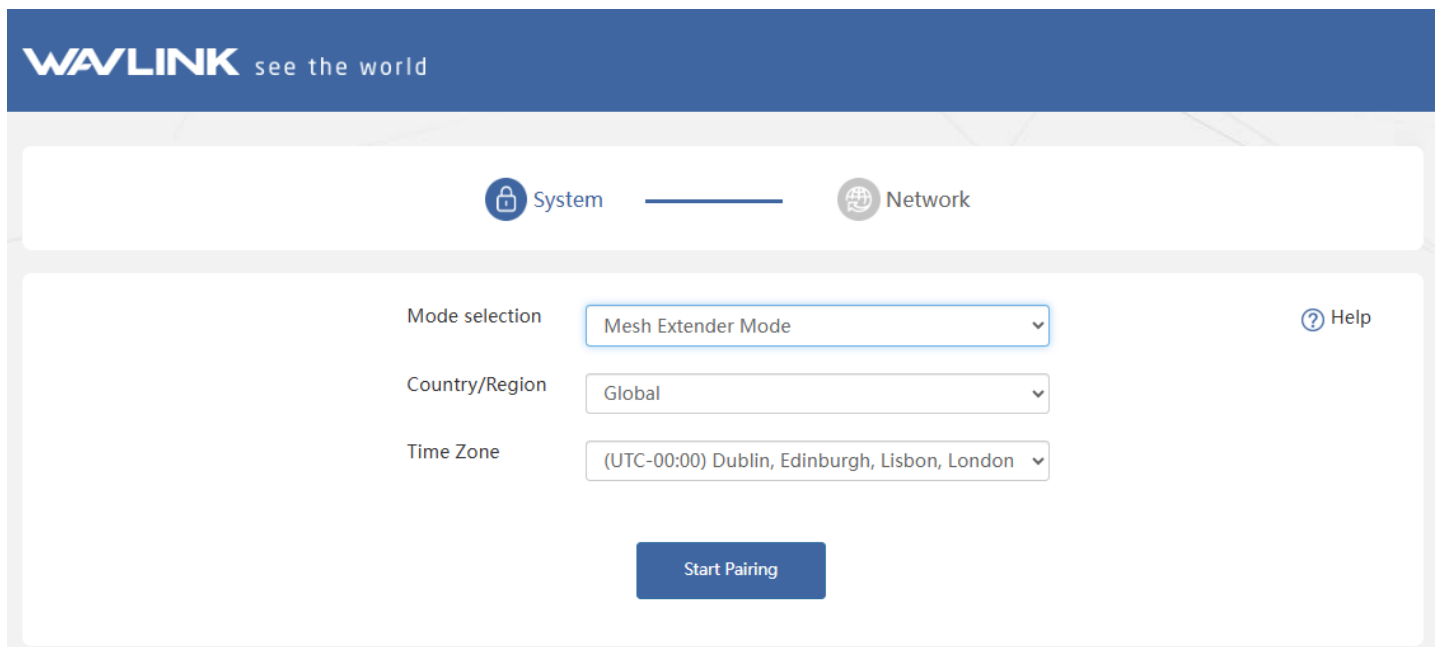
In this mode, the device enters a Mesh networking pairing state, making it discoverable for scanning and pairing by proximate primary devices waiting to establish a connection. If you have a router that supports WAVLINK Everything Mesh function, then you can build a mesh system with this mode.

1. Select **Mesh Extender Mode**, click **Next**.



The screenshot shows the WAVLINK configuration interface. At the top, there is a blue header with the WAVLINK logo and the tagline "see the world". Below the header, there are two tabs: "System" (active) and "Network". The "System" tab contains a "Mode selection" dropdown menu, a "Country/Region" dropdown menu, and a "Time Zone" dropdown menu. The "Mode selection" dropdown menu is open, showing the following options: "AP Mode", "Repeater Mode", "AP Mode", "Mesh Router Mode", "Mesh AP Mode", and "Mesh Extender Mode" (which is highlighted in blue). Below the dropdown menus, there is a blue "Next" button. A "Help" link is visible in the top right corner of the configuration area.

2. Select your **Country/Region** and **Time Zone**. Click **Start Pairing**.



The screenshot shows the WAVLINK configuration interface. At the top, there is a blue header with the WAVLINK logo and the tagline "see the world". Below the header, there are two tabs: "System" (active) and "Network". The "System" tab contains a "Mode selection" dropdown menu, a "Country/Region" dropdown menu, and a "Time Zone" dropdown menu. The "Mode selection" dropdown menu is set to "Mesh Extender Mode". The "Country/Region" dropdown menu is set to "Global". The "Time Zone" dropdown menu is set to "(UTC-00:00) Dublin, Edinburgh, Lisbon, London". Below the dropdown menus, there is a blue "Start Pairing" button. A "Help" link is visible in the top right corner of the configuration area.

### Note:

When the device enters the pairing state, please keep pressing the PAIR button **2s** on the primary router or add the mesh device in the primary router configuration page, the pairing time is expected to be **2 minutes**. If the pairing fails, check whether the primary

router is set correctly, and then enable re-pairing via the pairing button or re-enter this device page. If you want to switch to another mode when you have successfully configured mesh extender mode, please reset this device.

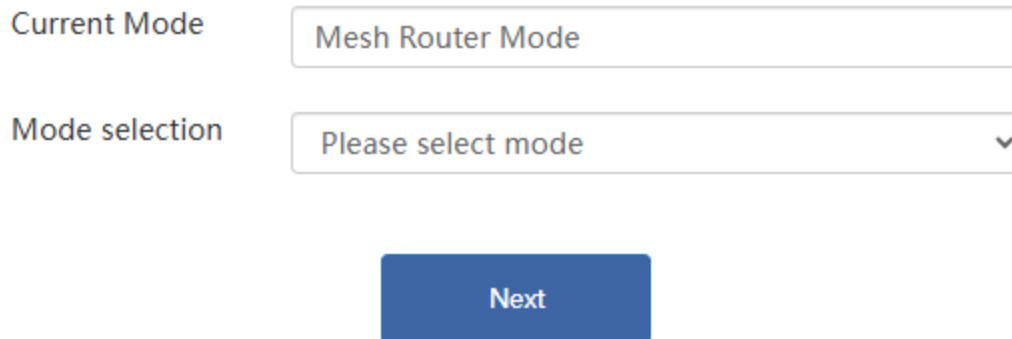
# Chapter 3 Network Management

This chapter contains the following sections :

- [Mesh Settings](#)
- [Network Settings](#)
- [LAN Settings](#)
- [Setting Static IP Binding](#)
- [MAC Filter](#)

## Mesh Settings

1. Click **Advanced** > **Mode Selection**.
2. Select **Mesh Router Mode** or **Mesh Extender Mode** from the **Mode selection**, then click **Next**.



Current Mode

Mode selection

**Next**

### Mesh Router Mode

Converts the ISP's wired network into a Wi-Fi for both wireless and wired Internet access. Meanwhile, this mode supports mesh networking, and you can set this mode to pair sub-routers to mesh a network.

1. After switching to **Mesh Router Mode**, the **Wan Type** is **DHCP** by default, you can set **PPPoE** and **Static IP** manually if it is needed.
2. Click **Save** and wait for the settings to apply. After waiting about 1 minute, click **Refresh**.

Current Mode

Mode selection

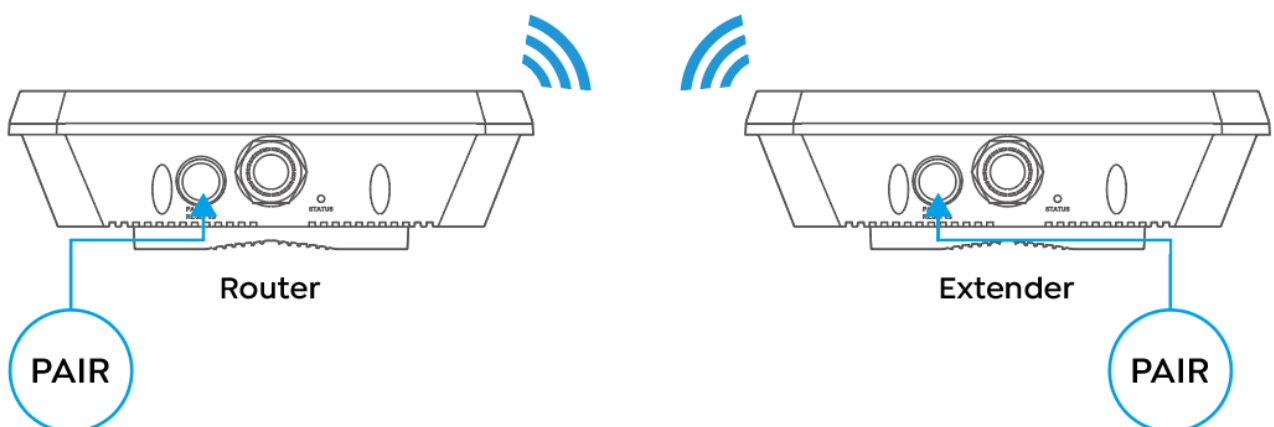
Wan Type

### Note for Mesh Pairing:

Two methods for **Mesh Pairing**, the first is recommended.

#### 1) Via PAIR Button:

1. Turn on the power of other Mesh node router, one note is this product should have been reset.
2. Press and hold **PAIR Button** on the primary router for **2** seconds. Then the LED Indicator switches to slow flashing in blue.
3. In 2 minutes, press and hold the **PAIR Button** on the node router for **2** seconds, the pairing will last **40-120s**, at the same time, the LED indicator will be solid blue indicating the pairing is successful.



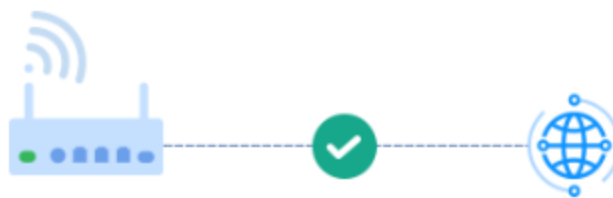
#### 2) Via WEB Interface:

1. Click **Advanced>Mesh Network**.
2. Click **Add**, then following the prompt instruction.

|                                                                                   | Name          |                                                                                   | IP             | MAC Address      | Signal strength | Delete                                                                              |
|-----------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------|----------------|------------------|-----------------|-------------------------------------------------------------------------------------|
|  | Router        |                                                                                   | 192.168.10.1   | 8*:**:**:*:E6:42 |                 |                                                                                     |
|  | Extender_C1B2 |  | 192.168.10.135 | 8*:**:**:*:C1:B2 | Good            |  |
|  | Extender_0187 |  | 192.168.10.195 | 8*:**:**:*:01:87 | Good            |  |

3. Ensure all Mesh node routers are properly positioned and the main router has an active internet connection, click **Next**, if the node router is in use, reset it.

### Add Mesh Node



- 1.Please confirm that the main router has successfully connected to the Internet.
- 2.Place the mesh node to be added near the main router. If the extender has been used, please reset it.

Next

4. Confirm the mesh node router is on, if it is not, turn it on, then press and hold the **PAIR Button** for **2** seconds.
5. Click **Start scanning**, then check the device information listed in the result, tick to add the device.

Add Mesh Node



Router Pair Button

1.Power up the mesh node, and press "Pair" after the startup is complete.

2.Click "Start Scan", and the main router will automatically scan for the Mesh node whose the pair button has been pressed.

Back

Start scanning

| Add Mesh Node |                |                                     |
|---------------|----------------|-------------------------------------|
|               | PAIRKEY        | Select                              |
| Extender_4a5b | 8*:*:*:*:4a:5b | <input checked="" type="checkbox"/> |

Back

Rescan

Add

## Advanced Settings

### 1) Roaming

Roaming helps your devices switch seamlessly between two mesh routers. When you move away from one and closer another router, it will disconnect from the current router and switch to the nearer one to make the internet smoother. And no manual operation is required.

**Note:** The roaming threshold should only be configured by experienced professionals. If you lack professional expertise in this setting, it is recommended to retain the default value to avoid compromising your network experience.

### 2) Topology Optimization

When you have three or more paired devices and all devices have completed pairing, you can enable the topology optimization feature. This function can automatically adjust the optimal path based on the signal strength between devices to ensure that all sub-routers and corresponding upper-level devices have the best signal connection status, achieving optimal network coverage.

**Note:** You can adjust the signal threshold that triggers topology optimization to achieve the best mesh network coverage. If you do not have professional setup experience, it is recommended to use the default settings.

## Mesh Extender Mode

This mode puts the device into a Mesh pairing-ready state, where it will be scanned and paired by nearby primary devices. Await successful pairing.

[<](#) **Mode Selection**

Current Mode

Mesh Router Mode

[? Help](#)

Mode selection

Mesh Extender Mode

Note: The node router has been used before, setting this mode requires resetting the router!

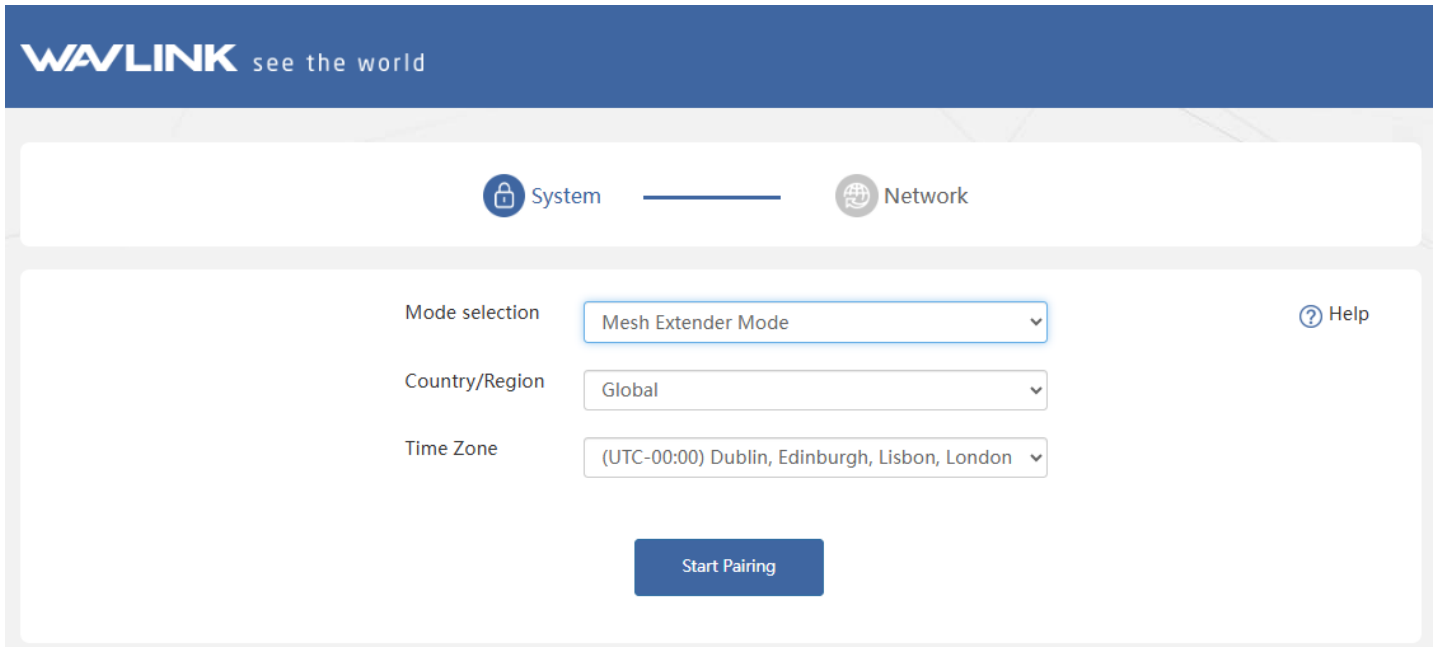
Reset

### **i** NOTE

If prompted with **Note: The node router has been used before, setting the mode requires resetting the router**, please reset the product following the wizard, then, select **Mesh Extender**

**Mode** during the initial setup.

1. Click **Start Pairing** to put the device into pairing mode, at the same time, press and hold the **PAIR** button on the primary router for **2** seconds, or add the Mesh device on the configuration interface of the primary router. This pairing process will take approximately 2 minutes.



The screenshot shows the Wavlink configuration interface. At the top is a blue header with the Wavlink logo and the tagline "see the world". Below the header is a navigation bar with two tabs: "System" (active) and "Network". The main content area is titled "Mode selection" and contains three dropdown menus: "Mode selection" (set to "Mesh Extender Mode"), "Country/Region" (set to "Global"), and "Time Zone" (set to "(UTC-00:00) Dublin, Edinburgh, Lisbon, London"). A blue "Start Pairing" button is located at the bottom center. A "Help" link is visible in the top right corner of the main content area.

**i NOTE**

- If pairing fails, check whether the primary router is configured correctly, then restart the pairing process by pressing the **PAIR** button or reentering this device's settings interface.
- If you wish to switch to another mode after successfully configuring the **Mesh Extender Mode**, factory reset this device.

## Network Settings

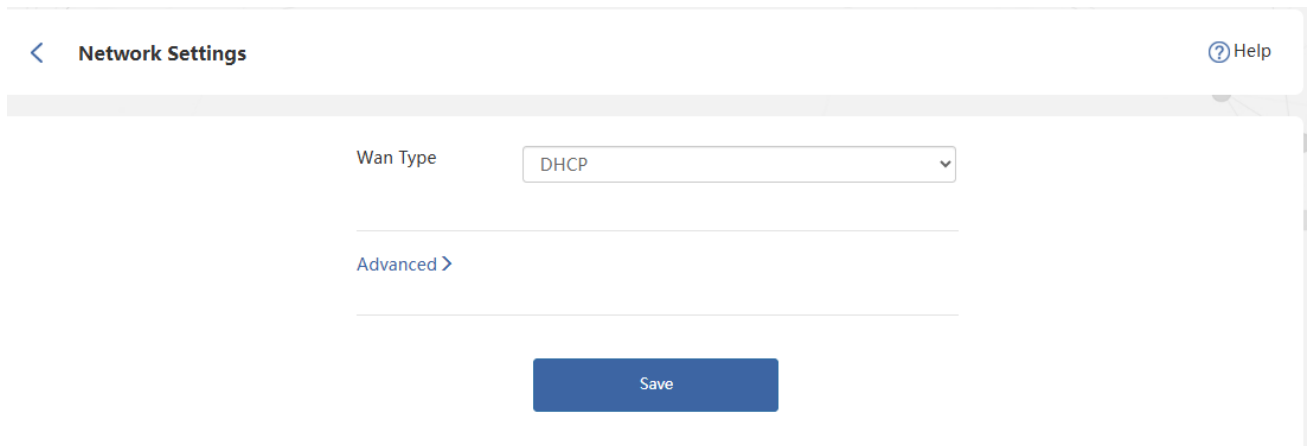
The way of network access can be changed as your requirement through configuring the network setting. Choose the **WAN Type** according to the method provided by the ISP.

- **DHCP:** Network parameters configured automatically by your ISP
- **Static IP:** Requires manual entry of IP address, Subnet Mask, Gateway, DNS1 and DNS2
- **PPPoE:** Requires ISP-provided Username and Password.

1. **Advanced > Network Settings.**
2. Select **Wan Type** from the list.

## 1) DHCP(Dynamic Host Configuration Protocol)

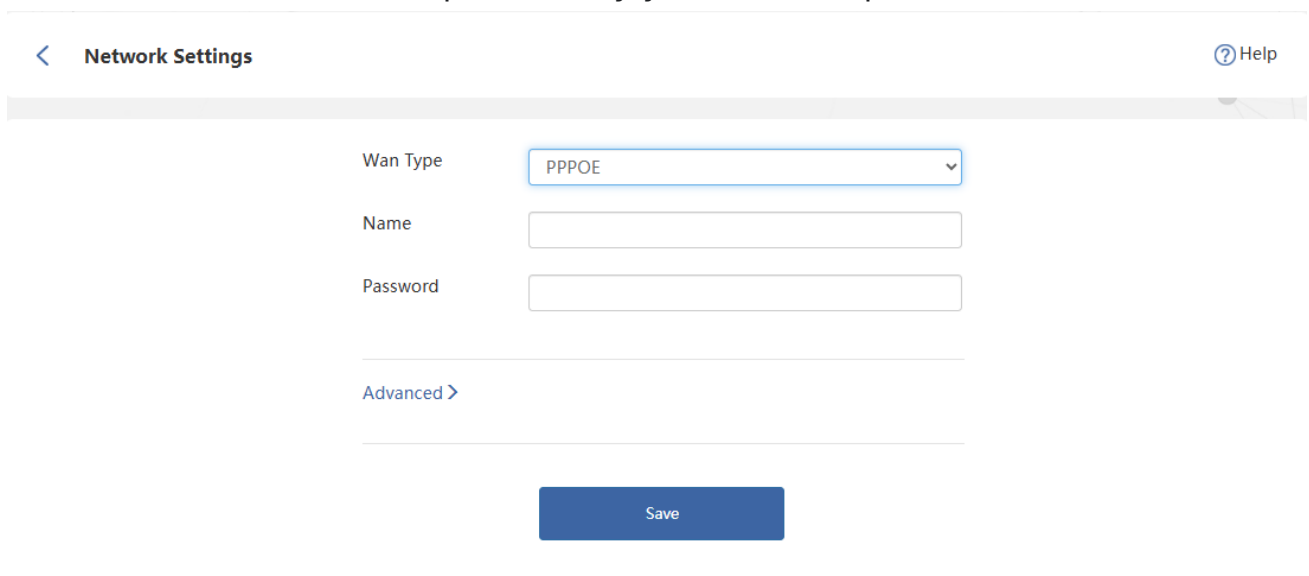
- It assigns network information including IP, Subnet Mask, default Gateway and others, managing and assigning IP without manual configuration.



The screenshot shows a web interface for "Network Settings". At the top left is a back arrow and the title "Network Settings". At the top right is a "Help" icon. Below the title bar, there is a "Wan Type" label and a dropdown menu currently showing "DHCP". Below this is a horizontal line, followed by a link "Advanced >". At the bottom is a blue "Save" button.

## 2) PPPoE(Point-to-Point Protocol over Ethernet)

- It is designed for broadband access methods such as ADSL, fiber optics and others to provide a secure network connection.
- The **Name** and **Password** provided by your ISP is required.



The screenshot shows a web interface for "Network Settings". At the top left is a back arrow and the title "Network Settings". At the top right is a "Help" icon. Below the title bar, there is a "Wan Type" label and a dropdown menu currently showing "PPPOE". Below this are two input fields labeled "Name" and "Password". Below these fields is a horizontal line, followed by a link "Advanced >". At the bottom is a blue "Save" button.

## 3) Static IP

- It assigns fixed IP address for the computer automatically. It is designed for servers, remote access, etc., which require long-term stability to ensure the stability of network connections.
- Correct **IP Address**, **Subnet Mask**, **Gateway**, **DNS1** and **DNS2** is required.

|             |                        |
|-------------|------------------------|
| Wan Type    | <div>Static IP ▾</div> |
| IP Address  | <input type="text"/>   |
| Subnet Mask | <input type="text"/>   |
| Gateway     | <input type="text"/>   |
| DNS1        | <input type="text"/>   |
| DNS2        | <input type="text"/>   |

---

[Advanced >](#)

---

Save

## Advanced Settings

- **Custom MTU(Maximum Transmission Unit)**

The MTU(Maximum Transmission Unit) is the largest size of a data packet that can be transmitted over the network. If your ISP requires you to adjust the MTU size, enable this option. Otherwise, we recommend you to keep it disabled for optimal network performance.

- **MAC Clone**

If the network operator only permits single device to access the internet, you can enable **MAC Clone** and spoof the MAC address of the originally connected device. This allows other devices connected to the router to access the internet normally.

- **Custom DNS**

If the network operator assigned fixed DNS address for you, you can enable **Custom DNS** and input the address provided. Otherwise, manual activation is unnecessary—the router will automatically obtain DNS addresses.

Wan Type

DHCP

Advanced

Custom MTU

1500

MAC Clone

Custom MAC address

80:3F:5D:86:E7:26

Custom DNS

DNS1

DNS2

Save

# LAN Settings

DHCP(Dynamic Host Configuration Protocol) server automatically assigns IP addresses to devices on the LAN. To modify DHCP settings, refer to the instructions below.

1. Click **Advanced** > **LAN Settings**.
2. Click to enable DHCP, and configure the corresponding information.
  - **IP Address**: The IP address from which the router connects to the LAN. This can be used to log in to the router's network management page.
  - **Subnet Mask**: The subnet mask that the router connects to the LAN.
  - **Start IP, End IP**: The range of IP addresses that can be allocated by the router to connected devices.
  - **Lease time**: This is the lease time of the IP address that the device obtains when accessing the router. If you need to modify it, please select it again in the Lease Time drop-down list.
  - **Custom DNS**: Manually specify the DNS server address that the router assigns to devices on the local network, replacing the DNS provided by the ISP by default. Properly configuring DNS can speed up domain name resolution, improve online security, a

nd enable access to specific websites. Typically, you need to enter the primary DNS (DNS1) and the secondary DNS (DNS2, optional). If left blank devices will use the DNS obtained by the router's WAN interface by default.

3. Click **Save** to finish the setup.

[<](#) LAN Settings [? Help](#)

DHCP

IP Address

192.168.30.1

Subnet Mask

255.255.255.0

Start IP

192.168.30.100

End IP

192.168.30.249

Lease Time

1 day

Custom DNS

Save

[<](#) LAN Settings [? Help](#)

DHCP

IP Address

192.168.30.1

Subnet Mask

255.255.255.0

Start IP

192.168.30.100

End IP

192.168.30.249

Lease Time

1 day

Custom DNS

DNS1

DNS2(Optional)

Save

# Setting Static IP Binding

It allows you to link the specific IP to the MAC address of customer devices. Using it, you can assign a fixed IP for the specific device.

1. Click **Advanced** > **Static IP**.
2. Click **Add a new rule** at the top right corner.
3. Input the **IP Address** and **MAC Address** from the binding device, then click **Bind**.

< Static IP

| IP Address     | MAC Address       | Operate                                       |
|----------------|-------------------|-----------------------------------------------|
| 192.168.10.248 | 42:3D:E5:0F:7A:2F | <button>Bind</button> <button>Cancel</button> |

Add a new rule (+)

## MAC Filter

MAC address filtering applies to both wired and wireless devices. Devices were added have no access to the Internet properly, and also cannot access to router's management interface, but can get the IP address assigned by router.

**Note:** MAC Filter may not apply to the terminals using random MAC address.

1. Click **Advanced**>**MAC Filter**.
2. Click to enable to **MAC Filter**.
3. If the **Guest Network Exception** is enabled, those devices from the guest wifi will not limited by the function of MAC filter.

MAC Filter ☒

Guest Network Exception ☒

Add a new rule +

| Device Name | MAC Address       | Operate                                                                   |
|-------------|-------------------|---------------------------------------------------------------------------|
| MI14U       | A6:42:E6:18:F7:9A | <input type="button" value="Edit"/> <input type="button" value="Delete"/> |

4. Click **Add Device**, then select the **Device Name** and **MAC Address** to add.

Add Device
×

Select from List
▼

|                          |                    |                    |
|--------------------------|--------------------|--------------------|
| <input type="checkbox"/> | <b>Device Name</b> | <b>MAC Address</b> |
| <input type="checkbox"/> | Xiaomi-14-Ultra    | EE:63:E7:83:EB:A0  |
| <input type="checkbox"/> | other              | B6:50:66:92:83:D1  |

5. Or you can manually enter the **Device Name** and **MAC Address** to add.

Add Device
×

Manual Input
▼

**Device Name**

**MAC Address**

6. The device added has been in the list. It is available to edit or delete it.

Add a new rule 

| Device Name | MAC Address       | Operate              |                        |
|-------------|-------------------|----------------------|------------------------|
| MI14U       | A6:42:E6:18:F7:9A | <a href="#">Edit</a> | <a href="#">Delete</a> |

# Chapter 4 Managing Wireless Network

This chapter contains the following sections:

- [Wireless](#)
- [Guest Wi-Fi](#)
- [Parental Control](#)
- [Signal Adjustment](#)

## Wireless

In **Wireless**, you can configure the **SSID**(Wi-Fi name), **Encryption Method**, **Password**, and other wireless parameters for both the 2.4G and 5G networks.

Enable it to make 2.4G and 5G Wi-Fi dual bands in one SSID. The router will automatically select the faster Wi-Fi band for you. If you disable it, you can set up the dual bands separately.

☒ [Help](#)

|       |                   |                                                  |
|-------|-------------------|--------------------------------------------------|
| Wi-Fi | SSID              | <input type="text" value="WAVLINK-AX_E640"/>     |
|       | Encryption Method | <input type="text" value="WPA2-PSK(Recommend)"/> |
|       | Password          | <input type="password" value="*****"/>           |

Advanced >

WIFI schedule >

Save

## Band Steering

When enabled **Band Steering**, both 2.4GHz and 5GHz wireless networks share the same Wi-Fi name. The router will dynamically assign devices to the optimal frequency

band based on real-time network conditions. When disabled, you may configure separate Wi-Fi names and settings for the 2.4GHz and 5GHz bands.

Enable it to make 2.4G and 5G Wi-Fi dual bands in one SSID. The router will automatically select the faster Wi-Fi band for you. If you disable it, you can set up the dual bands separately.



## SSID(Wi-Fi Name) and Password

1. Create a new Wi-Fi name in the **SSID** input field.
2. Select the **Encryption Method** from the dropdown list(WPA3-SAE/WPA2-PSK is recommended.)
3. Create a new Wi-Fi password in **Password**.

Enable it to make 2.4G and 5G Wi-Fi dual bands in one SSID. The router will automatically select the faster Wi-Fi band for you. If you disable it, you can set up the dual bands separately.



2.4G WiFi

SSID

WAVLINK-AX\_E640

Encryption Method

WPA2-PSK(Recommend)

Password

.....

5G WiFi

SSID

WAVLINK-AX\_E640\_5G

Encryption Method

WPA2-PSK(Recommend)

Password

.....

**Note:** Using the new password to reconnect to the Wi-Fi network after setting up a new network.

## Advanced

1. Click **Wireless** > **Advanced**.

**2.4G Wi-Fi Settings**

|               |                          |
|---------------|--------------------------|
| Channel       | <div>Automatic▼</div>    |
| Bandwidth     | <div>20/40MHz▼</div>     |
| Disable Wi-Fi | <input type="checkbox"/> |
| Hide SSID     | <input type="checkbox"/> |
| TWT           | <input type="checkbox"/> |
| MU-OFDMA      | <input type="checkbox"/> |

**5G Wi-Fi Settings**

|               |                                     |
|---------------|-------------------------------------|
| Channel       | <div>36▼</div>                      |
| Bandwidth     | <div>20/80/160MHz▼</div>            |
| Disable Wi-Fi | <input type="checkbox"/>            |
| Hide SSID     | <input type="checkbox"/>            |
| DFS           | <input checked="" type="checkbox"/> |
| TWT           | <input type="checkbox"/>            |
| MU-OFDMA      | <input type="checkbox"/>            |

- **Channel** and **Bandwidth** :

1. From the **Channel** dropdown list, select the operating channel for your wireless network. (If you are unsure about which channel to choose, it is recommended to select **Automatic**, so the device can automatically select the optimal channel based on the surrounding environment for your better network experience.)
2. From the **Bandwidth** dropdown list, select the bandwidth for the router's wireless data transmission.

- **Disable Wi-Fi:**

1. If enabling this feature, the corresponding Wi-Fi signal will be closed.

- **Hide SSID:**

1. After enabling this, the wireless signal for the corresponding network will be hidden.

- **DFS:**

1. After enabling this, the device will automatically avoid channels that are restricted in your region.

- **TWT:**

1. After enabling this feature, the router will automatically optimize resource scheduling between devices, negotiate target wake time to reduce contention, increase device sleep time, and ultimately extend the lifespan of the router.

**Note:** TWT compatibility issues may occur with certain terminal devices.

- **MU-OFDMA**

1. Once enabled, the router will implement multi-user channel resource sharing, enhancing transmission efficiency in multi-device environments and reducing network latency.

## WiFi Schedule (Wireless Timer Switch)

The schedule function allows you to customize the date and time to control the wireless network switch, with up to three rules definable for the 2.4G and 5G separately. This feature only takes effect after obtaining the network time and only affects the main network. For the guest network, you need to manually enable or disable this feature or define separate rules within the **Guest Network** settings.

1. Navigate to **Wireless > WiFi Schedule**.
2. Click on **Rule 1/2/3** under either the **2.4G wireless schedule** or **5G Wireless Schedule** to set the timing rules.
3. Click **Save** to complete the settings.

## WIFI schedule▼

### 2.4G wireless schedule

Rule 1



|                          | Blocking Start Time                   |                                       |                                        | Blocking End Time                        |                                         |                                       |                                         |
|--------------------------|---------------------------------------|---------------------------------------|----------------------------------------|------------------------------------------|-----------------------------------------|---------------------------------------|-----------------------------------------|
| Internet Blocking Period | <input type="text" value="00"/>       | :                                     | <input type="text" value="00"/>        | ~                                        | <input type="text" value="00"/>         | :                                     | <input type="text" value="00"/>         |
| Internet Blocking Day    | <input type="button" value="Sunday"/> | <input type="button" value="Monday"/> | <input type="button" value="Tuesday"/> | <input type="button" value="Wednesday"/> | <input type="button" value="Thursday"/> | <input type="button" value="Friday"/> | <input type="button" value="Saturday"/> |

Rule 2



Rule 3



### 5G Wireless Schedule

Rule 1



|                          | Blocking Start Time                   |                                       |                                        | Blocking End Time                        |                                         |                                       |                                         |
|--------------------------|---------------------------------------|---------------------------------------|----------------------------------------|------------------------------------------|-----------------------------------------|---------------------------------------|-----------------------------------------|
| Internet Blocking Period | <input type="text" value="00"/>       | :                                     | <input type="text" value="00"/>        | ~                                        | <input type="text" value="00"/>         | :                                     | <input type="text" value="00"/>         |
| Internet Blocking Day    | <input type="button" value="Sunday"/> | <input type="button" value="Monday"/> | <input type="button" value="Tuesday"/> | <input type="button" value="Wednesday"/> | <input type="button" value="Thursday"/> | <input type="button" value="Friday"/> | <input type="button" value="Saturday"/> |

Rule 2



Rule 3



## Note:

- The schedule is based on the router's time. You can modify the time in **Advanced > Time Zone**.

# Guest Wi-Fi

This feature allows you to provide Wi-Fi to guests without exposing your main network. When you have visitors at your home, apartment, or workplace, you can create a guest Wi-Fi for them. Additionally, you can customize guest Wi-Fi settings to ensure security and privacy.

1. Navigate to **Advanced > Guest Wi-Fi**.
2. Click to enable **Guest Wi-Fi**.
3. Set the **SSID(Wi-Fi Name)**.
4. Set the encryption method in the **Guest Wi-Fi Mode**, you need create a password if choosing **Encryption Mode**; You do not need a password to access the network if choosing **Unencrypted mode**.
5. If enable the **Device Isolation**, the devices will not support mutual access.
6. Set the opening time of guest Wi-Fi in the **WIFI schedule**.

7. Click **Save** to complete the settings.

< Guest Wi-Fi

Guest Wi-Fi ☒

Guest Wi-Fi SSID WAVLINK\_Guest

Guest Wi-Fi Mode Unencrypted mode ▼

Device Isolation Turn On ▼

Wi-Fi Schedule

Rule 1 ☐

Rule 2 ☐

Rule 3 ☐

Save

## Parental Control

Parental Wi-Fi allows you to set up a separate wireless network for family members. You can configure its SSID, encryption method, and rules.

1. Navigate to **Advanced > Parental Control**.
2. Click to enable **Parental Control**.
3. Set the **SSID**, **Encryption Method**, and **Password**.
4. Set the **Internet Blocking Period** and **Internet Blocking Day** in **Rule 1/2/3** to control internet access time.
5. Click **Save** to complete the settings.

Parental Control



Wi-Fi

SSID

Parental-Wi-Fi

Encryption  
Method

WPA2-PSK(Recommend)

Password

Please enter your password



WIFI schedule

Rule 1



Rule 2



Rule 3



Save

## Signal Adjustment

In environments with different areas, the requirements for the signal transmission strength of routers also vary. Given that signal quality is ensured, larger areas and more obstacles necessitate higher signal strength. In smaller environments, relatively lower signal strength can be configured, which not only saves energy and reduces radiation but also decreases the risk of unauthorized access.

1. Click **Advanced>Signal Adjustment**.
2. Select the signal strength from the list of **Signal Adjustment**.

Signal  
Adjustment

High



Save



# Chapter 5 Network Security

## Security Settings

1. Navigate to **Advanced** > **Security Settings**.
2. **Block Ping**: It can prevent ping attacks and scanning and reduce the risk of network attacks on this device.
3. **Port Scan Blocking**: It can protect server ports on devices from attacks.
4. **Block DDoS Attacks**: It enables the router to avoid the massive resource consumption caused by DDoS attacks, and ensures normal services.
5. Click **Save** to finish the configuration.

[<](#) Security Settings [? Help](#)

Block Ping

☐

Block Port Scanning

☐

Block DDoS Attacks

☒

Save

# Chapter 6 Remote Control

## Remote Control

With this function, you can manage this router remotely via the Internet. Input **http://WAN IP: port number** for remotely accessing this device. We recommend you write this router's WAN port number down before using this function.

1. Access to **Advanced > Remote Control**.
2. Click to enable **Remote Control**.
3. Set **External Port**.
4. Click **Save** to complete settings.

[<](#) Remote Control [? Help](#)

Remote Control

☒

External Port

Save

# Chapter 7 Net Tools

## Network Diagnostics

The network diagnosis will check the status of the upstream network, router network status, and device's system status. The test results may be affected by the environment where the router is located and the upstream network, therefore the test results are for reference only.

1. Access to **Advanced** > **Network Diagnostics**.
2. Click **Start Testing**.

< Network Diagnostics

Help



If your device is unable to connect to the Internet or the network is unstable, we recommend that you perform a test

Start Testing

|                  |                                                                          |              |
|------------------|--------------------------------------------------------------------------|--------------|
| WAN Status       | Check WAN port status, IP acquisition, and port rate limit               | Not detected |
| Internet status  | Detect the connectivity status between devices and gateways and networks | Not detected |
| Wi-Fi status     | Detect Wi-Fi signal interference status                                  | Not detected |
| Memory detection | Check memory and CPU usage                                               | Not detected |

3. When the testing is done, click **One-click fix**, or follow the prompt to optimize the network.

## &lt; Network Diagnostics

Help



Detection completed. The results are as follows

One-click fix

## WAN Status

Check WAN port status, IP acquisition, and port rate limit



WAN Port and Network Cable Connection Status



WAN IP Address Status

Contact your carrier to troubleshoot or check if the network cable is connected correctly



WAN Port Network Link Speed

Link rate:1000M Full duplex

## Internet status

Detect the connectivity status between devices and gateways and networks



Ping Testing Status

Ping WAN gateway is incorrect, please contact the carrier to solve it



Network connection status

DNS resolution error, please contact the carrier to solve it



## Wi-Fi status

Detect Wi-Fi signal interference status



2.4G Wi-Fi Signal Status



5G Wi-Fi Signal Status

Wi-Fi signal interference is strong



## Memory detection

Check memory and CPU usage



# Chapter 8 System Setting

This chapter contains the following sections:

- [Firmware Upgrade](#)
- [Change Admin Password](#)
- [Set System Time](#)
- [LED Control](#)
- [Backup and Restore](#)

## Firmware Upgrade

Regular firmware upgrade can obtain the newest functions and security patches, improving the performance and stability of the router, and fixing possible bugs and security risks.

WAVLINK provides two methods to upgrade your firmware: **Local Upgrade** and **Online Upgrade**. You can choose one of them to update your firmware.

Access to **Advanced** > **Firmware Upgrade**.

### Local Upgrade

1. Access to WAVLINK official website: [www.wavlink.com](http://www.wavlink.com). Download the upgrade software corresponding to your current device version.
2. Select the device that needs to be updated.
3. Click on **Choose File** or **File** icon, and select the firmware file that needs to be uploaded. Click on **Upload**.
4. Wait for the upgrade process to complete.

### Local Upgrade

Manually download files on WAVLINK official website, and upload and upgrade locally. The following devices are of the same model.

| <input type="checkbox"/> | Mesh Node Name | Current SW Version |
|--------------------------|----------------|--------------------|
| <input type="checkbox"/> | Router         | M83AX3_V241109     |
| <input type="checkbox"/> | Extender_C1B2  | M83AX3_V241109     |
| <input type="checkbox"/> | Extender_0187  | M83AX3_V241109     |

Upgrade File

Choose File



Upload

Manually download files on WAVLINK official website, and upload and upgrade locally. The following devices are of the different model and need to be upgraded after clicking on the link.

| Mesh Node Name | Current SW Version | Upgrade Link |
|----------------|--------------------|--------------|
|----------------|--------------------|--------------|

## Online Upgrade

1. Tick the device that needs to be updated.
2. Click on **Check New Version** to view the upgradable version to update.
3. Click **One-Click Upgrade**.
4. Wait for the upgrade process to complete.

### Online Upgrade

In the case of connecting to the network, then check the device that needs to be upgraded, after checking the latest software version, click one-click upgrade to upgrade.

| <input type="checkbox"/> | Mesh Node Name | MAC Address      | Current SW Version | Latest Software Version | Status         |
|--------------------------|----------------|------------------|--------------------|-------------------------|----------------|
| <input type="checkbox"/> | Router         | 8*:**:**:*:E6:42 | M83AX3_V241109     | No New Version          | Non-Upgradable |
| <input type="checkbox"/> | Extender_C1B2  | 8*:**:**:*:C1:B2 | M83AX3_V241109     | No New Version          | Non-Upgradable |
| <input type="checkbox"/> | Extender_0187  | 8*:**:**:*:01:87 | M83AX3_V241109     | No New Version          | Non-Upgradable |

Check New Version

One-Click Upgrade

### Note:

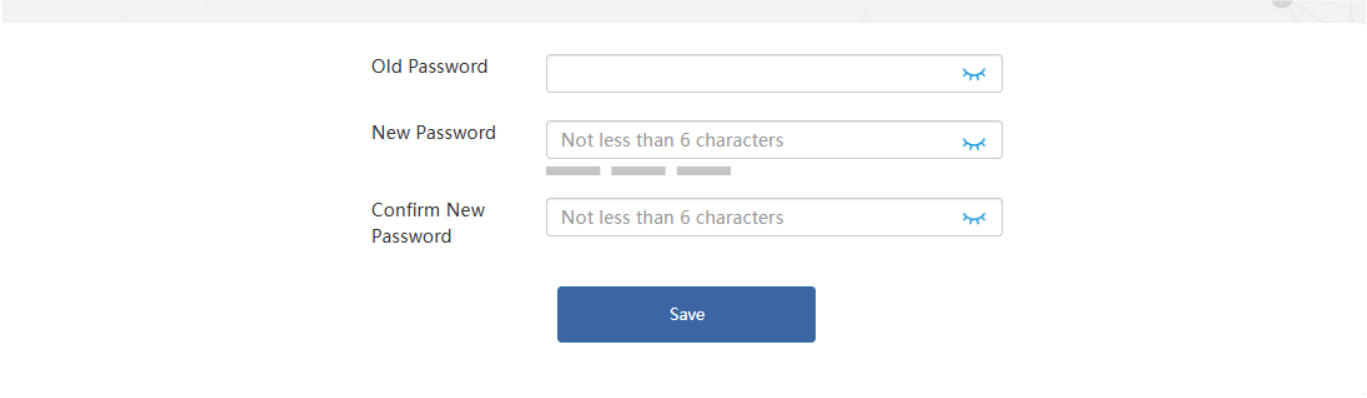
- After updating, the router will automatically reboot to apply new firmware. The process will take few minutes to complete, please wait patiently.

- During updating, the router can't be powered off in case the firmware gets damaged.

## Change Admin Password

1. Access to **Advanced** > **Admin Password**.
2. Input the current one on the **Old Password** text field.
3. Input the new one on the **New Password** and **Confirm New Password** text field, ensuring the inputted password is the same.
4. Click on **Save** to complete password changing.

< Admin Password



The screenshot shows a web interface for changing the admin password. It features three input fields: 'Old Password', 'New Password', and 'Confirm New Password'. Each field has a blue eye icon for toggling visibility. The 'New Password' and 'Confirm New Password' fields include a strength indicator bar and the text 'Not less than 6 characters'. A blue 'Save' button is positioned below the fields.

|                      |                                                     |
|----------------------|-----------------------------------------------------|
| Old Password         | <input type="password"/>                            |
| New Password         | <input type="password"/> Not less than 6 characters |
| Confirm New Password | <input type="password"/> Not less than 6 characters |

Save

## Set System Time

The system time is the time displayed during device runtime. The system time configured here will be used for other time-dependent functions, such as Wi-Fi schedules and timing reboot.

1. Access to **Advanced** > **Time Zone**.
2. Select the time zone from the dropdown list of **Time Zone**.
3. Enable **Daylight Time**(optional).
4. Click on **Save** to complete the configuration.

Current Time 2024/11/09 09:19:42

Time Zone (UTC-00:00) Dublin, Edinburgh, Lisbon, London ▼

Daylight Time ☐

Save

## LED Control

The router's LED provide real-time feedback on the device's operational status. By observing the light color, flashing patterns, or illumination status, you can quickly determine whether the router is functioning properly and help identify potential issues. If needed, you may also enable or disable the LED indicator in the settings.

1. Access to **Advanced** > **LED Control**.
2. Enable/Disable **LED Status**.
3. Click on **Save** to complete the configuration.

LED Status ☒

Save

## Backup and Restore

Access to **Advanced** > **Backup and Restore**.

### Backup the Current Configuration of the Router

The system will automatically create a backup file containing all current configuration settings. The configuration file will then be downloaded to your computer via your browser. Please confirm saving the file when prompted in the browser dialog.

## Restore the Router's Configuration

If you accidentally forget previous settings after modifying certain configuration options, you may upload a previously saved backup file to the system and click **Restore Configuration** to revert to earlier settings. Please note that this operation will overwrite all current configuration settings, so carefully consider before proceeding.

1. Click the file icon in the backup file field, then select the configuration file you wish to restore.
2. Click on **Restore Configuration**, and wait a few minutes to restore the configuration and restart the router.

## Reset Router to Default Factory Settings

1. Click on **Restore factory settings** to reset the router.
2. Wait a few minutes for the reset and reboot.

[<](#) Backup and Restore [? Help](#)

Generate Backup File

Upload File

Please select a backup file

Restore Configuration

Restore factory settings

## Timing Reboot

Automatic reboots can help clear unnecessary data from your router and automatically select optimal wireless channels. Before enabling **Reboot plan**, ensure the system time is accurate. When router uptime is less than 60 minutes, the device will skip non-essential reboots after reaching the scheduled reboot time.

1. Access to **Advanced > Timing Reboot**.
2. Click to enable **Reboot plan**.

3. Configure **Reboot time** and **Reboot date**.
4. Click **Save** to complete the configurations.

< Timing Reboot

? Help

Reboot plan



Current Time 2024/11/09 09:19:42

Reboot time

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Reboot date

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Save

# Chapter 9 FAQ

This chapter contains the following sections :

- [FAQ](#)
- [GNU General Public License Notice](#)
- [After-sale Service](#)

## FAQ

### Q1. What should I do if I cannot access the management page?

- **Connect Correctly:** Ensure your device is connected to the Wavlink Wi-Fi signal.
- **Login URL:** Enter <http://waplogin.link> or <http://192.168.30.1> in the address bar not search bar.
- **On Mobile:** Turn off your mobile data (4G/5G) before logging in.
- **On PC:** If connecting via Wi-Fi, unplug the Ethernet cable.
- **Troubleshoot:** Try a different browser or device (PC/Phone) to log in the management page.

### Q2. What should I do if I have no Internet access after configuration?

- **Range Extender Mode:**
  1. Verify you entered the correct Wi-Fi password for the host router.
  2. Ensure the host router has enabled DHCP and disabled MAC Filtering.
- **AP Mode:**
  1. Check the Ethernet cable connection. Connect the PC to the host router via Ethernet cable to check if you can get Internet access.
  2. Ensure the host router has DHCP enabled and MAC Filtering disabled.

### Q3. Why does Wi-Fi not reach the advertised distance?

- **Line of Sight:** The advertised range (approx. 500m for 5G, 100m for 2.4G) requires no obstacles between the device and the target area.
- **Environment:** Walls, trees, and interference will significantly reduce the actual range.

### Q4. Are the power adapter and PoE box waterproof?

- No. Please keep the power adapter and PoE injector indoors or in a waterproof enclosure.

**Q5. Is the Ground Wire necessary?**

- Yes. You must install the ground wire to prevent damage from lightning strikes and static electricity.

**Q6. Can this device form a Mesh network with other brands?**

- No. It only supports Mesh pairing with specific Wavlink devices featuring "Everything Mesh" technology.

**Q7. Does this device work with a Starlink router?**

- Yes. Repeater Mode: Connects wirelessly to the Starlink Wi-Fi. Router/AP Mode: Connects to the Starlink router via Ethernet cable.

## **GNU General Public License Notice**

This product includes software codes developed by the third parties. These software codes are subject to either the GNU General Public Licence(GPL), Version 2, June 1991 or the GNU Lesser General Public License(LGPL), Version 2.1, February 1999. You can copy, distribute, and/or modify in accordance with the terms and conditions of GPL or LGPL. The source code should be complete, if you want us to provide any additional source code files under GNU General Public License (GPL), please contact us in these matters. We are committed to meeting the requirements of the GNU General Public License (GPL). You are welcome to contact our local office to get the corresponding software and licenses. Please inform us your contact details (full address) and the product code. We will send you a software package with the software and license for free. The respective programs are distributed WITHOUT ANY WARRANTY, without even the implied warranty of MERCHANTABILITY Or FITNESS FOR A PARTICULAR PURPOSE. Please refer to the GNU General Public License Website for further information. <http://www.gnu.org/licenses/old-licenses/lgpl-2.0.html> <http://www.gnu.org/licenses/gpl.html>

## **After-sale Service**

# Need help?

We're here for you!



**Online support: [wavlink.com](https://www.wavlink.com)**

Available Mon-Fri 8:30 am-5:30pm (UTC+8)



**[support@wavlink.com](mailto:support@wavlink.com)**

Available Mon-Fri 8:30 am-5:30pm (UTC+8)



**+1 8889730883**

Mon-Fri 9:00 am - 6:00 pm (UTC-5)

**[www.wavlink.com](https://www.wavlink.com)**



**Thank you for purchasing  
WAVLINK product!**

# Chapter 10

## Safety and Emission Statement

### 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.

### NOTE:

(1)The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2)To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable.

**Declaration of Conformity** Hereby, Winstars Technology Limited, declares that the radio equipment type AERIAL HD9S is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following Internet address:[https://www.wavlink.com/en\\_us/ce.html](https://www.wavlink.com/en_us/ce.html)

**FCC Statement** 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.

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 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.

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

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment.

#### Radiation Exposure Statement

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with Part 15 of the FCC RF Rules.

This equipment 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.

**NOTE:** (1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable.

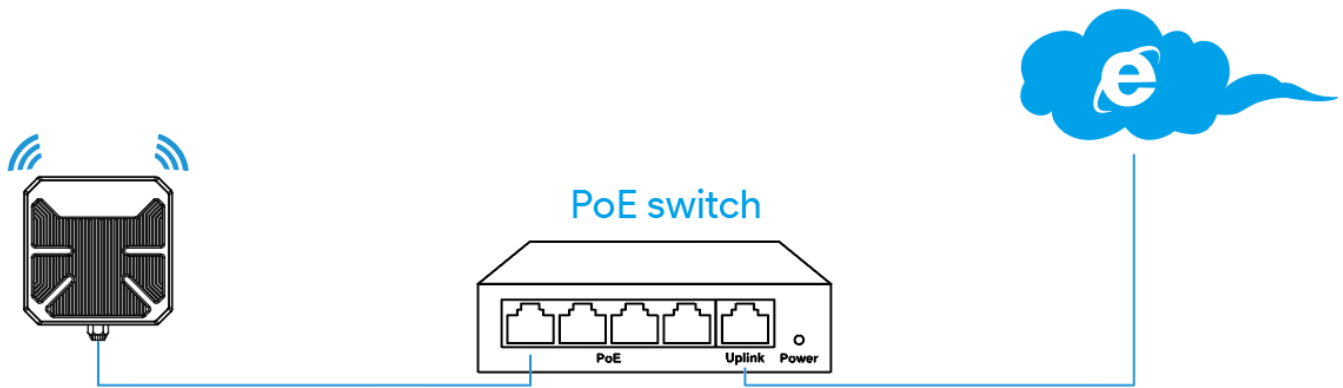
# Chapter 11 FAT AP and FIT AP

This chapter contains the following sections :

- [FAT AP and FIT AP](#)

## FAT AP and FIT AP

This product supports FAT AP and FIT AP mode. In **FAT mode**, the AP operates with its own management interface and can be configured independently, similar to a standard wireless access point; this mode is primarily employed in small-scale networks that do not use an AC controller.



In **FIT mode**, the AP is centrally managed by a WAVLINK AC(Wireless Access Point Controller). As a Fit AP, it primarily handles data transmission and basic radio frequency, while all network configurations, security policies, and traffic controls are managed by the AC. Fit APs are used in an AC+AP architecture and must operate in conjunction with a WAVLINK AC. FIT mode is ideal for larger networks characterized by extensive coverage, a high density of users, and requirements for high-performance and secure operations.

