WAVLINK WN570HA2

WAVLINK AX3000 Mesh Outdoor PoE WiFi 6 Access Point User Manual

Model: WN570HA2

Introduction Safety Package Contents Product Overview Setup Operating Modes Maintenance Troubleshooting Specifications Warranty & Support

1. Introduction

The WAVLINK AX3000 Mesh Outdoor PoE WiFi 6 Access Point (Model WN570HA2) is a high-performance wireless solution designed to extend network coverage in outdoor environments. This device leverages WiFi 6 (802.11ax) technology to deliver fast and stable internet connectivity, making it ideal for large outdoor areas such as yards, parks, outdoor cafes, swimming pools, and parking lots.
Key features include:

- **Robust Outdoor Design:** IP67-rated waterproof casing ensures continuous operation in harsh outdoor conditions, including extreme cold, heat, and humidity. It also features 15KV ESD and 6KV lightning protection.
- **True WiFi 6 Speed:** Compliant with IEEE 802.11ax standards, offering dual-band speeds up to 2402Mbps on 5GHz and 573Mbps on 2.4GHz, minimizing interference and congestion.
- **Seamless WiFi Roaming:** Equipped with 6x7dBi omnidirectional antennas and high-power amplifiers for extensive coverage and penetration. Supports Mesh technology for expanded, seamless WiFi coverage.
- **Multiple Operating Modes:** Supports Mesh, AP, Router, Repeater, and AP+Repeater modes to suit various outdoor connection scenarios.
- **Flexible PoE Installation:** Supports 802.3af/802.3at/48V Power over Ethernet (PoE) with an included adapter, allowing flexible deployment without direct power outlets.



Image: The WAVLINK AX3000 Mesh Outdoor PoE WiFi 6 Access Point with its six omnidirectional antennas, illustrating its design for broad coverage.

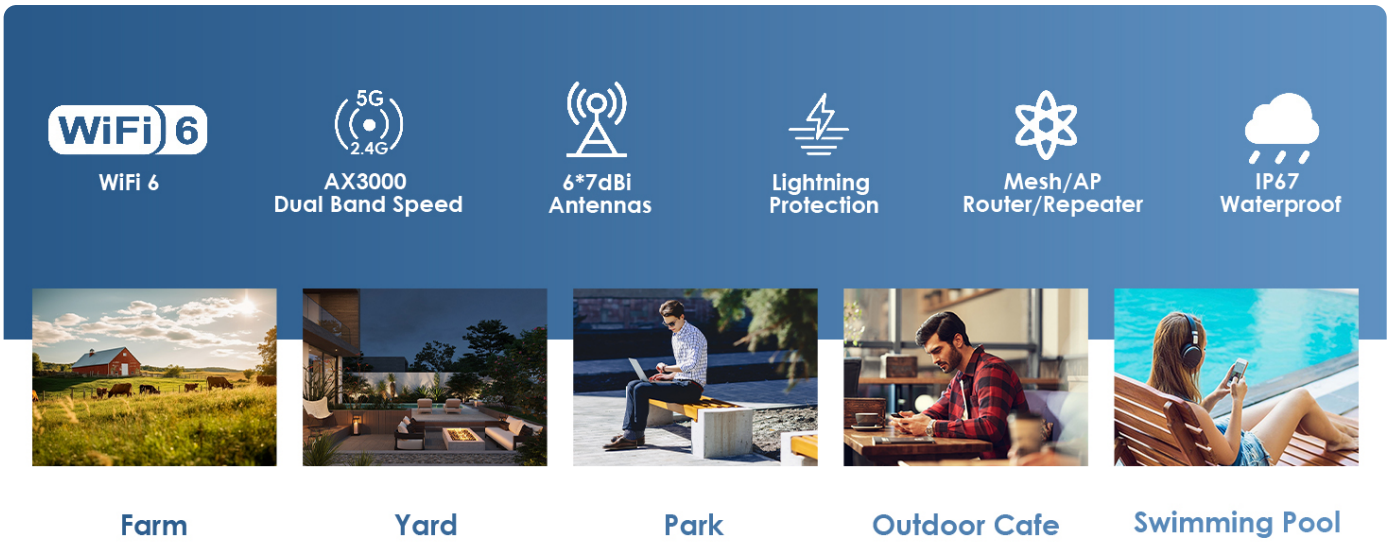

Image: An overview highlighting the key features of the WAVLINK AX3000, such as WiFi 6, AX3000 dual-band speed, 6x7dBi antennas, lightning protection, various operating modes, and IP67 waterproof rating, alongside examples of outdoor usage.

2. Safety Information

Please read and follow these safety guidelines to prevent damage to the device or injury to yourself.

- **Installation:** Ensure the device is installed securely according to the mounting instructions. Avoid installing during thunderstorms.
- **Power:** Use only the provided PoE adapter. Do not use damaged cables or power adapters.
- **Environment:** While designed for outdoor use, avoid submerging the device in water. The PoE part of the router is not waterproof.
- **Maintenance:** Do not attempt to open or repair the device yourself. Refer all servicing to qualified personnel.
- **Lightning Protection:** The device includes lightning protection, but additional external surge protection is recommended in areas prone to severe electrical storms.



Image: The WAVLINK AX3000 Access Point installed outdoors in a snowy, cold environment, demonstrating its resilience to harsh weather conditions.



Image: A visual representation of the device's outdoor capabilities, highlighting its operational temperature range (-10°C to 70°C), 15KV ESD & 6KV lightning protection, IP67-rated waterproof enclosure, and dust-proof design.

3. Package Contents

Verify that all items are present in your package:

- WAVLINK AX3000 Outdoor Access Point (WN570HA2)
- 6x Detachable Omnidirectional Antennas
- PoE Adapter (Power over Ethernet Injector)
- Ethernet Cable
- Mounting Kit (Pole straps, screws, wall plugs)
- Quick Start Guide
- Wrench



Image: A complete view of the WAVLINK AX3000 product package contents, showing the main unit, six antennas, PoE adapter, Ethernet cable, mounting accessories, and documentation.

4. Product Overview

Familiarize yourself with the physical components of your WAVLINK AX3000 Access Point.



Image: A detailed view of the WAVLINK AX3000 Access Point's bottom panel, highlighting the Gigabit WAN/LAN PoE Port (1) and the Reset/Pair Button (2).

4.1 Interfaces and Buttons

- **Gigabit WAN/LAN PoE Port:** This port is used for both data connection and power supply via the PoE adapter.
- **Reset/Pair Button:** Used to reset the device to factory defaults or initiate WPS pairing (functionality may vary by firmware).
- **Antenna Connectors:** Six connectors for attaching the external omnidirectional antennas.

5. Setup

5.1 Physical Installation

The WAVLINK AX3000 can be mounted on a pole or a wall. Choose a location that provides optimal signal coverage and is within reach of your network infrastructure.

1. **Attach Antennas:** Carefully screw all six antennas onto their respective connectors on the device.
2. **Mounting:**
    - **Pole-Mounting:** Use the provided pole straps to secure the device to a pole. Ensure it is tightly fastened to prevent movement.
    - **Wall-Mounting:** Use the included screws and wall plugs to mount the device securely to a wall.
3. **Cable Routing:** Route the Ethernet cable from the device's PoE port to the PoE adapter, and then from the PoE adapter to your router or network switch.



Image: Illustrations demonstrating the two primary physical installation methods: pole-mounting and wall-mounting, for flexible outdoor deployment.

5.2 Powering On with PoE

The device is powered using Power over Ethernet (PoE). This allows both power and data to be transmitted over a single Ethernet cable.

1. Connect one end of an Ethernet cable to the Gigabit WAN/LAN PoE Port on the WAVLINK AX3000.
2. Connect the other end of this Ethernet cable to the 'PoE' port on the included PoE adapter.
3. Connect another Ethernet cable from the 'LAN' port on the PoE adapter to an available LAN port on your existing router or network switch.
4. Plug the power cord of the PoE adapter into an electrical outlet. The device will power on automatically.

5.3 Initial Configuration

After powering on, you will need to configure the device via its web interface.

1. Connect your computer to the same network as the WAVLINK AX3000 (either via Ethernet to your router or by connecting to the device's default WiFi network, if broadcasted).
2. Open a web browser and enter the default IP address (usually192.168.10.1 or check the Quick Start Guide for the exact address).
3. Enter the default username and password (typicallyadmin for both, or as specified in the guide).
4. Follow the on-screen wizard to set up your desired operating mode (AP, Repeater, Mesh, etc.), configure WiFi names (SSIDs), and set strong passwords.

6. Operating Modes

The WAVLINK AX3000 supports several operating modes to meet various networking needs.

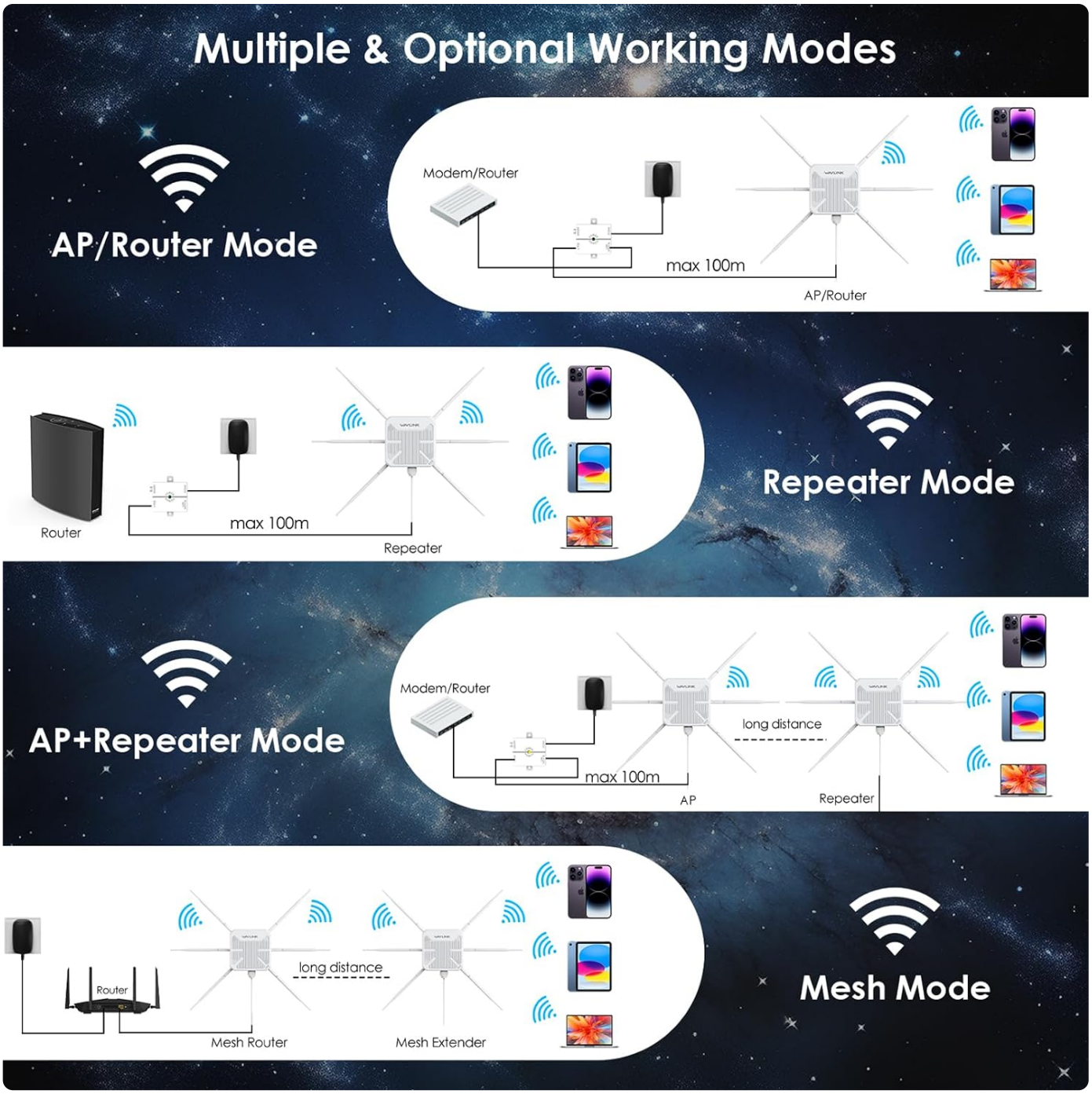

Image: A comprehensive diagram showcasing the various operating modes supported by the WAVLINK AX3000, including AP/Router, Repeater, AP+Repeater, and Mesh modes, with their respective connection setups.

6.1 AP/Router Mode

In AP (Access Point) mode, the device connects to a wired network and broadcasts a wireless signal, allowing wireless devices to connect. In Router mode, it can manage a network, assign IP addresses, and provide internet access.

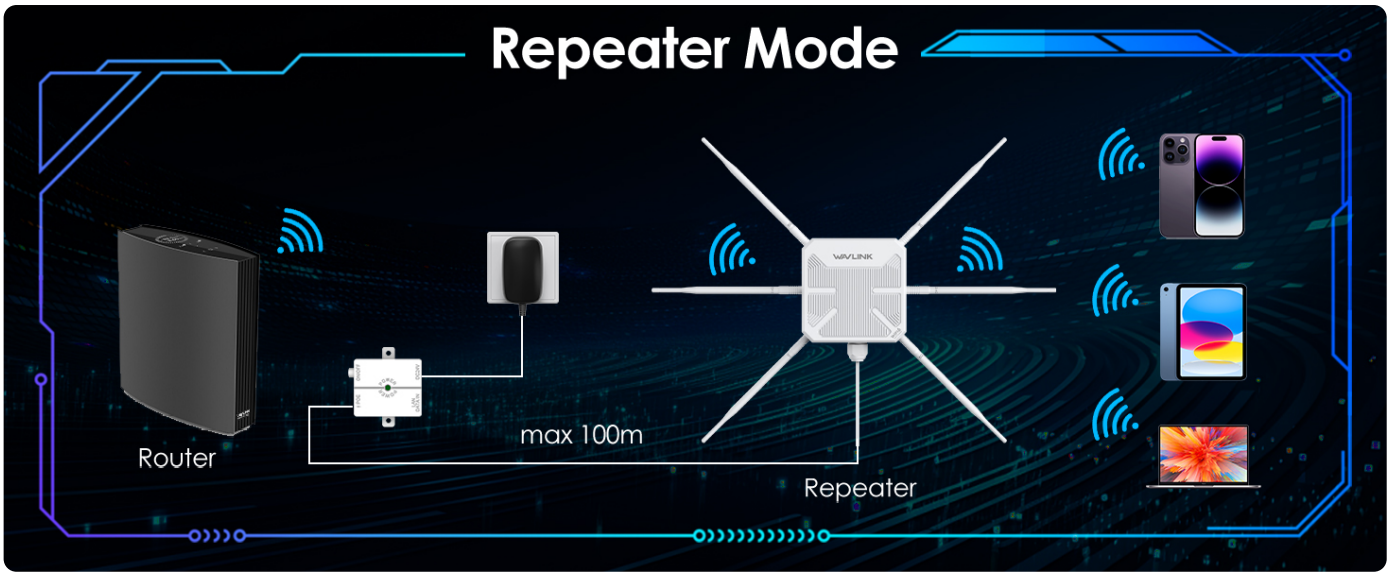

Image: A diagram illustrating the setup for AP/Router Mode, where the WAVLINK device connects to a modem/router via a PoE adapter and provides wireless access to multiple client devices.

6.2 Repeater Mode

Repeater mode extends the range of an existing wireless network by receiving the signal and re-transmitting it. This is useful for eliminating Wi-Fi dead zones.

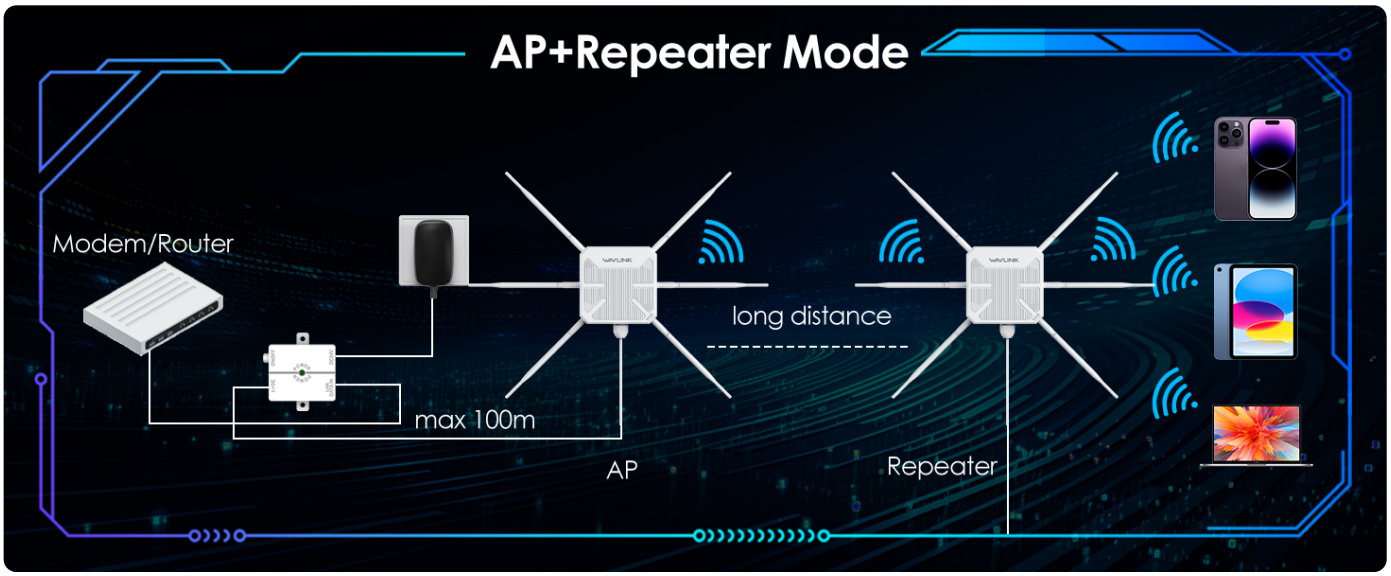

Image: A diagram illustrating the setup for Repeater Mode, showing the WAVLINK device wirelessly extending the signal from an existing router to client devices.

6.3 AP+Repeater Mode

This mode combines the functionalities, allowing the device to act as an Access Point while also repeating an existing signal.

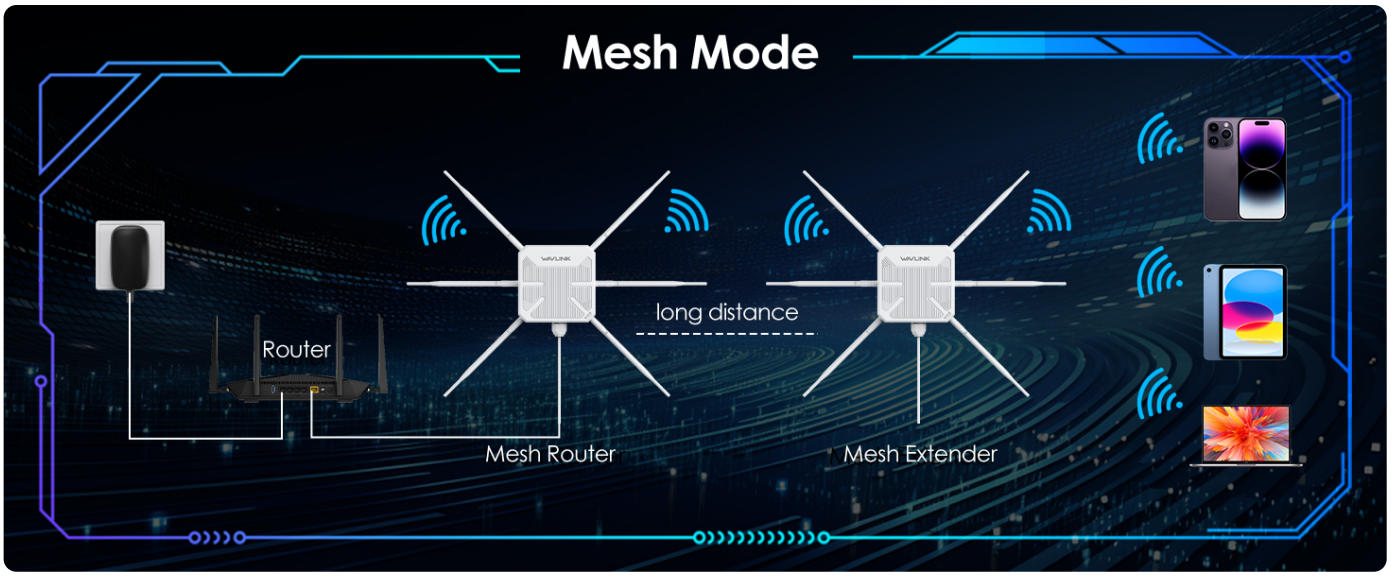

Image: A diagram illustrating the setup for AP+Repeater Mode, where one WAVLINK device acts as an AP connected to a modem/router, and another WAVLINK device acts as a repeater to extend the signal further.

6.4 Mesh Mode

Mesh mode creates a unified network with multiple access points, providing seamless roaming and extended coverage under a single network name (SSID).

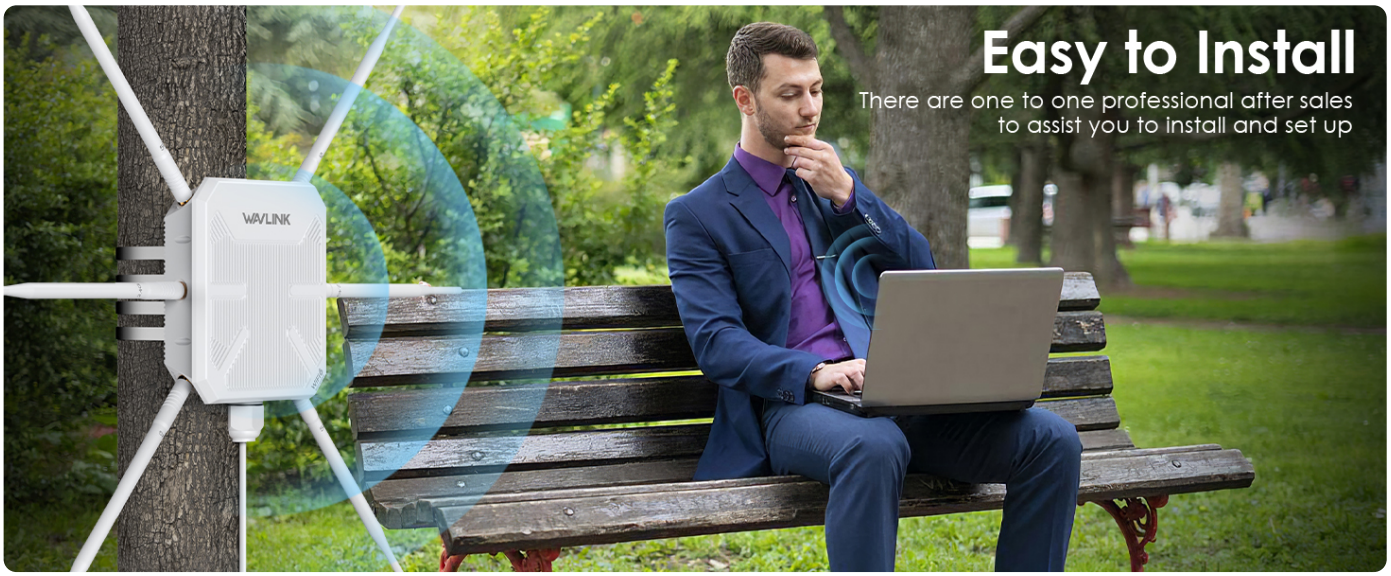

Image: A diagram illustrating the setup for Mesh Mode, showing a Mesh Router and a Mesh Extender (WAVLINK devices) working together to create a unified, extended wireless network.

7. Maintenance

To ensure optimal performance and longevity of your WAVLINK AX3000, consider the following maintenance tips:

- **Cleaning:** Periodically wipe the device's exterior with a soft, dry cloth. Do not use liquid cleaners or aerosols.
- **Firmware Updates:** Check the WAVLINK official website regularly for firmware updates. Updating firmware can improve performance, add new features, and fix bugs.
- **Environmental Checks:** Ensure that the mounting remains secure and that cables are not damaged or exposed to unnecessary stress.

8. Troubleshooting

If you encounter issues with your WAVLINK AX3000, try the following troubleshooting steps:

- **No Power:** Ensure the PoE adapter is correctly connected to the device and a working power outlet. Check all Ethernet cable connections.
- **No Internet Access:** Verify that your main router has internet access. Check the connection between the PoE adapter's LAN port and your router. Ensure the WAVLINK device is configured correctly for its operating mode.
- **Weak Signal/Poor Performance:** Reposition the device for better line-of-sight to client devices or the main router. Check for physical obstructions. Ensure antennas are securely attached. Consider adjusting channel settings in the web interface to avoid interference.
- **Cannot Access Web Interface:** Ensure your computer is connected to the correct network. Verify the device's IP address and your computer's IP settings. Try clearing your browser's cache or using a different browser.
- **Forgot Password:** Use the Reset/Pair button to restore the device to factory default settings. This will erase all custom configurations, and you will need to set up the device again.

9. Specifications

Feature	Detail
Brand	WAVLINK
Model	WN570HA2
Wireless Standard	IEEE 802.11ax (WiFi 6), 802.11ac/a/b/g/n
Data Transfer Rate	Up to 3000 Mbps (2402 Mbps on 5GHz, 573 Mbps on 2.4GHz)
Frequency Bands	2.4 GHz, 5 GHz
Antennas	6x7dBi Omnidirectional Antennas
PoE Support	802.3af/802.3at/48V PoE (Active & Passive Mode)
Waterproof Rating	IP67 (main unit), PoE part is not waterproof
Protection	15KV ESD, 6KV Lightning Protection
Operating Temperature	-10°C to 70°C (14°F to 158°F)
Compatible Devices	PC, Laptop, Smartphone, Tablet, Smart TV, Game Console
Dimensions (Package)	34.8 x 26.4 x 7.7 cm
Weight (Product)	1.35 kg



Image: A graphic detailing the AX3000 Dual Band Wi-Fi 6 capabilities, including Beamforming, MU-MIMO, and specific speeds for 5GHz (2402 Mbps) and 2.4GHz (573 Mbps).

10. Warranty and Support

WAVLINK products are designed for reliability and performance. For warranty information and technical support, please refer to the following resources:

- **Warranty:** Your product is covered by a manufacturer's warranty. Please refer to the warranty card included in your package or visit the official WAVLINK website for detailed terms and conditions.
- **Technical Support:** For technical assistance, troubleshooting guides, and firmware downloads, visit the official WAVLINK support website. You can typically find contact information for customer service there.
- **Online Resources:** Explore the **WAVLINK Brand Store on Amazon** for additional product information and related accessories.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question