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Engineering Installation Guide (ZXDSR R8862A)

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Safety Information

The following describes the personal health and safety information when you work with ZTE system products. To prevent accidents, read the safety information described in this document carefully before using ZTE system products.

- Local regulations override the information in this manual. Where applicable local regulations are unavailable, the information herein prevails.
- All personnel who operate ZTE system products must have the knowledge of safety instructions mentioned in ZTE product manuals or other ZTE manuals. They must accept appropriate technical trainings and are qualified for the operations. For some operations, they may need special trainings or qualifications certified by ZTE CORPORATION.

Safety Symbols

	Electrical Hazard: There is a risk of electric shock.
	Laser Hazard: Beware of strong laser beam. Do not look directly at the laser beam.
	Heat Hazard: Beware of heat source or hot surface that may result in personal injury.

Personal Protection

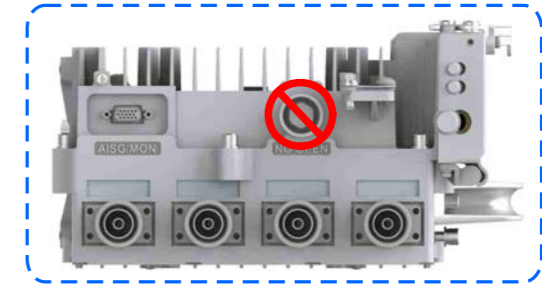
- Remove items of jewelry, such as rings, necklaces, and watches. These items may catch on moving parts. Metal jewelry items are conductors that may result in electric shock.
- Always wear appropriate personal protective equipment while working.
- Pay attention to the hazard labels and caution or warning information on products. Never cover or remove the hazard labels and caution or warning information.
- Only use the tools described in instructions.
- Do not operate or maintain the RRU if the ambient temperature exceeds 40 degrees Celsius.

Installation Security

- All personnel working at height must be specially-trained and certificated. Working at height must comply with local laws, regulations, and guidelines.
- The equipment is heavy. Lifting the equipment without using a lifting device may result in serious personal injury.
- Do not work at height or on the tower in bad weather such as in rainy or fog days.
- Falling objects may result in serious or even fatal injury. Always wear a safety helmet. Never stand under a heavy object.
- Improper electrical installation may result in fire, electric shock, or explosion that is likely to be fatal. Only qualified electricians are allowed to install or modify electrical equipment.
- It is recommended to install optical fibers in a temperature higher than -20°C.
- Switch off transmitting antennas, or reduce their output power to a safe level when working with, or staying near, these antennas.

Installation Precautions

- It is prohibited to open the hermetic seal before and after the installation.
- The RRU body is applied with antirust coating. Make sure that the coating is not damaged during transportation and installation.
- Do not install the device with the interfaces facing upwards.
- Do not install the device horizontally.



- The R8862A can be installed with either side on the mounting place. However, it is still recommended to install it with the heat-sink side outwards.

- The manufacture declares that base stations antennas is the source of the radiation, are usually mounted on wall-mount or on pole-mount. This equipment should be installed and operated with minimum distance 4.72m between the radiator & your body.

RRU Installation Modes

Single-RRU pole-mounted installation



Two-RRU pole-mounted installation



Wall-mounted installation



Wall-mounted installation (Simple Sheet Metal Part)



Small Pantry Installation

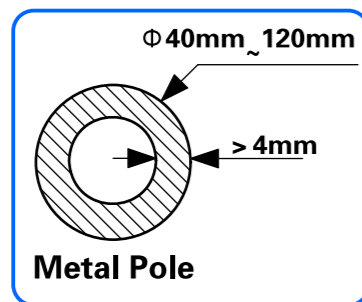


L-Shape Support Installation



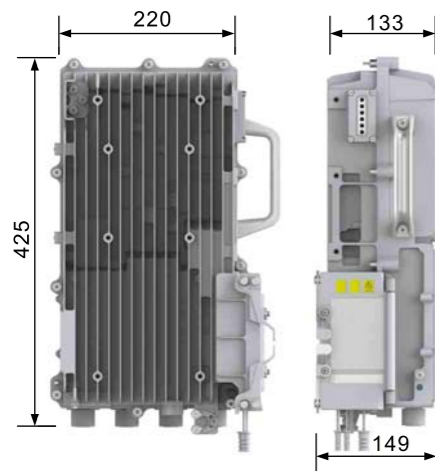
Media Requirement

RRU Pole Installation

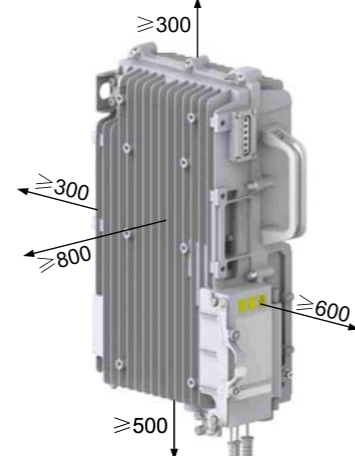


Space Requirement

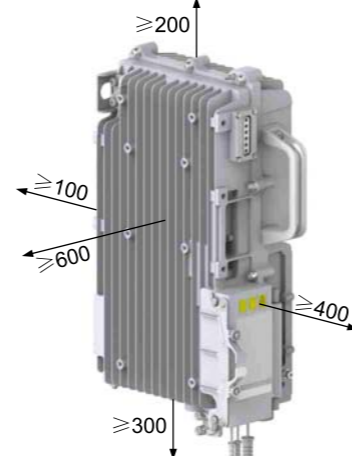
Device dimensions (in mm)



Recommended mounting clearance (in mm)



Minimum mounting clearance (in mm)



Note: For mounting multiple RRUs on a pole or centralized mounting, the spacing between RRUs depends on the mounting components.

Hoisting

Note: The information provided on this page is used for reference when it is necessary to hoist the RRU.

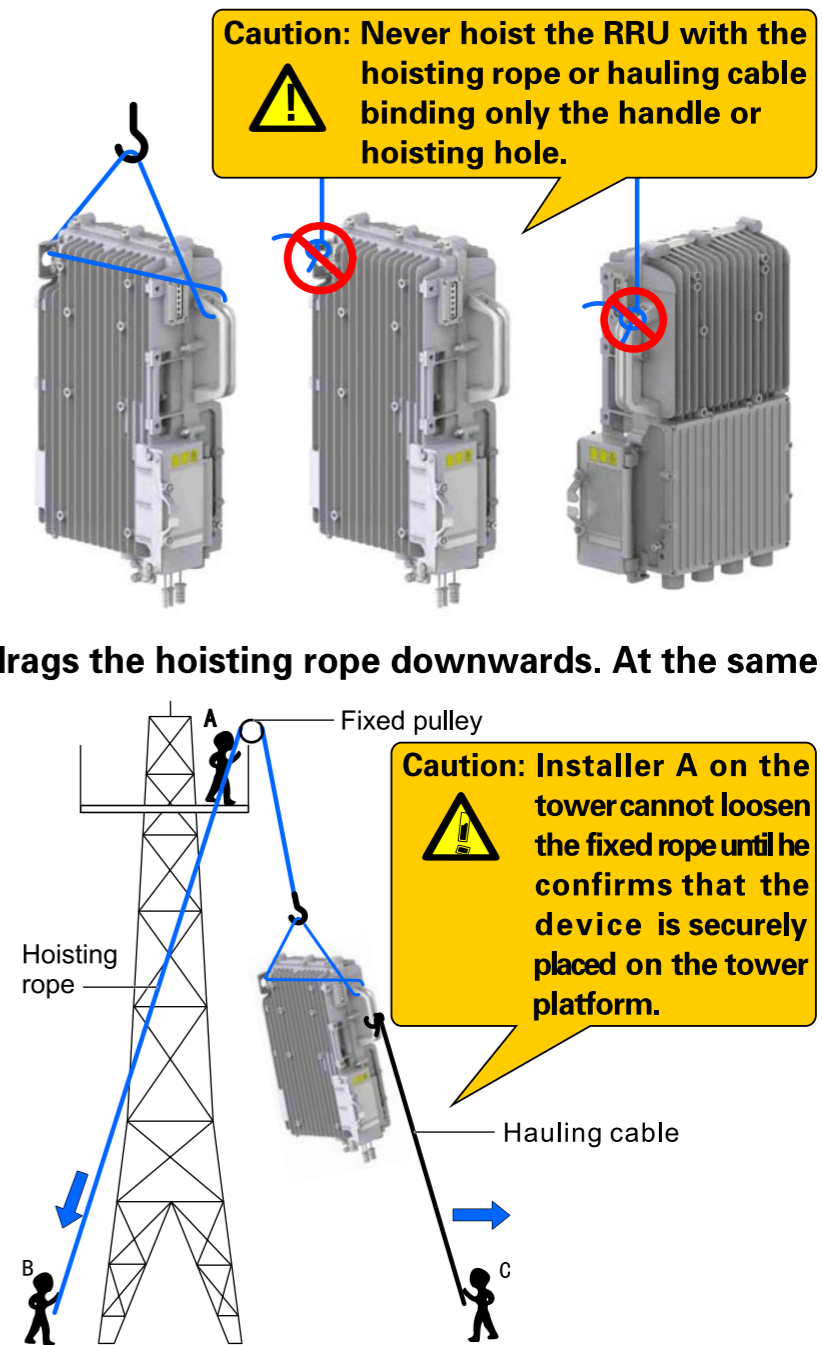
Operation	Tool
To hoist the RRU	Safety helmet
	Life belt
	Fixed pulley
	Hoisting rope
	Hauling cable

1 Installer A on the tower secures the fixed pulley to the tower, and passes the hoisting rope through the fixed pulley down to the ground.

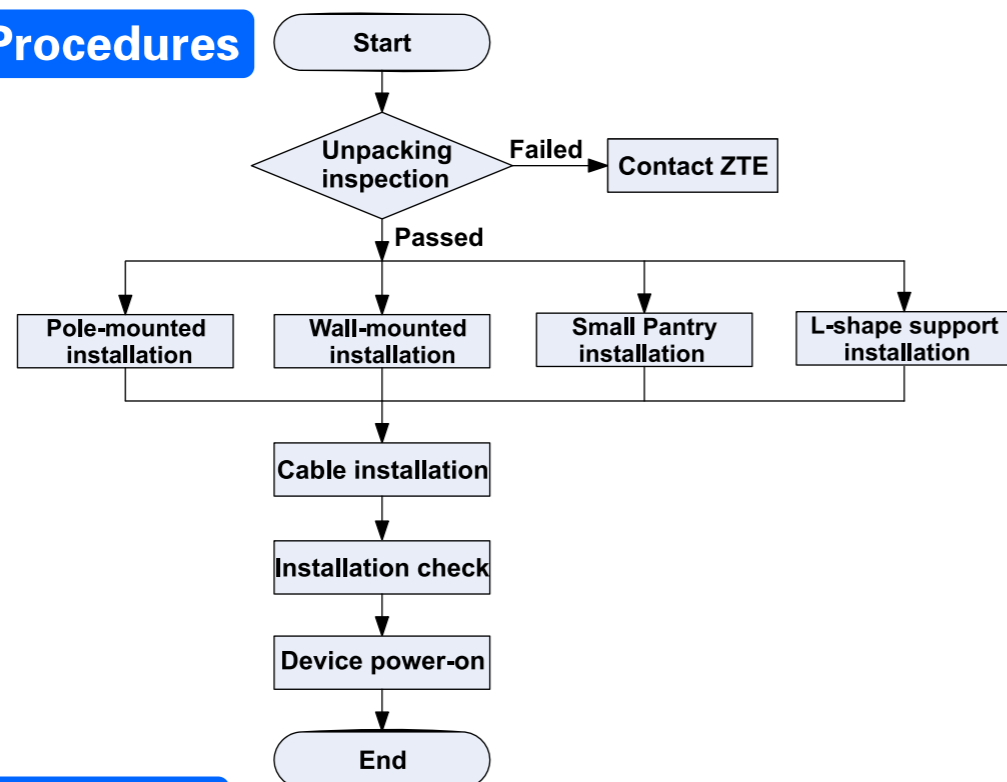
2 Installer C on the ground binds the RRU tightly in both vertical and horizontal directions. The rope must go through the handle and hoisting hole on the side.

3 Installer B on the ground drags the hoisting rope downwards. At the same time, installer C pulls the hauling cable outwards to protect the device from colliding with the tower when the device reaches the mounting platform.

4 Lift the properly-packed engineering materials used for tower mounting onto the tower in the manner mentioned above. Never lift the engineering materials by binding them directly to the hoisting rope.



Installation Procedures



Unpacking Inspection

■ Checking Goods

It is the responsibility of the technical engineers from both ZTE and the operator to check the goods together.

■ Procedures

- 1.Count the number of the packing boxes. Verify that the packing boxes are intact and the packing boxes arrive at the correct place. Unpack the boxes and inspect the goods if all the information is correct.
- 2.The Device Inspection List and Unpacking Inspection Report are kept in Box #1. Unpack Box #1. Take out the Unpacking Inspection Report. Verify that the items match the inspection list, and keep the report properly.
- 3.In case of components shortage or damage, or wrong delivery, find out the cause. Fill in the Unpacking Inspection Feedback Form and send it to ZTE immediately.

■ Unpacking the Wooden Case

The tools for unpacking the wooden case include a claw hammer, a pair of pliers, a straight screwdriver, and a crowbar.

■ Procedures

- 1.Insert the straight screwdriver or the claw hammer into the metal lock on the cover of the wooden case. Rotate the screwdriver or the claw hammer to loosen the iron sheet. Then, open the iron sheet with the crow bar and pliers.
- 2.Open all other metal locks on the top of the wooden case and remove the top cover.
- 3.Take out all cartons from the wooden case.

■ Unpacking the Cartons

Generally, cartons are used for packing the spare parts of electrical devices, terminal devices, and auxiliary materials. The spare parts of electrical devices are delivered in antistatic bags. Antistatic measures therefore must be taken when cartons are unpacked.

The tools for unpacking a carton include a pair of diagonal pliers and a knife.

Pay attention to the following when unpacking a carton:

- 1.Do not damage the antistatic bags because they are later used to keep the spare parts or send faulty parts back for repair.
- 2.Desiccant in the carton should be properly disposed and be kept away from kids.

■ Procedures

- 1.Cut off the packing straps with the diagonal pliers.
- 2.Cut open the tape along the edges of the cover. Make sure to operate gently and carefully to avoid damaging the items inside.
- 3.Open the carton and take out the foam pads.
- 4.Check the items inside according to the checklist.
- 5.Take out the device.

■ Acceptance and Handover

■ Procedures

1.Acceptance

Check the names, models, and quantity of goods according to the shipping list and verify carefully that:


- ▶ There are no dents, bumps, peeling, scratches, foaming, paint stripping, or blots on the external surface of the chassis.
- ▶ All the captive screws are tightened without dislocation.
- ▶ The mounting accessories are correct and complete.

2.Handover

After the inspection, the representatives from ZTE and the customer should sign the Unpacking Inspection Report. If the contract specifies that goods are kept by the customer after the inspection, the goods are handed over to the customer after both parties have signed the Unpacking Inspection Report.

Installing the RRU

Accessories for Wall-Mounted Installation

Name	External View	Function
Fixing clamp for wall-mounted installation		Used to mount the ZXSDR R8862A on a wall.

Accessories for Pole-Mounted Installation

Name	External View	Function
Pole component		Used to mount the ZXSDR R8862A on a pole.
RRU support		Used to fix a support to the RRU and works together with a fixture for wall mounting.

Accessories for Gantry-Mounted Installation

Name	External View	Function
Small Pantry		Used to fix the pole fixing clamps and installed in indoor floor standing mode.
L-shape support		Used to mount a pole fixture. The L-shape support shall be installed on the indoor ground.
Pole fixture		Used to mount the ZXSDR R8862A on the gantry.
Patch board		Used to fix the pole fixing clamps to the gantry.

Single-RRU Pole-Mounted Installation

Installation Tools

Operation	Tool
Install an RRU support.	M6 internal hexagonal wrench
Fix the screws of pole components.	Adjustable wrench

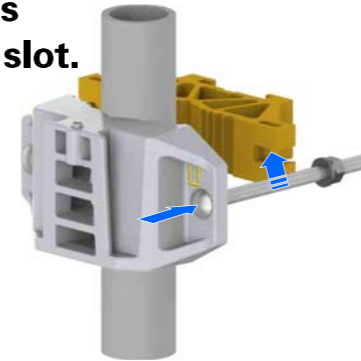
Steps

1 Follow the installation diagram to make an M10 screw go through the pole fixture's installation hole and follow the correct sequence to finish the installation.

1 M10 screw
2 Simple installation part
3 Single-pole installation part
4 Flat gasket
5 Spring washer
6 Nut

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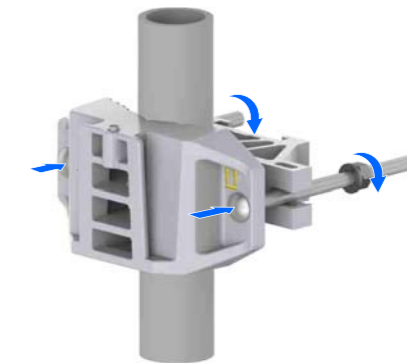
2 Make another M10 screw go through the installation hole on the other side and push it into the latch's U-shape slot.



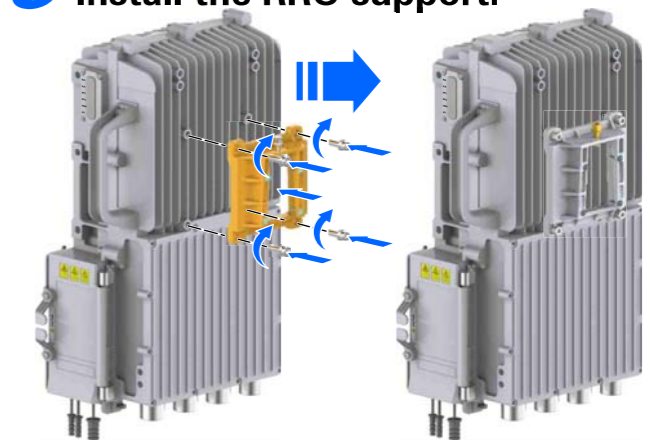
4 Finish the 1+1 pole component installation.



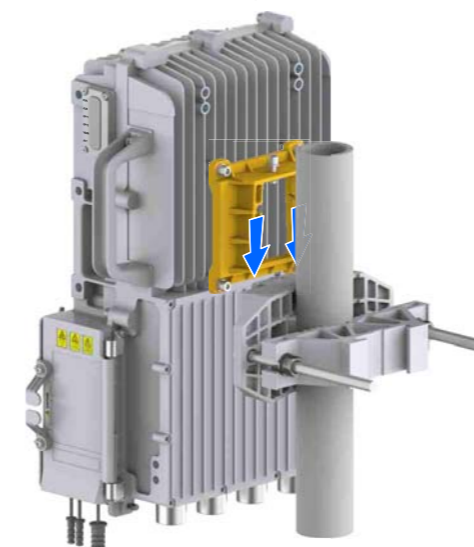
3 Use the adjustable wrench to securely fix the screws.



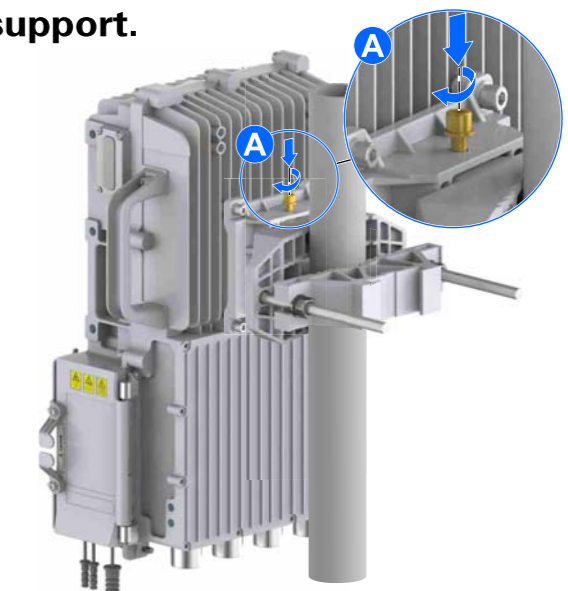
5 Install the RRU support.



6 Follow the installation diagram to install the RRU to the pole component from top down along the pole fixture's guide rail.



7 Use the M6 internal hexagonal wrench to fix the spring screws on the top of RRU support.



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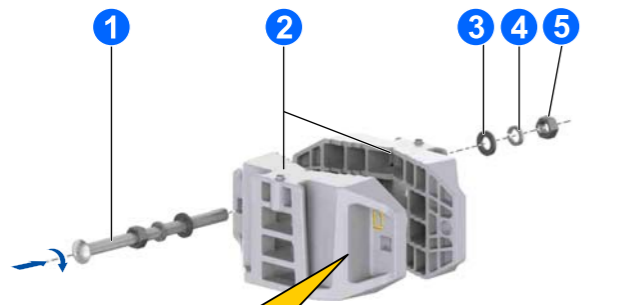
Two-RRU Pole-Mounted Installation

Installation Tools

Operation	Tool
Install an RRU support.	M6 internal hexagonal wrench
Fix the screws of pole components.	Adjustable wrench

Steps

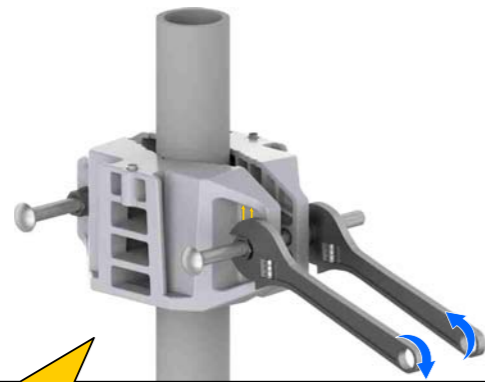
1 Follow the installation diagram to assemble the front sides of the two pole components.



Caution: Pay attention to the arrow direction.

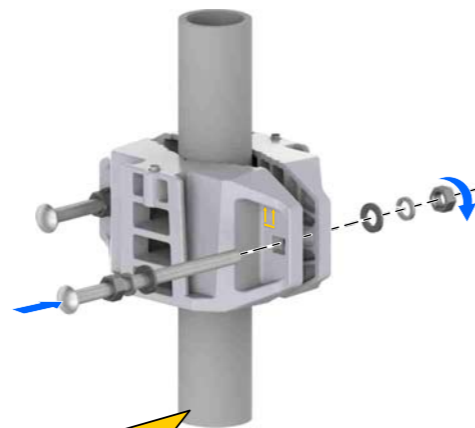
- 1 M10 screw
- 2 Simple installation part
- 3 Flat gasket
- 4 Spring washer
- 5 Nut

3 Fix the two screws clockwise by using adjustable wrenches.



Caution: When fixing the screws, note that the margins at both sides shall be the same. Otherwise, the installation of the ZXSDR R8862A will be affected.

2 Install the assembled component onto the pole.



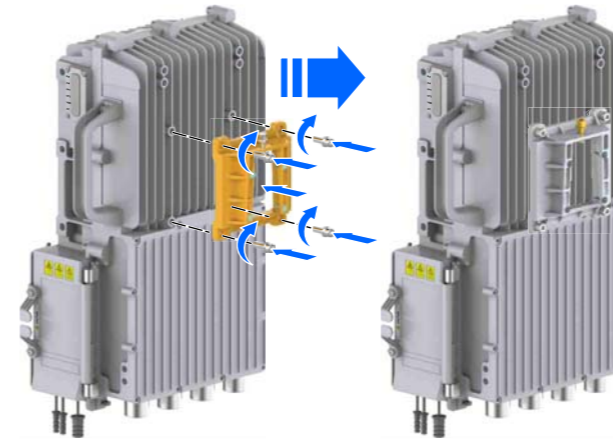
Caution: For this installation mode, the pole's outer diameter shall not be smaller than 60 mm.

4 Finish the 1+2 pole component installation.

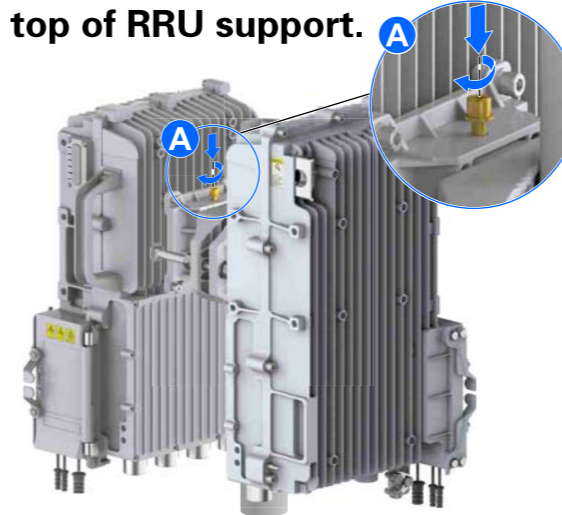


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5 Install the RRU support.



7 Use the M6 hexagonal wrench to fix the spring screws on the top of RRU support.



9 (Optional) Install the decorative cover plates.



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6 Install the two RRUs to the assembled pole component.



8 Finish the pole installation of dual RRUs.



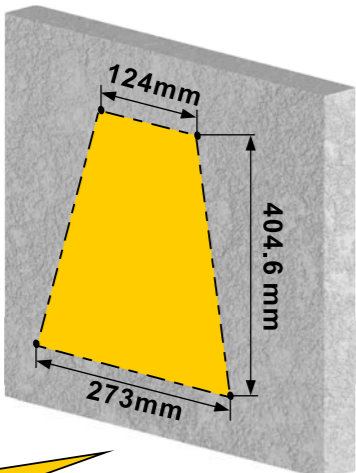
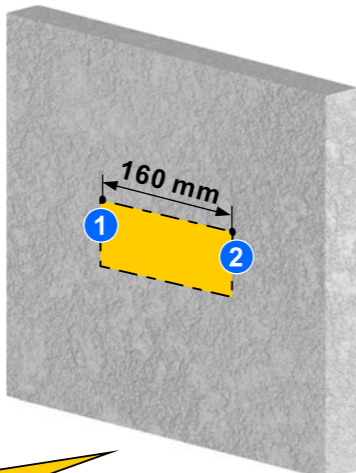
Wall-Mounted Installation

Installation Tools

Operation	Tool
To fix fastening bolts	Mask
	Tape measure
	Long ruler
	Marking pen
	Level ruler
	Electric impact drill
	Vacuum cleaner
	Adapter
	Socket wrench
	Claw hammer
Install an RRU support.	M6 internal hexagonal wrench
Fix the simple installation parts onto the wall.	Adjustable wrench
Fix sheet metal parts onto the wall.	Adjustable wrench

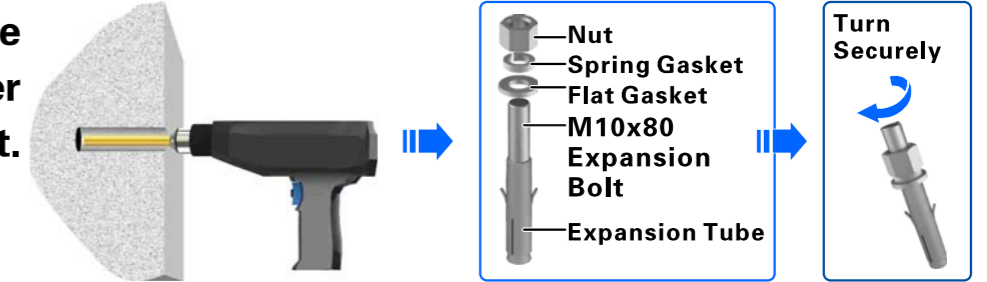
Steps for Installing Expansion Bolts

1 Follow the installation diagram to mark the drilling position on the wall.

Simple Sheet Metal Part	Simple Installation Part
 <p>Caution: When marking a hole position, use the level ruler to ensure that the hole position is horizontal.</p>	 <p>Caution: When marking a hole position, use the level ruler to ensure that the hole position is horizontal.</p>

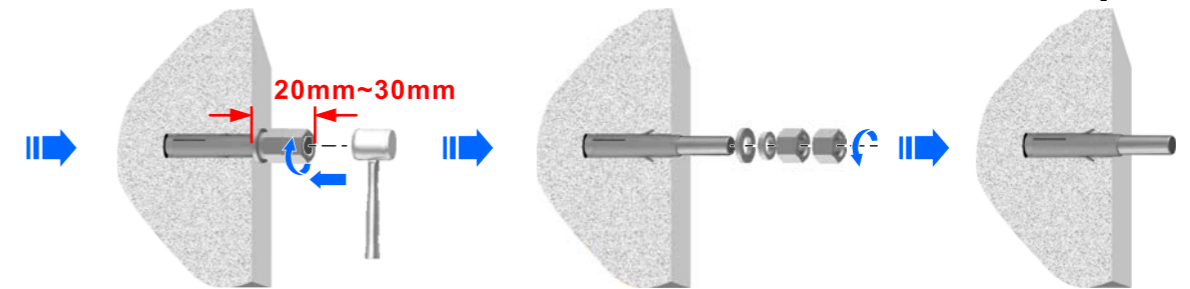
2 Follow the correct sequence to install the expansion bolts.

a Use the $\Phi 12$ percussion drill to make a hole at the marked position and use the vacuum cleaner to clean the dust.



b Use the claw hamper to knock an expansion bolt into the hole and fix the nut clockwise to make the bolt sufficiently functions inside the wall.

c Unscrew the nut counter-clockwise and remove the nut, spring gasket, and flat gasket. The expansion bolt installation is completed.



Simple Sheet Metal Part-Wall Mounting

Steps

1 Use eight 6xM6 screws to fix the simple sheet metal part for wall mounting onto the filter's side shell.

