# INSTALLATION MANUAL

# E62-X3

## HIGH POWER

4T4R Digital Radio
46dBm Output Power
280MHz IBW
Outdoor Rated

# Revision History

| Revision Number | Revision Date | Summary of Changes | Author |
|---|---|---|---|
| 1.0.0 | June 6, 2025 | New Format | Gabriel Kollat |
| | | | |
| | | | |
| | | | |

# Content

# General

The MobileAccess 6200 system components are designed for maximum safety and reliability when they are installed, used, and maintained by trained and qualified technicians in accordance with the procedures and instructions contained in this manual. To ensure the safe operation of your system, always follow the safety and operational recommendations in this manual.

## Warnings

- MobileAccess 6200 is not a consumer product. Please install and use MobileAccess 6200 in accordance with the instructions.

- Before installing or modifying any MobileAccess 6200 equipment, read and fully understand the entire instructions in this guide.

- Only qualified personnel are authorized to install and maintain the MobileAccess 6200 system.

- Changes or modifications to the MobileAccess 6200 equipment not expressly approved by the manufacturer could void the product warranty and the user's authority to operate the equipment.

- Follow Electro Static Discharge precautions to avoid any damage to PCB, PSU, etc.

- Keep equipment powered-off during installing or modifying.

- Low path loss cables connected to antennas are highly recommended.

## Site Considerations

- MobileAccess 6200 complies with FCC RF exposure limits for an uncontrolled environment.

- The system delay should be taken into consideration when there are neighboring BTS sites with overlapping in coverage.

- Pick an ideal easy-to-reach location for installation convenience.

- Verify that there is a minimum of a 50cm radius of space around MobileAccess 6200 equipment for the convenience of maintenance and on-site inspection.

- Install Primary A3 close to the service area for monitor and debugging.

## Environmental

Humidity and temperature have adverse efforts on the reliability of the MobileAccess 6200 system. Therefore, it is highly recommended to install the equipment in locations with stable humidity, temperature, and ventilation.

The equipment has to operate within the following humidity level and temperature range:

Humidity: 5-95% (Non-Condensing)

Operating Temperature range (A3/E3): -10 to 45℃

Operating Temperature range (E62-X3): -40 to 55℃

# Preparation

## Unpacking and Inspection

Unpack and inspect the packages as follows:

1. Open the shipping packages carefully for each unit from the protective packing sponge.

2. Ensure that all equipment and accessories have been delivered.

3. Ensure that all equipment and accessories have no damage. If there is any damage, contact your Airspan service agent.

## Tools

Electric drill, cross head screwdriver, side cutters, ladder, and other tools are needed for E62-X3 installation which is not offered from Airspan for now. Customers to provide these tools themselves.

Philips Screwdriver M6 and M3    Drilling Machine    Pen    Allen Wrench T5    Combination Spanner 17mm

Allen Wrench T3    Nut M10 and M12

## System Cabling

Here are the key features of MobileAccess 6200 E62-X3 system cabling

- Primary A3 connects E3-O using single port bidirectional SFP module.

- E3-O connects E62-X3 using single port bidirectional SFP module.

- See Section Optical Transceiver Module for SFP module connection.

## Optical Transceiver Module

### Single Port Bidirectional SFP Transceiver

The Figure below shows a pair of single port Bidirectional SFP transceivers. For devices optical connection, the transceivers of two sides must be paired - the wavelength of one side is 1270nm, and the wavelength of another side is 1330nm. Otherwise, it will fail the connection. All lower-level devices under this port won't be working in the system.

All the optical ports of all type devices have  LED indicators pointing to each port, which represent the synchronization status of the optical link. The indicator turns to green when optical modules are plugged in ports and synchronized. When the connection is down, the indicator remains red. If there is no optical module in port, the indicator is blank.

| Optical Indicator | Description |
| --- | --- |
| Green | Normal |
| Red | The optical path is not synchronized. |
| Blank | Optical module is not plugged in |

⚠ The single port SFP modules have to be used in pairs.

# Installation of the A3



## A3 Accessories

| Screw M6*16 | Screw M3*6 | |
|---|---|---|
|  |  | |
| Suspension Loop-L(white mark 'L') | Suspension Loop-R(white mark 'R') | AC Power Lead |
|  |  |  |
| CAT-5 Cable 1.5m | CAT-5 Cable For Fan | Ground Wire |
|  |  |  |

Figure 1. A3 Accessories

Note: the ground wire of A3 is 12AWG and 2 meter in Accessories package.

## A3 Rack Installation

The Access Unit is a 19" 1U equipment shelf, which is 2U with Fan integrated. When installing the Access Unit in a rack, make sure the mechanical loading of the rack is even to avoid a hazardous condition. The rack should safely support the combined weight of all the equipment and be securely anchored. Installing the Access Unit in a climate-controlled room with sufficient air circulation is recommended as the maximum ambient temperature is +45°C.

To install the Access Unit in the equipment rack.

1. Attach the 19" mounting brackets at the front of the A3, using 4 screws M3×6 per bracket and the Phillips screwdriver. Observe the orientation of the brackets. Suspension Loop-L installed on the left side of the A3, Suspension Loop-R installed on the RIGHT side of the A3.
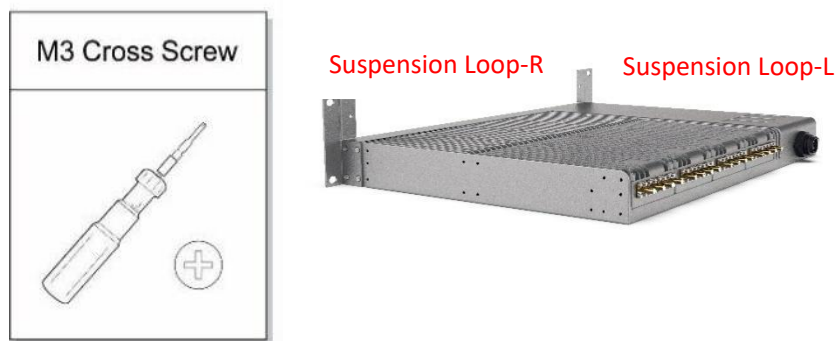
Figure 2. Attach Mounting Brackets

2. Install and connect the fan via CAT-5 cable.

Figure 3. Connect Fan Cable

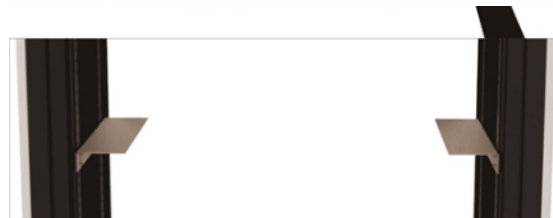3. Recommended attaching the sliding rails to rack. (Not included in delivery).





Figure 4. Sliding Rails

4. Place the A3 in the rack and secure the A3 using 4 screws M6×16 on both side and the Phillips screwdriver.

Figure 5. Place A3 in Rack



Figure 6. Rack Installation

5. Connect and lock the power cable at the A3 rear side.

6. Connect and screw the ground wire at the A3 rear side.



Figure 7. Connect Power and Ground Cables

## A3 Wall Installation

To install the Access Unit on the wall:

1. Rotate the handles 90°and attach them at the rear of the A3, using 8 screws M3×6 per bracket and the Phillips screwdriver. Observe the orientation of the brackets.





Figure 9. Attach Handles

2.    Mark 4 x ∅6.8mm drilling holes sites for the hanger to be attached to the wall.
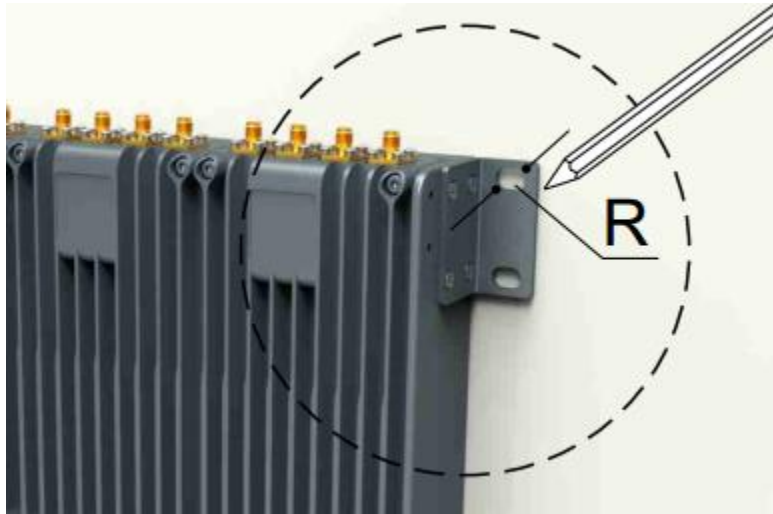


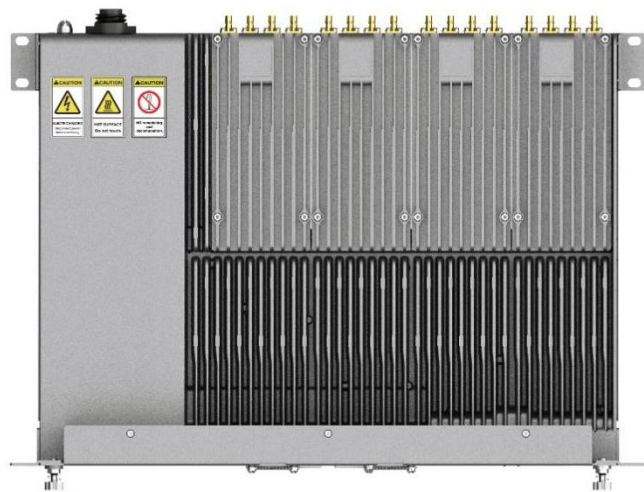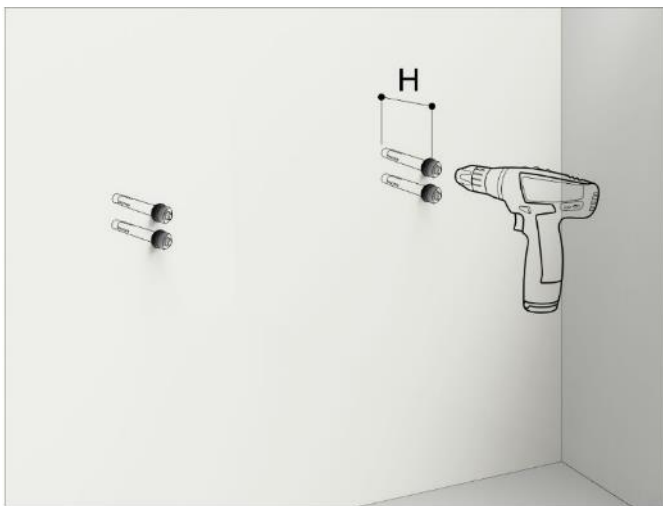Figure 10. Mark Drilling Hole

3.    Drill 4 holes at the marked sites using percussion drill and embed 4×∅10 plastic expansion pipes. Note: H=70mm.

Fasten the case with 4×M6 expansion bolt.



| Pen | Drill | Expansion Bolt |
|-----|-------|----------------|
|     |       |                |

Figure 11. A3 Wall Mounting

4. Connect and lock the power cable at the A3 rear side

5. Connect and screw the ground wire at the A3 rear side



Figure 12. Connect Power and Ground Cables
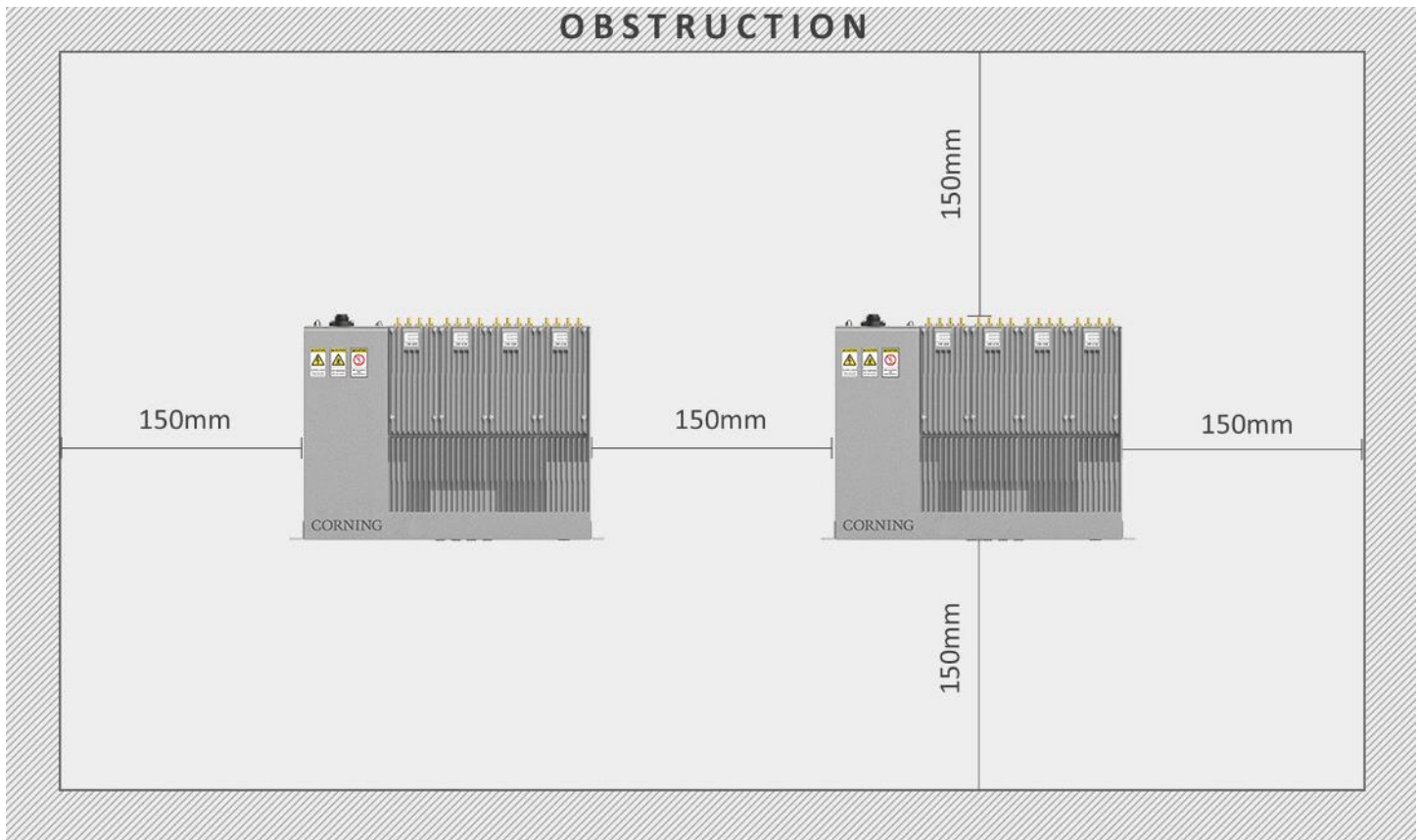


Figure 13. A3 Wall Mounting Completed

## A3 Wall Mounting Dimension Spacing



Figure 14. A3 Wall Mounting Dimension Spacing

# Installing the Expansion Unit (E3-O)



## E3-O Accessories List

| | Screw M6*16 | Screw M3*6 |
|---|---|---|
| |  |  |
| Suspension Loo | AC Power Lead | |
|  |  | |
| SFP28 modules | Ground Wire | |
|  |  | |

## E3 Rack Installation

The Expansion Unit is a 19" 1U equipment shelf. When installing the Access Unit in a rack, make sure the mechanical loading of the rack is even to avoid a hazardous condition. The rack should safely support the combined weight of all the equipment and be securely anchored. Installing the Expansion Unit in a climate-controlled room with sufficient air circulation is recommended as the maximum ambient temperature is +50°C.

To install the Expansion Unit in the equipment rack.

1.  Attach the 19" mounting brackets at the front of the E3, using 4 screws M3×6 per bracket and the Phillips screwdriver. Observe the orientation of the brackets.
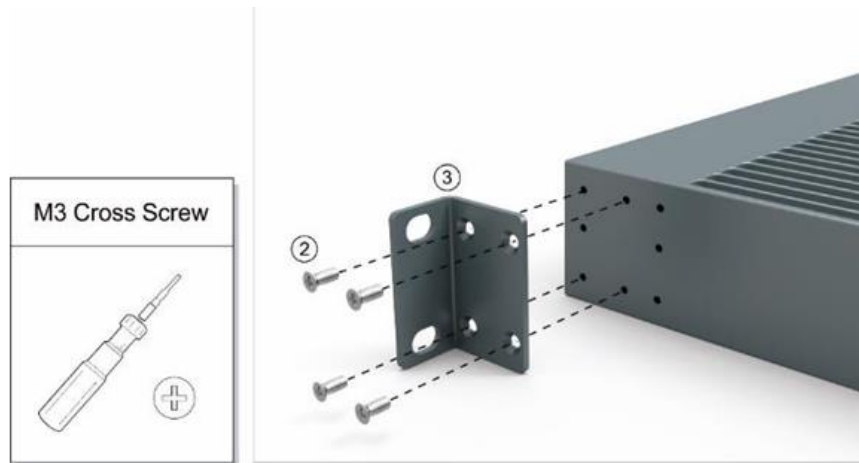
Figure 15.  Attach Handles

2. Recommended attaching the sliding rails to rack. (Not included in delivery).
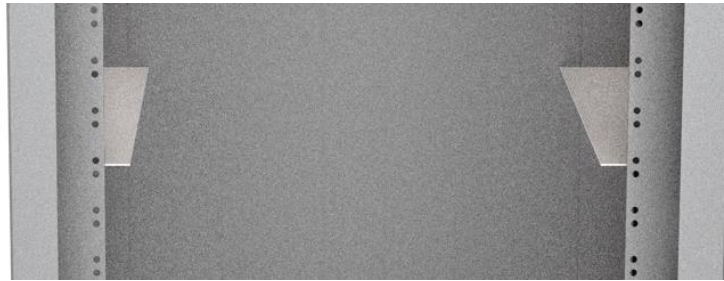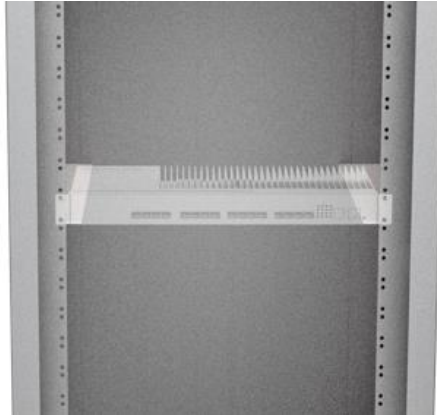


Figure 16. E3 Sliding Rails

3. Place the E3 in the rack and secure the E3 using 2 screws M6×16 on both side and the Phillips screwdriver.



Figure 17. Place E3 in Rack

Figure 18. E3 in Rack

4. Reserve enough free space or Install the fan for cooling if multiple devices are installed in the same rack.

⚠️ It is necessary to allow at least 1 rack unit (44mm) of free space above and below the E3 for heat dissipation or with 1 unit fan installed in the middle. Otherwise, the device temperature may rise and affect the service life of the device.



Figure 19. E3 Rack Spacing

5.  Connect and lock the power cable at the E3 rear side.

6.  Connect and screw the ground wire at the E3 rear side.



Figure 20. Connect Power and Ground Cables



Figure 21. E3 Rack Mounting Completed

## E3 Wall Installation

To install the Expansion Unit on the wall:

1. Rotate the handles 90°and attach them at the rear of the E3, using 4 M3×6 screws per bracket and the Phillips screwdriver. Observe the orientation of the brackets.
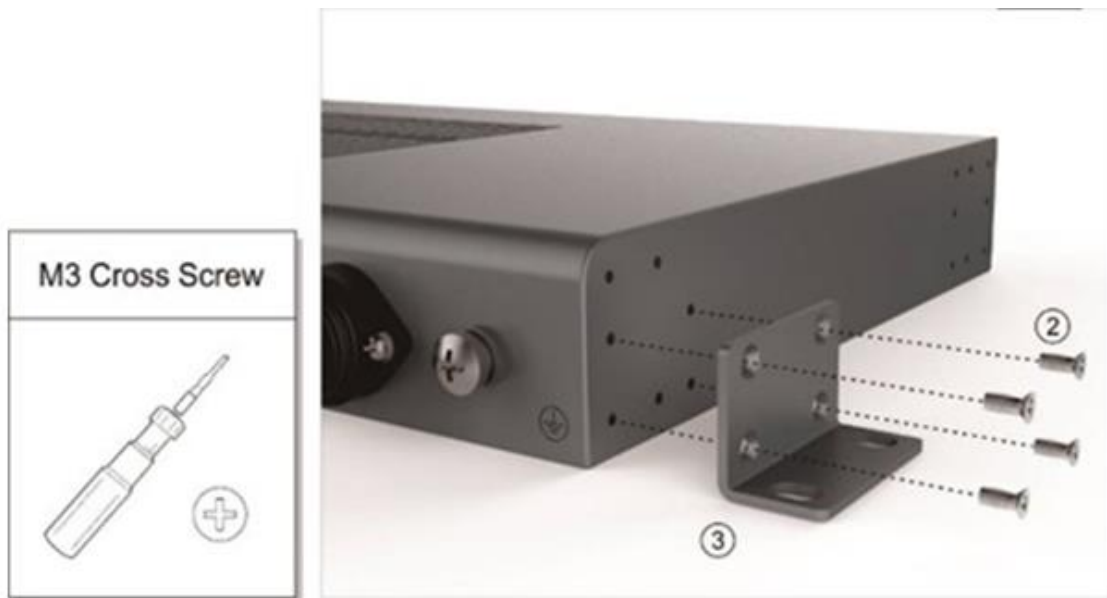


Figure 22. Attach Handles

2. Mark 4 x ∅6.8mm drilling holes sites for the hanger to be attached to the wall



Figure 23. Mark Drilling Holes

3. Drill 4 holes at the marked sites using percussion drill and embed 4×∅10 plastic expansion pipes. Note: H=70mm.

Fasten the case with 4×M6 expansion bolt.



| Pen | Drill | Expansion Bolt |
|---|---|---|
| | | |

Figure 24. Drilling Holes

4.  Connect and lock the power cable at the A3 rear side

5.  Connect and screw the ground wire at the A3 rear side



Figure 25. Connect Power and Ground Cables



Figure 26. E3 Wall Mounting Completed

## E3 Wall Mounting Dimension Spacing
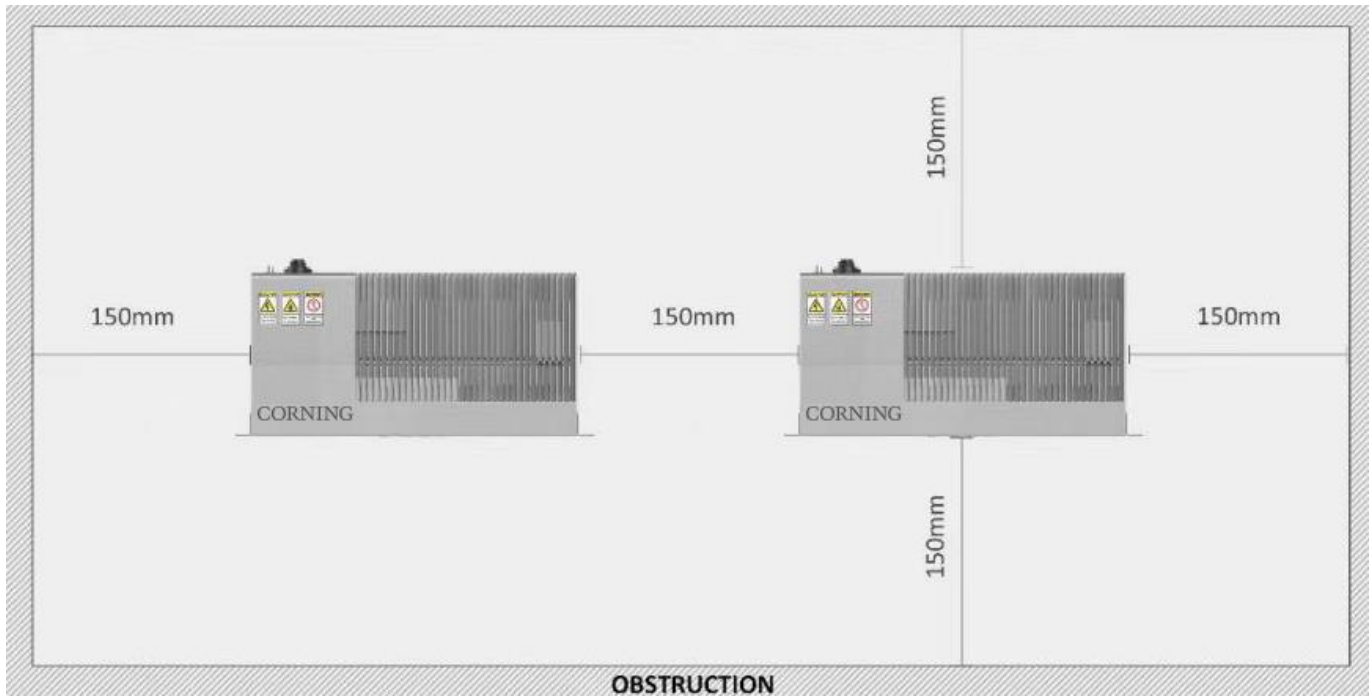


Figure 27. E3 Wall Mounting Dimension Spacing
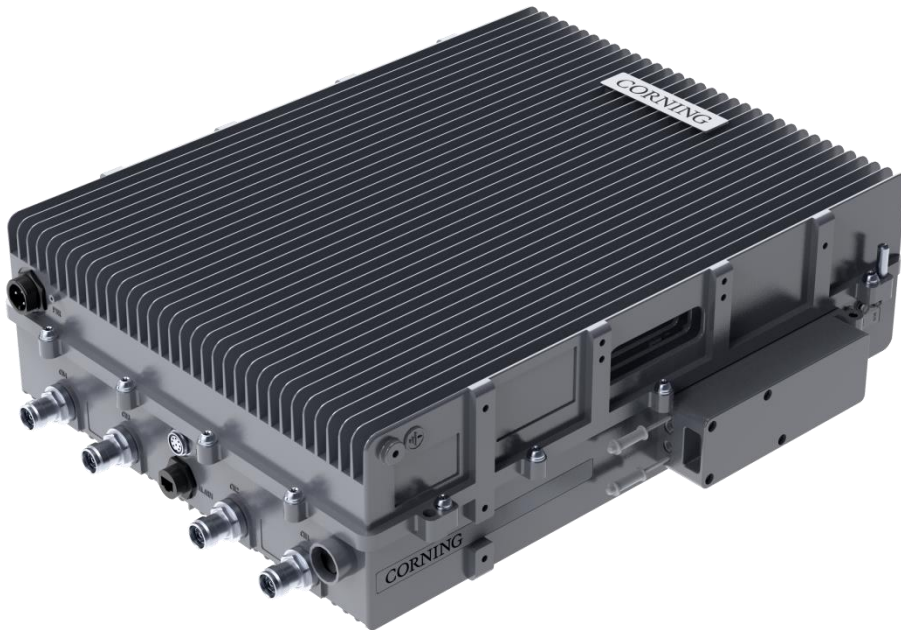
# Installing the Mid Power Remote Unit (E62-X3)



Figure 28. E62-X3

## Accessories List

| Accessories List | ① Nut M10 | ② Screw M6×14 | ③ Flat Washer M10 | ④ Spring Washer M10 |
|---|---|---|---|---|
| | | | | |
| | ⑤ Handle | | ⑥ Expansion Bolt M10×90 | |
| | | | | |

| ⑦ Optical Transceiver Ⅰ<br>Optical Transceiver Ⅱ | ⑧ Mounting Bracket Ⅰ | ⑨ Mounting Bracket Ⅱ |
|---|---|---|
| | | |

| ⑩ AC Power Lead 2.5m |
|---|
| |

| ⑪ Ground Wire 2m |
|---|
| |

## Wall Installation (Back on the Wall)

1.    Attach and fasten the handle to the side of E62-X3 with screws M6×14 using T5 Wrench.
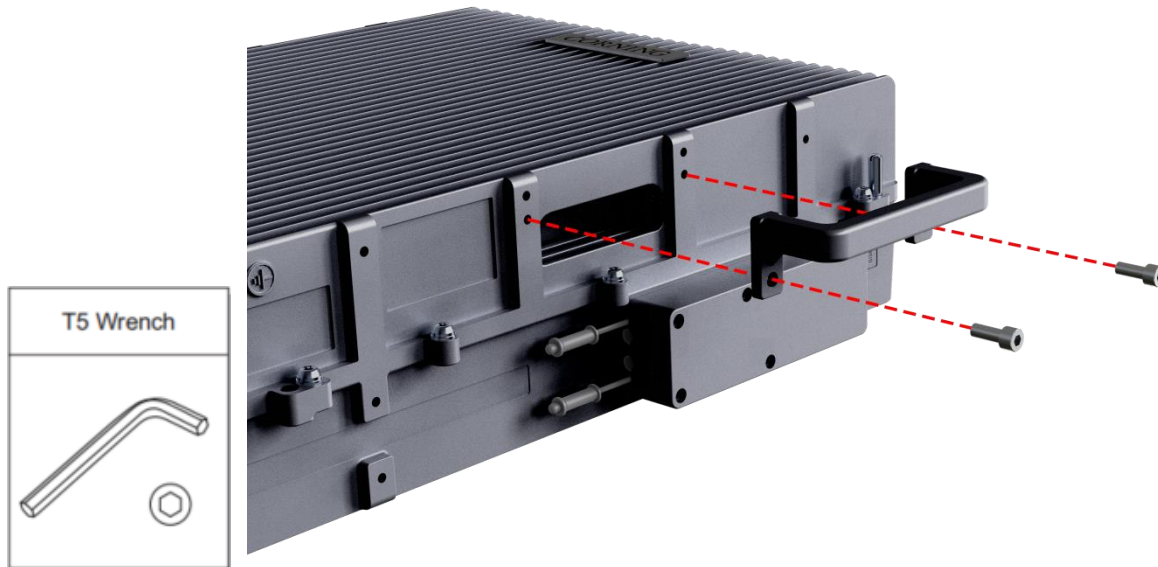


Figure 29.  Attach the handle to the E62-X3 Side

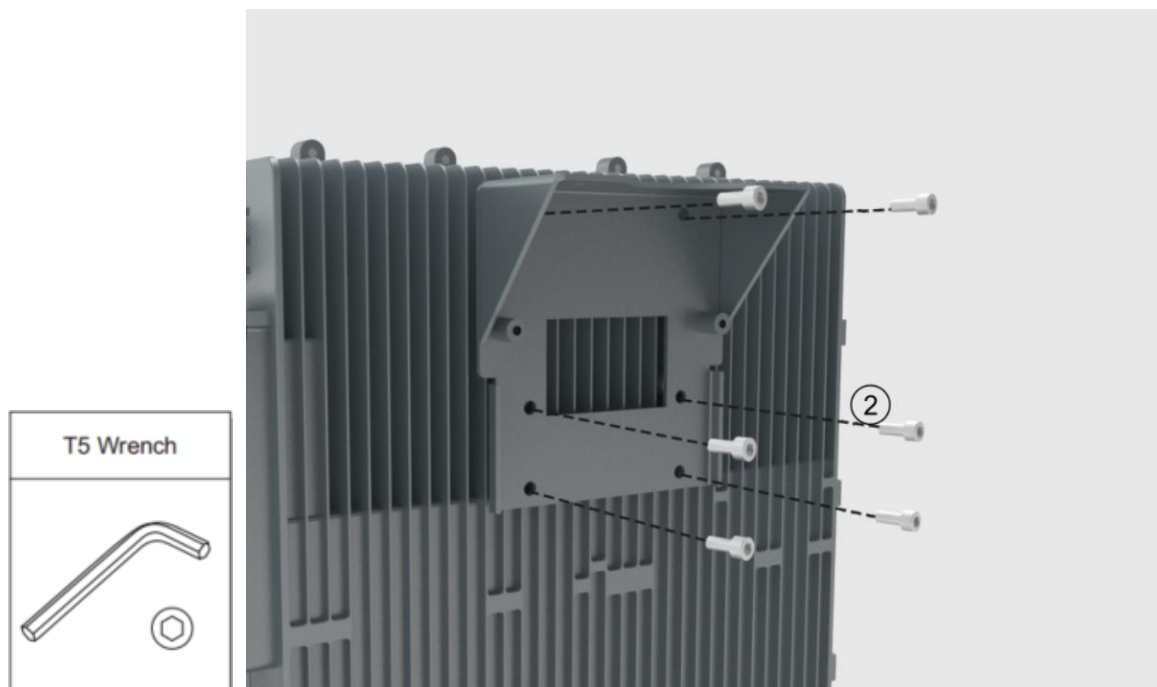2.    Attach and fasten the Bracket I to the back of E62-X3 with screws M6×14 using T5 Wrench.



Figure 30. Attach the Bracket I to E62-X3 Back

3.   Mark the position of the drilling holes in the mounting Bracket II. Note: R=13mm.
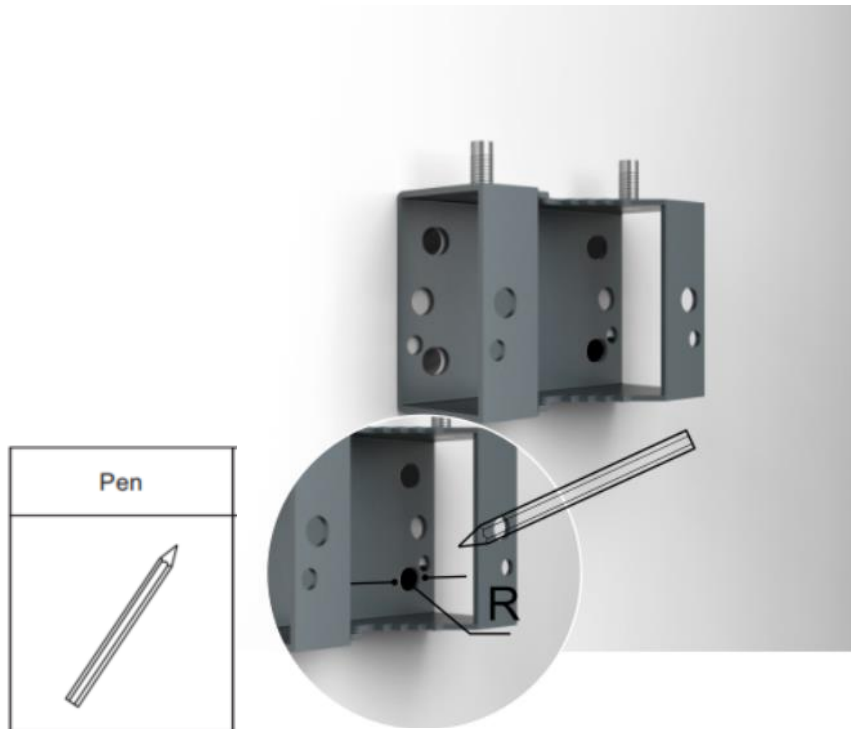


Figure 31. Mark the holes' position for Bracket II

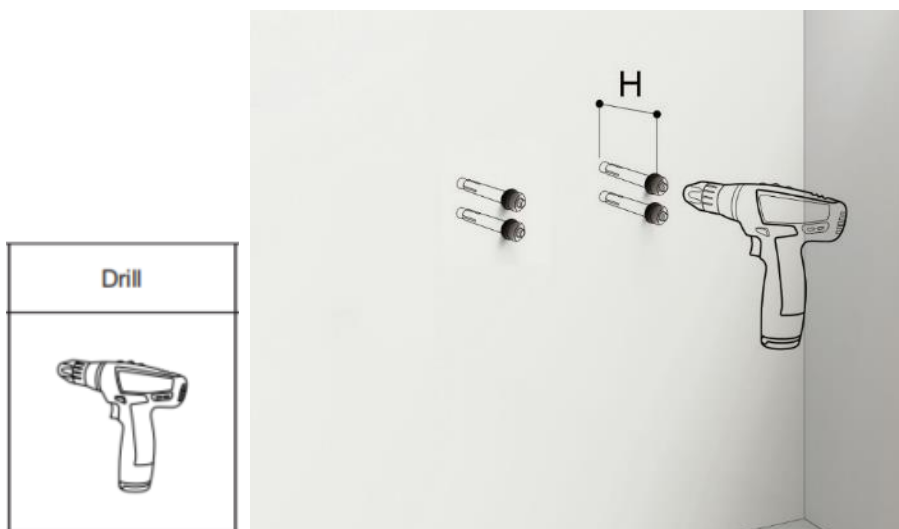4.   Drill 4 holes at the marked positions. Note: H=70mm.



Figure 32. Mark the holes' position for Bracket II

5.   Attach the dowels, expansion screws or the like and fasten the Bracket II to the wall.

Tips: use Bracket II as a reference to control each devices' separation distance before hanging and locking E62-X3 up.
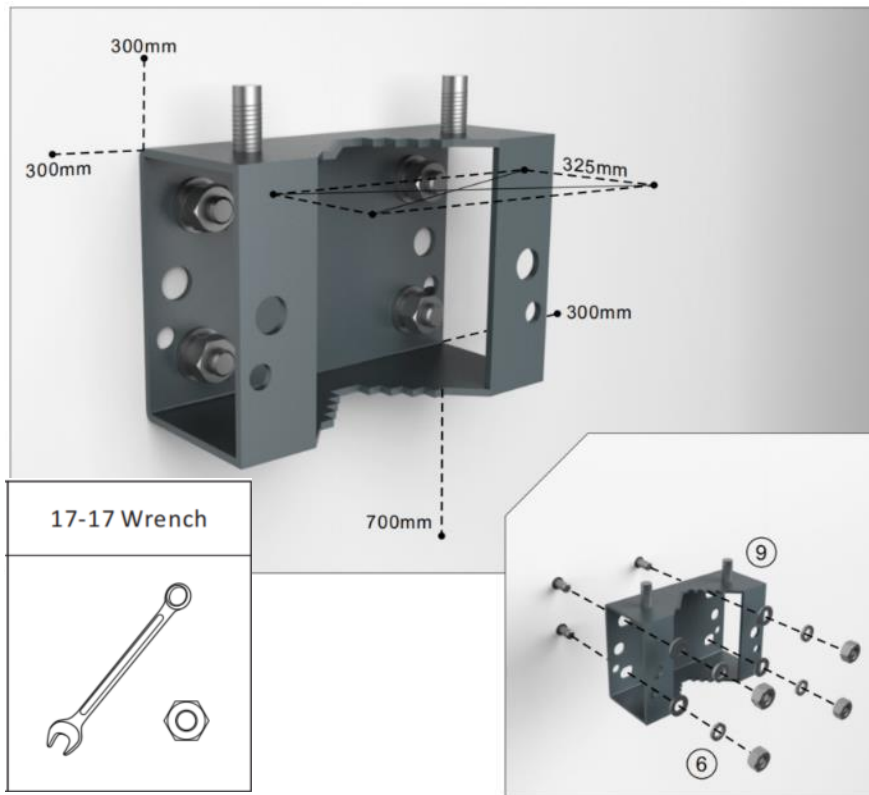
Figure 33. Fasten the Bracket II to the wall

6. Hang the E62-X3 on the mounting bracket II and fasten with nuts M10.
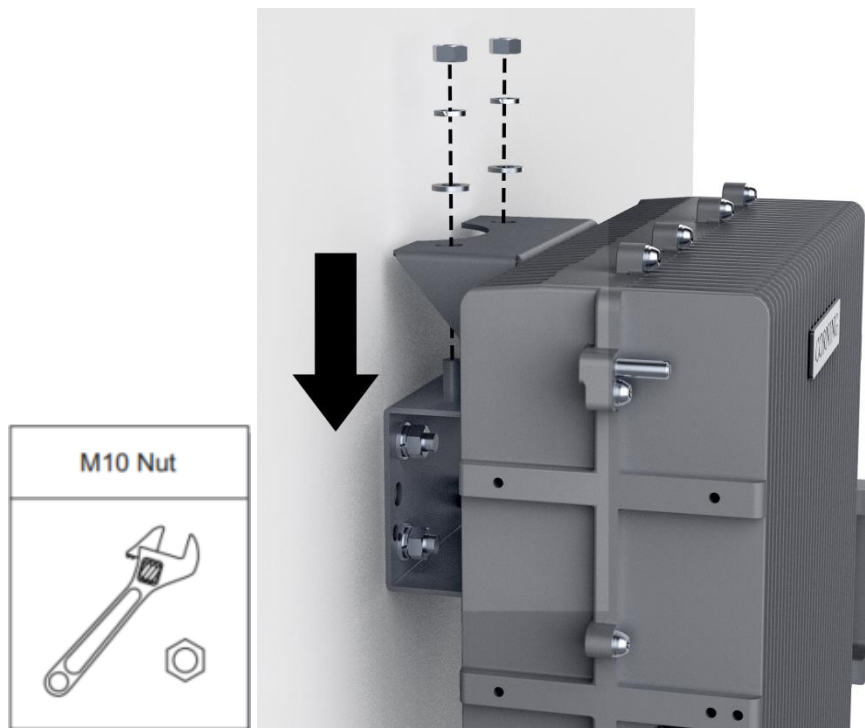


Figure 34. Hang the E62-X3 on the Bracket II

7.  Fasten the Bracket I and II with screws M6×14.



Figure 35. Fasten the Bracket I and II

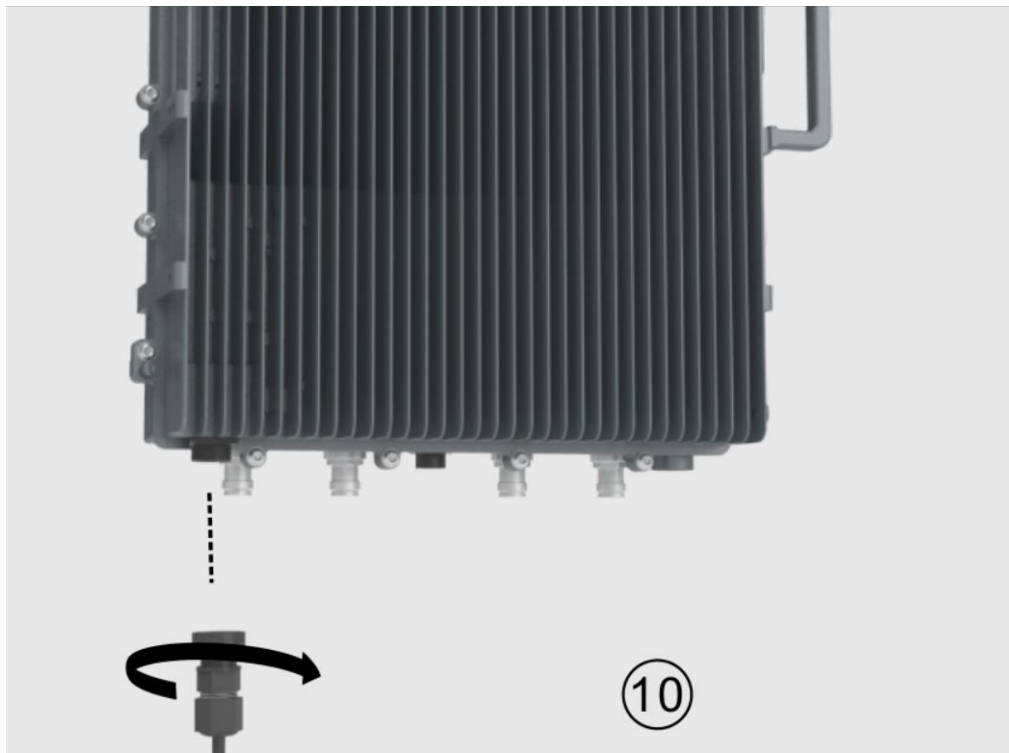8.  Connect and lock the power cable at the E62-X3 rear side



Figure 36. Connect the Power Cable of E62-X3

9.  Connect and screw the ground cable at the E62-X3's left side



Figure 37. Connect the Grouding Cable of E62-X3

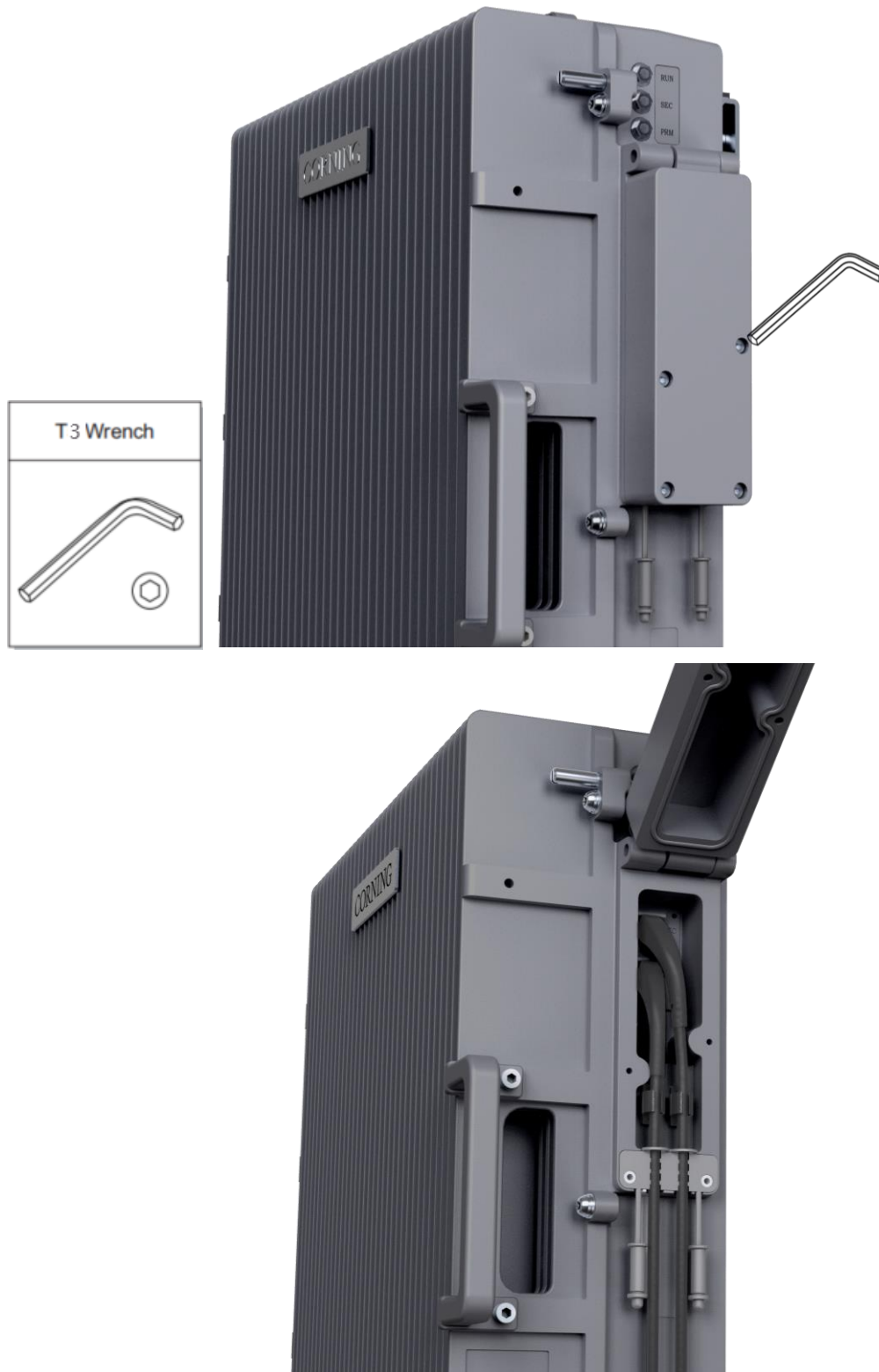10. Open the box on the right of E62-X3 and connect SFP module.



Figure 38. Open the Box and connect the SFP

## Wall Installation (Side on the Wall)

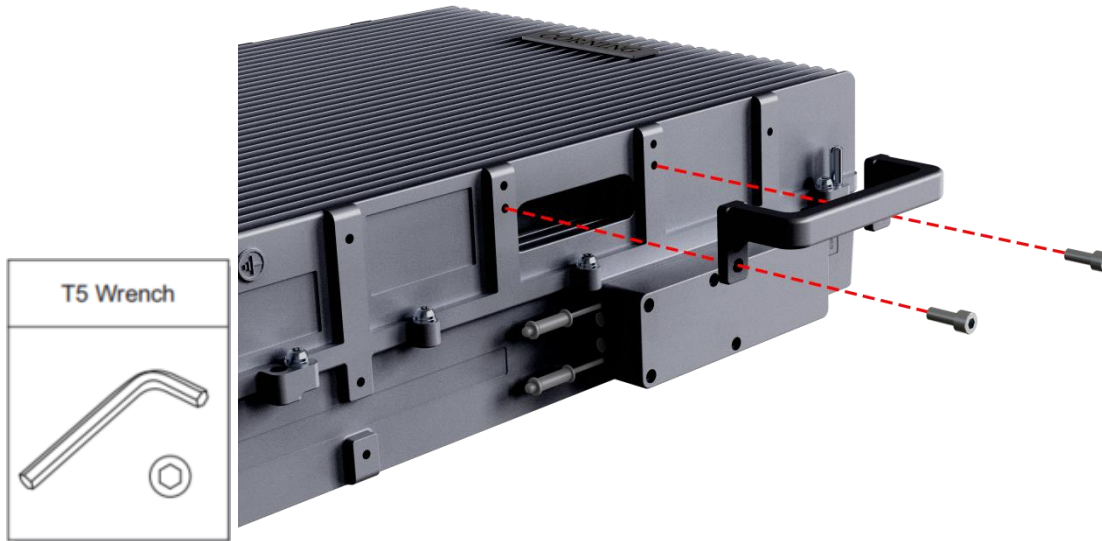1. Attach and fasten the handle to the side of E62-X3 with screws M6×14 using T5 Wrench.



Figure 39. Attach the handle to the E62-X3 Side

2. Attach and fasten the Bracket I to the left side of E62-X3 with screws M6×14 using T5 Wrench.
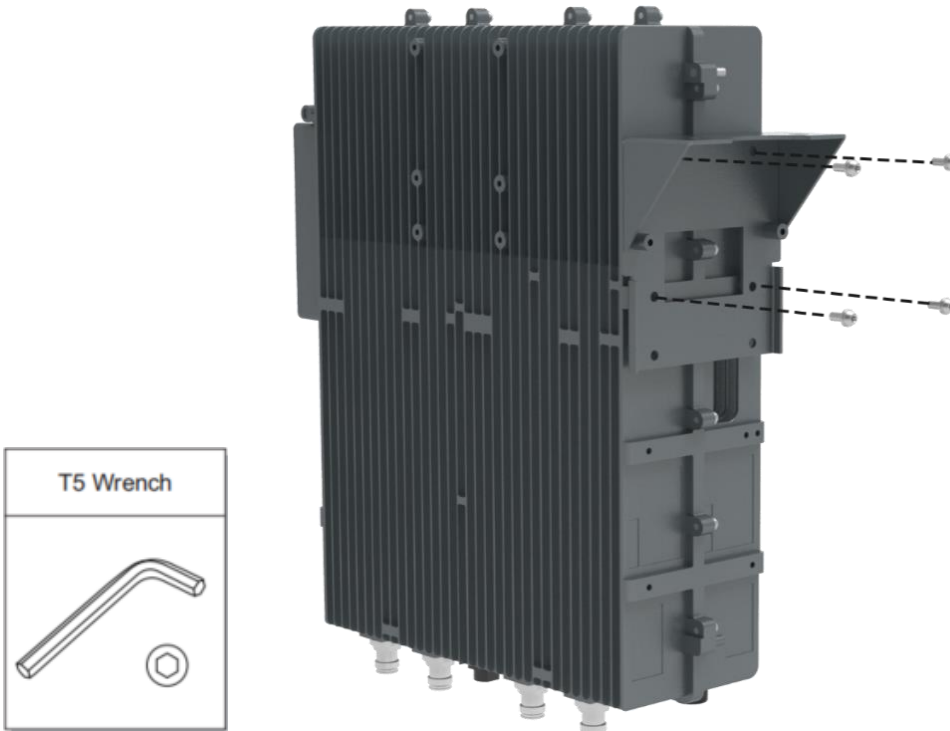


Figure 40. Attach the Bracket I to E62-X3 Side

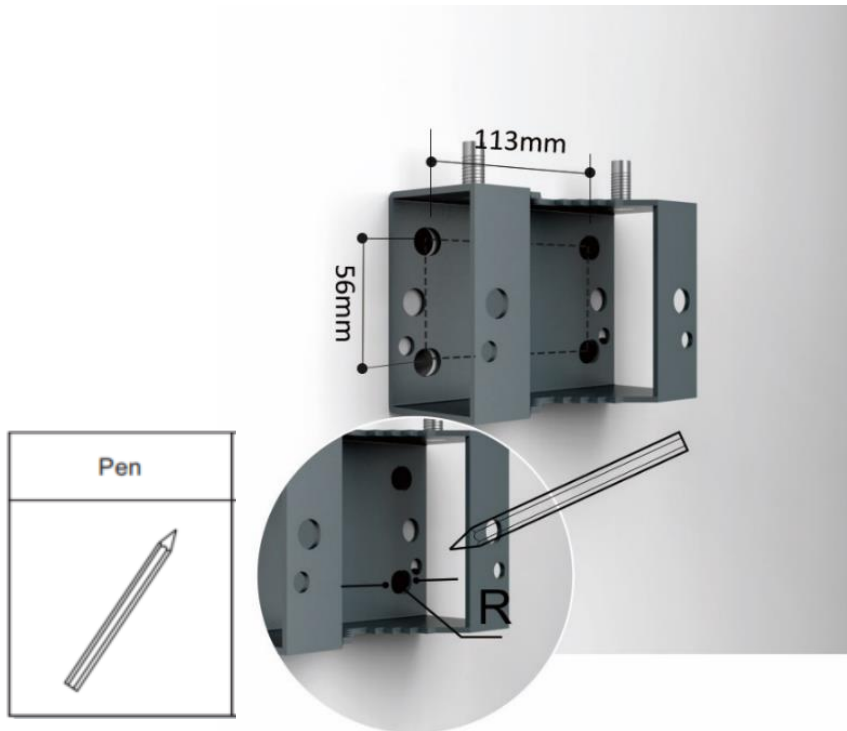3. Mark the position of the drilling holes in the mounting Bracket II. Note: R=13mm.



Figure 41. Mark the holes' position for Bracket II

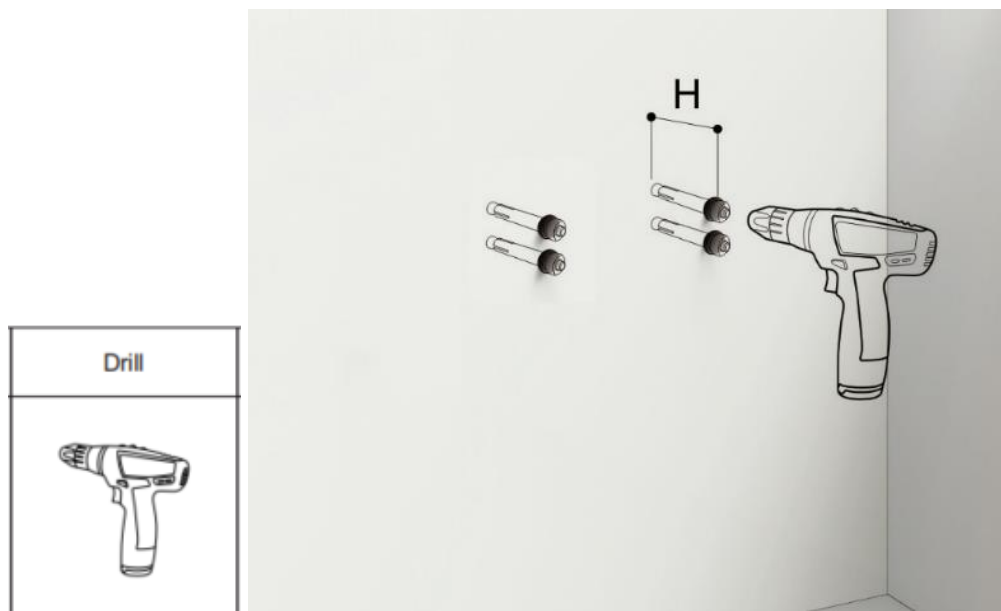4. Drill 4 holes at the marked positions. Note: H=70mm.



Figure 42. Drill the holes for Bracket II

5. Attach the dowels, expansion screws or the like and fasten the Bracket II to the wall.

Tips: use Bracket II as a reference to control each devices' separation distance before hanging and locking E62-X3 up.
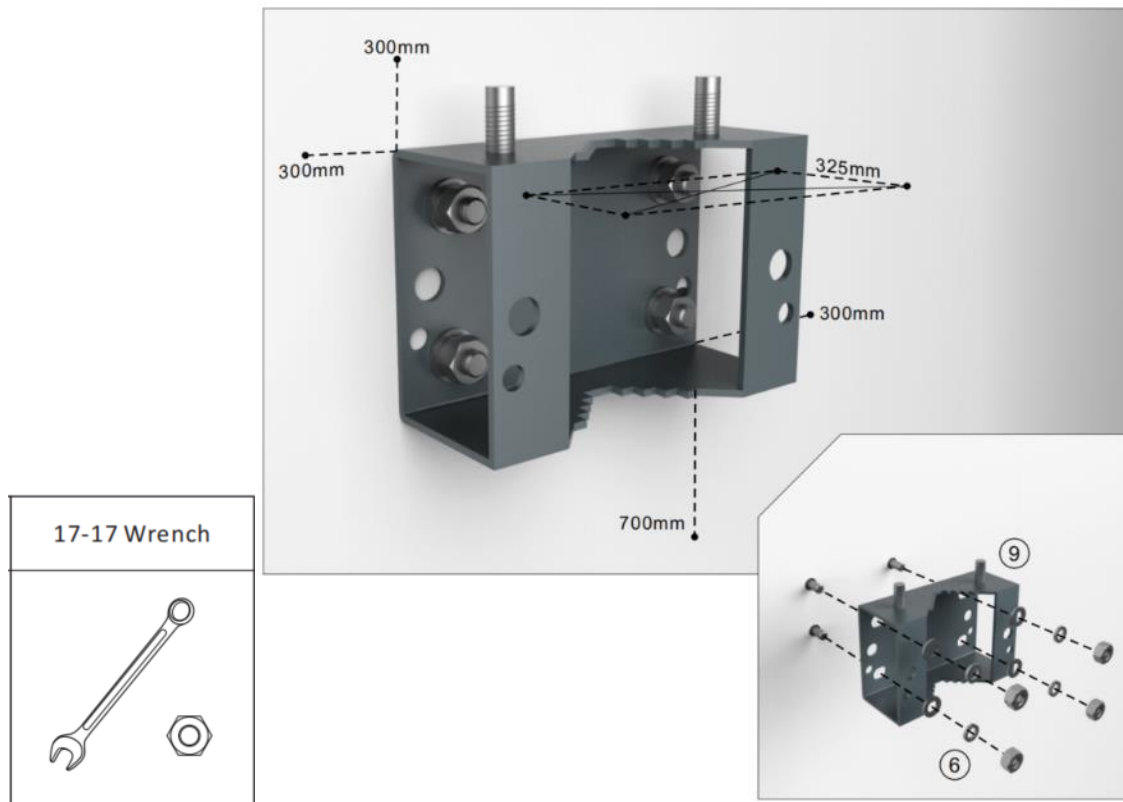
Figure 43. Fasten the Bracket II to the wall

6.  Hang the E62-X3 on the mounting bracket II and fasten with nuts M10.



Figure 44. Hang the E62-X3 on the Bracket II

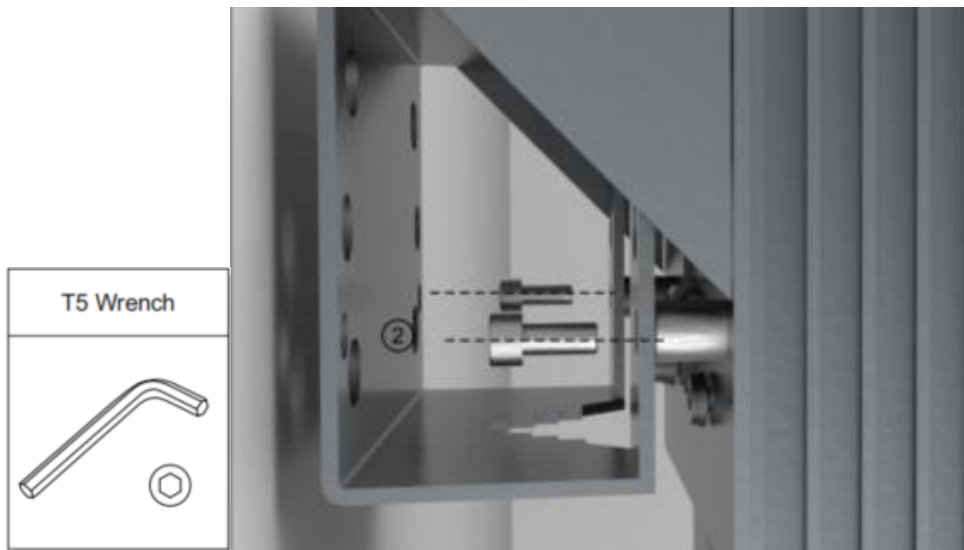7. Fasten the Bracket I and II with screws M6×14.



Figure 45. Fasten the Bracket I and II

8. Connect and lock the power cable at the E62-X3 rear side
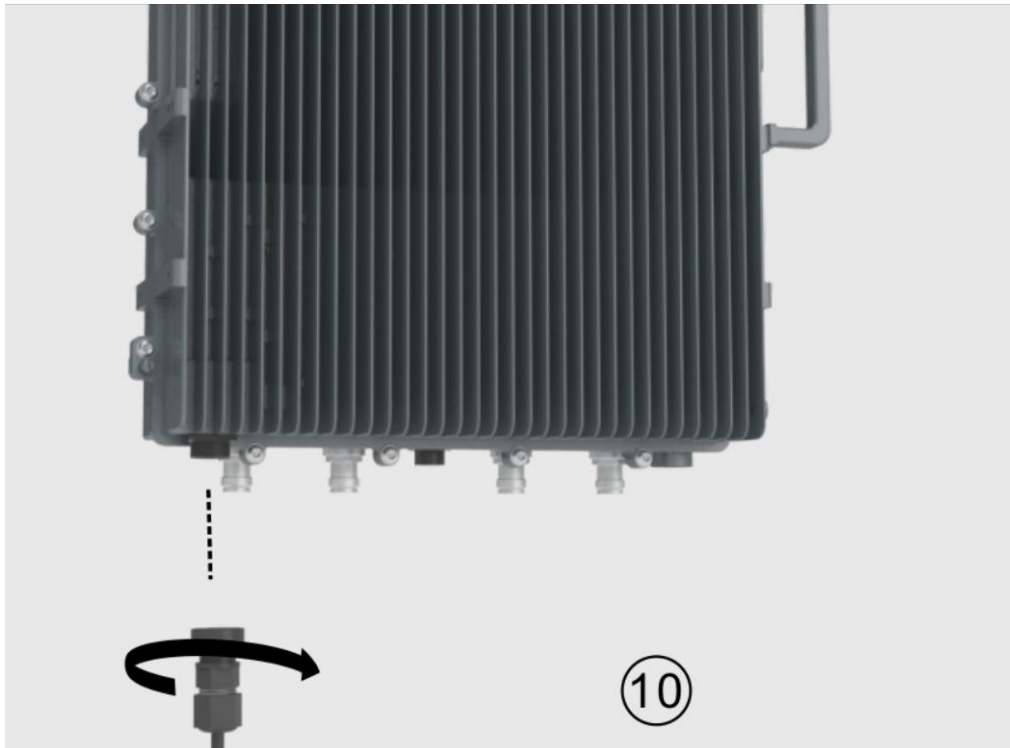


Figure 46. Connect the Power Cable of E62-X3

9. Connect and screw the ground cable at the E62-X3's left side.
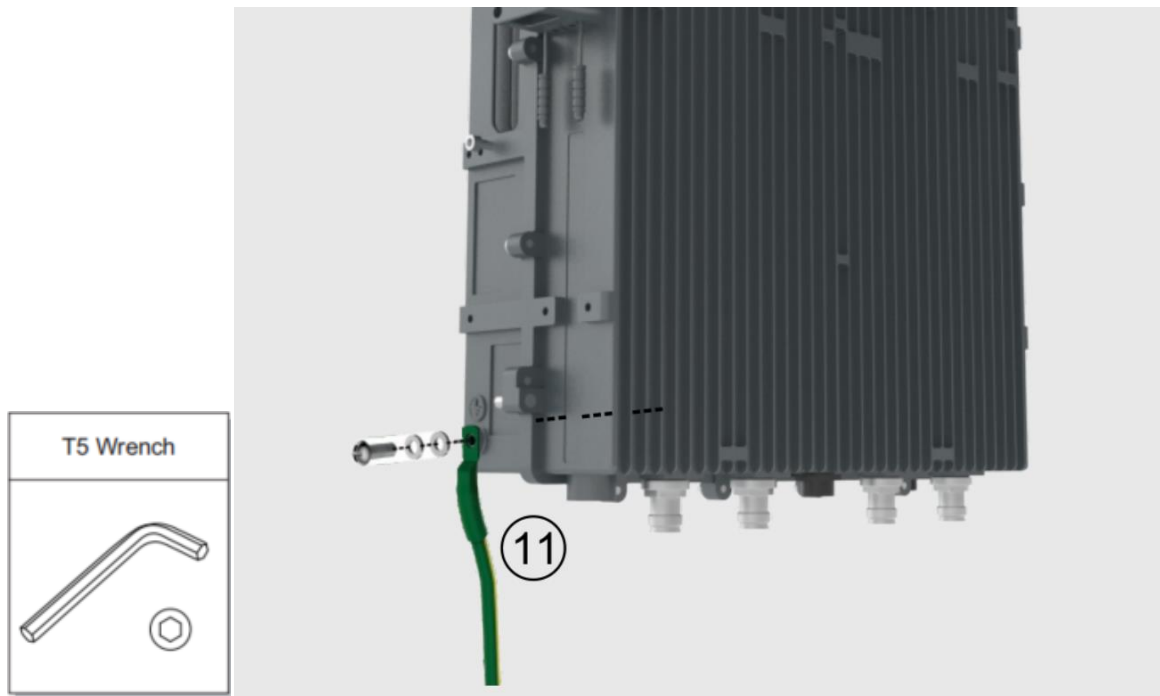
Figure 47. Connect the Grouding Cable of E62-X3

10. Open the box on the right of E62-X3 and connect SFP module.

Figure 48. Open the Box and connect the SFP
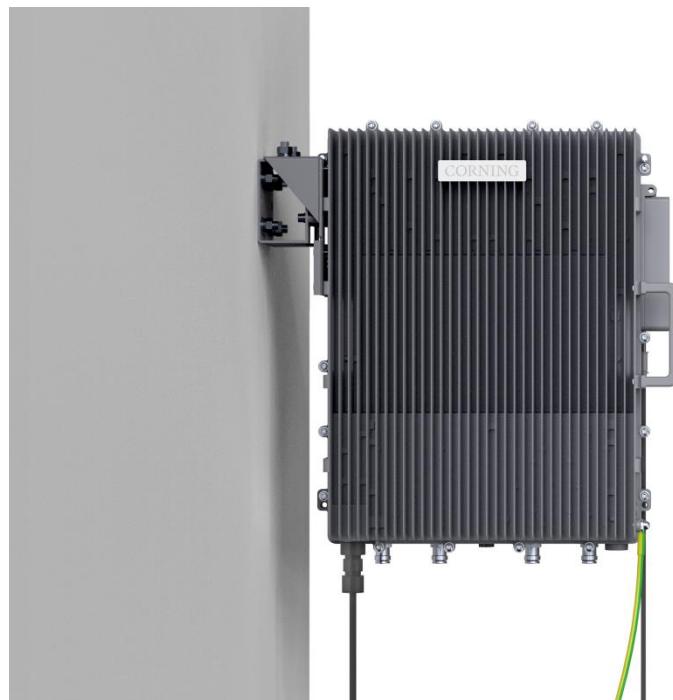
11. E62-X3 Intalled Side on the Wall.



Figure 49. E62-X3 Intalled Side on the Wall

## Pole Installation

1. Install the handle and Bracket I to the back of E62-X3.

2. Install the bracket II and Bracket III to the pole.

3. Hang the E62-X3 on the mounting bracket and fasten with nuts M10.

4. Connect the ground cable and power cable.

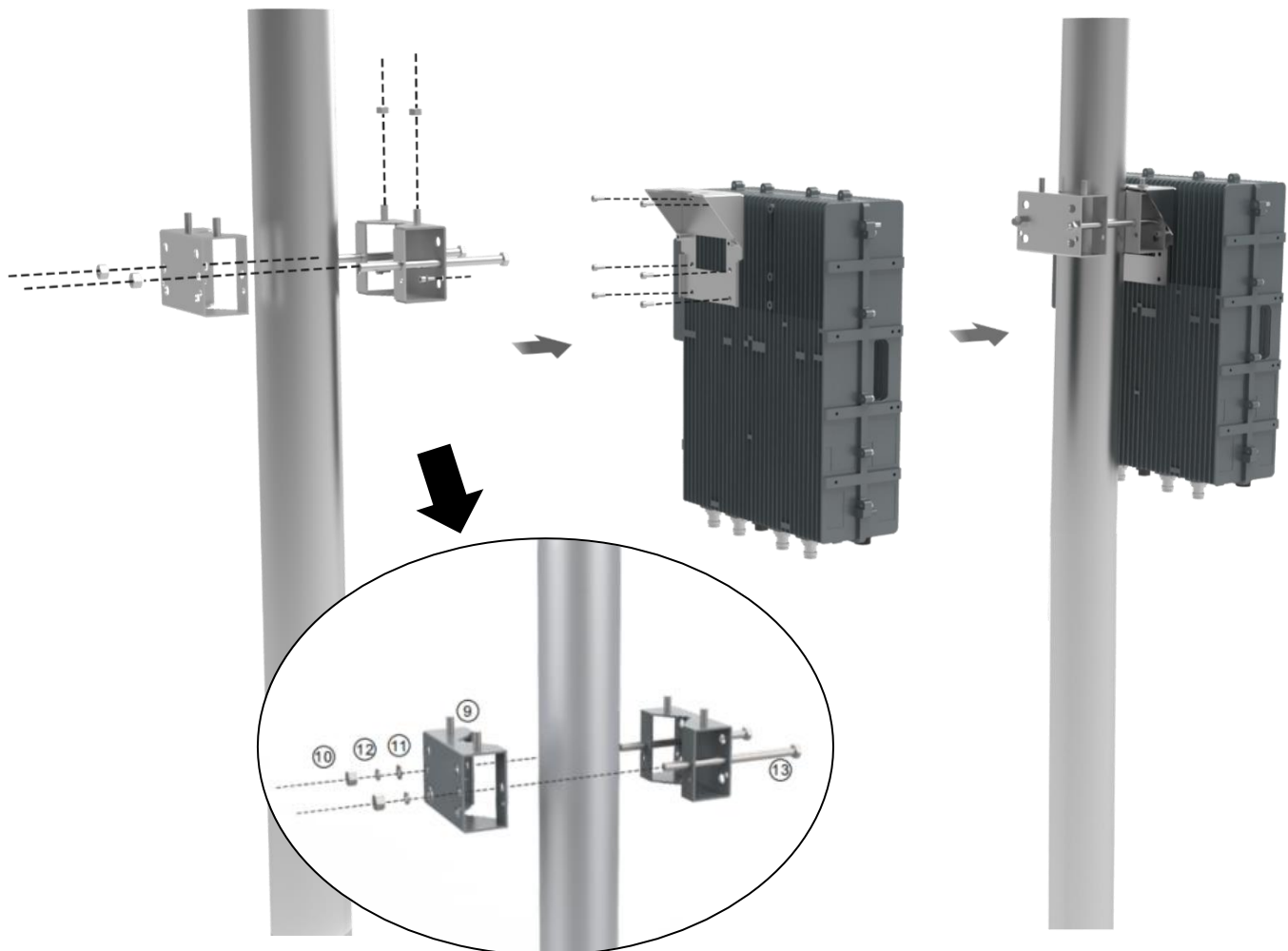Note: The diameter of Pole shall not be over 110mm or less than 55mm.



Figure 50. E62-X3 Pole Installation
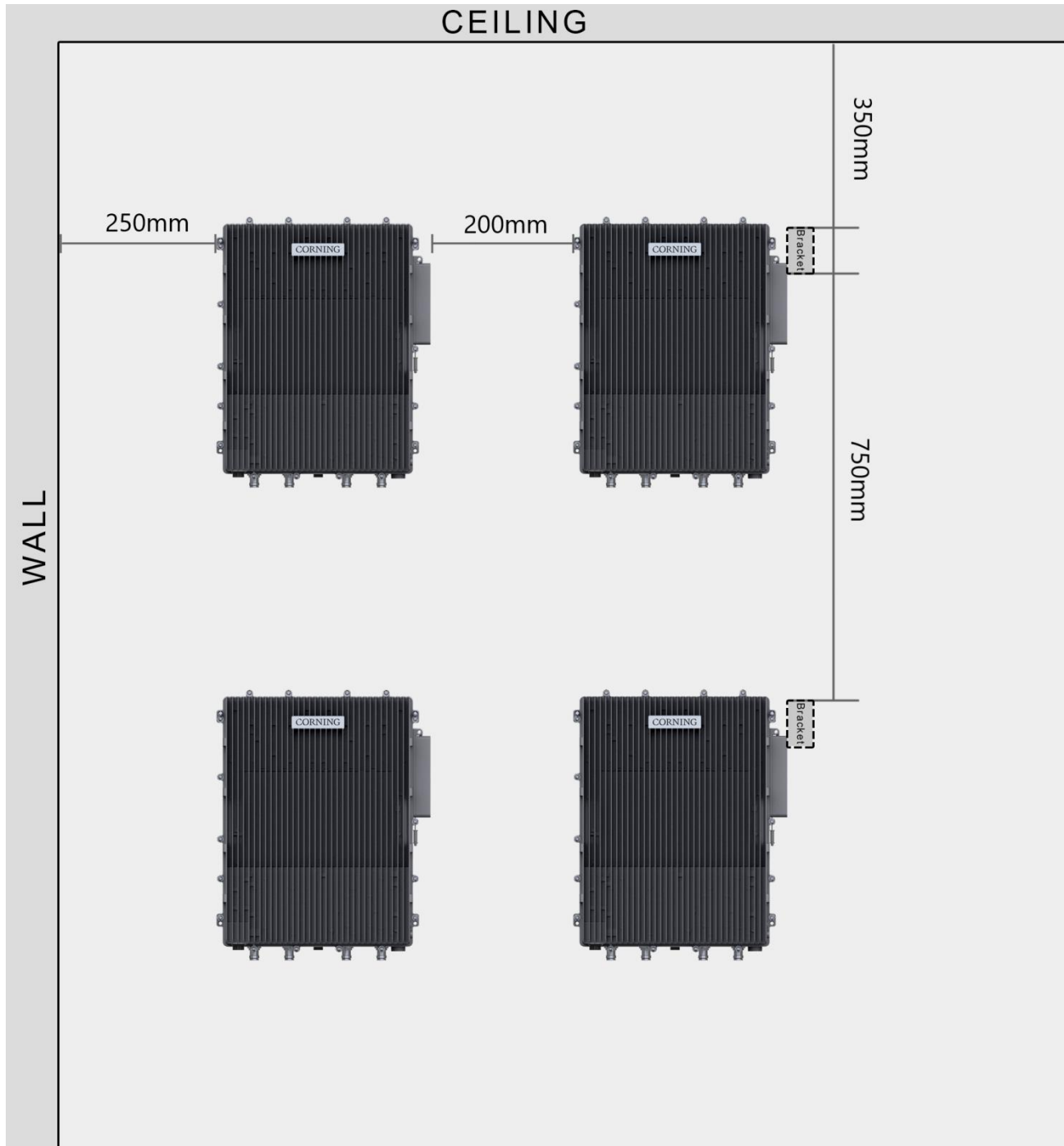
## E62-X3 Mounting Dimension Spacing



Figure 51. E62-X3 Wall Mounting Dimension Spacing

FCC Warning:

This device must be professionally installed.

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 310cm between the radiator & your body.

This is NOT a CONSUMER device. It is designed for installation by FCC LICENSEES and QUALIFIED INSTALLERS. You MUST have an FCC LICENSE or express consent of an FCC License to operate this device. Unauthorized use may result in significant forfeiture penalties, including penalties in excess of $100,000 for each continuing violation.

NOTE: Only authorized person can enter the area where the antenna is installed. And the person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means. Awareness of the potential for RF exposure in a workplace or similar environment can be provided through specific training as part of a RF safety program.