WAVLINK WN588HA2

WAVLINK AC1200 Outdoor WiFi Extender Wireless Access Point

Model: WN588HA2

INTRODUCTION

This manual provides detailed instructions for the installation, configuration, and operation of your WAVLINK AC1200 Outdoor WiFi Extender Wireless Access Point. This device is designed to extend your wireless network coverage over long distances, offering stable and high-speed internet access in outdoor environments.

WHAT'S IN THE BOX

- 1 x AC1200 Outdoor Mesh Router/Extender/AP/Repeater
- 4 x Omni Antennas
- 1 x Power Adapter
- 1 x Ethernet Cable
- 1 x PoE Converter

Image: The WAVLINK AC1200 unit with its four detachable antennas, a power adapter, an Ethernet cable, and a PoE converter, all neatly arranged in its packaging.

KEY FEATURES

- **Wi-Fi 5 Dual Band AC1200:** Offers data transfer speeds of 2.4GHz@300Mbps and 5GHz@867Mbps, compliant with IEEE 802.11ac/a/n/g/b standards. Features MU-MIMO and Beamforming for stable, wider coverage.
- **Extended Coverage:** Equipped with 4 x 7dBi Omni detachable antennas and a high-power amplifier (PA+LNA) to extend Wi-Fi range up to 300 meters for 5GHz and 100 meters for 2.4GHz networks in optimal conditions.
- **Professional Outdoor Design:** IP67 weatherproof casing with grounding terminal, 15KV ESD protection, and 6KV lightning protection. Operates in temperatures from -20°C to 50°C.
- **Flexible Operating Modes:** Supports AP, Repeater, Router, and Mesh modes for versatile network deployment. Compatible with Starlink and Wavlink AC controllers.
- **Power over Ethernet (PoE):** Supports 802.3AT/AR Active PoE and Passive PoE for simplified installation in locations without direct power sources.
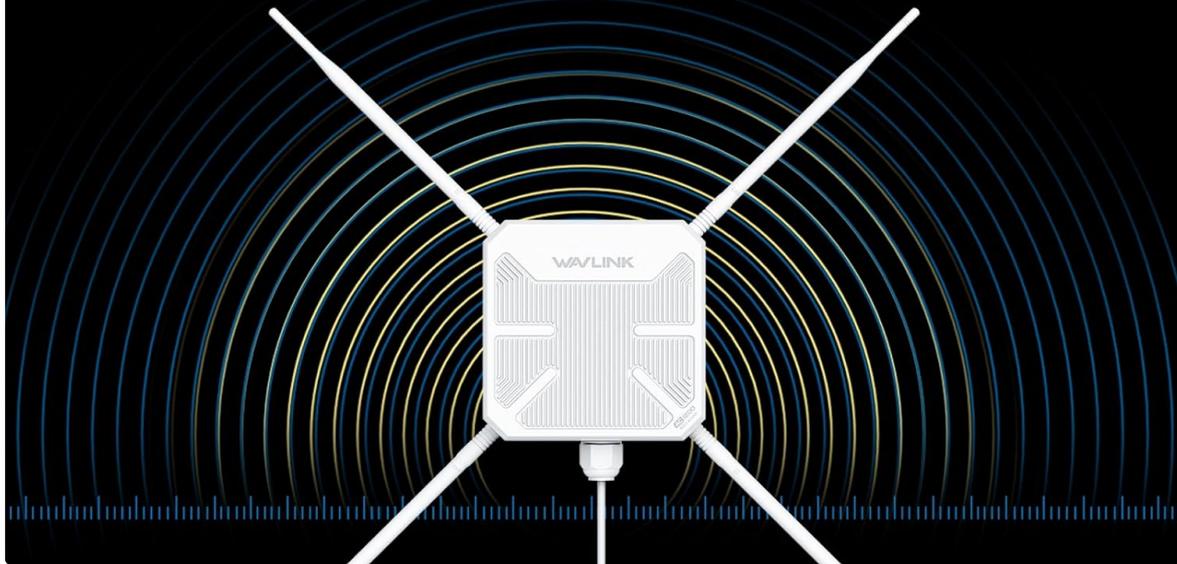
Image: Diagram illustrating the key features of the WAVLINK AC1200, including Wi-Fi 5, dual-band operation (5GHz at 867Mbps, 2.4GHz at 300Mbps), MU-MIMO, Beamforming, PA+LNA, and stable network capabilities.

PRODUCT OVERVIEW

The WAVLINK AC1200 is a robust outdoor access point designed for durability and performance. It features a compact, weather-resistant housing and four external omnidirectional antennas.

Components

- **Main Unit:** The central device housing the electronics and ports.
- **Antennas:** Four detachable 7dBi omnidirectional antennas for enhanced signal transmission and reception.
- **PoE Converter:** Used to inject power into the Ethernet cable, allowing the device to be powered remotely.
- **Ethernet Port:** Gigabit WAN/LAN port for wired network connection.
- **Reset Button:** For restoring factory default settings.
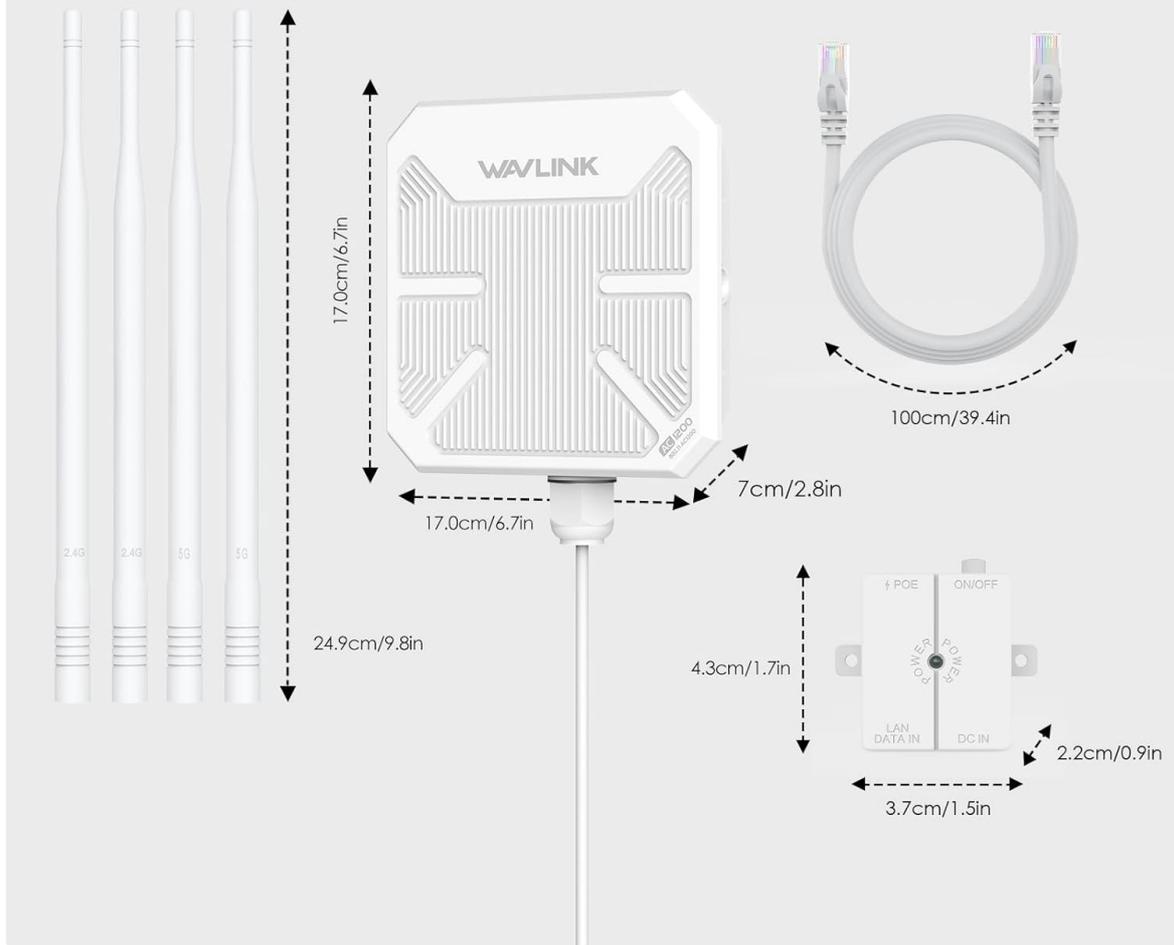- **Pair Button:** For pairing with existing Mesh Wi-Fi systems.

Product Dimensions

Image: Detailed view of the WAVLINK AC1200 unit, showing its dimensions, the four antennas, and the PoE converter with its input/output ports.

INSTALLATION

1. Antenna Assembly

1. Carefully screw the four omnidirectional antennas into their respective ports on the main unit. Ensure the 2.4G antennas are connected to the 2.4G ports and 5G antennas to the 5G ports for optimal performance.

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Video: A user demonstrates screwing the four antennas into the WAVLINK AC1200 unit, ensuring correct placement for 2.4G and 5G bands. The video also shows the PoE injector and weatherproof connector assembly.

2. Mounting the Unit

The WAVLINK AC1200 can be mounted on a wall or a pole. Use the provided mounting bracket and hardware.

- **Wall Mount:** Use the positioning card to mark drill holes. Insert wall anchors and screws, then attach the bracket.

- **Pole Mount:** Use the provided straps to secure the bracket to a pole.

Pole-Mounted Installation   **Wall-Mounted Installation**

Image: Illustrations showing how to install the WAVLINK AC1200 unit using both pole-mounted and wall-mounted methods, with diagrams for drilling and securing the device.

3. PoE Connection

1. Connect an Ethernet cable from your router/modem to the LAN DATA IN port of the PoE converter.
2. Connect the power adapter to the DC IN port of the PoE converter.
3. Connect another Ethernet cable from the PoE OUT port of the converter to the WAN/LAN port on the WAVLINK AC1200 unit. Ensure the weatherproof connector is properly installed around the Ethernet cable at the unit's port.

Flexible Deployment with PoE Power
Simplified outdoor Wi-Fi setup for easy installation in powerless locations

Ethernet cable

PoE adapter

Ethernet cable

Limit within 100m

DC 54V/0.3A PoE (Passive)
DC 48V PoE (Active)

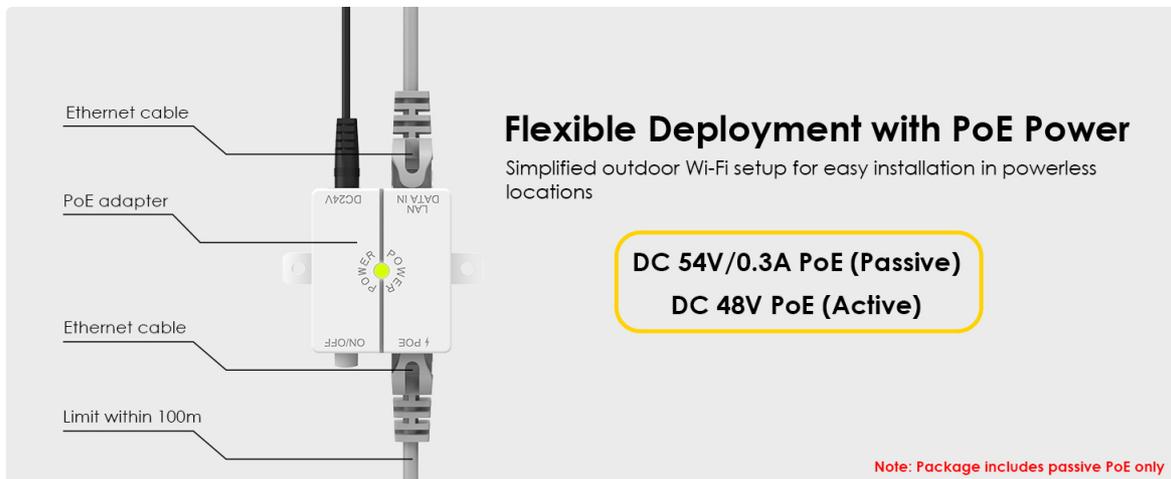Note: Package includes passive PoE only

Image: Diagram illustrating the flexible deployment with PoE power, showing the connection of Ethernet cables and power adapter to the PoE converter, and then to the WAVLINK unit. It highlights support for both DC 24V/0.3A Passive PoE and DC 48V Active PoE.

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Video: A user demonstrates the process of connecting the Ethernet cable to the WAVLINK AC1200 unit, including the assembly of the weatherproof connector to ensure a secure and sealed connection.

CONFIGURATION AND OPERATING MODES

The WAVLINK AC1200 supports multiple operating modes to suit various networking needs. The default parameters for initial setup are typically found in the Quick Start Guide.

Initial Setup (Web UI)

1. Connect your computer or mobile device to the WAVLINK's default Wi-Fi SSID (e.g., WAVLINK-N_XXXX or WAVLINK-AC_XXXX).
2. Open a web browser and enter the default IP address (e.g., 192.168.30.1) or the login URL (e.g., http://waplogin.link).
3. Enter the default login password (admin).
4. Follow the on-screen wizard to configure your desired operating mode and Wi-Fi settings.

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Video: A user demonstrates accessing the WAVLINK AC1200's web interface on a mobile phone, navigating through wireless settings, and disabling the automatic band selection to manually choose between 2.4G and 5G Wi-Fi networks.

Operating Modes

- **AP Mode:** The device acts as a central hub for wireless clients, providing Wi-Fi access to a wired network.
- **Repeater Mode:** Extends the coverage of an existing wireless network by repeating its signal.
- **Router Mode:** Functions as a standard wireless router, providing internet access to connected devices.
- **Mesh Mode:** Creates a seamless, unified Wi-Fi network with other Mesh-compatible devices, allowing for uninterrupted roaming with a single SSID.
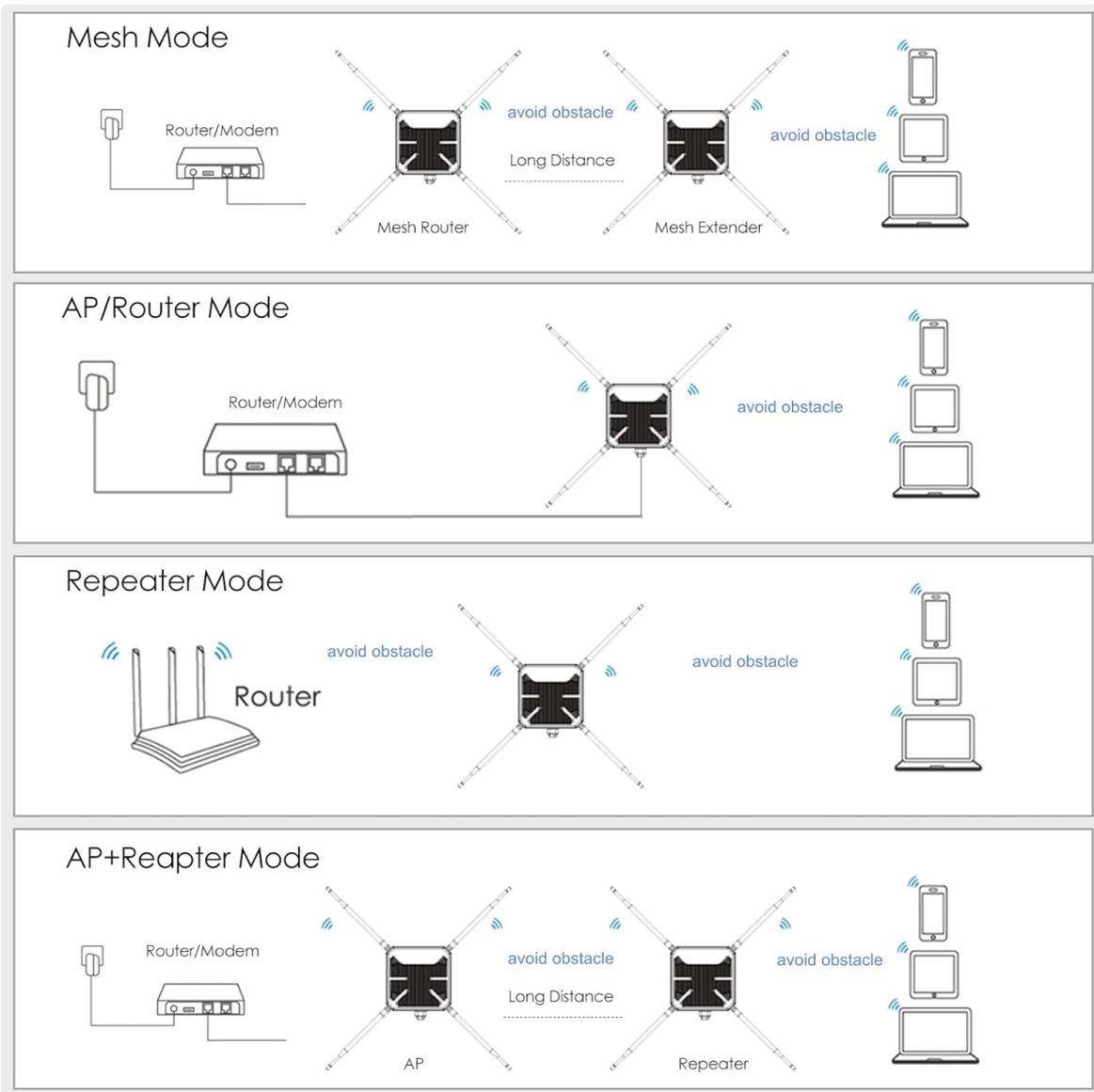
Image: Diagrams illustrating the different operating modes of the WAVLINK AC1200: Mesh Mode, AP/Router Mode, Repeater Mode, and AP+Repeater Mode, showing how the device integrates into various network setups.

PERFORMANCE AND DURABILITY

The WAVLINK AC1200 is engineered for reliable performance in challenging outdoor conditions.

Extended Range

With its high-gain antennas and powerful amplifiers, the device can extend Wi-Fi signals significantly, making it suitable for large outdoor areas like courtyards, farms, or campsites. Actual range may vary based on environmental factors and obstacles.

Image: A visual representation of the WAVLINK AC1200's outdoor transmission range, showing 2.4GHz coverage up to 100 meters and 5GHz coverage up to 300 meters across various outdoor settings like parks, farms, homes, and campsites.

Weatherproof Design

The IP67-rated casing protects the device from dust and water ingress, ensuring continuous operation in diverse weather conditions, including snow, rain, and wind. Integrated ESD and lightning protection further enhance its durability.

Image: A close-up of the WAVLINK AC1200 unit in an outdoor setting, highlighting its professional outdoor design with IP67 weatherproof rating, 15KV ESD protection, and 6KV lightning protection against snow, rain, lightning, and wind.

SPECIFICATIONS

Feature	Detail
Product Dimensions	2.4 x 2.4 x 8.4 inches
Item Weight	2.72 pounds
Item Model Number	WN588HA2
Wireless Communication Standard	802.11a/b/g/n/ac
Data Transfer Rate	1200 Gigabits Per Second (AC1200)
Frequency Band Class	Dual-Band (2.4GHz & 5GHz)

Special Features	Omnidirectional Signal, Power Over Internet, High Power Amplifier, Access Point Mode / Repeater Mode, IP67 Weatherproof

TROUBLESHOOTING

- **No Power/LED Off:** Ensure the PoE converter is properly connected to a power source and the Ethernet cable is securely plugged into both the converter and the WAVLINK unit.
- **No Internet Access:** Verify that the Ethernet cable from your router/modem to the PoE converter is working. Check your router's internet connection. Ensure the WAVLINK unit is configured in the correct operating mode (AP, Repeater, Router).
- **Weak Signal/Limited Range:** Reposition the WAVLINK unit to minimize obstacles between it and the desired coverage area. Ensure antennas are correctly installed and oriented. Consider adjusting antenna angles.
- **Difficulty Accessing Web UI:** Confirm your device is connected to the WAVLINK's default SSID. Try clearing your browser's cache or using a different browser. Ensure you are using the correct default IP address or login URL.
- **PoE Injector Sparks/Shuts Off:** This indicates a potential issue with the PoE injector or connection. Disconnect immediately and contact support. Ensure the PoE injector is kept in a dry, protected environment as it is not waterproof.

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Video: A user demonstrates a faulty PoE injector that sparks and causes the device to shut off when connected, highlighting a critical safety concern and the importance of proper installation and functional components.

MAINTENANCE

- **Regular Cleaning:** Periodically clean the exterior of the unit to remove dust and debris. Do not use harsh chemicals.
- **Firmware Updates:** Check the WAVLINK official website (www.wavlink.com) for the latest firmware updates to ensure optimal performance and security.
- **Cable Inspection:** Regularly inspect Ethernet cables and power connections for any signs of wear or damage.
- **Grounding:** Ensure the grounding terminal is properly connected to protect against lightning and ESD.

WARRANTY AND SUPPORT

For WAVLINK support, please feel free to contact us if you have any questions. We offer lifelong technical support.

- **Phone Support:** +18889730883 (UTC-5), Monday to Friday from 9:00 AM to 6:00 PM.
- **Email Support:** Contact@wavlink.com (Solutions provided within 8 hours).

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