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KuWiFi AP820

KuWiFi WiFi 6 AX1800 Outdoor Wireless AP Router (Model AP820) Instruction Manual

MODEL: AP820

1. Introduction

The KuWiFi WiFi 6 AX1800 Outdoor Wireless AP Router (Model AP820) is an 11ax Wi-Fi standard outdoor access point designed to provide high-speed Ethernet data rates and allow more users access. It supports dual-band operation (2.4GHz and 5GHz) with a combined data rate of 1800Mbps. This device is suitable for extending Wi-Fi coverage in various environments, including homes, hotels, camping sites, factories, communities, and streets, thanks to its robust outdoor design and omnidirectional antennas.

2. What's in the Box

- Outdoor WiFi Access Point
- Antennas (4 high-gain omnidirectional antennas)
- Network cable
- Installation package

3. Product Overview

The AP820 features a robust, weatherproof housing designed for outdoor use. It includes multiple ports and indicators for easy setup and monitoring.

3.1 Device Components

- **Main Unit:** The core device with internal components for Wi-Fi broadcasting and network management.
- **Antennas:** Four high-gain omnidirectional antennas (two for 2.4GHz and two for 5GHz) for extended coverage.
- **PoE Converter:** An adapter that supplies power to the device through the Ethernet cable.
- **Power Adapter:** For connecting the PoE converter to a power outlet.

3.2 Ports and Indicators

- **LAN Port:** For local network connections.

- **PoE IN/WAN Port:** Used for both Power over Ethernet input and Wide Area Network connection.
- **Reset Button:** Located on the device for factory reset.
- **Antenna Connectors:** Four connectors for attaching the omnidirectional antennas.



Image: Bottom view of the KuWiFi AP820 device, highlighting the LAN port, PoE IN/WAN port, and the Reset button. This view also shows the weather-sealed cap for cable entry.

4. Setup

4.1 Antenna Installation

1. Identify the 2.4GHz and 5GHz antennas. The straight antennas are typically for 5GHz, and those with hinge points are for 2.4GHz.
2. Carefully screw each antenna into its corresponding port on the main unit. Ensure the rubber gaskets are properly seated for weatherproofing.



Image: A hand screwing one of the four antennas into the top of the KuWiFi AP820 device, showing the secure connection point.

4.2 Power over Ethernet (PoE) Connection

1. Connect one end of the Ethernet cable to the PoE IN/WAN port on the AP820 unit. Ensure the weather-sealed cap is properly installed around the cable.
2. Connect the other end of the Ethernet cable to the PoE port on the PoE converter.
3. Plug the power adapter into the PoE converter and then into a power outlet.

4.3 Initial Configuration (Web Interface)

1. Connect your computer directly to the LAN port of the PoE converter using an Ethernet cable.
2. Open a web browser and enter the default IP address (e.g., 192.168.188.253) or the domain name (e.g., wifi.wavlink.com) provided in the quick start guide to access the web management interface.
3. Follow the on-screen instructions to configure the device's operating mode (AP, Gateway, or Repeater), Wi-Fi settings (SSID, password), and other network parameters.

4.4 Mounting the Device

The AP820 can be mounted on a wall or pole using the provided installation package. Ensure the device is installed in a location that is not higher than 2-3 meters (6.562 to 9.843 feet) from the ground and not higher than the upstream router or subordinate devices by the same height range.



Image: Step-by-step diagram illustrating the physical installation of the KuWiFi AP820 on a pole, including securing the device and routing the Ethernet cable.

4.5 Video Guide: Repeater Mode Setup

Your browser does not support the video tag.

Video: A detailed guide demonstrating the setup process for the KuWiFi AP820 in Repeater Mode. This video covers physical connections, web interface configuration, and testing the extended Wi-Fi signal.

5. Operating Modes

The KuWiFi AP820 supports multiple operating modes to suit various networking needs:

- **AP (Access Point) Mode:** Connects to a wired network and broadcasts a wireless signal, allowing wireless devices to connect to the network.
- **Gateway Mode:** Functions as a router, providing network address translation (NAT) and managing the local network.
- **Repeater Mode:** Extends the range of an existing wireless network by receiving and re-transmitting the Wi-Fi signal.

Image: An aerial view illustrating the KuWiFi AP820 in AP/Gateway mode, providing seamless Wi-Fi coverage across a large outdoor area with multiple access points.

6. Maintenance

- Regularly check the device for any physical damage or loose connections, especially after severe weather conditions.
- Ensure the weather-sealed caps on the ports are securely fastened to prevent water ingress.
- Keep the device's firmware updated to ensure optimal performance and security. Refer to the manufacturer's website for the latest firmware versions and update instructions.
- Clean the exterior of the device periodically with a soft, dry cloth to remove dust and debris.

7. Troubleshooting

- **No Power:** Check the power adapter and PoE converter connections. Ensure the power outlet is functional.
- **No Wi-Fi Signal:** Verify that the antennas are correctly installed and tightened. Check the device's operating mode and Wi-Fi settings in the web interface.
- **Poor Signal Strength:** Adjust the device's placement to minimize obstructions. Ensure antennas are oriented correctly. Consider using Repeater Mode if extending coverage over a large area.
- **Cannot Access Web Interface:** Ensure your computer is directly connected to the PoE converter's LAN port. Verify your computer's IP settings are compatible with the device's default IP range. Try resetting the device to factory defaults using the Reset button.
- **Intermittent Connection:** Check for interference from other wireless devices or electrical equipment. Ensure the Ethernet cable length does not exceed 60 meters (196 feet) to prevent power loss over PoE.

8. Specifications

Brand	KuWiFi
Model Number	KF-APAX820
Wireless Communication Standard	802.11ax, 802.11ac, 802.11n, 802.11g, 802.11b
Data Transfer Rate	1.8 Gigabits Per Second (1800Mbps)

Frequency Band Class	Dual-Band (2.4GHz and 5GHz)
Special Feature	Access Point Mode, Gateway Mode, Repeater Mode
IP Rating	IP67 Waterproof Housing
Antennas	4 High Gain Omnidirectional Antennas
Operating Temperature	-30°C to 70°C (-22°F to 158°F)
Item Weight	8.8 pounds
Package Dimensions	18 x 13 x 5 inches

9. Warranty and Support

The KuWFi WiFi 6 AX1800 Outdoor Wireless AP Router (Model AP820) is backed by a 30-day money-back guarantee, a month free replacement, and a 1-year manufacturer warranty. Professional technical support is available.

For setup problems or additional instructions, please download the KuWFi shared file containing operation steps and instructions from:

<https://drive.google.com/drive/folders/12kkvlLpuiQRLtOU60tNDwwl8XFeRIEPJ?usp=sharing>

9.1 Video Guide: Product Overview

Your browser does not support the video tag.

Video: A brief overview of the KuWFi AP820 wireless AP router, showcasing its features and components.