WAVLINK WN570HA1

WAVLINK AC600 Outdoor Weatherproof Wi-Fi Range Extender User Manual

Model: WN570HA1

1. Introduction

This manual provides comprehensive instructions for the installation, configuration, and operation of your WAVLINK AC600 Outdoor Weatherproof Wi-Fi Range Extender. This device is designed to extend your wireless network coverage in outdoor environments, offering reliable dual-band Wi-Fi connectivity.

2. Product Overview

2.1 Key Features

- **Weatherproof Design:** IP65-rated housing for outdoor use, resistant to extreme temperatures (-30°C to 70°C), humidity, ESD, and lightning.
- **Dual-Band Wi-Fi:** Supports 802.11AC with 2.4GHz (up to 150Mbps) and 5GHz (up to 433Mbps) for extended range.
- **Multiple Operation Modes:** Functions as a Wireless Repeater, Router, Access Point (AP), or WISP.
- **Power over Ethernet (PoE):** Integrated PoE support for flexible installation in locations without direct power outlets.
- **High Power Amplifiers:** PA+LNA 600mW amplifiers enhance transmission power and receiver sensitivity for stronger penetration and longer range.
- **Detachable Omni-Directional Antennas:** Two 7dBi RP-SMA antennas for improved Wi-Fi signal strength and coverage.

2.2 Package Contents

Verify that all items are present in your package:

- WAVLINK AC600 Outdoor Wi-Fi Range Extender (WN570HA1)
- Two 7dBi Omni-Directional Antennas

- PoE Power Adapter
- RJ-45 Ethernet Cable
- Mounting Straps/Accessories
- Instruction Manual (this document)

Figure 2.2.1: Contents of the WAVLINK AC600 Outdoor Wi-Fi Range Extender package.

3. Hardware Installation

3.1 Physical Installation

The WAVLINK AC600 is designed for flexible outdoor installation. Ensure the device is mounted in a location that provides optimal signal coverage and is protected from direct physical impact.

1. **Attach Antennas:** Carefully screw the two detachable omni-directional antennas onto the RP-SMA connectors on the top of the device.
2. **Mounting:** Use the provided mounting straps to secure the device to a pole or wall. Ensure it is firmly attached.
3. **Cable Routing:** Route the RJ45 Ethernet cable through the bottom spiral cover, rubber seal, and upper spiral cover before connecting it to the device's WAN/LAN port. This ensures weatherproofing.

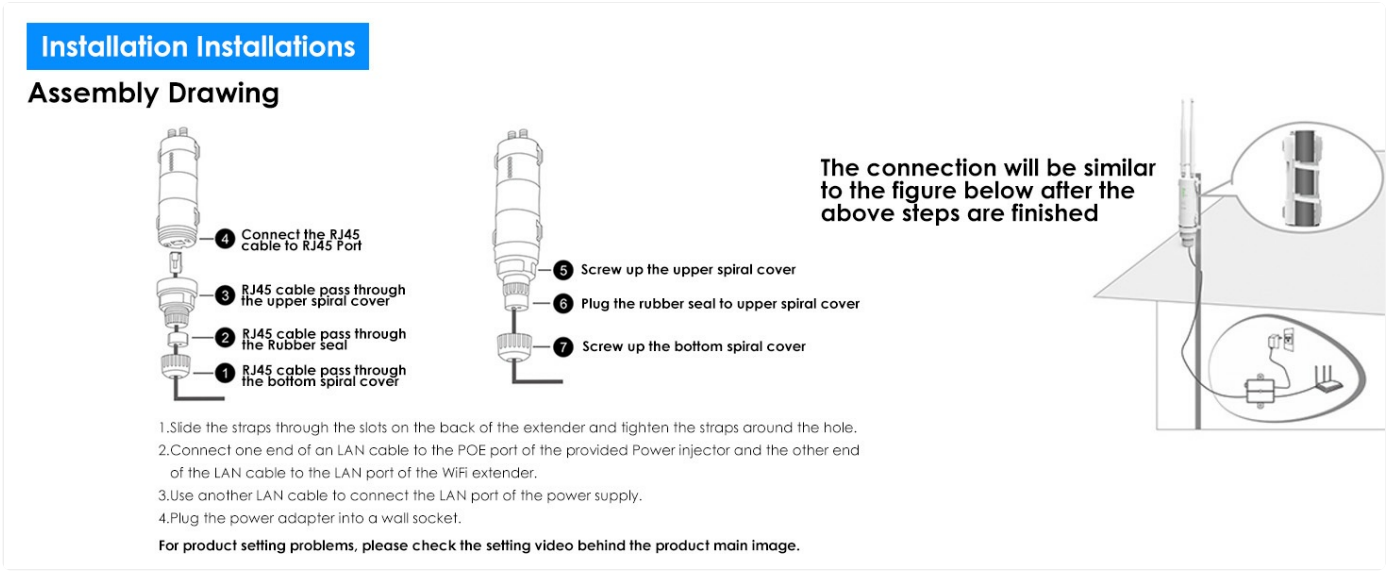

Figure 3.1.1: Assembly diagram for securing the Ethernet cable and covers.

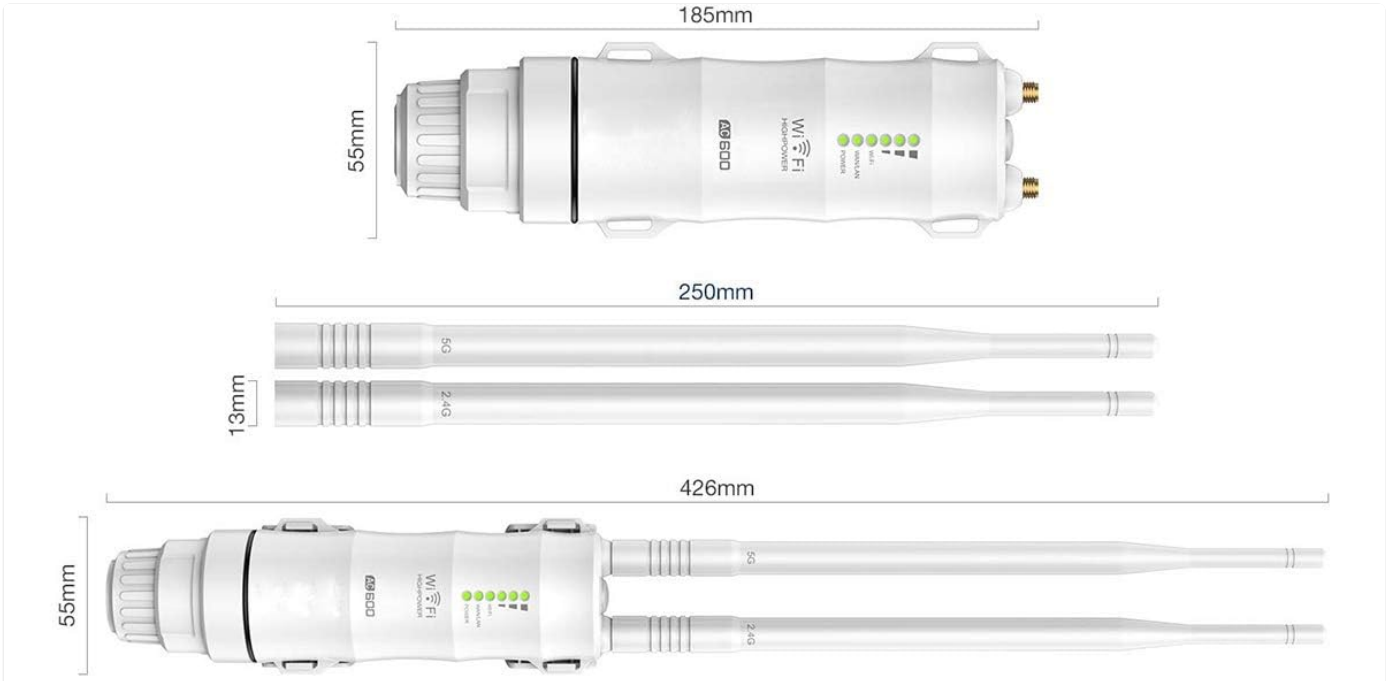

Figure 3.1.2: Examples of flexible installation on a pole, brick wall, or metal post.

3.2 Power over Ethernet (PoE) Connection

The device utilizes Power over Ethernet (PoE) for both power supply and data transmission, simplifying installation.

1. Connect one end of the RJ-45 Ethernet cable from the device's WAN/LAN port to the "PoE" port on the provided PoE adapter.
2. Connect another RJ-45 Ethernet cable from the "LAN" port on the PoE adapter to your router or network switch.
3. Plug the power adapter into a standard wall socket. The device will power on automatically.

Figure 3.2.1: Diagram illustrating the Power over Ethernet connection setup.

4. Initial Setup and Configuration

Follow these steps to configure your WAVLINK AC600 via a web browser.

4.1 Connecting to the Device

1. Ensure the device is powered on and connected to your network via the PoE adapter.
2. On a computer or mobile device, connect to the default Wi-Fi network broadcast by the WAVLINK AC600. The SSID will typically be "Wireless-N" or "Wireless-AC".
3. Open a web browser (e.g., Chrome, Safari, Firefox) and enter **http://ap.setup** or **192.168.10.1** into the address bar.
4. Enter the default password, which is typically **admin**.

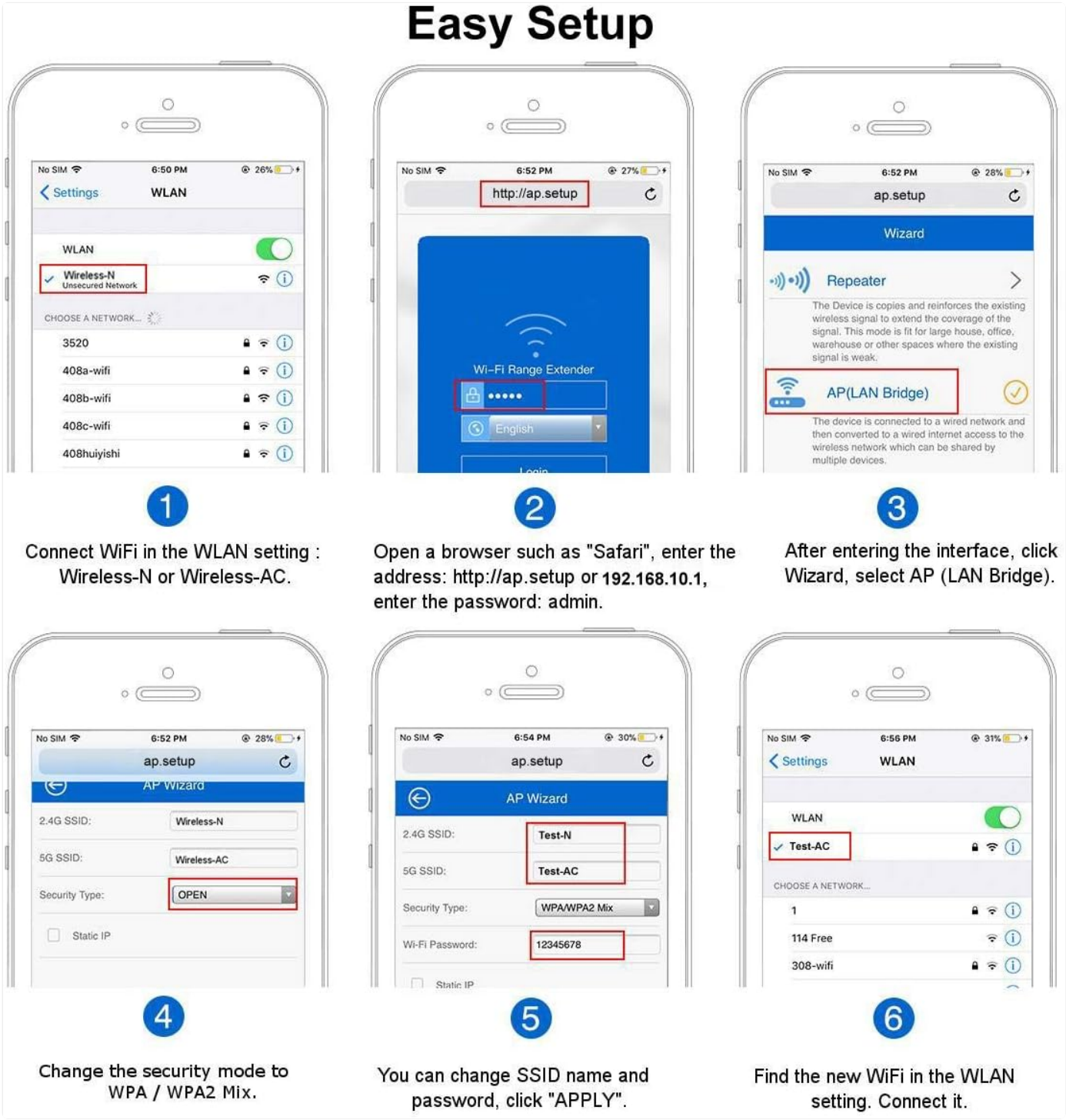

Figure 4.1.1: Screenshots illustrating the initial connection and web interface access.

4.2 Configuration Wizard

Upon successful login, you will be guided through a setup wizard to configure the device's operating mode and network settings.

1. Select your desired operating mode (Repeater, AP, Router, or WISP). Refer to Section 5 for details on each mode.
2. Follow the on-screen prompts to configure network settings specific to your chosen mode, such as selecting the

upstream Wi-Fi network (for Repeater/WISP) or setting up a new SSID and password.

3. Ensure you set a strong, unique password for your new Wi-Fi network and for accessing the device's administration interface.
4. Apply the settings and allow the device to reboot.
5. Reconnect to the newly configured Wi-Fi network.

5. Operating Modes

The WAVLINK AC600 supports multiple operating modes to suit various network requirements.

5.1 Repeater Mode

In Repeater mode, the device extends the coverage of an existing wireless network. It connects wirelessly to your main router and re-broadcasts the signal, effectively eliminating Wi-Fi dead zones.

5.2 Access Point (AP) Mode

In AP mode, the device connects to a wired network (via Ethernet) and transforms it into a wireless access point. This is ideal for adding Wi-Fi capability to a wired-only network or expanding an existing wired network with wireless access.

5.3 Router Mode

In Router mode, the device acts as a primary router, connecting to an internet source (e.g., a modem) and creating a new private wireless network. It provides NAT functionality and manages IP addresses for connected devices.

5.4 WISP Mode

WISP (Wireless Internet Service Provider) mode allows the device to connect wirelessly to an ISP's access point and share that internet connection with multiple clients, acting as both a wireless client and a router.

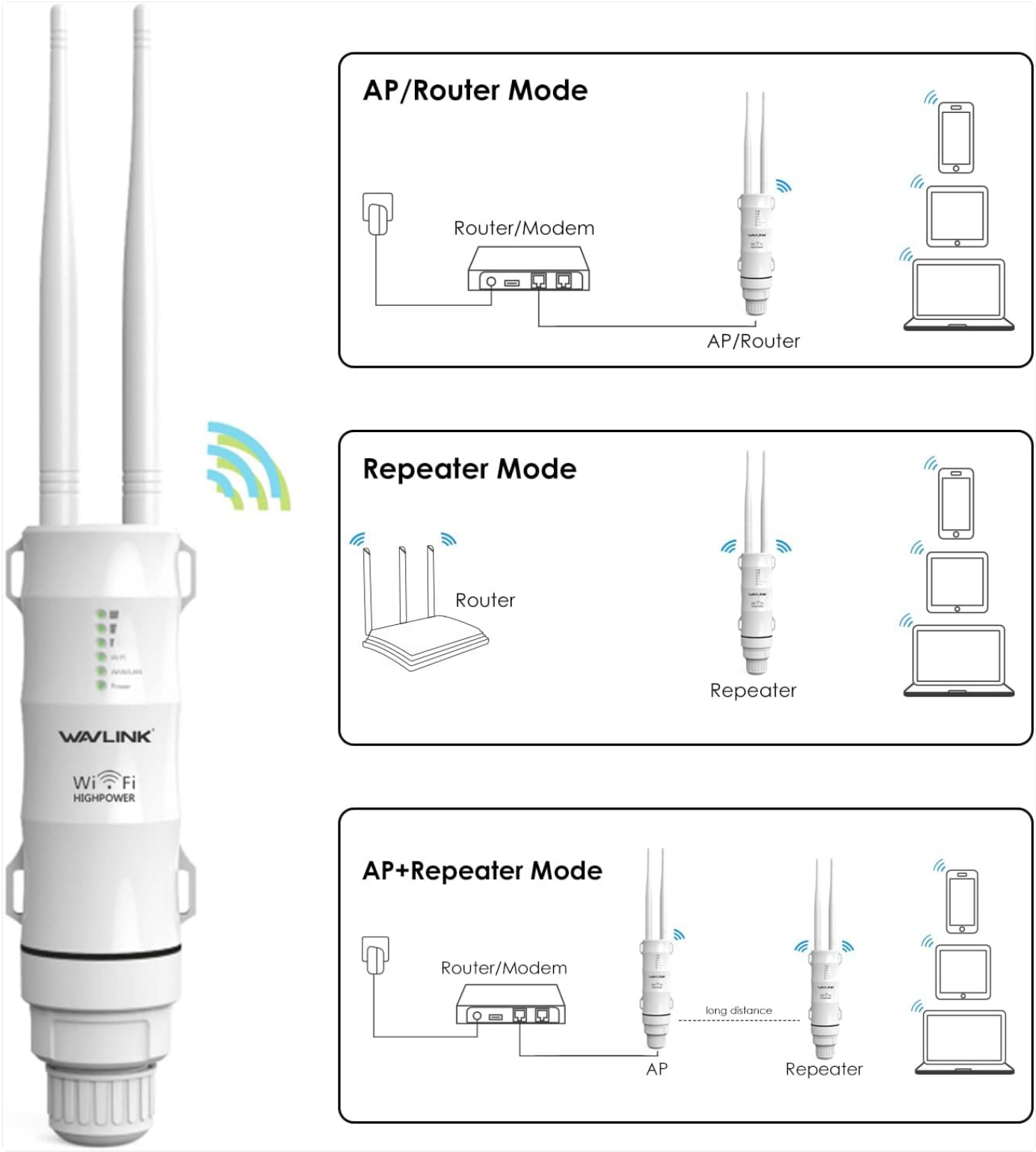

Figure 5.0.1: Diagrams illustrating the AP/Router, Repeater, and AP+Repeater (WISP) operating modes.

6. Maintenance

- **Cleaning:** Periodically clean the exterior of the device with a soft, dry cloth. Do not use liquid cleaners or aerosols.
- **Firmware Updates:** Check the WAVLINK official website for the latest firmware updates. Keeping your device's firmware up-to-date ensures optimal performance and security.
- **Resetting:** If the device malfunctions or you forget the login credentials, you can perform a factory reset by pressing and holding the reset button (usually located near the Ethernet port) for approximately 10 seconds while the device is powered on. This will restore all settings to their factory defaults.

7. Troubleshooting

- **No Power:** Ensure the PoE adapter is correctly connected and plugged into a working power outlet. Check the power LED on the device.
- **Cannot Access Web Interface:**
  - Verify your computer/device is connected to the WAVLINK's Wi-Fi network or directly via Ethernet.
  - Confirm you are using the correct IP address (192.168.10.1) or URL (http://ap.setup).
  - Try clearing your browser's cache or using a different browser.
  - Perform a factory reset if you suspect incorrect network settings or forgotten password.
- **Weak Signal or Limited Range:**
  - Adjust the position and orientation of the device and its antennas for optimal signal reception.
  - Ensure there are no major obstructions (e.g., thick walls, metal structures) between the extender and your main router or client devices.
  - In Repeater mode, ensure the extender is placed within good range of the main router's signal.
- **Intermittent Connectivity:**
  - Check for sources of interference (e.g., microwaves, cordless phones, other Wi-Fi networks).
  - Ensure the firmware is up-to-date.
  - Try changing the Wi-Fi channel on your main router or the extender to avoid congestion.

8. Specifications

Feature	Detail
Model Number	WN570HA1
Product Dimensions	2.36 x 4.8 x 11.34 inches
Item Weight	1.06 pounds
Wi-Fi Standard	802.11ac/a/b/g/n
Frequency Bands	2.4GHz and 5GHz (Dual Band)
Data Rates	2.4GHz: Up to 150Mbps, 5GHz: Up to 433Mbps
Antennas	2 x 7dBi Detachable Omni-Directional
Ports	1 x 10/100Mbps WAN/LAN Port
Power Supply	PoE (Power over Ethernet)
Weatherproof Rating	IP65
Operating Temperature	-30°C to 70°C (-22°F to 158°F)
Protection	15KV ESD, 4KV Lightning Protection

9. Warranty and Support

WAVLINK is committed to providing quality products and excellent customer service. For warranty information, technical support, or further assistance, please refer to the official WAVLINK website or contact their customer support team.

- **WAVLINK Official Website:** Visit www.wavlink.com for product information, drivers, firmware, and FAQs.
- **Customer Support:** Contact information for support may be found on the official website or within your product packaging.