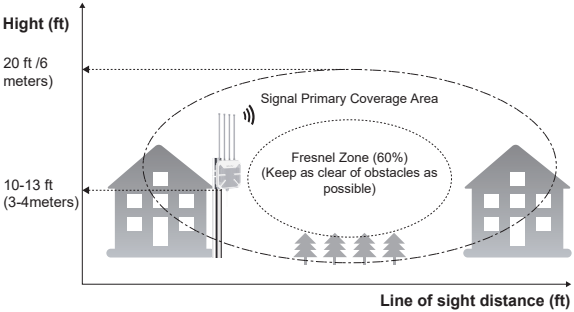
WAVLINK

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.

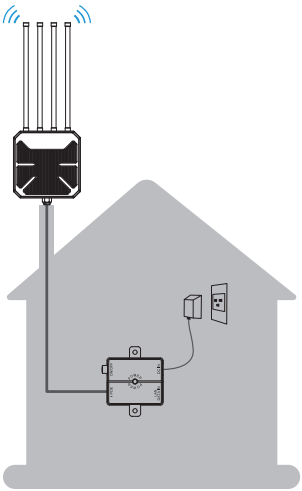
**Avoid Interference Sources:**

- 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:**

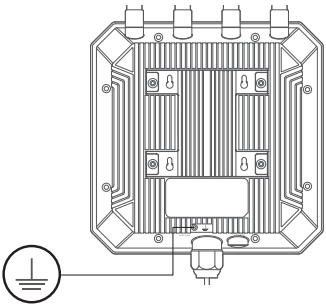
- The PoE adapter MUST be placed in a dry, well-ventilated, protected INDOOR location.
- Examples: Near an indoor power outlet on a wall, inside a structured wiring enclosure (network cabinet), on a dry wall inside a garage, or in a non-humid attic or basement area.

**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.

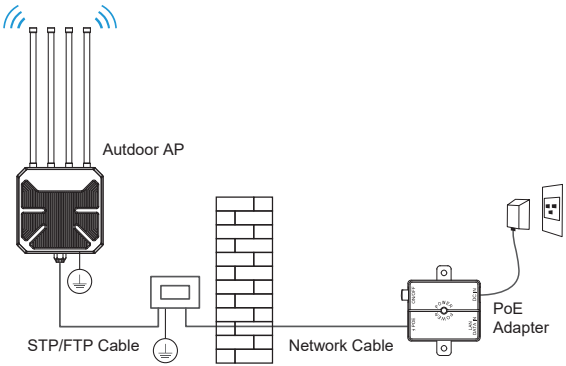
Warning: Without proper grounding, the device is extremely vulnerable to damage from lightning strikes or strong static discharges.

## 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.