

WNC Stark ODU/IDU Installation Guide

2022/07/18



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Installation Statement

- The installations must be carried out by professional, trained technicians.
- This installation is intended for point-to-point 5G mmWave digital communications applications, the CPE front side which is mmWave antenna side should be installed and operated under line-of-sight condition.

Note on Screw Tightening with Specified Torque

- Please use torque wrench to tighten screws if the torque is specified.



Pole Mount Installation

1

Pole diameter range: 1.25~1.66inch

- Tighten bracket on a pole by using 2 hose clamps
- Use torque wrench(with hex socket) to tighten 2 screw on hose clamps:

Torque: 50.2~61.2 kgf-cm
Torque: 3.61~4.41 lbf-ft

2

Screw Heads

Slot holed

Put down the ODU

- Hang the ODU on the bracket by using 4 screw heads and insert into the slot hole
- Put down the ODU, the screw heads will fix ODU on bracket.

Normal Internal Use Confidential Restricted Confidential

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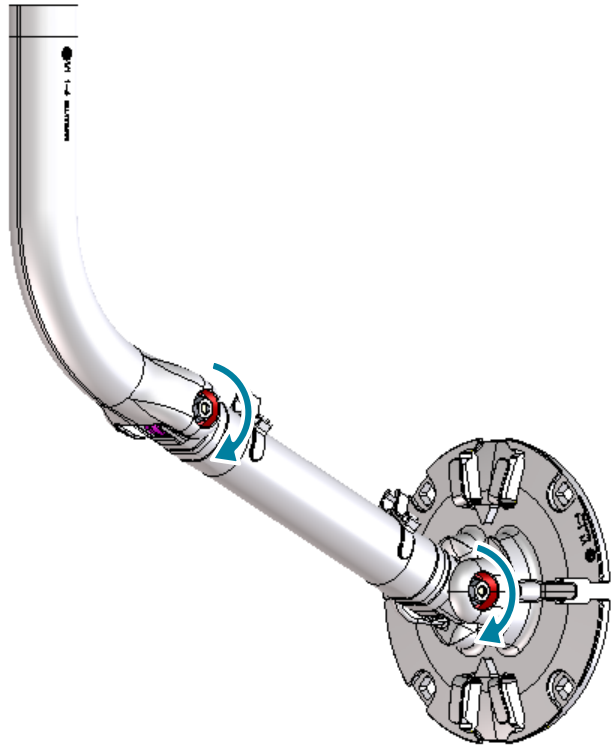
WNC



J-Pole Installation

J-Pole Installation

1

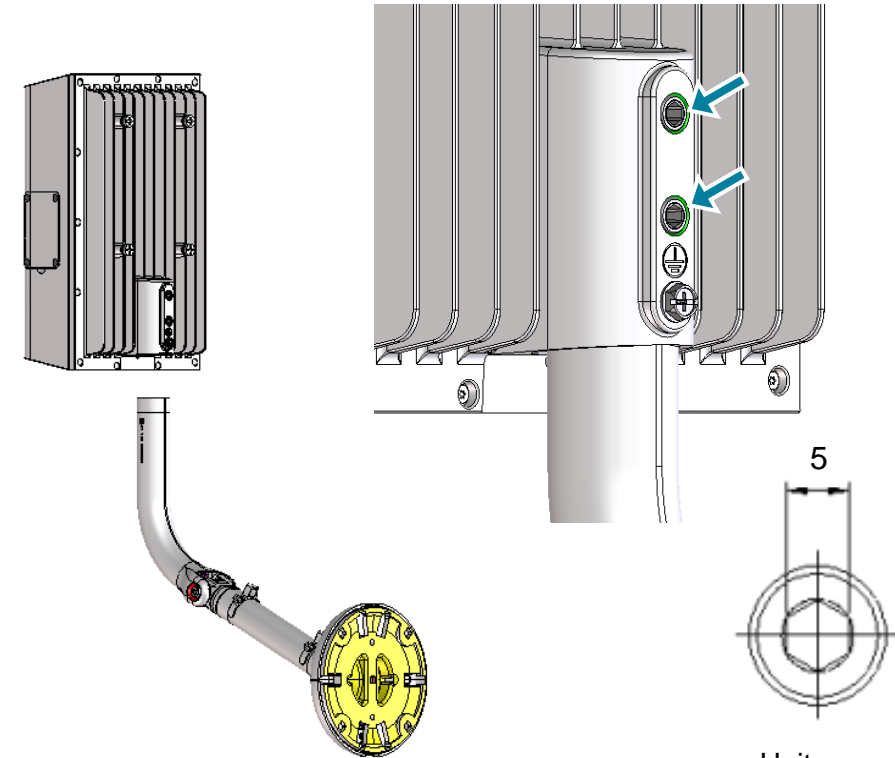


- Adjust pole angle to best meet base station direction.
- Tighten 2 elbow nut to fix the angle:

Torque: 140 +/-10 kgf-cm
Torque: 10.12 +/-0.72 lbf-ft

- Detail of the elbow screw is shown in next page.

2



- Hang the ODU device on the J-Pole
- Tightening two HEXI screw after ODE hang in place (screw had pre-mounted with j-pole already)

Torque: 60 +/-10 kgf-cm
Torque: 4.32 +/-0.72 lbf-ft

Unit: mm

J-Pole Installation

- Detail of the elbow screw:



Left View



Top View

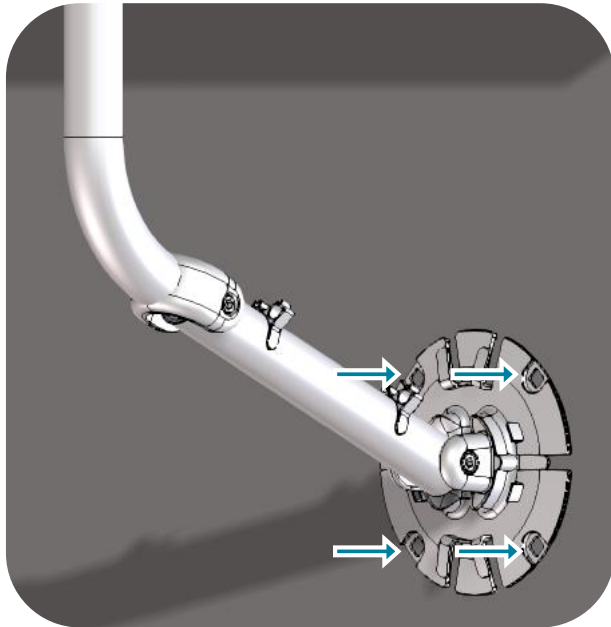


Right View

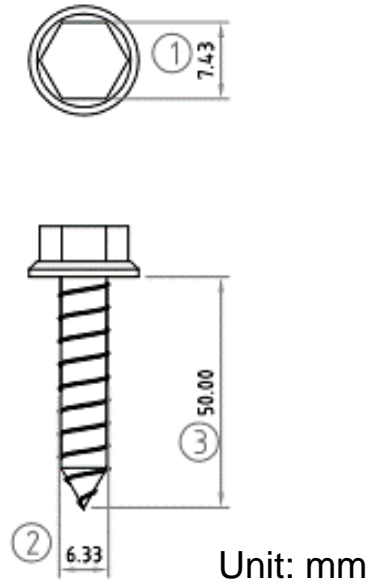
M6 nut
Tighten the nut
to fix the angle

J-Pole Installation

3



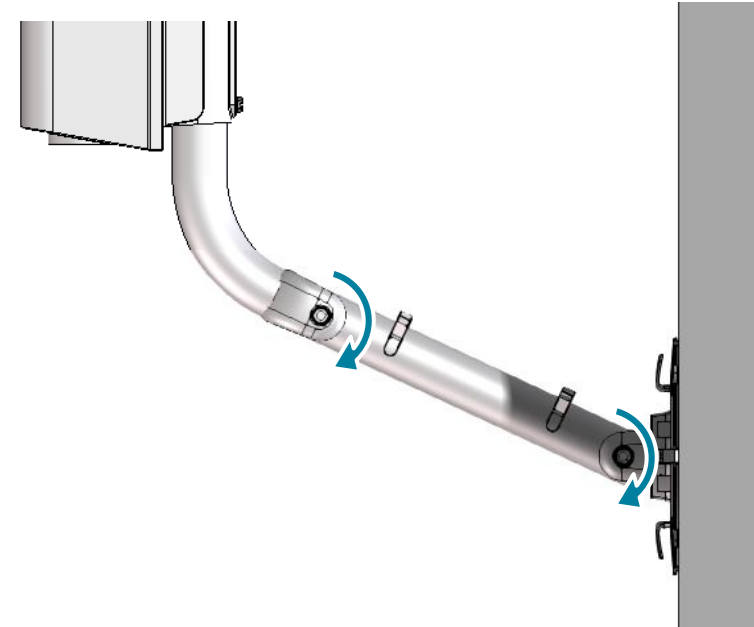
- Tighten 4 screws to fix the base bracket onto the wall.



- Screw information:

Screw Type: 1/4"x2" Wood Screw
Screw Head: HEX head

4



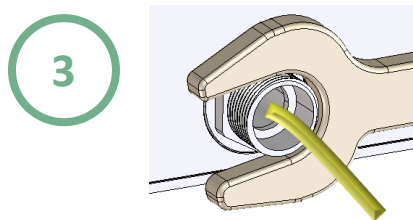
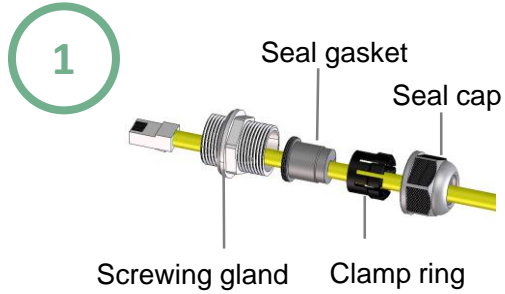
- (If need)Loosen 2 nuts and re-adjust pole angle to best meet base station direction.
- Tighten 2 elbow nut to fix the angle:

Torque: 140 +/-10 kgf-cm
Torque: 10.12 +/-0.72 lbf-ft

J-Pole Installation & cable dimension constraint

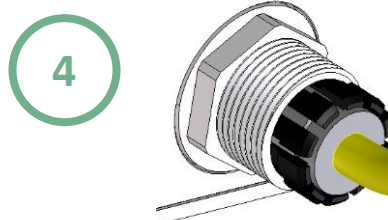
5

Finish the waterproof cable gland setup as below.

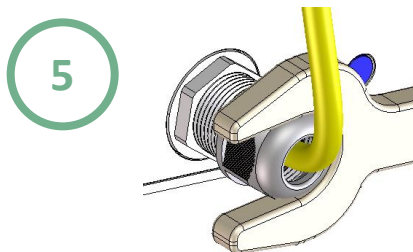


Wrench fix the screwing gland

Torque: 25~27kgf-cm



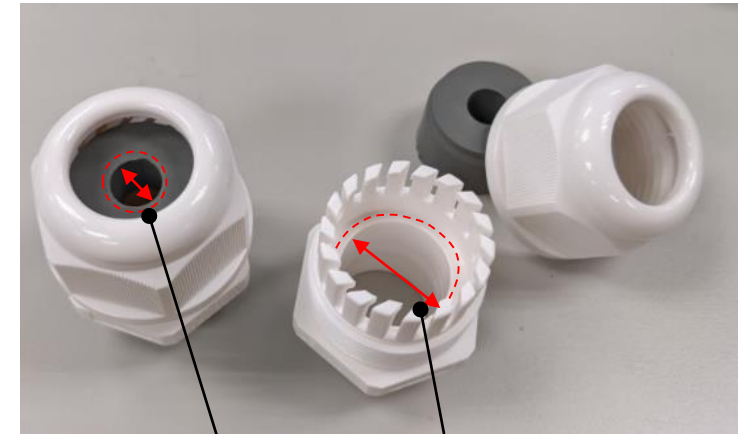
Put the gasket and clamp ring in



Wrench fix the seal cap

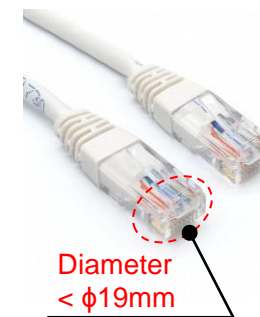
Torque: 15~25kgf-cm

Note: For ODU installation, please notice that cable size should not too big due to dimension constraint of cable gland.

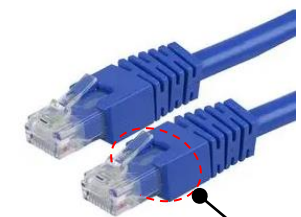


Cable diameter: 6.5~9mm

Access diameter: $\phi 19\text{mm}$ Max



Diameter < $\phi 19\text{mm}$



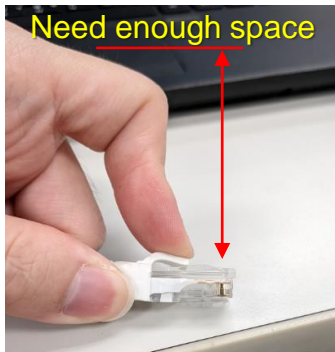
Diameter < $\phi 19\text{mm}$

J-Pole Installation

- **Notice:** Not recommend to use the cable with the latch jacket.



- Since pressing latch need a lot of space to do it. Therefore, if cable with the latch jacket, installer will hard to press it to desert the cable.



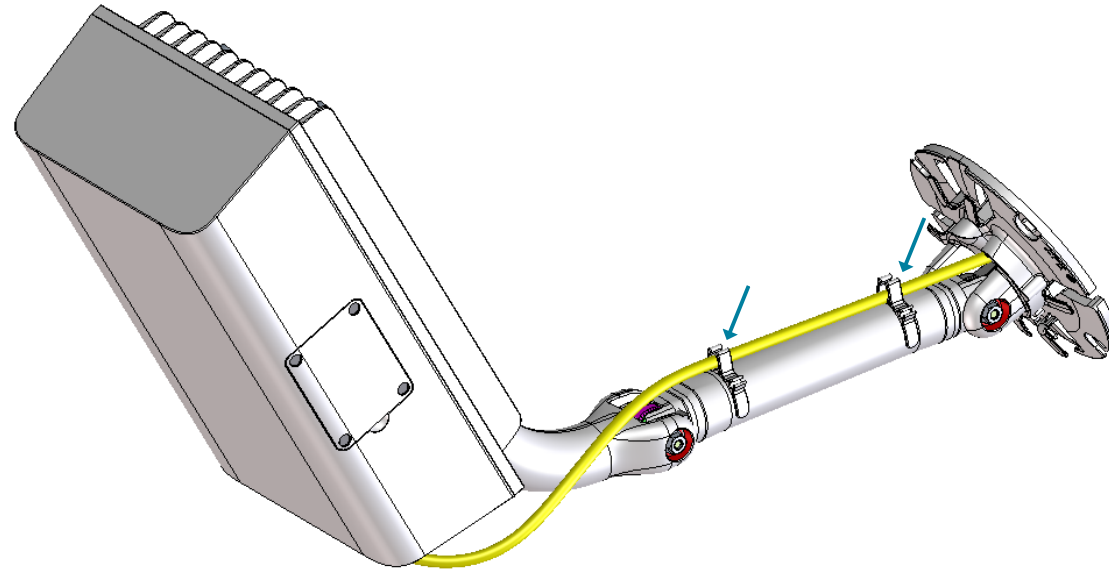
Hole is deep
Space is small

Latch jacket will occupy most of space and make finger/tool hard to insert in the hole

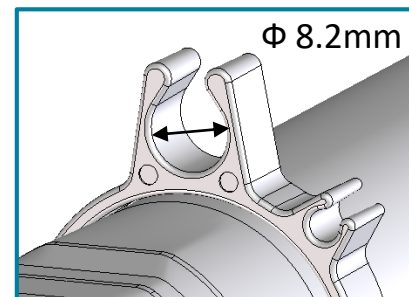


J-Pole Installation

6

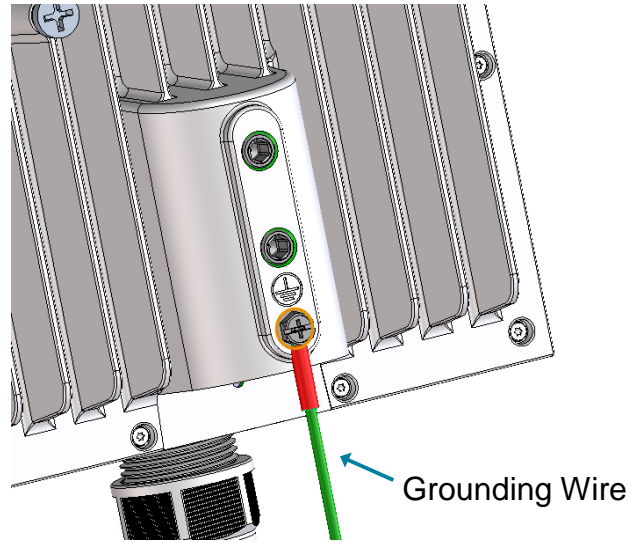


- Fix the cable along the pole with the clamps, shown in.



J-Pole Installation

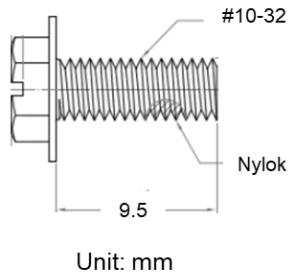
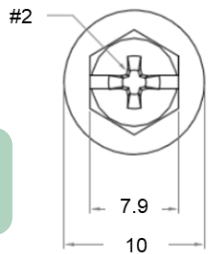
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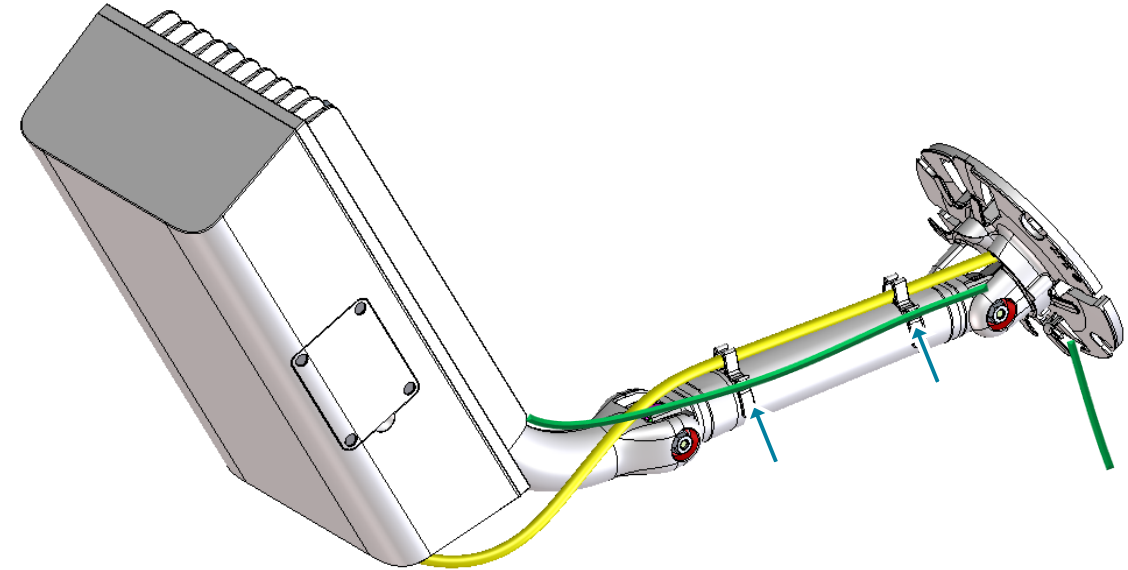
- Tighten the GND cable, screw information:

Screw Type: #10-32
Screw head: Phillips

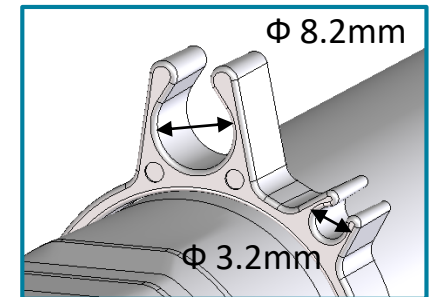
Torque: 10 +/-1 kgf-cm
Torque: 0.72 +/-0.07 lbf-ft



8



- Route the grounding cable through the bottom of pole and straight down directly.



J-Pole Installation

9

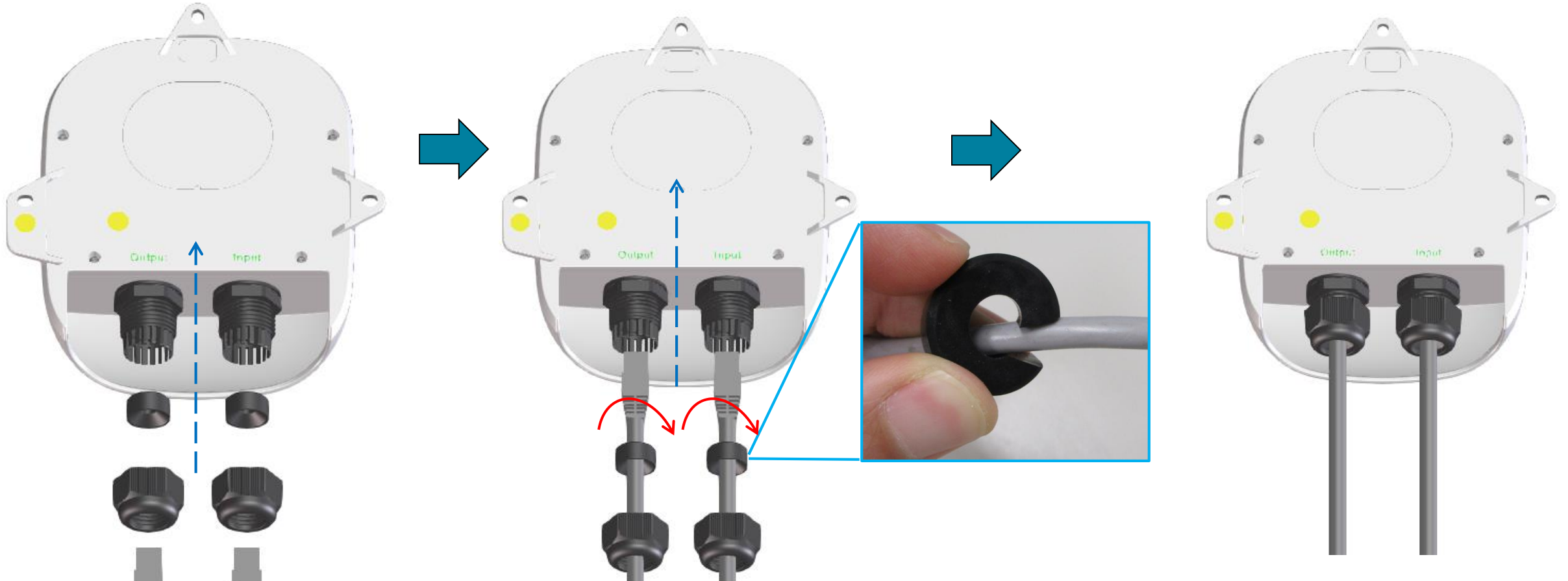


- Attach plastic bracket cover.
- The cover can be twisted open and wrap the bracket.
- Make sure cable is directly downward.



GND Box Installation

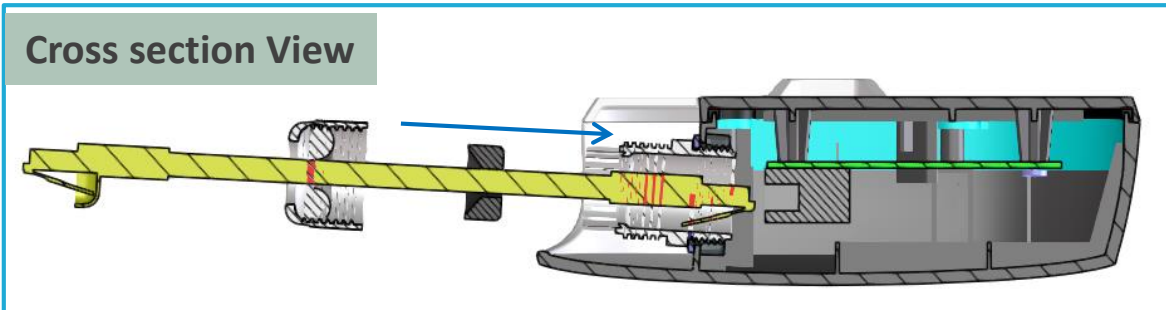
GND Box Installation



Torque : 30 +/- 4 kgf.cm

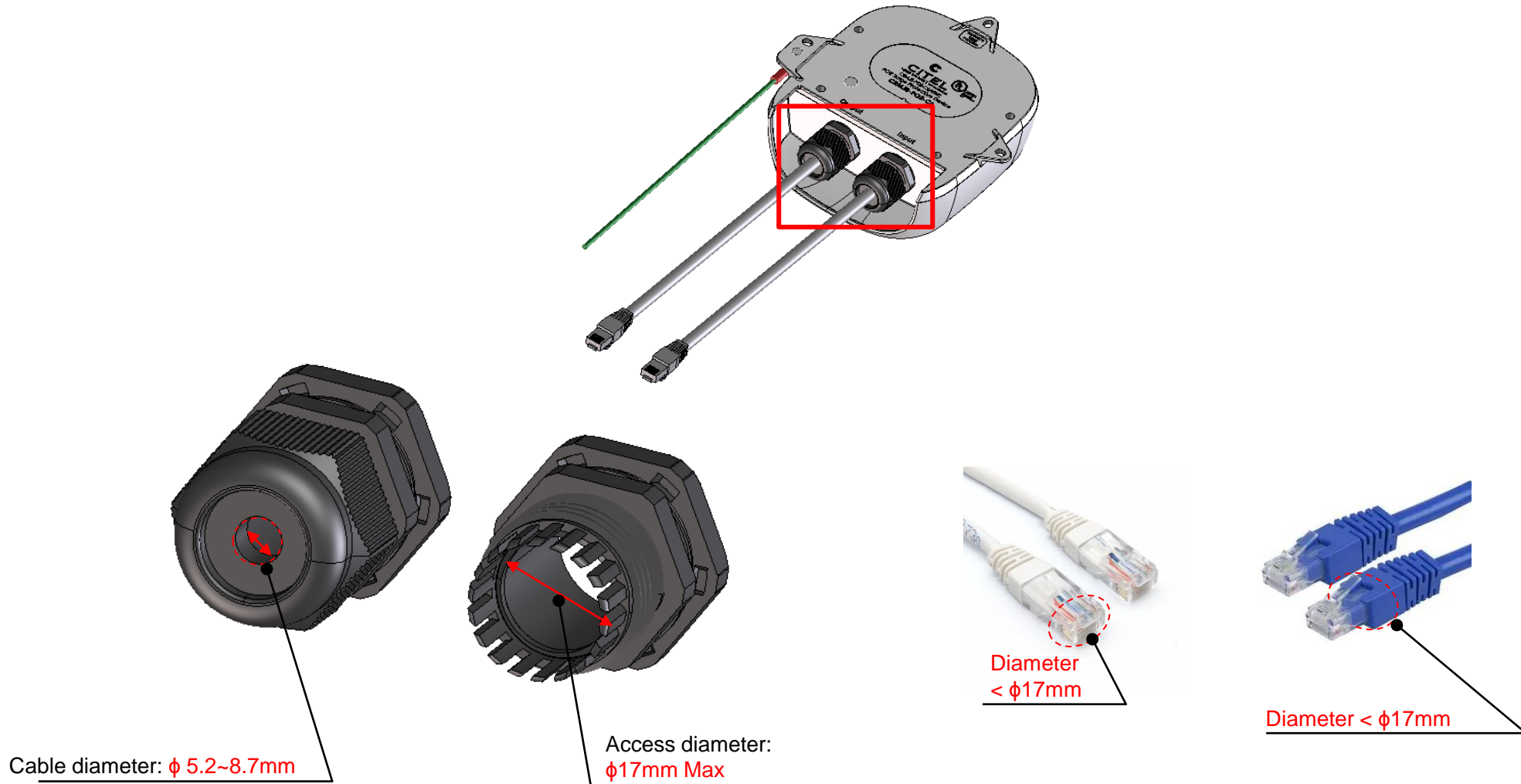
Output: CPE

Input: PSE



GND Box Installation: cable dimension constraint

Note: For GND Box installation, please notice that cable size should not too big due to dimension constraint of cable gland.

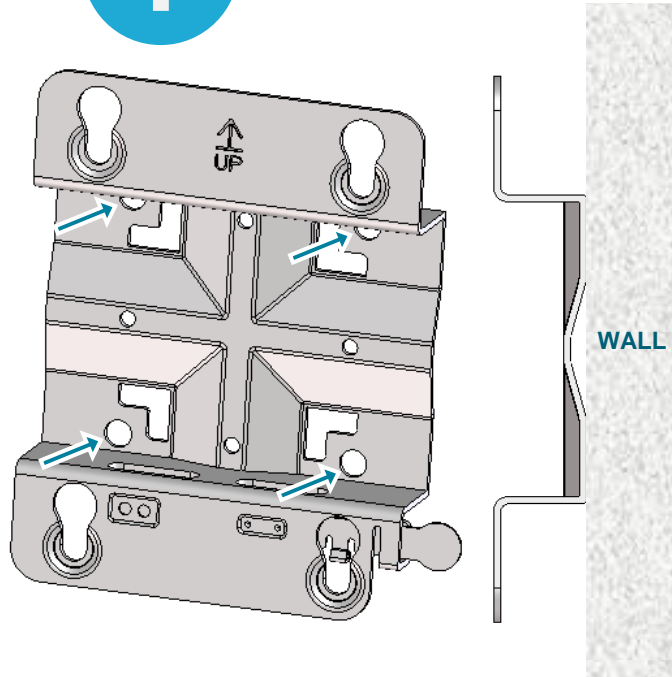




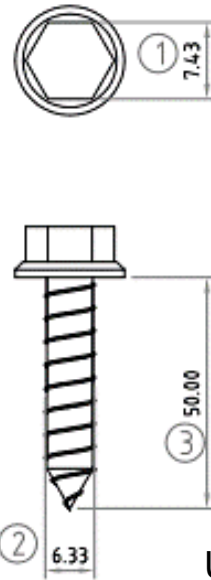
Wall Mount Installation

Wall Mount Installation

1



- Tighten 4 screws to fix the wall-mount bracket onto the wall.

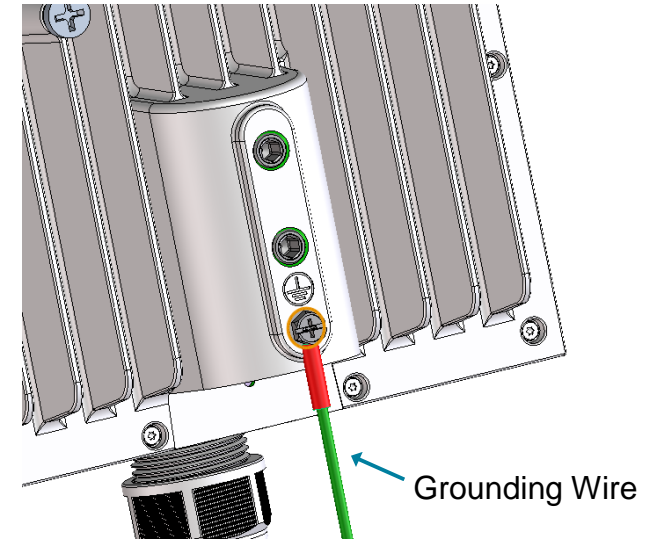


Unit: mm

- Screw information:

Screw Type: 1/4"x2" Wood Screw
Screw Head: HEX head

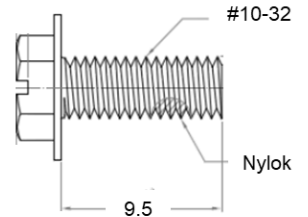
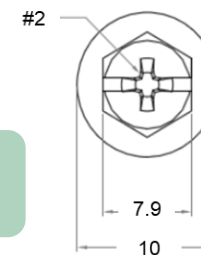
2



- Tighten the GND cable, screw information:

Screw Type: #10-32
Screw head: Phillips

Torque: 10 +/-1 kgf-cm
Torque: 0.72 +/-0.07 lbf-ft

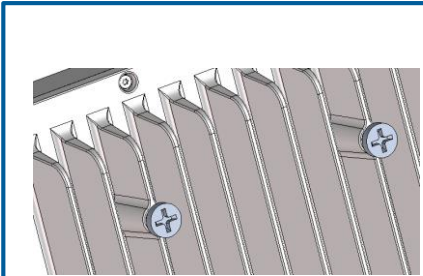


Unit: mm

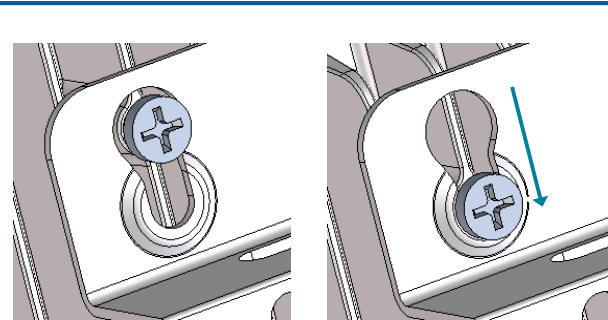
Wall Mount Installation

3

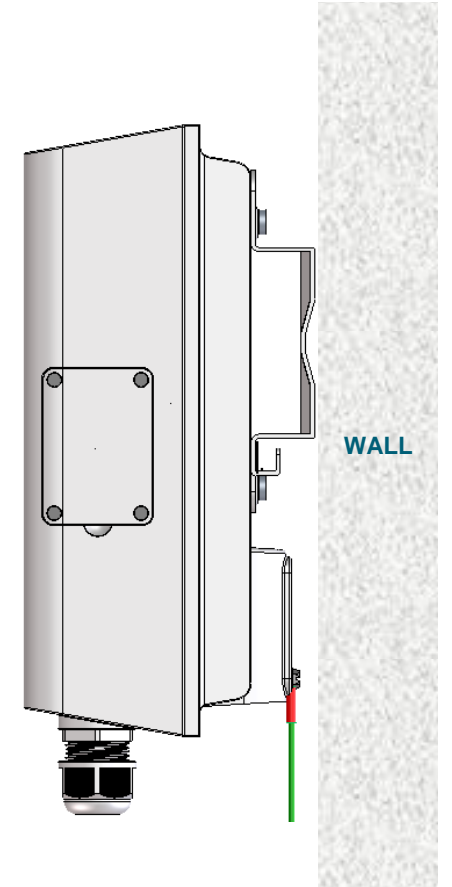
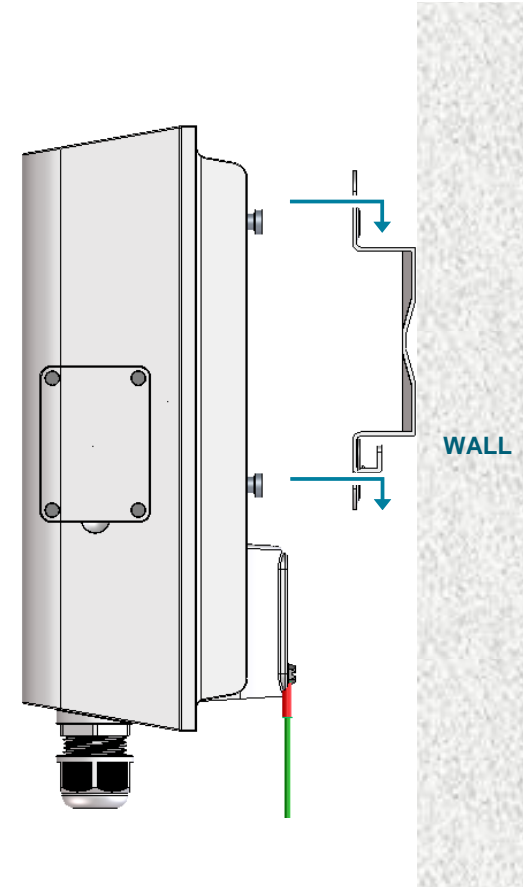
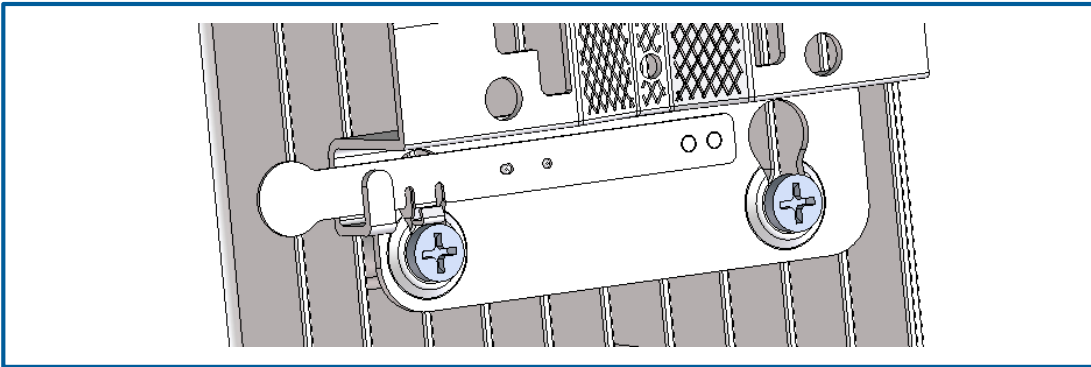
- Hang the ODU on the wall mount bracket by using 4 screw heads and insert into the slot hole
- Put down the ODU, the screw heads will fix ODU on bracket.
- Make sure the safety bar is securing well.



Screw head feature



Put down the ODU

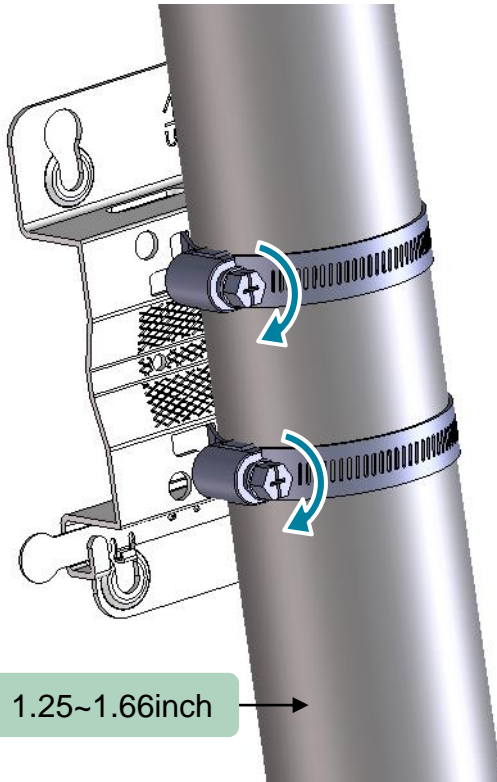




Pole Mount Installation

Pole Mount Installation

1

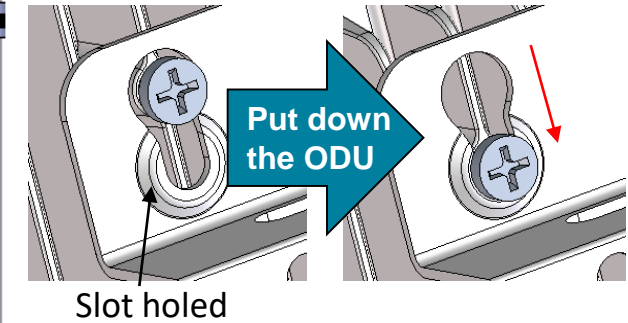
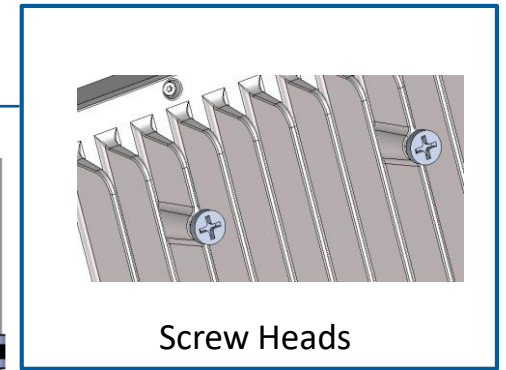
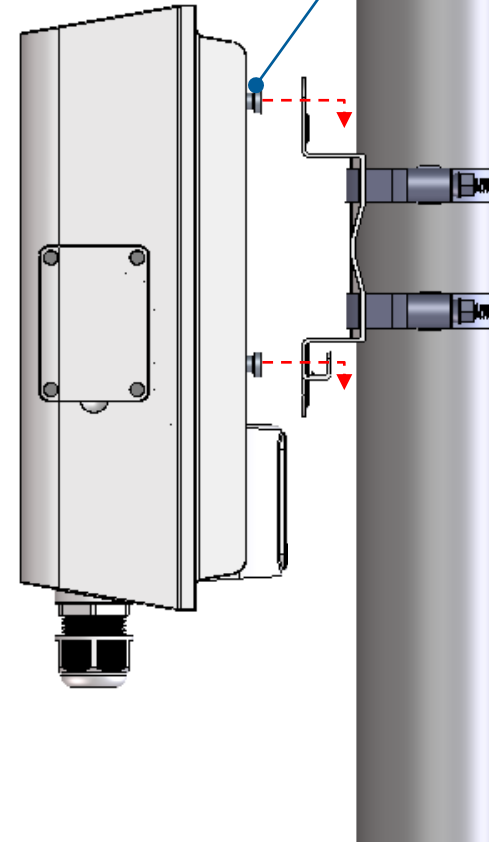


Pole diameter range: 1.25~1.66inch

- Tighten bracket on a pole by using 2 hose clamps
- Use torque wrench(with hex socket) to tighten 2 screw on hose clamps:

Torque: 50.2~61.2 kgf-cm
Torque: 3.61~4.41 lbf-ft

2

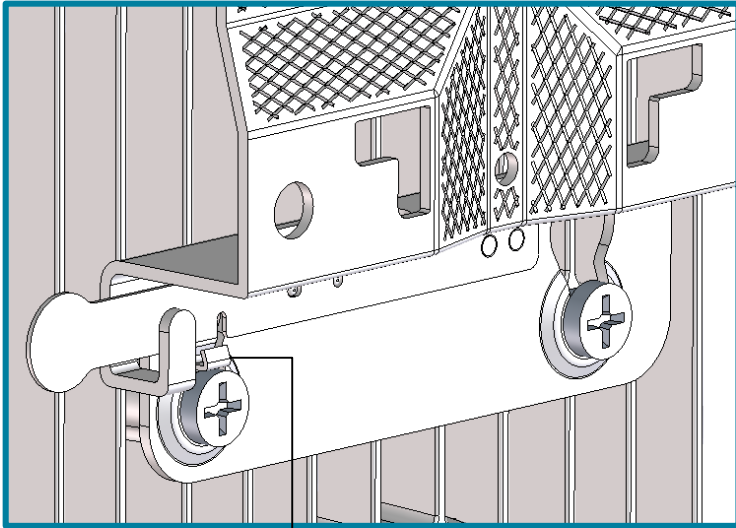


- Hang the ODU on the bracket by using 4 screw heads and insert into the slot hole
- Put down the ODU, the screw heads will fix ODU on bracket.

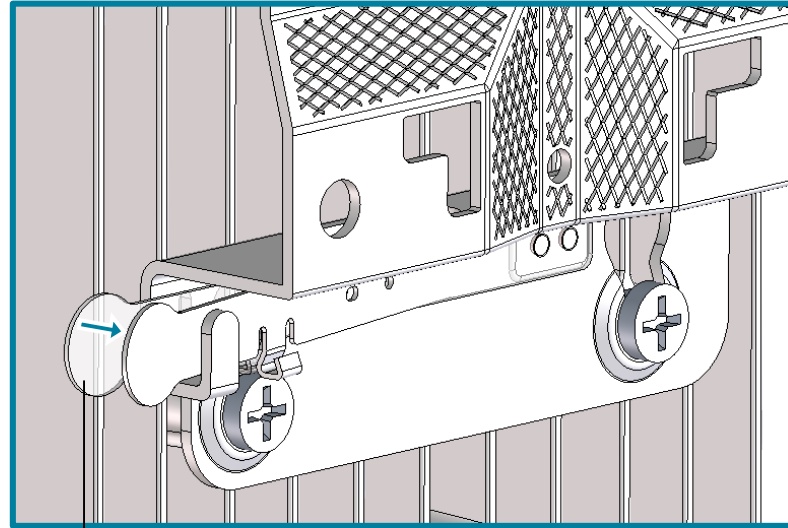


Wall/Pole Mount Securing Mechanism

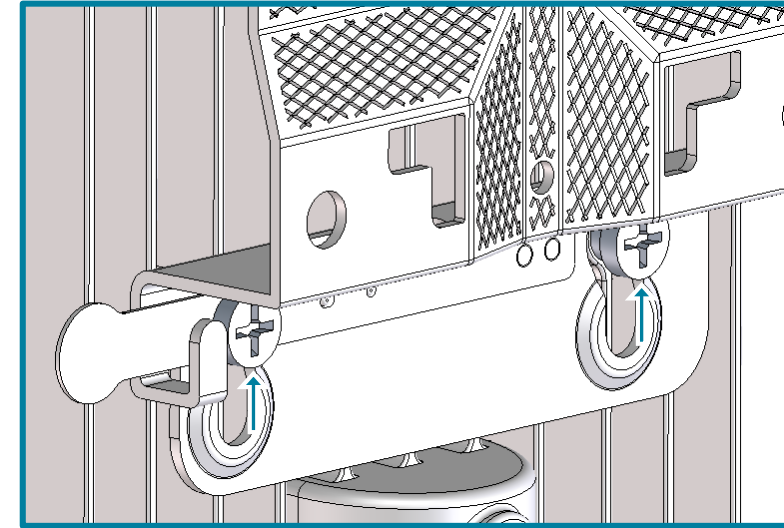
ODU Bracket Securing Mechanism: Releasing ODU from the Wall/Pole Mount Bracket



This stop feature can make sure device is installed properly and won't be detach from bracket when user accidentally push the device.



Pull the latch to release the bar. There will be enough space to allow screw head detach from the bracket.



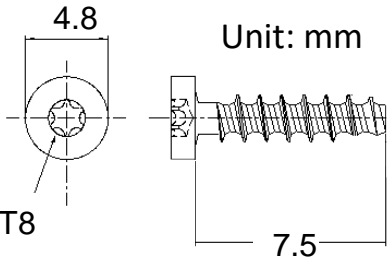
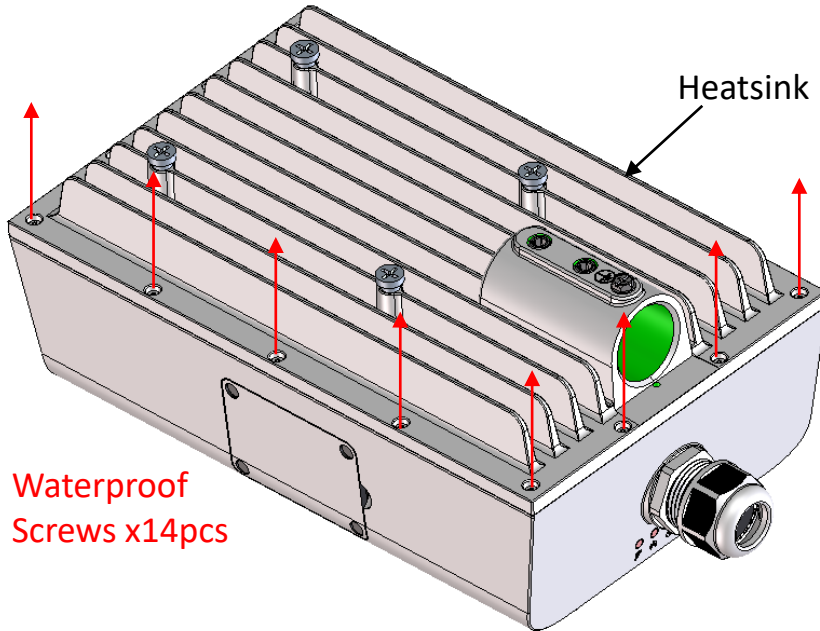
Lift up the device and there will be enough space to allow screw head detach from the bracket.



Take out IDU Device from ODU

Take out IDU Device from ODU

1

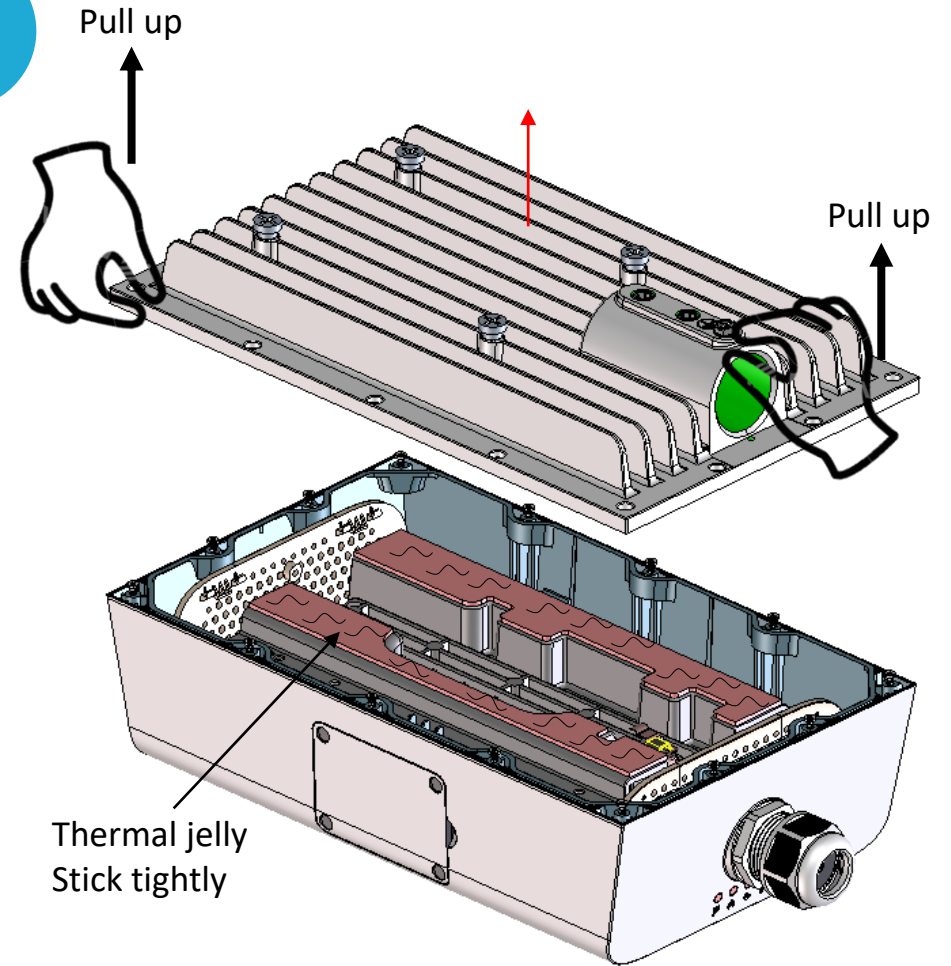


Screw type: M2.5
Screw Head : T8

Waterproof
Screws x14pcs

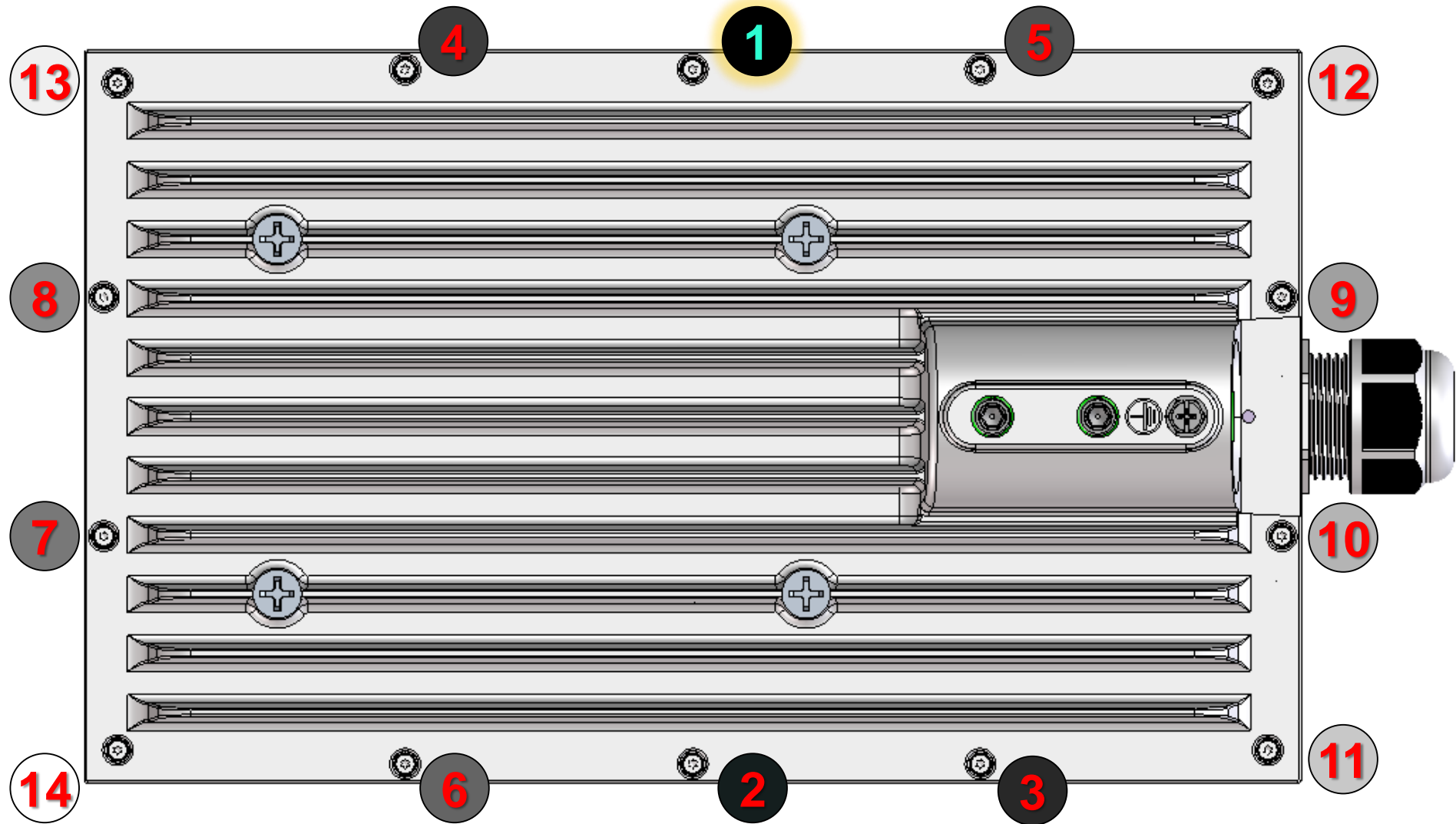
- Take off the ODU from the bracket(wall/pole/J-pole) and put it on a plat base.
- Release 14 waterproof screws, then the heatsink could be took off.
Please follow the sequence of removing screw, see in next page.

2



- Take off heatsink, and the IDU could be took out.
- Need pull force exert on heatsink to remove it, because thermal jelly stick it tightly.

Take out IDU Device from ODU

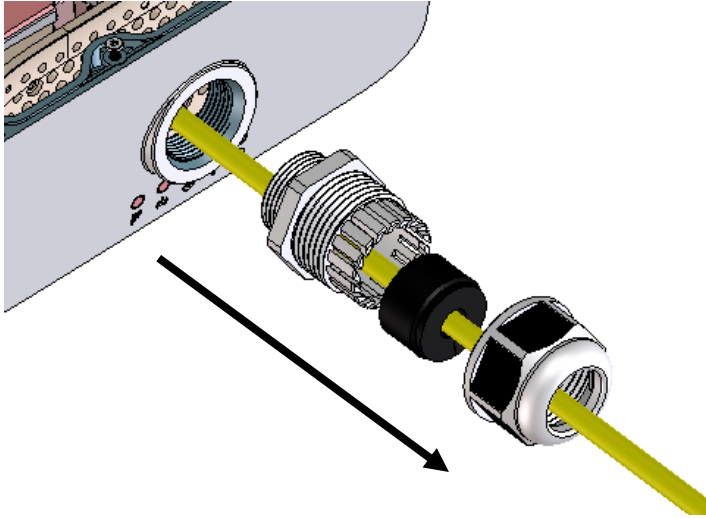


- Please follow the sequence of removing screw

Take out IDU Device from ODU

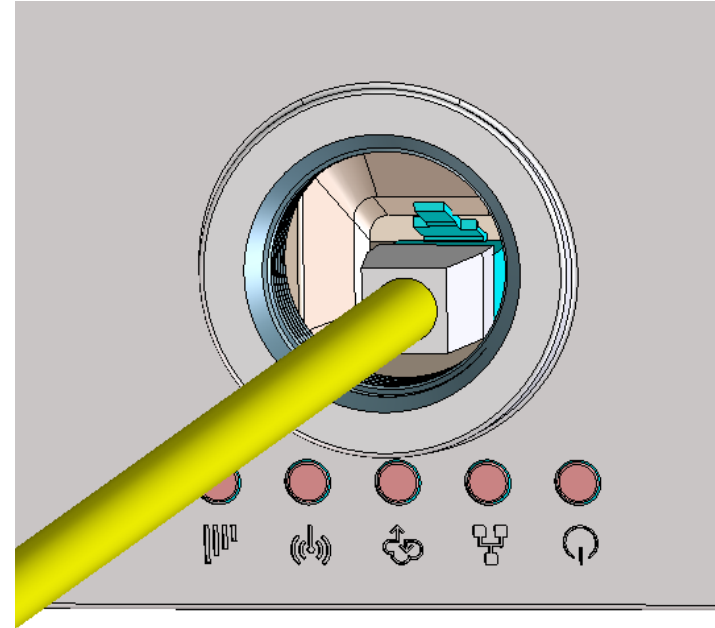
3

Release cable gland.



4

Remove POE cable.

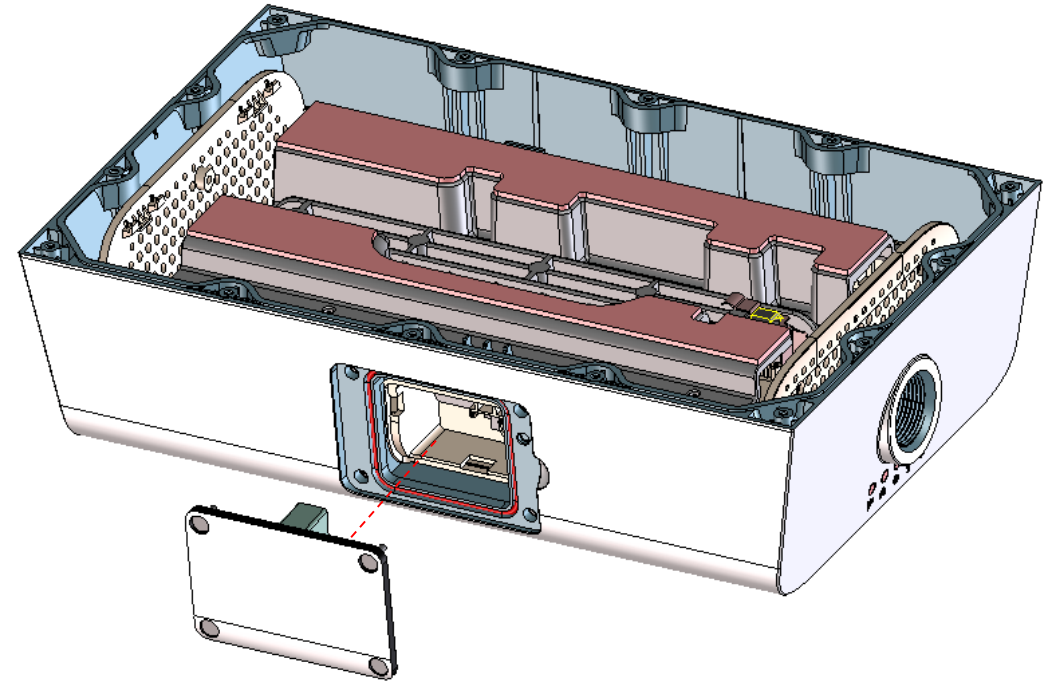
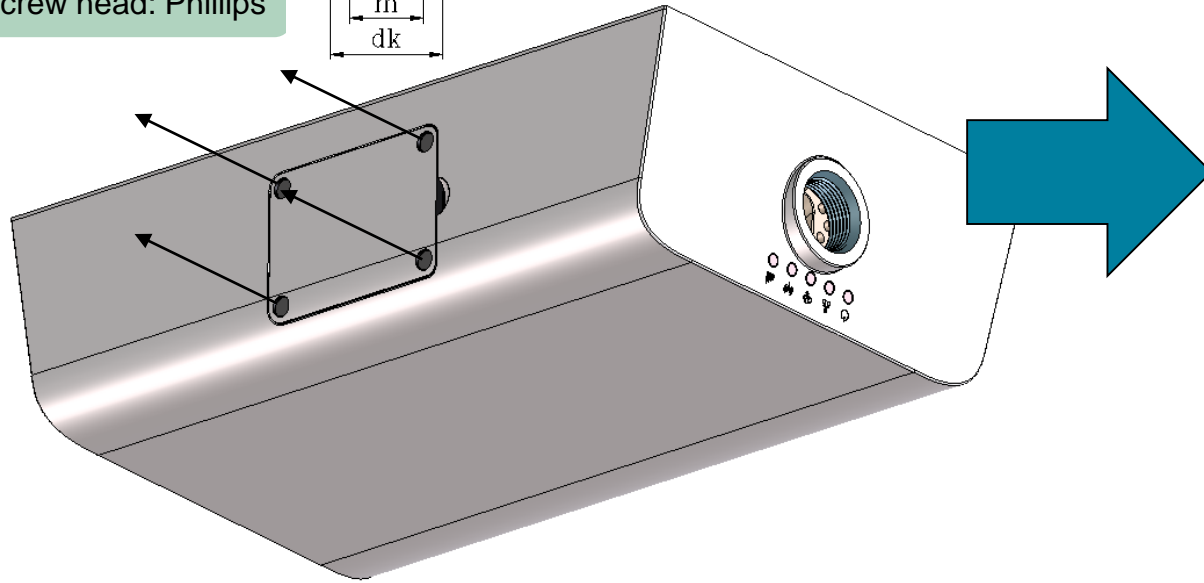
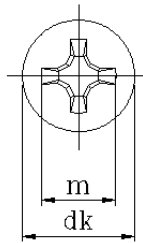


Take out IDU Device from ODU

5

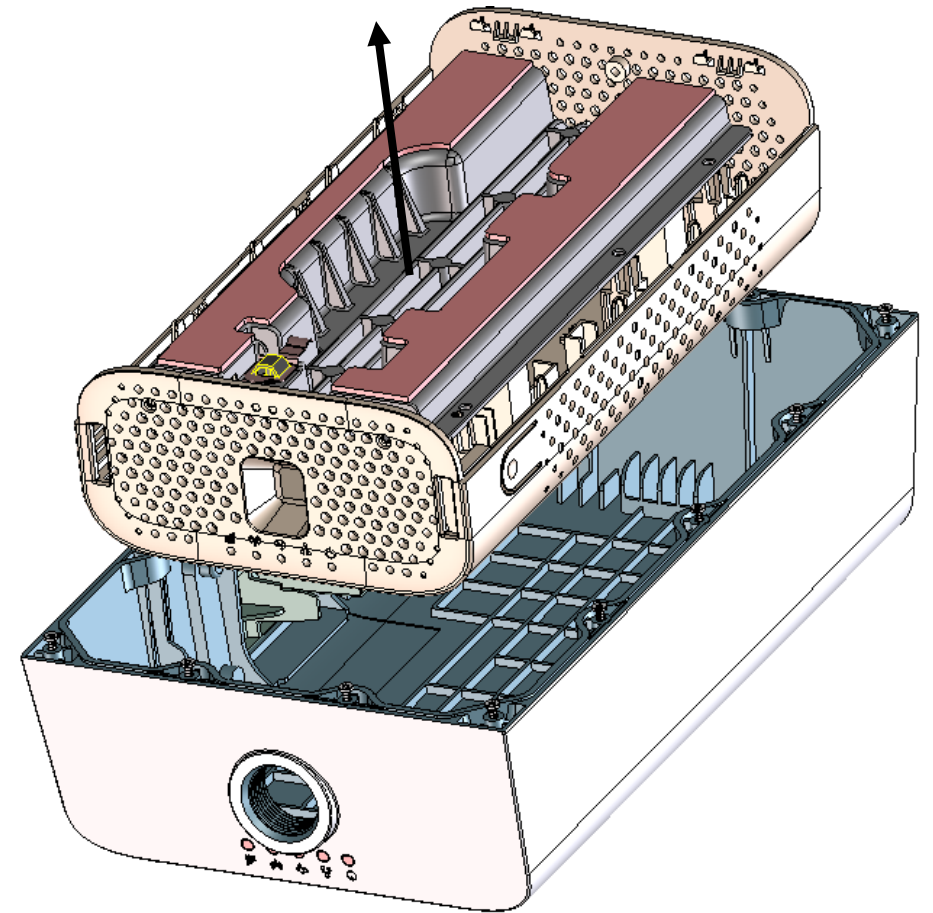
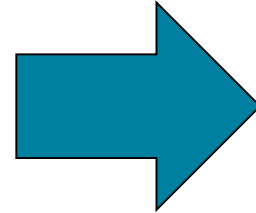
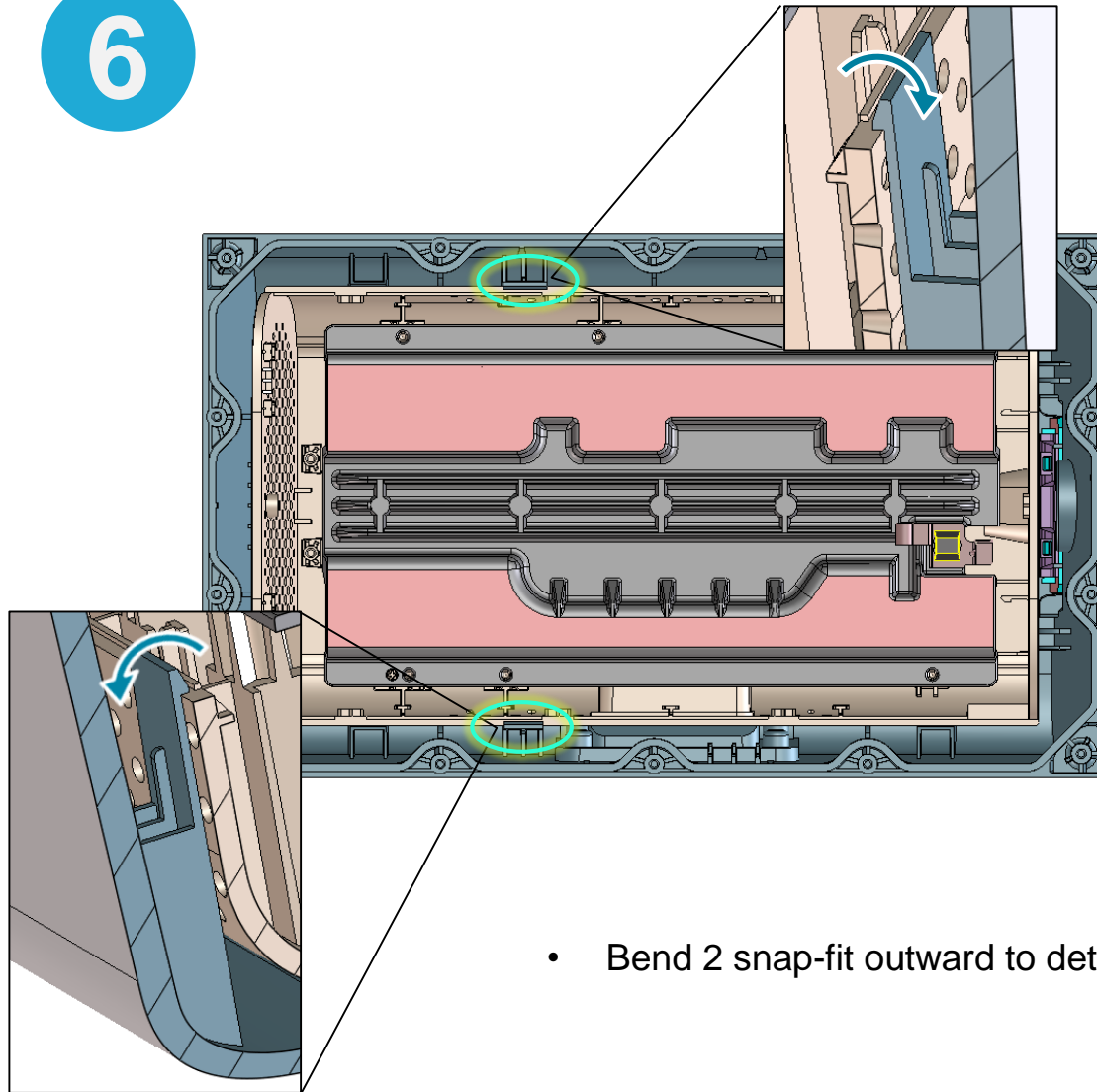
Release 4 screws to remove ODU IO Cover.

Screw Type: M2.5
Screw head: Phillips



Take out IDU Device from ODU

6

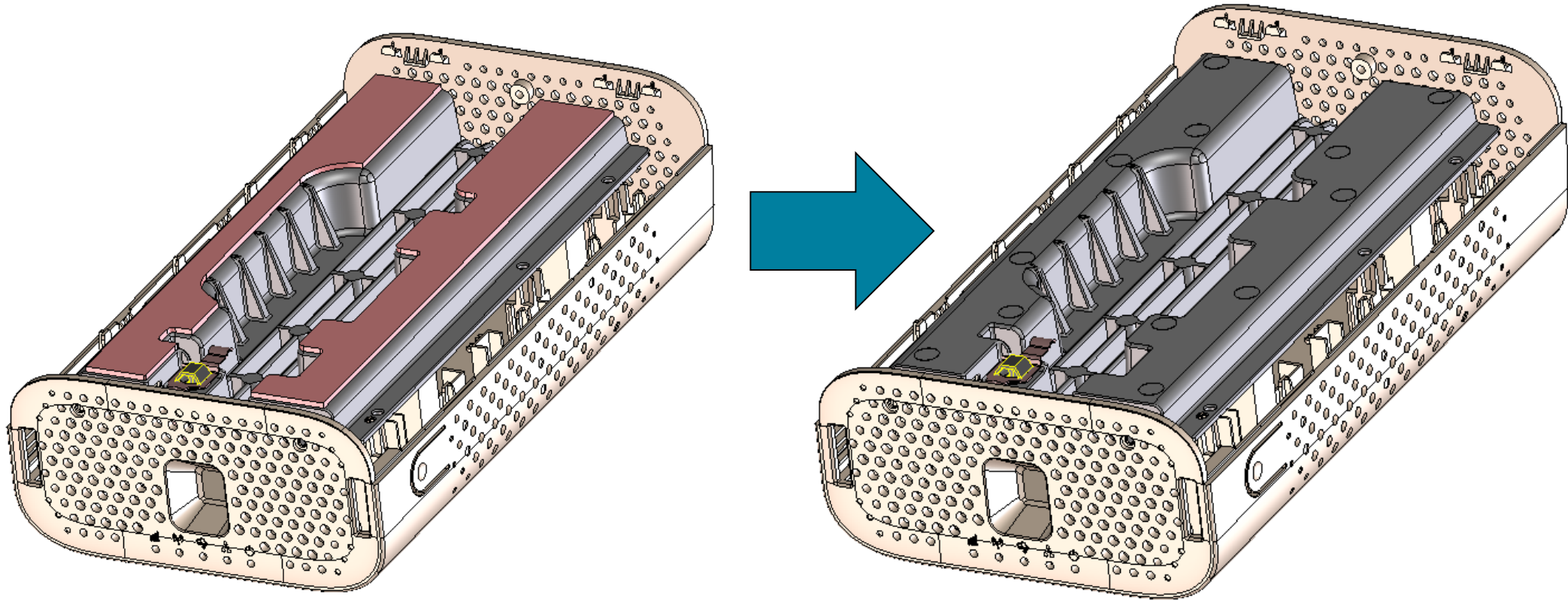


- Bend 2 snap-fit outward to detach from IDU case then take up IDU.

Take out IDU Device from ODU

7

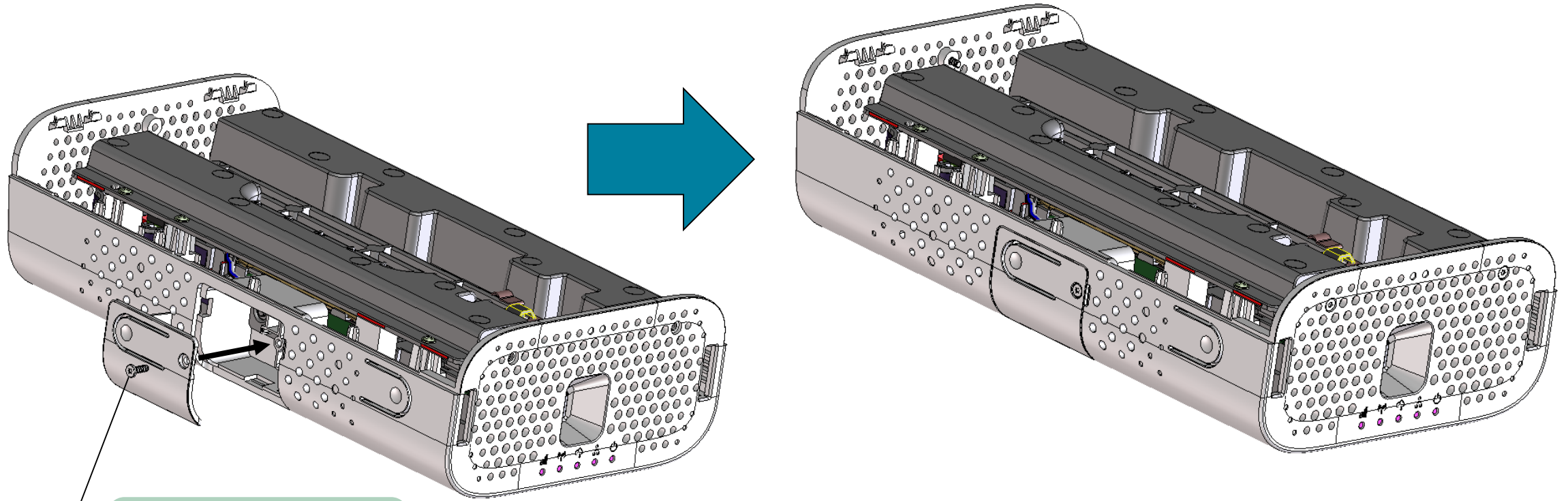
Remove thermal jelly.



Take out IDU Device from ODU

8

Assemble the IO Cover back.

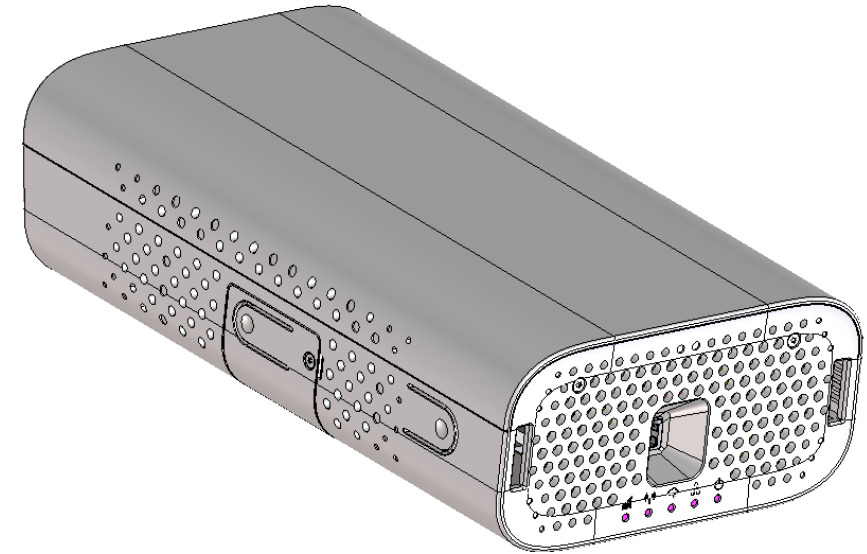
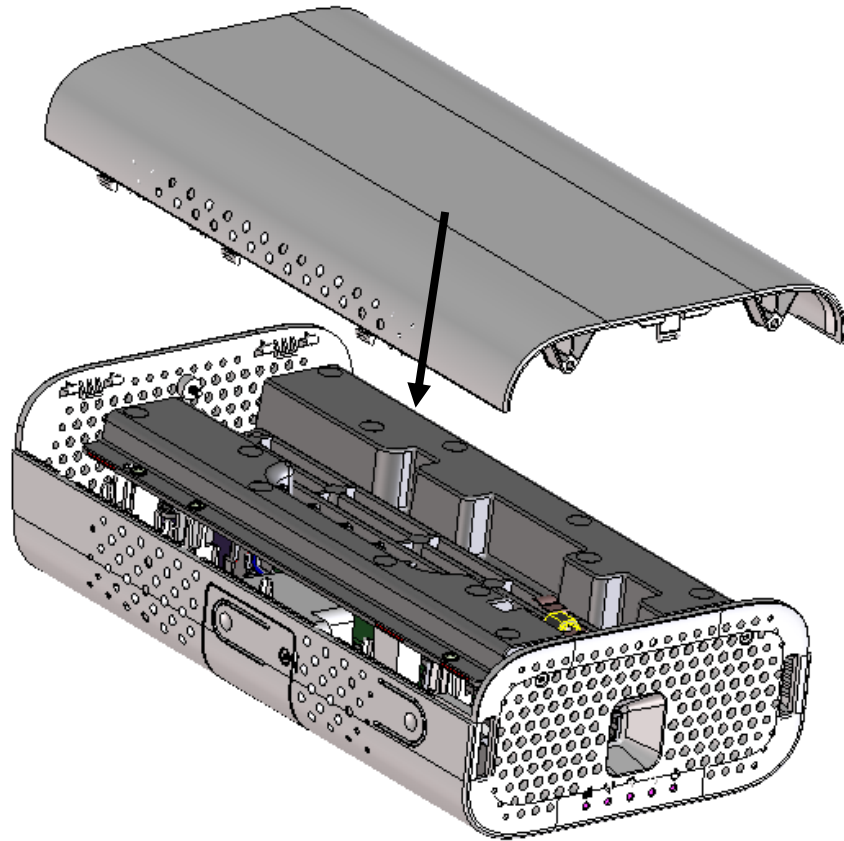


Screw Type: M2.5xL7.5mm
Screw Head: Torx, T8
Torque: 3kgf*cm

Take out IDU Device from ODU

9

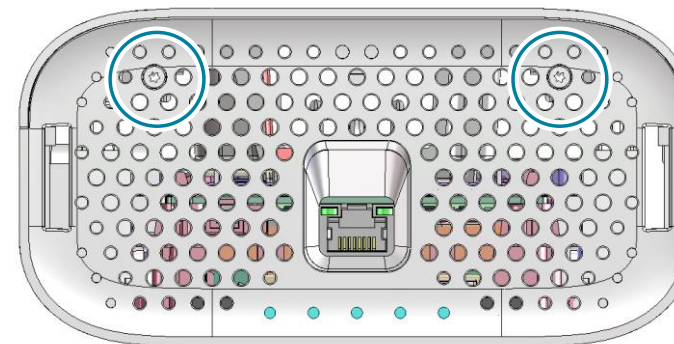
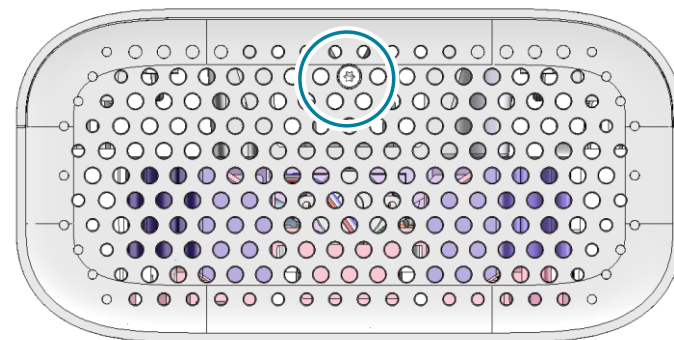
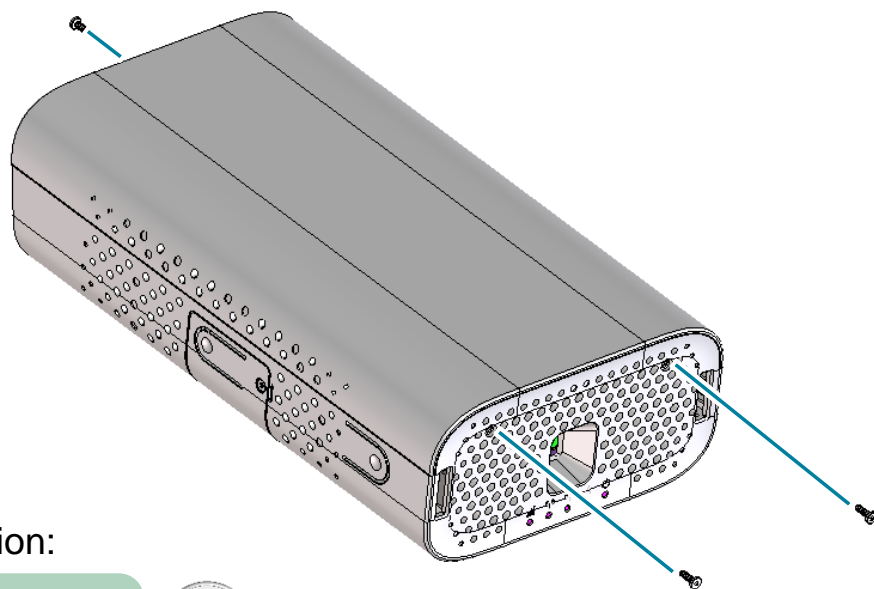
Assemble the cover back.



Take out IDU Device from ODU

10

Tighten 3pcs M2.5 screw for cover.



- Screw information:

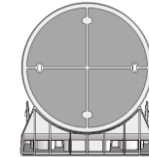
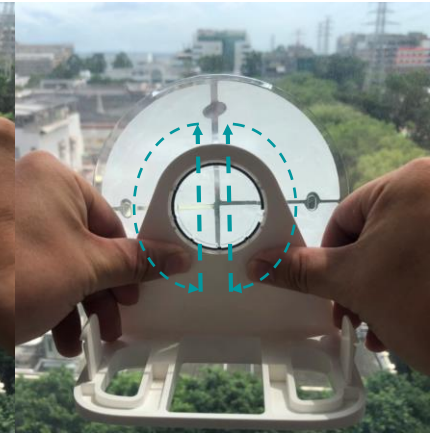
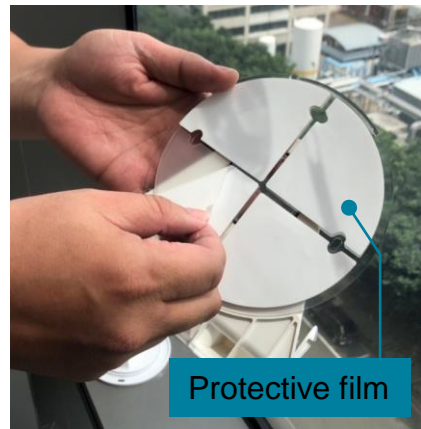
Screw Type: M2.5xL7.5mm
Screw Head: Torx, T8
Torque: 3kgf*cm





IDU Window/Wall Mount Bracket

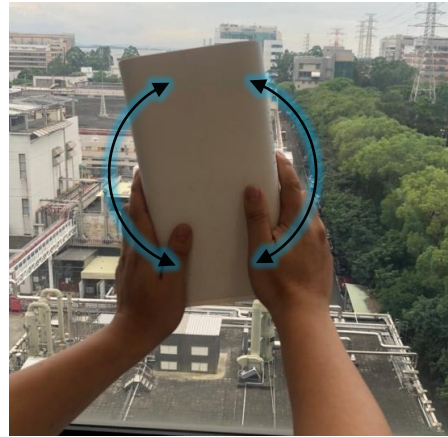
IDU Bracket for Window Mount



Gecko tape

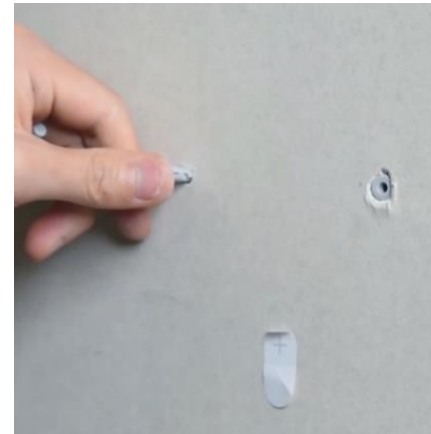
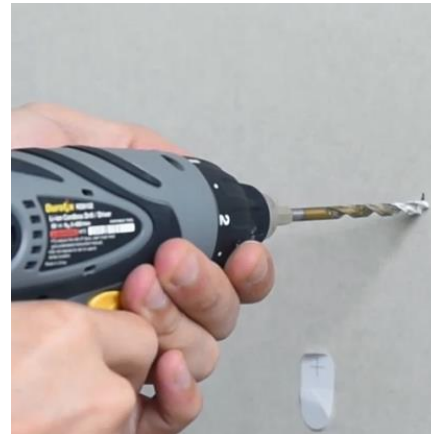
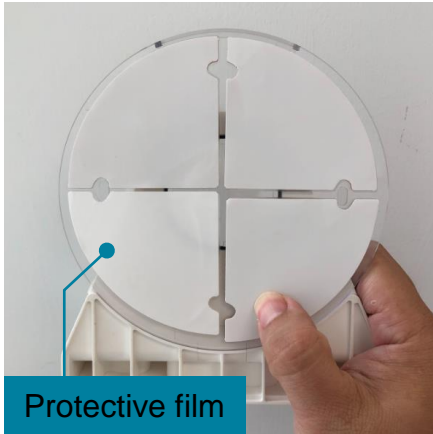
1. Clean the heavy stain/dust on window by window cleaner.
2. Clean immediate area where mount will be attached to, use provided alcohol wipes to remove light dirt and the film left from window cleaner.
3. Peel off protective film from the Gecko tape on the indoor bracket. Then affix the indoor bracket on the window in the direction indicated by the arrow on the bracket.
4. Using both two thumbs to exert solid pressure holistically for 30 seconds in all areas where Gecko tape makes contact with the glass. If possible, check adhesion area by looking from the outside.
5. The lazy Susan feature can be used to adjust position of Indoor Bracket.

IDU Bracket for Window Mount

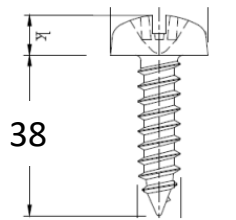
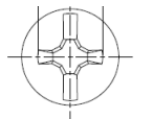


6. Once the bracket is securely affixed on the window, align the bracket slot on the IDU and insert it downward to the bracket arm.
7. Push the IDU into the indoor bracket until a “click” sound is heard.
8. Adjust the orientation of the Verizon Receiver as required.

IDU Bracket for Wall Mount



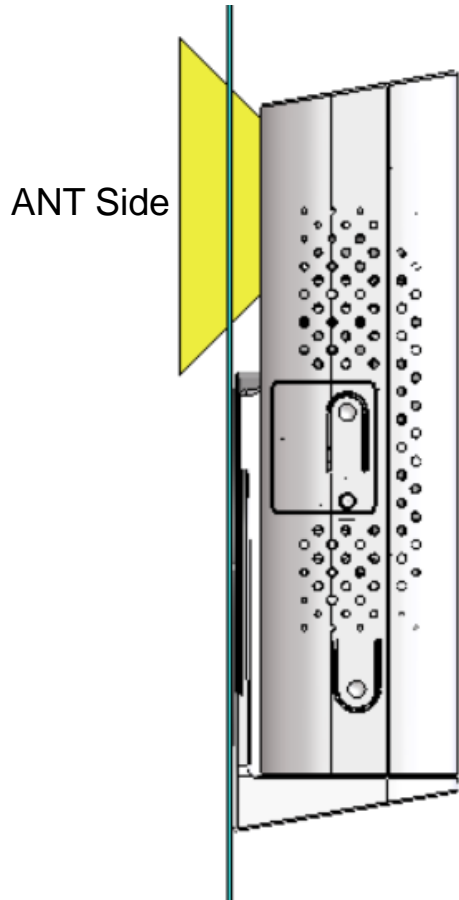
1. Do not peel off the protective film on the tape side.
2. User a pen to mark where to drill holes.
3. Use driller to drill two holes. (Notice that ashes need to be cleaned)
4. Insert the Wall anchor into the wall.
5. Screw fix the Bracket on the wall.



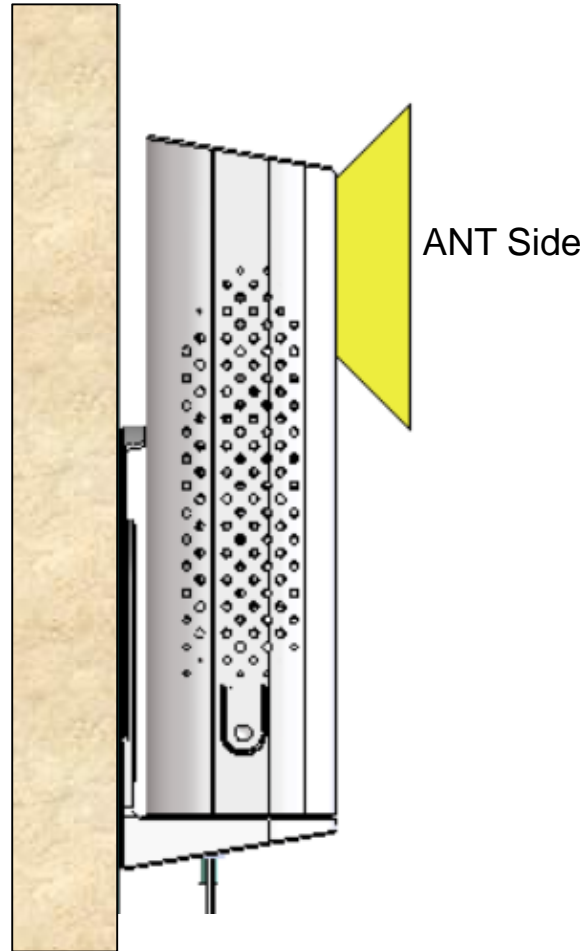
Wall mount screw
Type: M3.5
Screw head: Phillips

Unit: mm

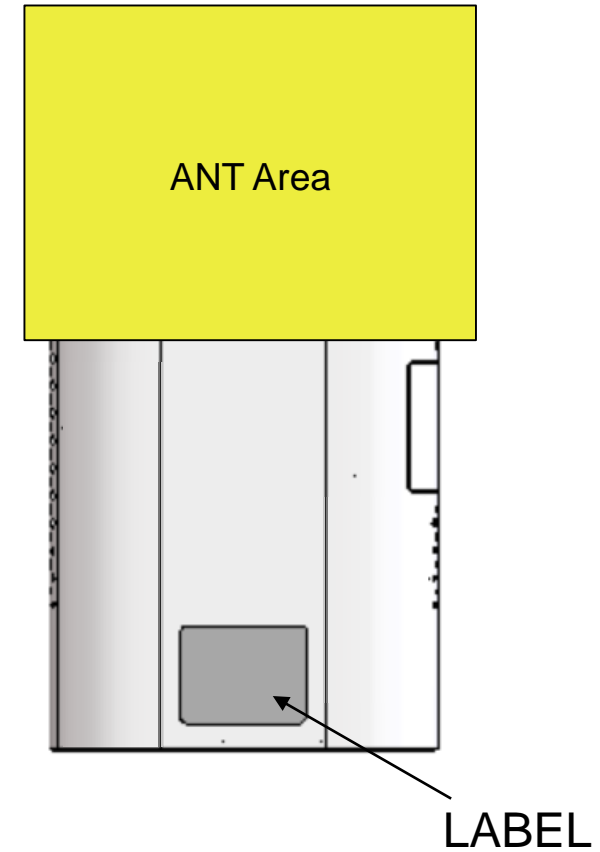
IDU Bracket Position



Window Mount



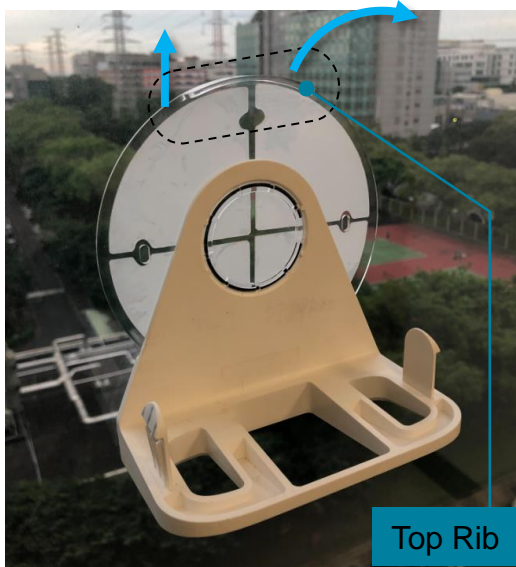
Wall Mount





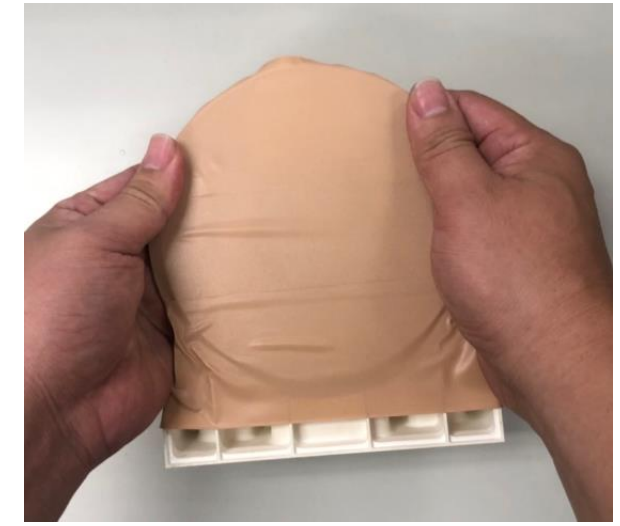
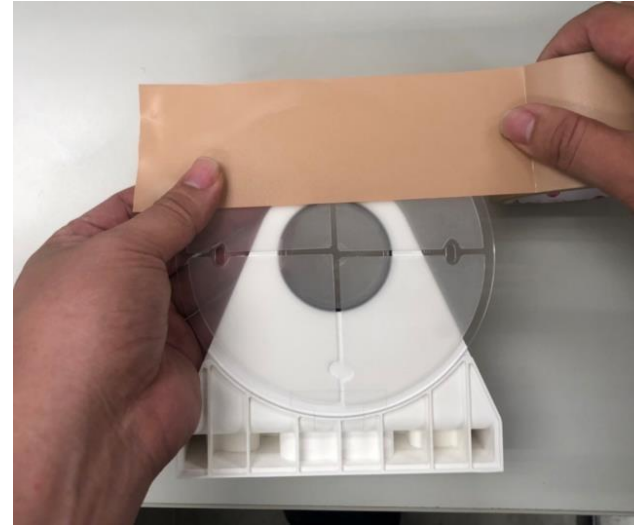
IDU Gecko Tape Preserving/Re-Attaching Process

Gecko Tape Plate Removing and Preserving Process



Step1.

Peel gecko tape plate off from the top rib
(Peel it slowly to avoid deformation/ravage)



Step2.

Attach tape* to cover gecko tape completely.
(this step is to make sure the gecko tape surface will not get dirt)



Transparent tape

Duct tape 1

Duct tape 2

*WNC has tried these 3 types of tape for aging test, all of these could be used, and would not ravage the micro fiber structure on Gecko Tape.

Gecko Tape Plate Re-attach Process



Step1.
Use Alcohol (pad) to clean the window



Step2.
Slowly remove the tape*



Step3.
Use another tape* to clean surface dirt again



Step4.
Attach the gecko tape plate completely



Step5.
Install the CPE



The image features a large, modern glass skyscraper under a bright blue sky. In the foreground, there are green leaves and a white flower. A smaller building with the WNC logo is visible to the left of the main building. The overall scene is bright and sunny.

WNC

Wistron NeWeb Corp.