WAVLINK

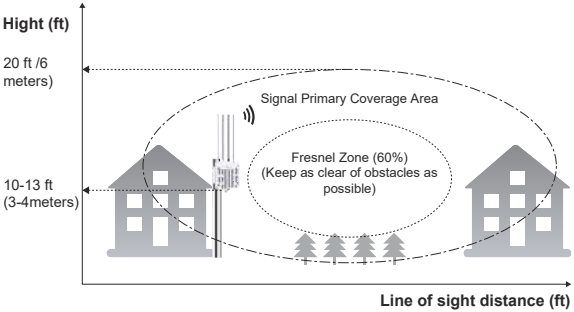
see the world

DIRECTION BEFORE USING



CHOOSE THE BEST LOCATION

1. Ideal Height - More Detail



Principle:

Mounting the extender as high as possible helps the signal clear ground-level obstructions (like fences, shrubs, vehicles, etc.), reduces signal blockage, and expands the effective coverage area.

Recommendations:

- Generally, aim for a height of at least 10-20 feet (3-6 meters) above the ground, depending on your target coverage area and surrounding environment.
- Recommended locations include under eaves, high on an exterior building wall, or atop a sturdy pole.
- The goal is to establish a clear Line of Sight (LoS), or minimize obstructions, between the extender and the primary areas you need to cover.

2. Optimal Position: Consider Environmental Factors

Minimize Obstructions:

- Avoid installing the extender where heavy obstructions (such as thick concrete walls, metal sheeting, dense trees, hillsides) directly block the signal path. Signals weaken significantly (attenuate) when passing through barriers.
- An open, unobstructed line of sight to the main coverage area is ideal.

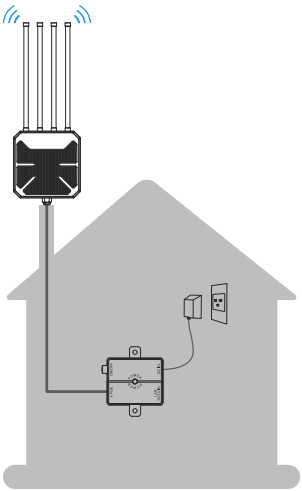
Avoid Interference Sources:

- Install the extender away from other strong wireless signal sources, like nearby Wi-Fi routers/APs, highpower wireless devices, microwave ovens, cordless phone base stations, some surveillance cameras, etc., to reduce signal interference.
- Also keep it away from large metal structures or air conditioning units that can reflect or interfere with signals.

Distance & Signal Quality from Main Router:

- If using the Wi-Fi Extender in wireless repeater mode, ensure the installation location receives a stable and reasonably strong Wi-Fi signal from your main router (recommended signal strength better than -70dBm; you can check this using a Wi-Fi analyzer app on your phone near the proposed location). Placing it too far from the main router or where the signal is weak will result in poor extended performance.

POE POWER ADAPTER IS NOT WATERPROOF!



Explicit Warning:

The PoE Power Adapter (PoE Injector) included with this product is absolutely NOT waterproof! It is designed for INDOOR USE ONLY.

Prohibited Actions:

- DO NOT place the PoE adapter anywhere outdoors (e.g., on an exterior wall, open balcony, garden, roof, etc.)
- DO NOT expose it to rain, sprays, drips, moisture, condensation, or excessive humidity.
- DO NOT place it where it could be submerged or splashed with water.

Correct Placement:

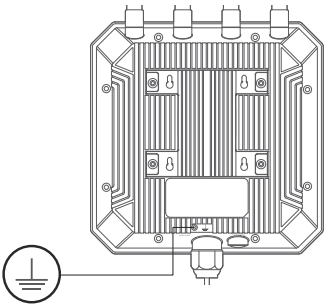
- The PoE adapter MUST be placed in a dry, well-ventilated, protected INDOOR location.
- Examples: Near an indoor power outlet on a wall, inside a structured wiring enclosure (network cabinet), on a dry wall inside a garage, or in a non-humid attic or basement area.

Severe Consequences:

Failure to heed this warning WILL lead to water ingress, short circuits, and burnout of the PoE adapter!

LIGHTNING AND ESD PROTECTION

1. Device Grounding



Grounding Terminal

Purpose:

To provide a low-impedance path for static electricity and lightning-induced currents to dissipate safely to earth, protecting the equipment from damage.

Steps:

1. Locate Grounding Screw: Find the dedicated grounding screw or terminal marked with the ground symbol on the Wi-Fi Extender casing.

2. Prepare Grounding Wire: Use a copper wire of at least 10 AWG (American Wire Gauge) or thicker.

Strip the insulation from one end and properly attach a suitable grounding lug using a crimping tool.

3. Connect to Device: Securely attach the lugged grounding wire to the device's grounding screw. Ensure the connection is tight, clean (free of corrosion), and makes good electrical contact.

4. Connect to Earth: Connect the other end of the grounding wire to a reliable building grounding system or a dedicated earth ground rod.

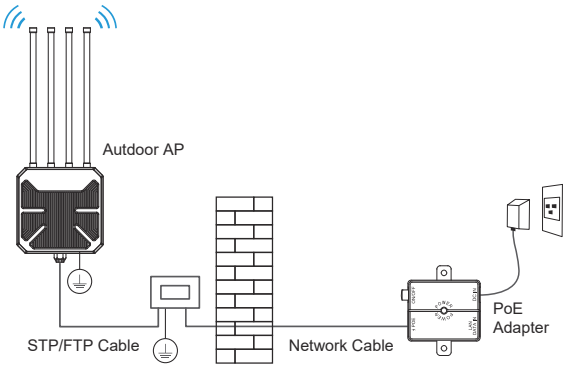
Warning: Without proper grounding, the device is extremely vulnerable to damage from lightning strikes or strong static discharges.

2. Ethernet Cable Selection

Cable Selection:

- **MUST use Outdoor-rated (CMX)** Ethernet cable suitable for outdoor exposure, with a jacket resistant to UV light and moisture
- **Strongly recommend using Shielded Twisted Pair (STP / FTP)** cable, Category 5e or higher, for improved noise immunity. The STP/FTP cable is not included in the box and must be purchased separately.
- **Waterproof Connector:** When connecting the Ethernet cable to the Wi-Fi Extender port, ensure the provided waterproof cable gland or sealing kit is correctly installed and securely tightened to prevent moisture ingress.

3. Ethernet Surge Protection (Highly Recommended)



Purpose: To protect the device and connected indoor network equipment from electrical surges and spikes traveling along the Ethernet cable (often induced by nearby lightning or ESD).

Recommendation: Install an outdoor-rated Ethernet Surge Protector (also known as an Ethernet Lightning Arrester) on the Ethernet cable line before it enters the building.

Steps: [Outdoor Extender] <--- (Outdoor STP Ethernet Cable) ---> [Ethernet Surge Protector (Grounded)] <--- (Indoor Ethernet Cable) ---> [PoE Adapter] (Active PoE adapter recommended).

- Mount the surge protector securely on an exterior wall near the cable entry point or another suitable location.
- Connect the Ethernet cable coming from the outdoor Wi-Fi Extender to the surge protector's "**Protected**" or "**Device**" port.
- Use a short, high-quality patch cable to connect from the surge protector's "**Unprotected**" or "**Line**" port to the cable running indoors or the indoor device.
- Critically Important: The surge protector itself MUST be grounded using a short, thick wire (similar gauge to the device ground wire) to the same reliable grounding system used for the Wi-Fi Extender device! Without proper grounding, the surge protector is ineffective Please note: the surge protector is not included in the box and must be purchased separately.