



INSTALLATION AND USE MANUAL FOR AIR CONDITIONING MODEL KM9000 AND S9



Before installing and using this air conditioner, please read this manual carefully.



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Due to product enhancements or updates, parts and accessories may not match what is shown in these instructions. Please keep that in mind.

1. Technical Specifications

MODEL	KM9000		S9
Voltage (V)	12V	24V	24V
Current(A)	16-75A	8-35A	5-38A
Power(W)	200-800W	200-850W	200-980W
Rated Cooling Capacity (W)	2000W	2400W	3000W
Soft Drink	R134a		R134a
Cooling oil	POE 68/series		POE 68/series
Coolant Quantity(g)	360±10g		580±10g
Air Volume	240-450m ³ /h		240-480m ³ /h
Installation dimensions	MIN; 600*300mm MAX: 500*700mmm		MIN; 600*300mm MAX: 500*700mmm
Internal dimensions	561*349*130mm		454*283*120mm
External Dimensions	792*974*129mm		861*952*188mm

Special Notes

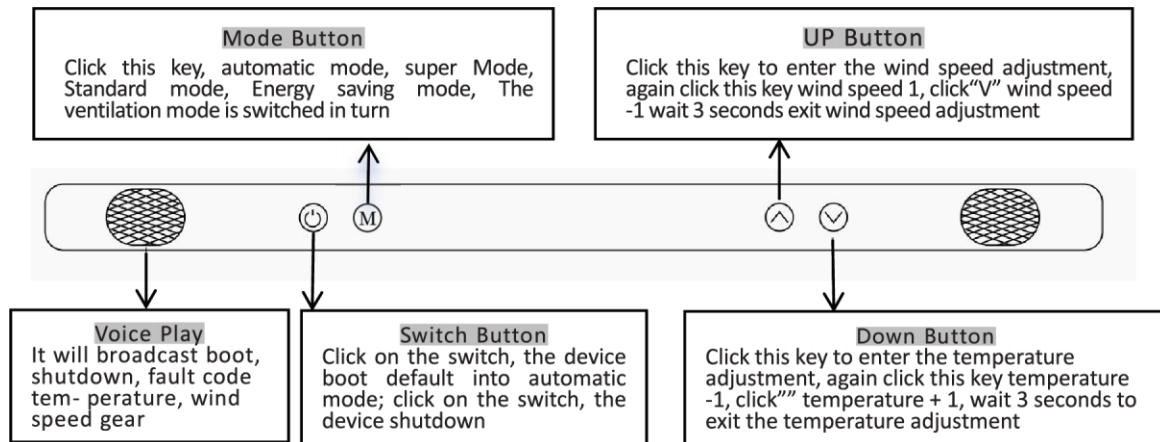
- With temperature changes inside and outside the unit, the previous parameters will change.

2. Product Parts, Accessories, and Instructions

NO.	Number	Unity	Quantity
1	Main set	Set	1
2	Remote Control	Piece of Paper	1
3	Decorative lid	Piece of Paper	1
4	Sealing Strip	Piece of Paper	1
5	Strip Set	Set	1
6	Screw Bag	Set	1

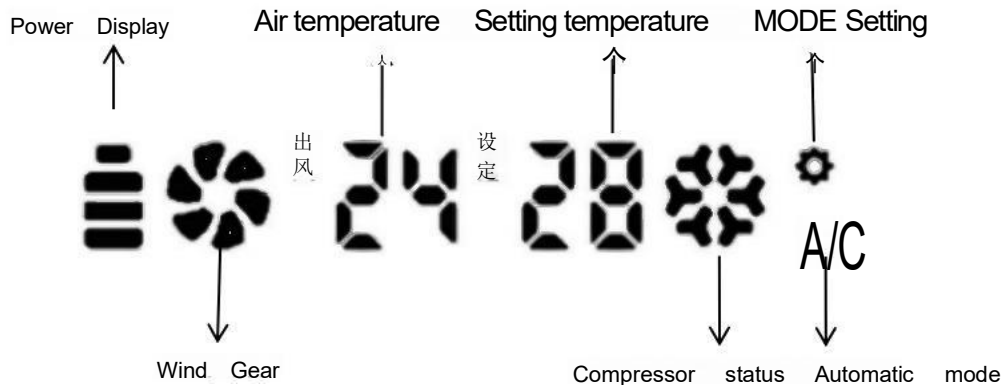


3. Introduction to Control Panel.



Display Indications KM9000 AND S9

Low Voltage Protection Value Setting: When turned off, press and hold the up button and down button
 V Low voltage setting mode, setting range: 19-24V, Factory default: 21V (24V parking air conditioner)
 setting range: 9-12V, Factory default: 10V (12V parking air).





Adjustment of the low voltage protection value.

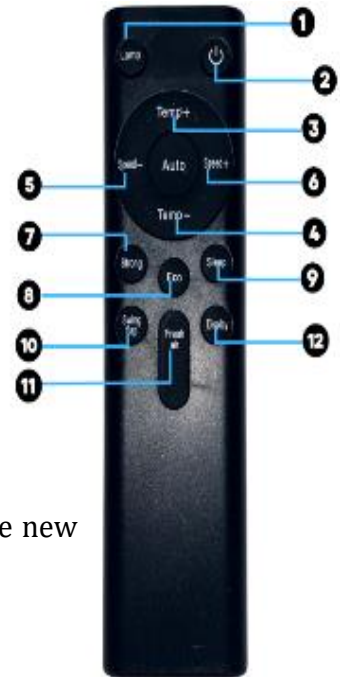
Display of the low voltage protection value.



When you turn off your computer, press and hold the Up and Down buttons. Low voltage setting mode: setting range: 19-24 V (factory default: 21 V [24 V parking air conditioner]); adjustment range: 9-12 V (factory default: 10 V [12 V parking air conditioner]).

Remote Control – APU MODEL KM9000

- ① Lamp button: Turns the LED reading light on/off on the air conditioner.
- ② Power button: Press once to turn the air conditioner on/off.
- ③ Temp+ button: To increase the temperature.
- ④ Temp- button: To decrease the temperature.
- ⑤ Speed button: To decrease the wind speed.
- ⑥ Speed+ button: To increase the wind speed.
- ⑦ Strong mode: Default temperature setting 16°C. Wind speed: 6 levels.
- ⑧ Eco Mode: Default temperature setting 26°C, Wind speed 4 levels
- ⑨ Sleep Mode: Default temperature setting 28°C, Wind speed 3 levels
- ⑩ Oscillating louver: The air diffuser automatically oscillates up and down (the new 2023 split unit evaporator has this function)
- 11. Fresh air: The compressor stops working; only the fan motor operates.
- 12 Display: Press once to turn off the display; press any key to turn it on.





Remote Control – APU MODEL S9

1. Turn on / turn off the air conditioner
2. MODEL: With the unit running, continuous pressing enables cyclic switching of operation modes, including Auto, Cool, Dry and Fan Only.
3. COOLING: Standard Mode: this is fixed frequency operation mode, with Level 3 fan speed set as default.
4. STRONG: Strong Mode: this adopts fixed frequency operation mode, and Level 5 fan speed is set as default.
5. SLEEP: Eco Mode: This mode runs with fixed frequency operation, and Level 1 fan speed is set as default.
6. AUTO: Auto Mode, the unit runs under variable frequency operation mode.
7. +: Increase the set temperature, maximum limit: 32°C.
8. -: Lower the set temperature, minimum limit: 16°C.
9. SPEED: Press repeatedly to cyclically adjust fan speed, with 6 speed levels ranging from Level 1 to Level 6.
10. FRESH AIR: Turn off cooling function, indoor fan runs for air circulation only.
11. SCREEN: This button shuts down the unit's digital screen. Press any button to reactivate the digital display.
12. TIMED: Set timer power-on and timer power-off.
 - Timer Power-On Function: Press the Timed button, adjust the timing hours via + / -, then press the Timed button again to confirm the setting.
 - Timer Power-Off Function: Press the Timed button, adjust the timing hours via + / -, then press the Timed button again to confirm the setting.
13. SEARCH: Press repeatedly to cycle through and view intake air temperature, outlet air temperature, real-time voltage and signal voltage.
14. LAMP: Press this button to turn on or turn off the indicator light of the indoor unit.
15. UP OR DOWN: Press this button to enable or disable vertical louver swing, adjust up and down air outlet direction.
16. LEFT OR RIGHT: Press this button to enable or disable horizontal louver swing, adjust left and right air outlet direction.



Ready tool for COFOR brand air conditioning installations.

- **1/4" and 1/2" drill bits**
- **Drill**
- **7/8" and 2" punches**
- **Cutter**
- **10mm socket**



- Rattle
- Spanish key 10mm
- Cross Screwdriver
- Parakeet
- Pressure Gauges
- Vacuum pump
- For roof equipment you also need:
 - 4" Emery or Caladora
 - 4" cut-off wheel
 - Ladder
- Materials
 - Polyurethane (Sikaflex)
 - Large plastic straps
 - Drill tip cocks
 -

4. Installation Instructions

1) Preparation before installation

(1) Tools needed for installation:

Hammer, drill for electric hammer, cutter, hex key, cutting pliers, sealer

(2) Air conditioning accessories:

Sealing strips with brackets, decorative panels, power cables, installation kit, coating

2) Steps and precautions for complete installation of the equipment

(1) Confirm the location of the air conditioner installation.

Preparing for Installation

- Clean and clear the area where you will be installing
- The placement of the equipment is at the discretion of the installer.



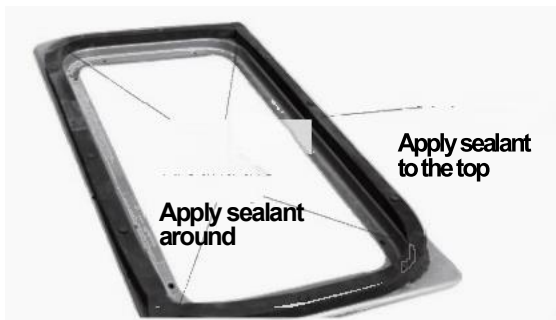
- Mounting material is included as specified in the quantities and size of the equipment; Any variation is determined by the installer, depending on the type and model of the vehicle.
- The installer must determine the following:
 - Precautions, in case of reinforcement in the roof NOTE: Work carefully whenever you run inside the cabin: Alterations due to excess weight could damage the equipment. If required, the roof must be reinforced with light and resistant material.

Most trucks do not require reinforcement as the weight of the equipment is only 37 kg

- Prepare suitable tools to make the hole in the ceiling such as an electric saw. It will use M8 screw drill as well as sockets of the same size.
- It is recommended to make a template for the cutting area considering the evaporator gap and screws
- The equipment is delivered loaded with refrigerant, so you do not need to carry a tool for handling refrigerant.
- The outer surface of the flange of the opening should be sealed with a sealing strip. The strip should be glued near the edge of the opening, on a flat surface. Once the adhesive tape is attached, apply a continuous circle of waterproof adhesive to the inner face, spreading it evenly. On top, apply a ring as well.

Special Instructions: When sticking the tape, the interface should be on the back of the air conditioner and should be sealed tightly with sealant.

- Use a forklift or ladder to raise the air conditioner to the ceiling and place it inside the opening, protecting the interior panel from possible scratches.
- Adjust the inside so that it is aligned between the front and back of the skylight. Special Instructions: The vent under the condenser should be outside the sealing tape; otherwise, rainwater will seep in (Figure 2). If the roof guide makes it difficult to install the air conditioner, it needs to be cut to the correct position.



This area cannot be exposed to the internal sealing strip.

- The surface of the coating should be facing downwards. The hex nut is fixed in the bolt position and tightened with a wrench to ensure that the compression of the sealing rubber strip is about 5mm, to avoid insufficient sealing caused by water leakage.

The cut to receive the equipment must be 62x34 cm Cut the inside of the ceiling tapestry according to the measurement of the inner cover of the equipment



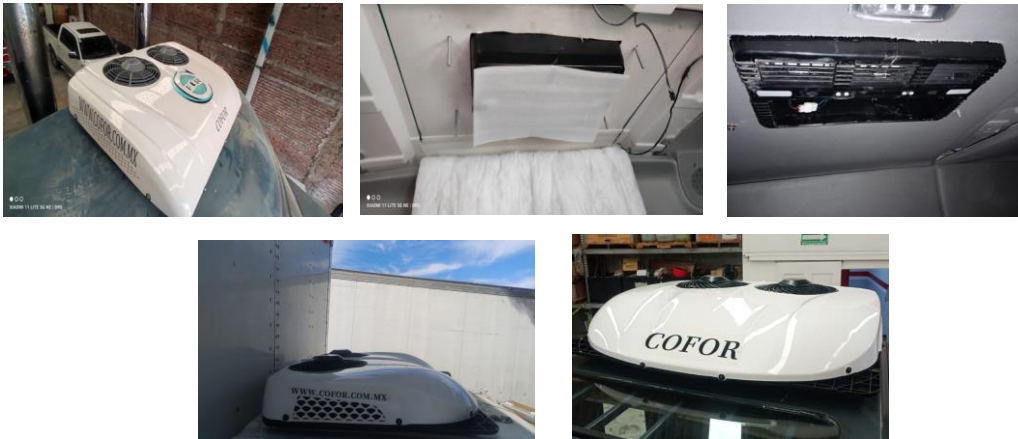
Place the foam around the hole and seal completely with Sikaflex or similar





■Air conditioning assembly.

Place the equipment carefully and ensure that the screws and evaporator pass properly through the hole without being damaged



■The decorative plate is installed, fixed with 4 hex nuts at each position of the bolt, and then the decorative plate with a wood finish is attached.

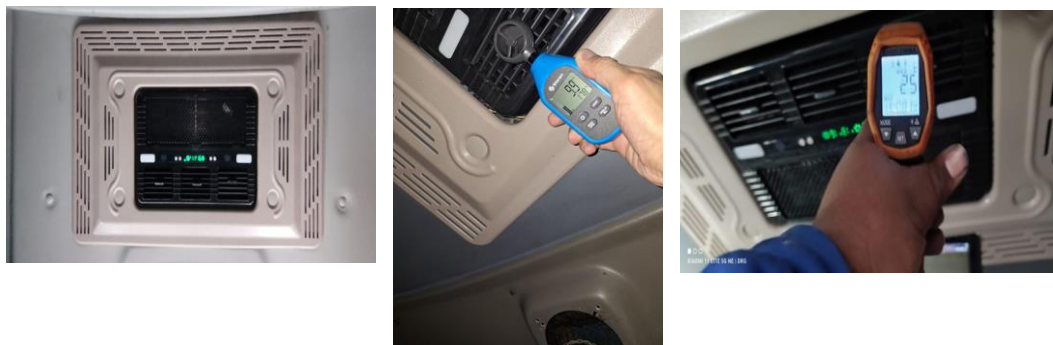


■Connect the power cord. Remove the cable from the accessory bag and connect it directly to the special socket of the external air conditioning unit, depending on the position of the vehicle's battery.

Attach the power cord and secure it with a cable tie to prevent vibration and wear to both the air conditioner power cord and the original car battery.

For connection to the battery, connect the red wire to the positive pole and the black wire to the negative pole. Tighten the set screw tightly.

■Turn on the equipment and check its operation with an anemometer or thermometer to verify that it is cooling.





5. Cleaning and maintenance

1) For safety, before starting cleaning, disconnect the main power supply from the air conditioner; otherwise, you could suffer an electric shock.

2) Do not use harsh chemicals or solvents for cleaning, as they will damage the appearance of the air conditioner.

3) Take extra care when cleaning the sharp parts, as they could scratch them.

■ Cleaning the indoor unit housing

A. Use soft, clean cloth to clean the inner shell.

B. If the parts have stubborn stains, use a soft, clean cloth dampened in a solution of neutral detergent and warm water (below 45°C).

Note: There are components in the control panel. Do not immerse it in water.

■ Cleaning the core of the evaporator box

Remove the housing from the indoor unit and use compressed air (e.g., a hair dryer) to remove dust from the surface of the core.

■ Clean the outdoor unit.

Open the outdoor unit housing and clean the condenser with compressed air (e.g. with a hair dryer).

Note: Do not touch the condenser during cleaning.

■ Do not use the air conditioner for a long time if it is unplugged. Avoid bumps with the outdoor unit.

■ Clean the fuselage, condenser, and evaporator when not in use for a long time. Check that there are no obstructions at the entrance/exit of the indoor and outdoor units. Check that water pipes are clear. Install the battery on the remote control and check that it is turned on.

Tip: It is recommended to clean the condenser once a month. If the air conditioner is exposed to a lot of ambient dust, increase the frequency of cleaning. Clean the air conditioner regularly to ensure proper operation.



Error Codes.

Fault Code	Description	Solution
E01	The battery voltage is below the undervoltage or overvoltage protection value.	1. Check the battery charge. 2. The positive and negative terminals of the power cord must be connected to the batteries. 3. Check if the power cord has a correct connection. 4. Check if the voltage is too high or if the generator is connected incorrectly.
E02	Open circuit of the evaporator fan	1. The evaporative motor plug is loose or disconnected. 2. The switch controller is damaged. 3. The plug pin is out.
E03	Compressor start-up failure	1. The screws on the compressor phase cable are loose. 2. The compressor controller is defective. 3. The compressor is stuck.
E04	Short circuit in the evaporator fan	1. The internal circuit of the generator is turned off. 2. The switch controller is damaged.
E05	Compressor overheating	1. The system lacks refrigerant. 2. Dust on the surface of the condenser prevents heat dissipation. 3. The capacitor motor speed is insufficient. 4. During installation, the air inlet and outlet space is reduced. 5. The compressor controller is defective.
E06	Open Condensation Fan	1. The fan connector is loose and the circuit is interrupted. 2. The connector pin has slipped out of place. 3. The compressor controller is damaged.
E07	Short circuit in the condenser fan	1. The capacitor motor is connected to the inner line. 2. The compressor control is damaged.
E08	Condensation fan 1 is faulty or the fuse is open.	1. The fan connector is loose and the circuit is interrupted. 2. The connector pin is disconnected. 3. The brushless fan controller is faulty or the motor is damaged. 4. The signal fuse of the brushless fan on the control panel has bad contact or is disconnected.
E09	Condensing fan 2 is faulty.	1. The fan plug is loose and the circuit is broken. 2. The plug pin is out of contact. 3. The brushless fan controller is faulty or the motor is damaged.
E10	The ambient temperature sensor is faulty.	1. The sensor connector is loose and disconnected. 2. The connector pin does not make contact.
E10	The main mixing sensor is faulty.	

Special Note: When refilling the coolant, use 60 ml professional coolant oil. Refrigerant Model: R134a
Normal Refrigerant High- and Low-Pressure Range (Ambient Temperature 35°C): Low Pressure: 0.3 MPa
± 0.05 MPa; High pressure: 12 MPa ± 0.1 MPa.



WARRANTY POLICY

COFOR warrants the equipment sold with the following warranty against manufacturing defects or hidden defects except for damage caused by improper use by the customer, if it is installed, used and operated in accordance with the specifications indicated in the operation and use manuals.

KM9000- 2 years.

S9- 2 years.

EC2400H- 2 years.

HC-1- 2 years.

LC-2- 1 year

This warranty complies with the provisions of the Federal Consumer Protection Law and applicable provisions.

WARRANTY COVERAGE

The warranty period begins on the date the product is delivered to the customer.

Under this warranty, COFOR provides the following:

- Replacement of parts with manufacturing defects.
- Remote technical support and technical assistance.

The warranty doesn't cover installation, travel expenses, labor, consumable materials, or shipping costs

WARRANTY EXCLUSIONS

This warranty does not apply under any of the following circumstances:

- The product is used for purposes other than its intended application.
- The equipment or replacement parts are installed by unqualified personnel.
- The equipment or replacement parts are opened, repaired, or modified by the customer or by unauthorized or unqualified third parties without prior written authorization from COFOR.
- Other electrical or mechanical equipment is improperly installed or operated in conjunction with the product.
- The product is damaged during loading, unloading, transportation, or delivery when such services are not provided by COFOR.
- The electrical power supply is outside the operating range specified for the equipment



- The malfunction results from failure to perform the maintenance recommended by COFOR or specified in the manufacturer's manuals, or when the cause falls within the exclusions of this warranty.
- Damage caused by accidents, natural disasters, force majeure, or other events beyond COFOR's reasonable control.

MECHANISM FOR ENFORCING THE GUARANTEE

The customer must send an email to the following address: hello@cofor.us attaching a copy of the invoice to request the warranty form. Within a period of no more than 5 business days, one of our executives will contact the client to inform them of the actions to be taken, which may be:

- a) Send a technician to the address where the equipment is located, with Charge to the customer.
- b) Instruct the customer to send the equipment or spare parts by any means to COFOR's offices, attaching all its components, i.e., manuals, components, box and accessories.

If the inspection shows that the equipment is working correctly, the customer will be informed, and the equipment will be made available to them, with COFOR reserving the charge for the inspection of the equipment. Likewise, if the customer is unable to pick up the equipment at COFOR's home, it will be sent by parcel after payment of these costs by the customer.

In case of applying the Warranty of the product or spare part, the company will carry out the repair or replacement of the product or spare part with the same or recent model with the same technical specifications of the damaged product. Shipping, labor and refrigerant charging costs if required will be covered at the customer's expense.

In no case may the company's liability exceed the price of the product established in the sales invoice.

RECOMMENDED MAINTENANCE SERVICES FOR KM9000, S9, EC2400H, HC-1 AND LC-2 AIR CONDITIONERS.

- First Service at 12 months:
Internal and external cleaning
Electrical Component Review
R-134A refrigerant charge (every year)
- Consecutive service every 6 months
Internal and external cleaning
Review of electrical components.

**Sincerely,
COFOR
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