Elevator Air Conditioner Installation Manual

I. Warnings: Before installation, ensure the voltage is between 220V and 230V.

The power supply must have a residual-current device (RCD) or circuit breaker. Proper grounding is essential.

The power cable's current-carrying capacity must be at least twice the air conditioner's rated current. Don't connect the air conditioner's power directly to the power source inside the elevator cabin.

Abnormalities may have occurred during transportation. Before installation, you must run the unit for 5 minutes to observe if it cools properly and if the remote control functions normally. If you notice a broken fan blade, cracked plastic casing, unusual noise, or a failure to cool, stop operation immediately and contact the manufacturer.

II. Air Conditioner Installation Steps

1. Securing the Cable

Run the cable down from the location of engine room power source. Secure the cable to the back of the elevator traveling cable using heavy-duty cable ties. Do not secure it to the front.

If the cable can't be secured all the way to the bottom, personnel at the pit can first secure a section. For the remaining unreachable section, raise the elevator cabin and use a ladder to complete the tying (use 3*1.5 mm^2 or 3*2.5 mm^2 flat cable).

ATTENTION: Personnel without an elevator operation license or

those unfamiliar with the specific elevator model mustn't perform the installation.

2. Connecting the Power Cable:
After the cable is secured, first install the outlet on the top of the cabin that will connect to the cable (use 10A outlet for 1P units; use 16A outlet for 1.5P and 2P units). Then, connect the air conditioner cable to the dedicated power supply for the elevator air conditioner located in the engine room.

3. Pre-Installation Reminders
1). Install the provided "U-shaped" channel steel brackets at the designated location on the cabin top to mount the air conditioner. (Crucially, ensure the unit is level. If not level, water will leak from the lower side. The optimal method is to slightly elevate the front (cold air outlet side) by 0.5 cm. This can reduce noise and prevent the water level from getting too high and contacting the electric board.

Absolutely ensure the rear (heat dissipation side) is not higher than the front. Both left and right sides of the elevator air conditioner must be perfectly balanced.)

Feed the wired controller cable into the elevator cabin interior. Then install the return air duct and the supply air duct (cold air duct). Ensure all connections are well-sealed during installation to prevent air leaks.

2). 2.1) The conductors(inside the wired controller cable) are very thin; don't pull on them with force.

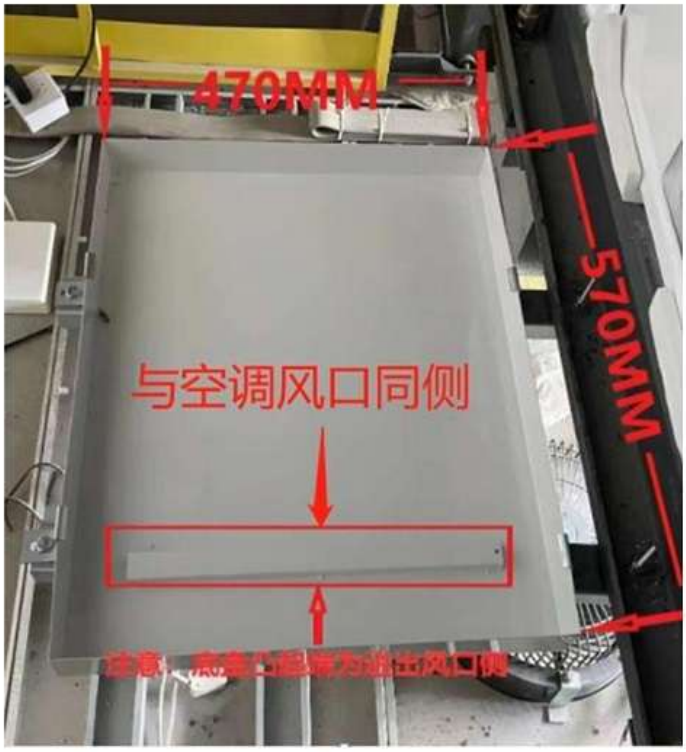
2.2) Conceal the wired controller cable to prevent accidental contact by maintenance personnel and to avoid interfering with maintenance work.

2.3) Keep the wired controller display screen away from cold air vents to prevent moisture/water ingress.

III. Precautions During Air Conditioner Installation

1. During installation, pay utmost attention to ensuring the air conditioners' base is perfectly level. If not level, water will leak from the lower side.

Installation Method: Place the end with the cold air outlet on the raised side of the mounting tray. Absolutely ensure the rear (heat dissipation side) is not higher than the front. The left and right sides of the elevator air conditioner must be perfectly balanced.



与空调风口同侧

Keep it same side as the air conditioner outlet.

Note! The raised side of the base is the side of the air inlet and outlet.

2. The air conditioner's display panel can receive remote control signals. If obstructed by foreign objects, it may fail to receive signals. Don’t install the display panel directly below the cold air outlet, as moisture exposure can easily cause damage. Avoid pulling forcefully on the display panel's cable, as this can loosen the connection and cause display failure.

During installation, first feed the display connection cable into the cabin. Only connect the display panel after the air conditioner installation is complete. Use strong double-sided adhesive to attach the back of the display panel. Install the panel in a slightly elevated position within the cabin to prevent passengers from damaging it and altering the preset programs.

3. The air conditioner can’t operate in “cooling mode” when the indoor temperature is below 16°C. Forcing cooling under these conditions will compromise the compressor's lifespan. If the air conditioner won’t use for a long time, remove the battery from the remote control. After 8-10 hours of continuous working, the air conditioner should switch off at least 1 hour. Don’t run the air conditioner 24/7 hours, as this will significantly shorten its service life.

4. Due to the dusty elevator shaft condition, clean the air filter every 3 weeks and clean the condenser and evaporator every 6 months.

5. Don’t step on the air conditioner with force or allow foreign objects to fall into the unit. Secure the air conditioner's power socket with

cable ties in a safe, suspended location under the beam; don't leave it loosely on the cabin top. (The power socket can also be fixed near the guardrail, provided it doesn't interfere with relevant elevator maintenance operations).

6. Remember: The main air conditioner unit

1) MUST NOT be placed on its side.

2) MUST NOT be placed upside down.

IV. Illustrated Installation Process

1. The flat, oval-shaped port at the front of the air conditioner is the cold air outlet, used to supply cool air. This outlet must be covered with an insulated duct, which consists of two layers. First, fit the inner layer and secure it tightly with a tie. Then, fit the outer layer. After applying insulation tape, secure the outer layer tightly with another tie. It is crucial not to secure only one layer, as this will lead to water leakage and poor cooling performance.

(The thick cotton tube in the transparent plastic bag is the cold air connection tube.)

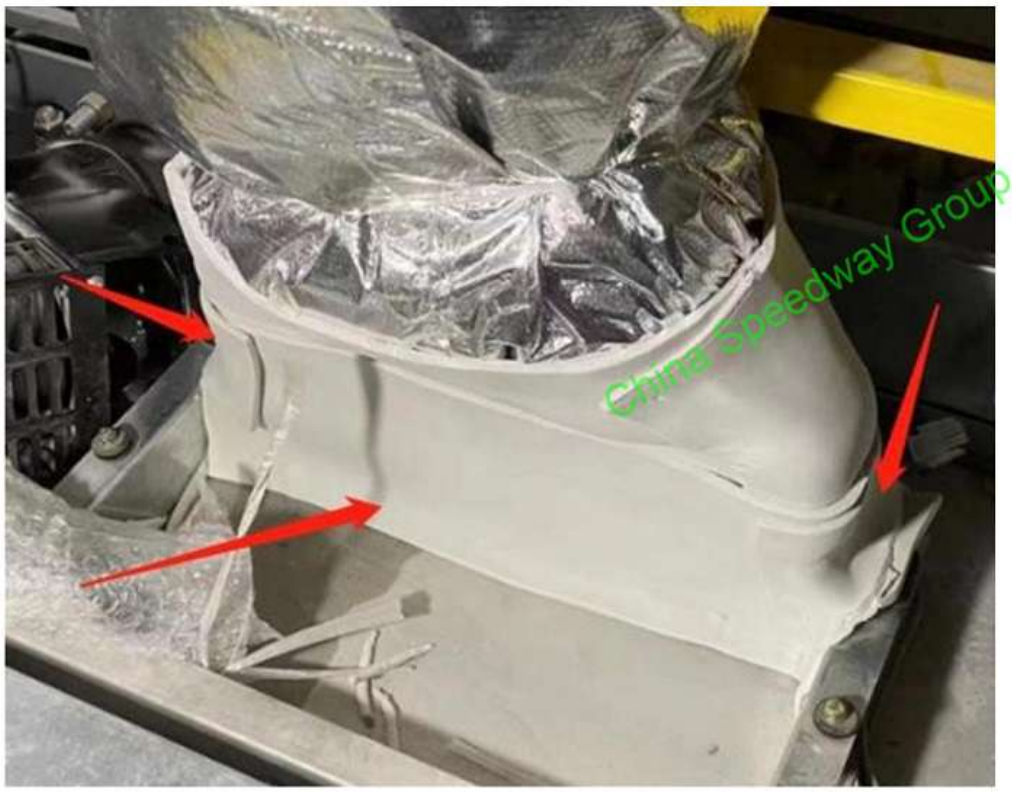
2. The circular port on the air conditioner is the return air duct, which is used to draw in air from the elevator cabin for circulation, thereby enhancing the cooling effect. The return air duct must be fitted over this circular port and secured tightly. (The thinner foil-faced duct in the packaging is the sleeve for the return air duct).

3. Apply a layer of insulation foam (300mm width x 600mm length) from the front top edge of the cold air outlet down to the metal reinforcement rib. Position it vertically at a 90-degree angle. This prevents water droplet condensation around the cold air outlet during continuous cooling operation over several days.

4. Place the air conditioner steadily on the supporting base on the cabin top. Position two angle irons parallel to each other as shown in the diagram. Secure the unit's chassis using four "Z-shaped brackets," align the holes, and fasten the condensate water tray using screws and other provided hardware. After fixing the bracket, check that both the chassis and the main unit are level and securely fastened.

5. Apply a layer of insulation foam to the surface of the air

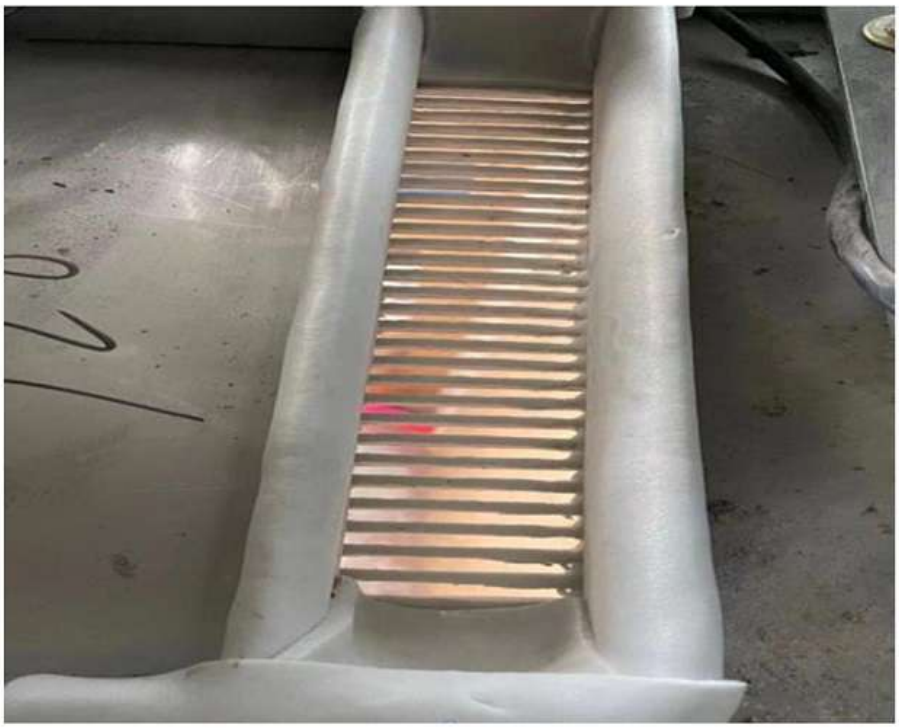
conditioner's cold air outlet duct. This prevents cold air leakage from the duct, which can lead to condensation forming on the duct's surface. Ensure the entire surface is covered and the foam is securely attached. (It is not necessary to apply insulation foam to the inside of the duct).



6. Insert the cold air outlet duct into the side vent. Note that there is metal material inside the vent opening. Any metal part directly exposed to the cold air stream must be covered with a layer of insulation tape to prevent condensation from forming on the interior walls of the elevator cabin.

(1) For "Grille"-type Vents (Without installing shutters):
This solution can’t 100% ensure the vent will be drip-free, as elevator usage environments involve many variables.
* Remove the vent cover.
* Apply insulation tape.
* Use a hacksaw blade to cut open each individual slot in the grille, allowing the maximum amount of cold air to pass through the openings.

(2) The "air nozzle" of the cold air duct should be positioned about 1 cm away from the face of the vent. Do not insert it fully.



(3) For "Grille"-type Vents (As cold air outlets, with shutters installed):

* This is the optimal solution for this type of vent.

7. If the temperature in the elevator shaft is relatively high, it can adversely affect the cooling efficiency and lifespan of the air conditioner. In this case, connect the return air duct. Simply attach the insulated return air duct directly to the return air opening using insulation foam. (The return air opening must lead directly into the elevator cabin interior).

8. Refer to the following diagram for the completed installation

回风管：薄管

Return air duct: Thin duct

Z字形搭扣

Z-shaped fasteners

出冷气保温管

Cold air insulation duct

冷气风口链接处可适当贴保温贴纸谨防漏冷气有冷凝水

Apply insulation tape to the connection point of the cold air vent to prevent cool air leakage and condensation.

槽钢支架

Channel steel bracket

空调主机往上靠顶住底盘边上

Air conditioner unit pressed against the top and alongside the base plate

主机后端与空调之间留空间

Leave space between rear end & side of water tray and the air conditioner