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Englewood HGO installation guide
- with PoE+ injector
- with Power adapter

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- Product Overview

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Important Notice on Product Safety

Before you start

- NOTICE:Electrostatic discharge (ESD) may damage the modules. Wear an ESD wrist strap or use a corresponding method when handling the modules.

- NOTICE: Installing and commissioning of BTS products must be performed by an expert familiar with electronic devices, to avoid damage caused by improper handling.

- WARNING! Risk of electric shock.

- The wire gauge for the required protective earth conductor is 18AWG (green and yellow). Ensure to connect one end to the protective earth terminal and the other to earth.

    ❑ Disconnect power from the unit when performing a maintenance task.

    ❑ When powered by a power adapter, the adapter should be properly grounded.

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Important Notice on Product Safety

FCC compliance statement:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.If this equipment does cause harmful interference to radio or television reception, which can be determined.If by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 53cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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General Installation Overview

For a complete installation, the following steps will need to be followed. This guide provides specific information regarding the Sercomm small cell, however, it does not provide specific instructions regarding the FreedomFi AGW, general internet access setup, and/or permitting and facilities related items.

Installation Steps
1. Survey the installation site and develop an installation plan
2. Identify the following three critical locations:
   - Location where the radio will be installed
   - Location where internet is available
   - Location where power (for PoE injector) is available
3. Map out cable routing for internet/ethernet and power cables
4. Select optional components if desired.
5. Install J-Pole (if needed)
6. Pre-install test (optional)
   - Conduct a pre-install test will all components to be installed to verify desired operation.
7. Install (as outlined in the guide you just sent)
8. Test complete solution and validate it is working.

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Getting Started

Unpack and check the delivery carefully before the installation to make sure that all the required items are available and undamaged

Step:

1 Carefully check the contents of the delivery.

2 Remove the items from the package.

3 Check that the delivery is complete and undamaged.

4 Recycle the packaging material.

5 Proceed to the module installation procedure.

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Product Overview

Sercomm HGO Small Cell

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Product overview
Small Cell Device

PoE+ Injector Power Cord weather proof (RJ45) connector

Bracket (pole mount)

Grounding Cable Fixing Bracket Screws

Small cell device

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Accessories Overview
Bracket (Pole Mount)

(45 $^{+0}_{-10}$)

180

100

M10 Nut

M12 Nut

107
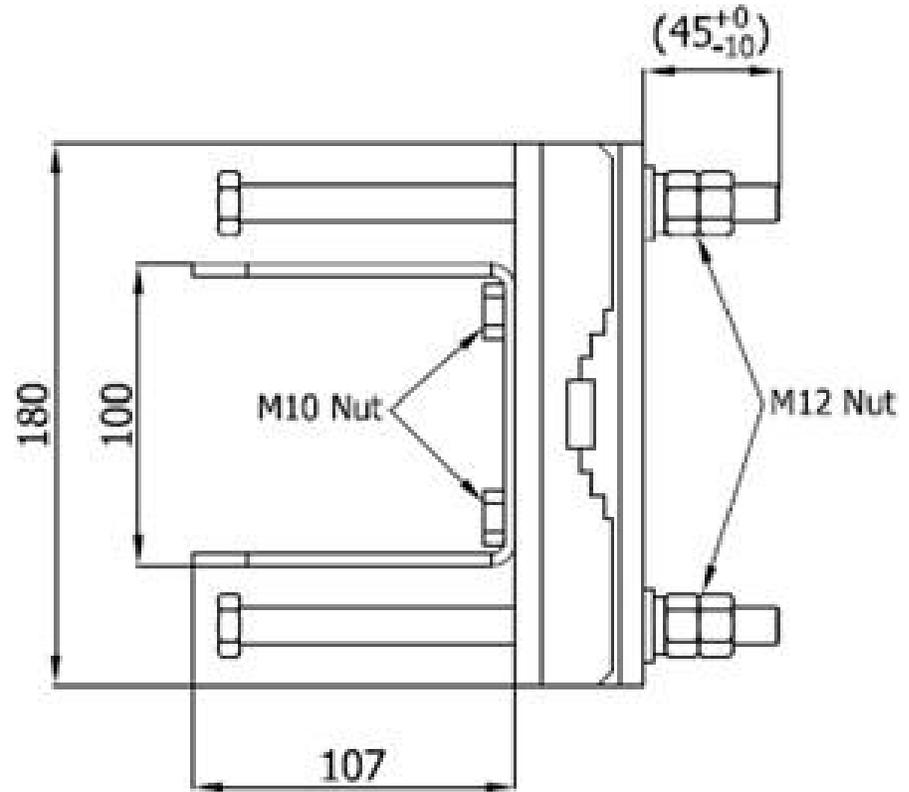
NOTE : 1.INSTALLATION DIAMETER 50~120MM
2.Tightening Nut Hex Torque Values:
    M10 :32~40 N.m
    M12 :57~75 N.m

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Accessories Overview
Bracket (Pole Mount)

M12 Screw pack:

M12x130mm bolt *1pcs

M12 nut * 3pcs

M12 Flat washer *3pcs

M12 Spring washer *3pcs

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Accessories Overview
POE+ Injector/Power Cord and weather proof (RJ45) connector

Product overview
Grounding Cable
Fixing Bracket

Grounding cable

M8 Screw pack:

M8x16mm Hexagon socket screw *5pcs

M8 Flat washer *5pcs

M8 Spring washer *5pcs

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I/O Interfaces

LAN   **POE+(WAN)**   **DC Power**

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Englewood HGO Dimension

286.2mm

115mm

410mm

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Installation Materials
Device

PoE+/Eth backhaul

Device

Bracket (pole mount)

Fixed bracket

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Contents of the Standard HGO Installation Kit

Items	Description	Qty
	PoE+ injector	1
	POWER CORD (1.5M)	1
	Fixed bracket and Bracket Screws	1x Fixing bracket M8x16mm Hexagon socket screw *5pcs M8 Flat washer *5pcs M8 Spring washer *5pcs
	Ethernet weather proof connector	1
	Bracket (pole mount) with Mounting nuts/spring washers	1x Bracket M12x130mm bolt *1pcs M12 nut * 3pcs M12 Flat washer *3pcs M12 Spring washer *3pcs
	Grounding cable with screws/washers	1x Grounding cable

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Optional Accessories

Items	Description	Notes
	Power adapter	1
	Power bracket with Mounting Plate Screws	1xPower bracket M5x14mm socket screw *4pcs M5 Flat washer *4pcs M5 Spring washer *4pcs

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Installation (Use the PoE+Injector)

The installer will need the following tools:

(1) M8 Hexagonal screwdriver(L-shaped hexagon): used for Fixing bracket

(2)19mm wrench: used for device Bracket M12 nuts (pole mount)

(3)Phillips screwdriver :used for Grounding cable screws and M4/M5 screws

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Installation (Use the PoE Injector)

Pole mount with PoE Injector

✓ **PoE Injector is placed indoors and PSU by power coad.**

✓ **Device is placed outdoors and connected to the device WAN/POE port and PoE injector POE port through Eth cable.**

✓ **Backhaul from PoE injector LAN port through Eth cable.**
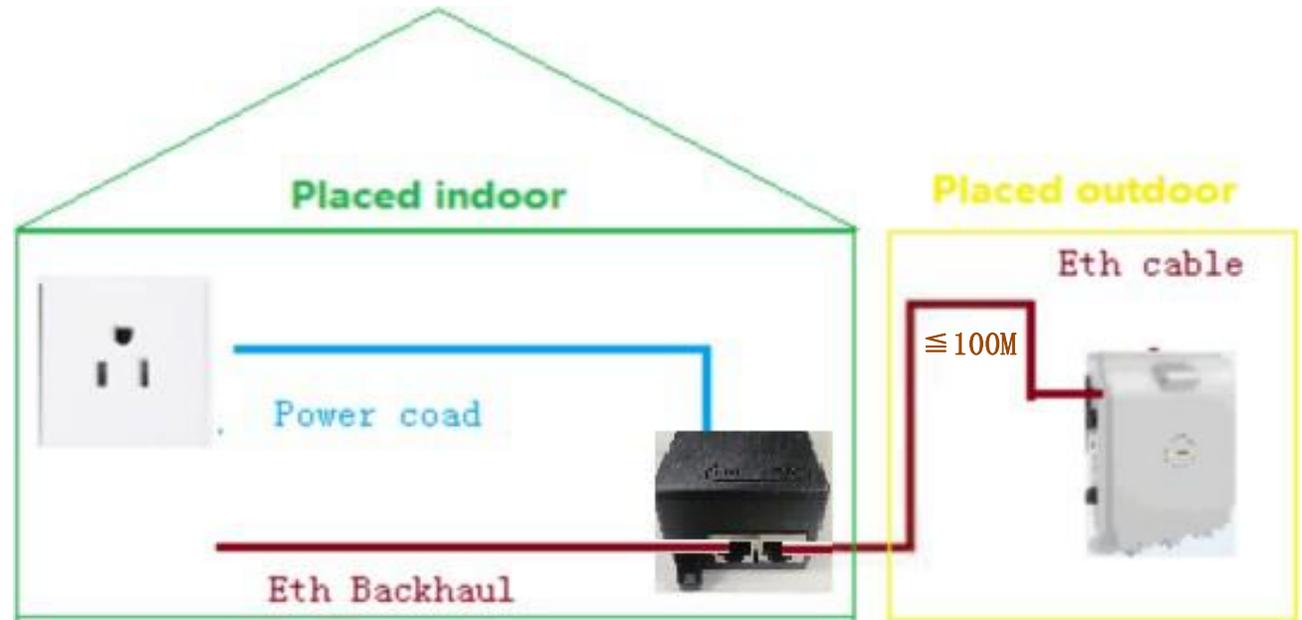
Note: The total Eth cable length should not exceed 100m

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Installation (Use the PoE Injector)
Bracket Assembly

Step1: Assemble the Pole mount bracket
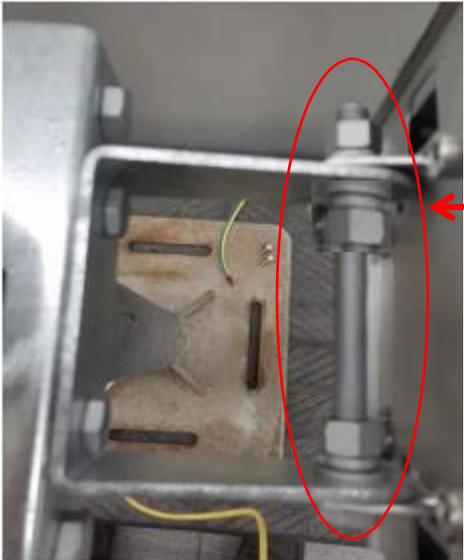
The positioning hole faces down

Note the sequence of screw and washer
(From M12 Screw pack)

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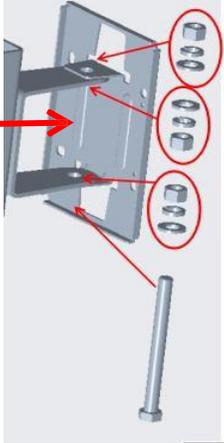
Installation (Use the PoE Injector)
Install the Bracket

Step2: Mount the bracket on the J-Pole or other mounting pole
The bracket assembly is mounted on the pole

Note the sequence of screw and washer
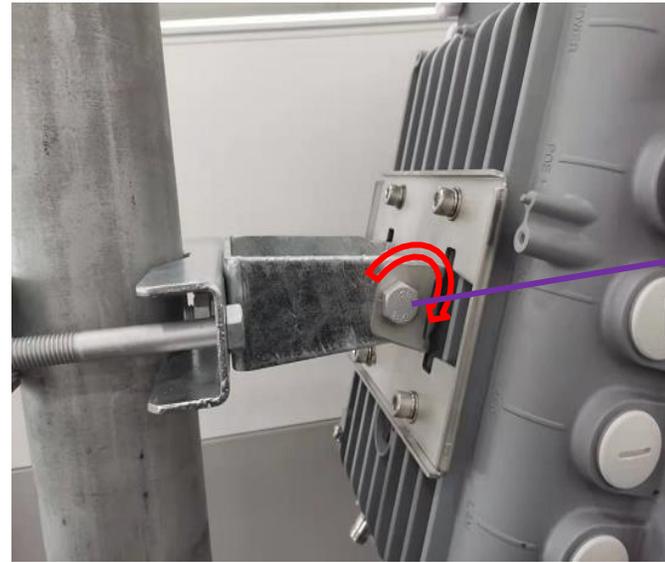
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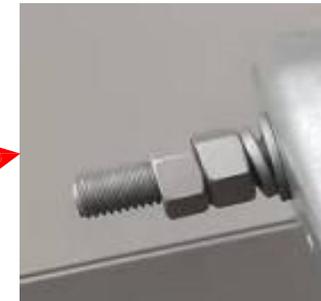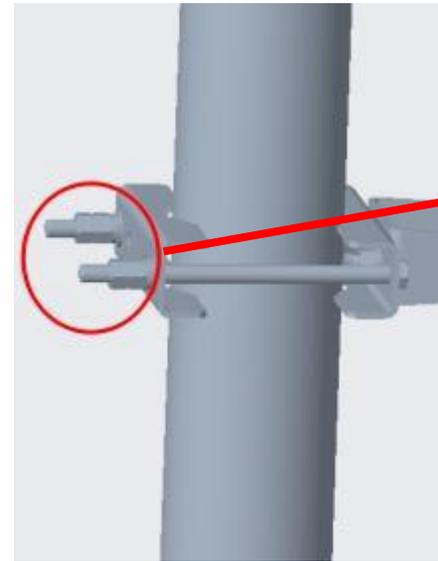
Installation (Use the PoE Injector)
Mount the Device

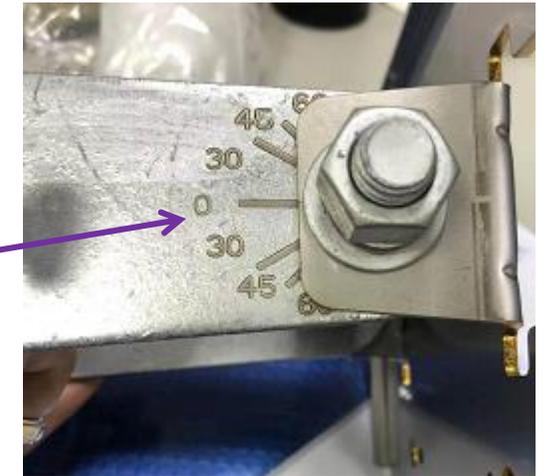## Step3: Mount the device on the bracket installed in Step 2

Align the positioning hole

Lock with M8*16 screws
(From M8 Screw pack)

Adjust the tilt angle required by the device
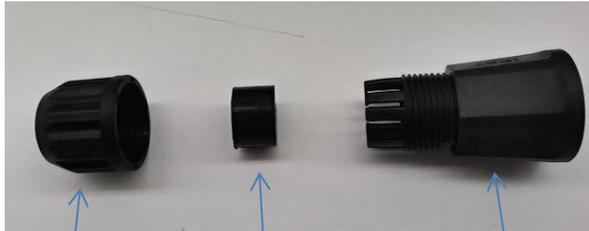
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Installation (Use the PoE Injector)
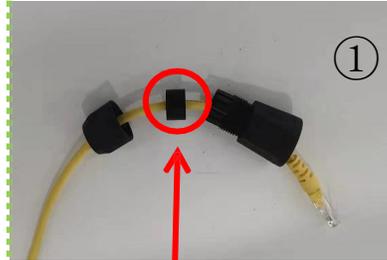## Cable Assembly

Step4: Install the RJ45 cable

Waterproof sleeve

Lock nut   Waterproof circle   Waterproof connector

1. Route the network cable through the waterproof sleeve.

2. The network cable into the WAN/PoE port on device.

3. The waterproof connector locks the RJ45 connector.

4. The lock nut lock is connected to the waterproof connection.

①

Assembly of waterproof circle
(into the wateroppf connector)

②

RJ45 connector

Assembled in WAN/PoE ports

③

④

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Installation (Use the PoE Injector)
Cable gland

Step5: Install the Grounding cable


Grounding screw on the device

The grounding cable can be connected to any grounding terminal

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Installation (Use the PoE Injector)
Install the PoE+ injector

Step6: Install the PoE+ injector

(①) Connect the device WAN/POE port to the PoE injector POE port using an ethernet cable (ethernet cable not supplied as part of the kit).

(②) Connected the POE injector power port to the power socket using the supplied power cord.

Eth Backhaul

WAN/PoE

place out door

place in door

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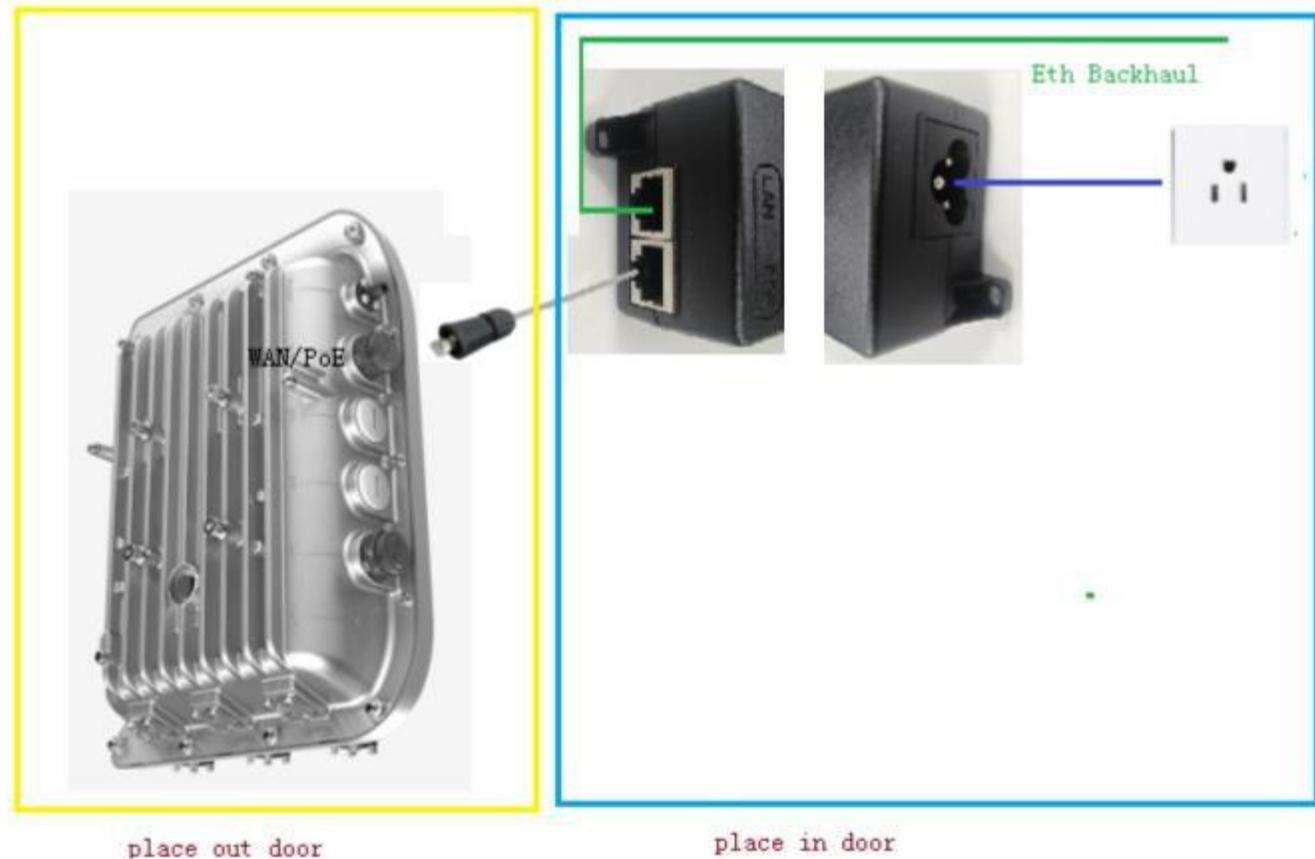
Installation (Use the PoE Injector)
Test Functionality

Step7: Functional Test

(①) Power on the radio and allow time to fully boot up (approx. 2 minutes)

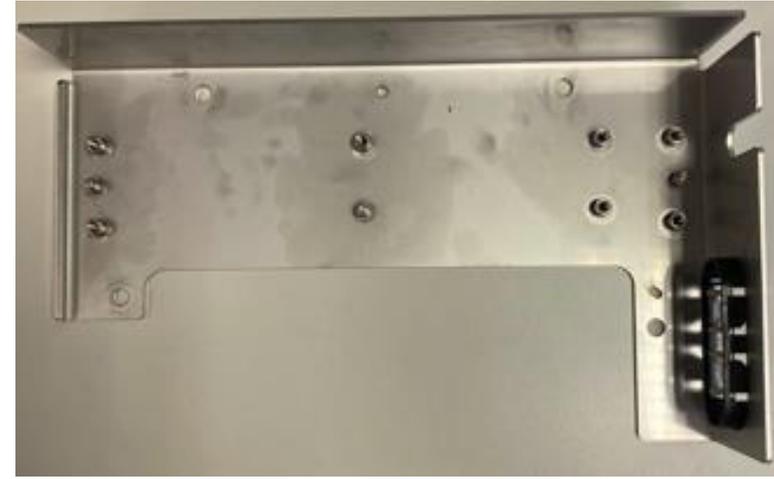(②) Ensure the FreedomFi AGW is powered on and working

(③) TBD test procedure (this needs discussion, as it requires an end user device, such as a phone, and an active SIM card.

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Optional Accessories Overview
Power and Powerbracket

M5/M4 Screw pack:

M5x14mm socket screw *4pcs

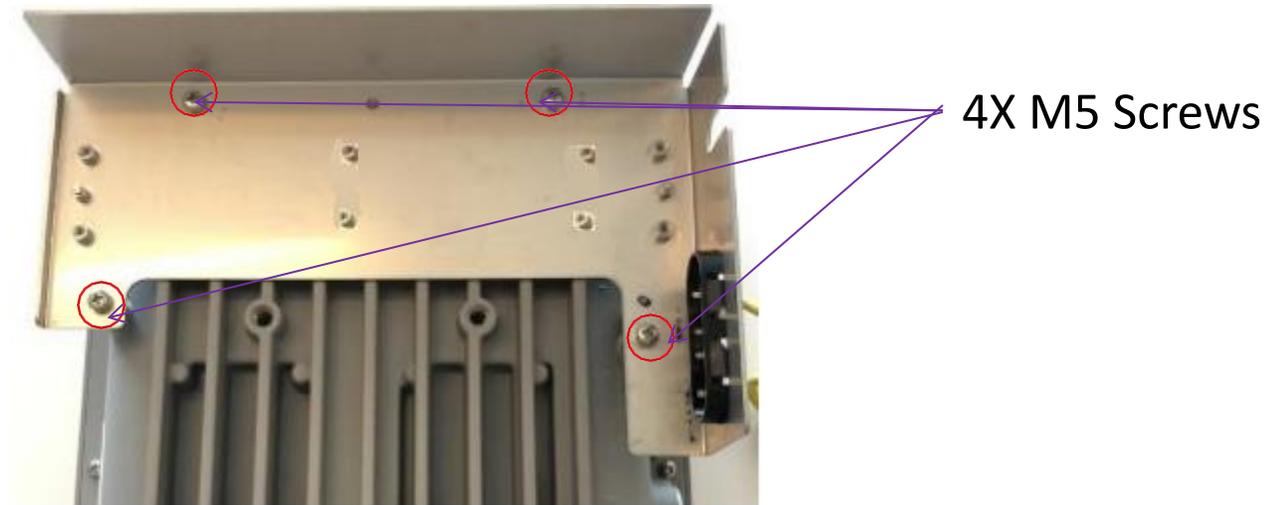M5 Flat washer *4pcs

M5 Spring washer *4pcs

M4x8mm socket screw *4pcs

M4 Flat washer *4pcs

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Installation (Use the Power adapter)
Power adapter fixed

Step1: Assembly

4 screws are attached to the lock
M5*14, fix the bracket on the bottom shell
(From M5/M4 screw pack)

4X M5 Screws

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Installation (Use the Power adapter)
Power adapter fixed

Step2: Assembly

4 screws are attached to the lock
M4*8, fix the Power adapter on the bracket
(From M5/M4 screw pack)

4X M4 Screws

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Installation (Use the Power adapter)
Power adapter fixed

Step3: Place the power adapter on the bracket.

Note: The connector of the Power adapter corresponds with the power port .
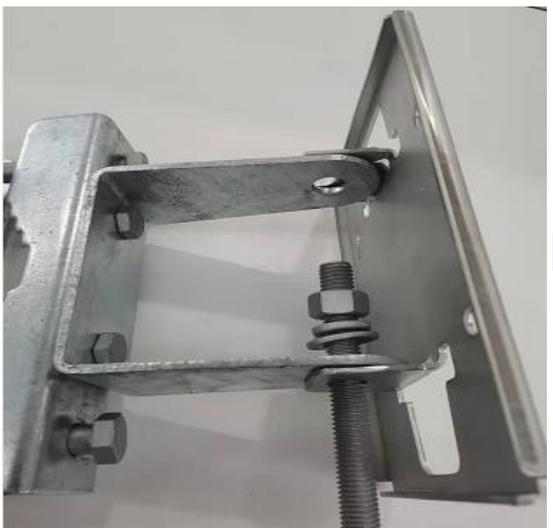

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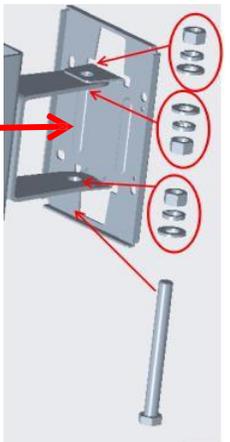
Installation (Use the Power adapter)
Bracket Assembly

Step4: Assemble the Pole mount bracket

The positioning hole faces down

Note the sequence of screw and washer
(From M12 Screw pack)

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Installation (Use the Power adapter)
Mount the Bracket on the pole

Step5: The bracket assembly is mounted on the iron pole.

Note the sequence of screw and washer

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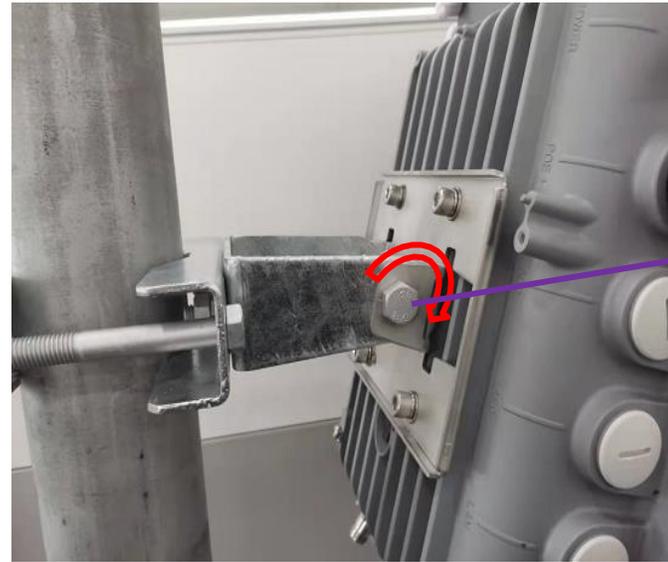# Installation (Use the Power adapter)
Mount the Device
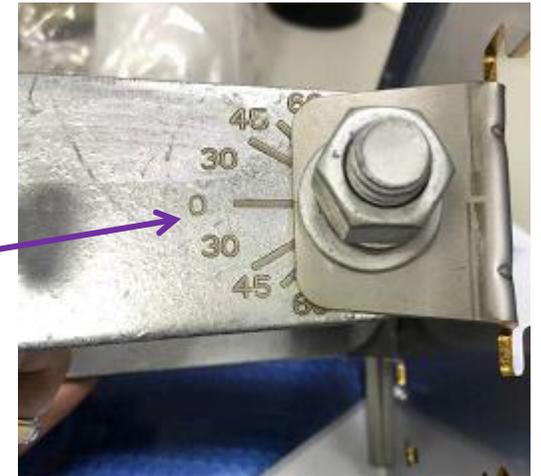
Step6: Mount the device on the bracket

Align the positioning hole

Lock with M8*16 screws
(From M8 Screw pack)
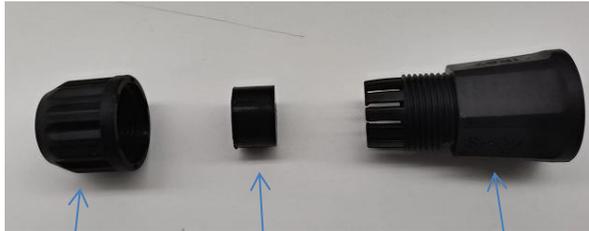

Adjust the tilt angle required by the device

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Installation (Use the Power adapter)
Cable Assembly

Step7: Install the RJ45 cable

Waterproof sleeve

Lock nut   **Waterproof circle**   **Waterproof connector**

1. Route the network cable through the waterproof sleeve.

2. The network cable into the WAN/PoE port on device.

3. The waterproof connector locks the RJ45 connector.

4. The lock nut lock is connected to the waterproof connection.

①

②   RJ45 connector

③

④

Assembly of waterproof circle
(into the wateroppf connector)

Assembled in WAN/PoE ports

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Installation (Use the Power adapter)
Cable Assembly

Step8: Install the Grounding cable

Grounding screw on the device

The grounding cable can be connected to any grounding terminal

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Installation (Use the Power adapter)

Step9: **Connect the Power adapter port to the power socket**

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