



# Installation Guide



**Rooftop Air Conditioner**

**Model: Glacier Pro**

**12V/110V**

[support@outequippro.com](mailto:support@outequippro.com)

## **Safety Instructions**

To ensure safe installation and operation, follow these safety guidelines. Failure to do so may result in personal injury, property damage, or voided warranty.

- This unit **MUST** be installed and repaired by qualified personnel who are familiar with the risks involved.
- Do **NOT** modify this product in any way. Modifications can be extremely hazardous.
- Keep electrical devices out of reach of children and do not allow them to operate the device without supervision.
- Only use accessories authorized by the manufacturer.
- Do **NOT** use this unit in or near a flammable environment.
- Do **NOT** let children use the unit without supervision.
- Do **NOT** use this unit when the ambient temperature is lower than 40°F, as this may cause frost inside the unit.
- Do **NOT** power wash the unit or use detergent to clean it.
- Installation by Qualified Persons: This product should be installed by a qualified technician or an individual with proper mechanical and electrical knowledge.
- Disconnect Power: Always disconnect the RV's battery and/or power source before beginning installation to avoid electrical shock or fire hazard.
- Use Proper Tools: Use only hand tools or low-torque power tools. Over-torquing screws or bolts can damage components.

- **Wear Protective Gear:** Use gloves and eye protection during installation. Be cautious when handling sharp edges on metal components.
- **Avoid Roof Damage:** Do not walk directly on unsupported RV roof sections. Use boards to distribute weight if needed.
- **Seal Openings Properly:** Improper sealing can lead to water leaks and mold damage. Follow gasket and sealant instructions carefully.
- **Check Local Codes:** This manual has safety information to help users eliminate or mitigate the risk of accidents and injuries. The installation of this unit **MUST** comply with the following codes:
  - U.S.: NFPA 1192, NFPA 70 (National Electrical Code)
  - Canada: C22.1, CSA Z240
- **Ensure compliance with any applicable State or Local regulations.**
- **Use Appropriate Sealant:** Only use RV-approved, UV-resistant sealants compatible with your roof material.
- **Secure Wiring:** Ensure all wires are properly secured and away from sharp edges or moving parts.
- **Inspect After Installation:** After setup, test the system thoroughly and inspect for gaps, loose components, or exposed wires.
- **Authorized Accessories Only:** Do not add any devices or accessories to this air conditioner except those specifically authorized by the manufacturer.
- **Qualified Servicing Required:** This equipment must be serviced by qualified personnel. Some states require these individuals to be licensed.

**Warning:** *This unit is designed for use with a DC power system. Do not connect to an unsupported power source. Doing so can cause permanent damage and pose serious safety risks.*

**Liability Disclaimer:** *OutEquipPro will not be liable for any damages or injury incurred due to failure in following these instructions.*

## 1. Outdoor Unit Footprint & Clearance

- Overall Size: 35.4 x 34.6 inches (900 x 880mm)
- Height: 7.1 inches (180mm)

### Clearance from Air Duct Area to Edges:

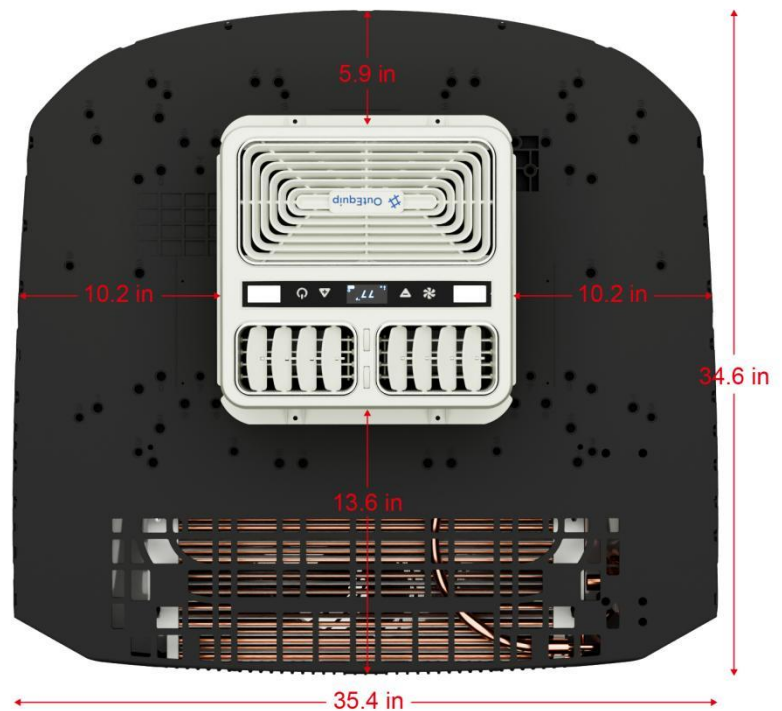
These are the distances from the central air duct area of the rooftop unit to each outer edge of the unit. Knowing these helps ensure sufficient clearance on all sides, especially when other equipment is nearby.

Front: 5.9 inches (150mm)

Rear: 13.6 inches (345mm)

Left Side: 10.2 inches (260mm)

Right Side: 10.2 inches (260mm)



**Tip:** Measure rooftop space before installation to avoid interference with solar panels, roof racks, or other equipment.

## 2. Roof Opening Requirements

- Minimum Size: 14.1 x 13.7 inches (360 x 350 mm)
- Maximum Size: 28.7 x 22.8 inches (730 x 580 mm)

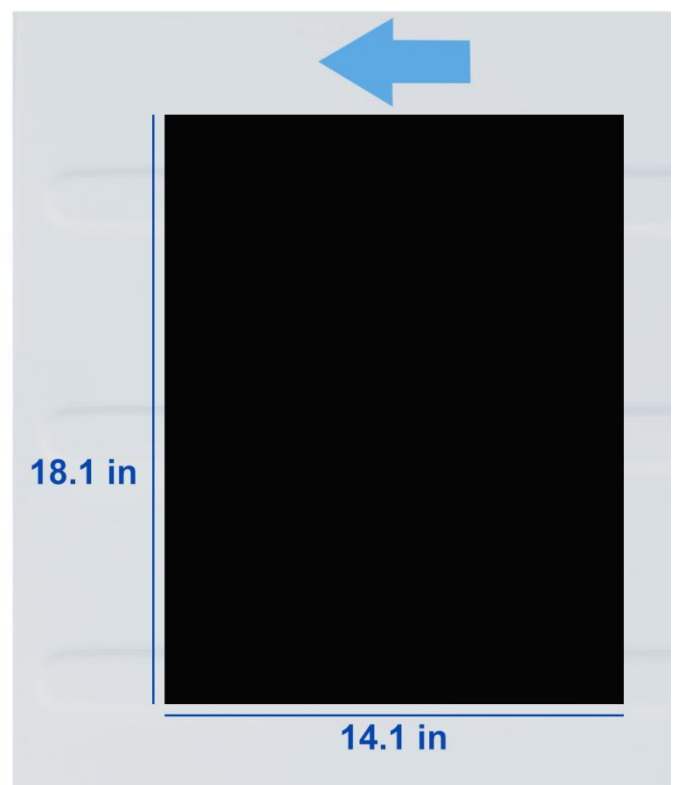
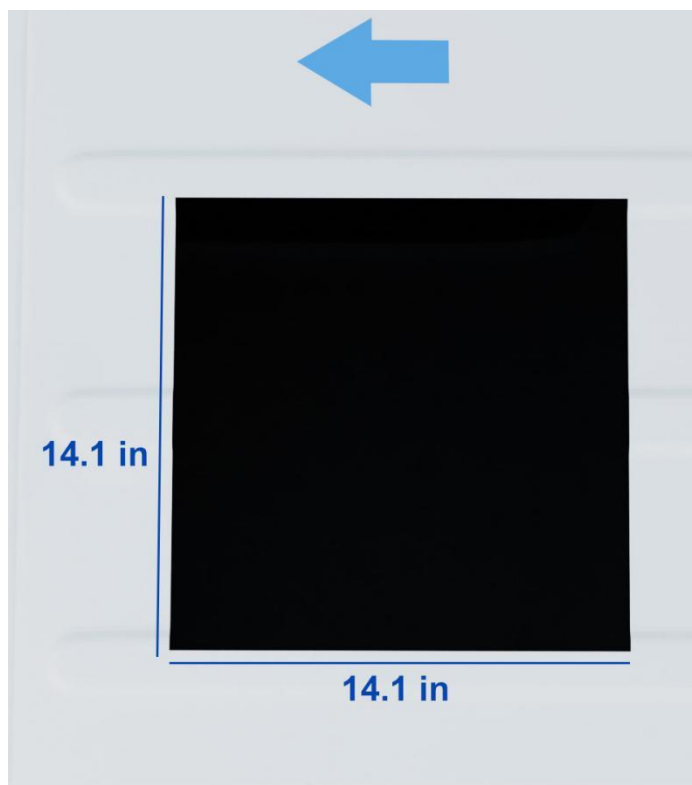
### Flat & Level Surface:

The surrounding roof surface must be flat, level, and strong enough to support the air conditioner's weight during both stationary use and vehicle movement.

### Clearance from Nearby Structures:

Ensure at least 2 - 3 inches of clearance between the outer edge of the unit and nearby rooftop components (solar panels, racks, antennae, etc.).

You have two options for preparing the roof opening:



## Option 1: Use a 14.1 x 14.1 inch Opening

- If you are using an existing 14.1 x 14.1 inch opening (commonly from an RV vent), you will need to **drill holes on the roof** for securing the indoor panel trim and mounting brackets.
- Use the included hole template or the indoor panel trim to accurately mark the hole positions before drilling.



### Two Sets of Holes Are Required:

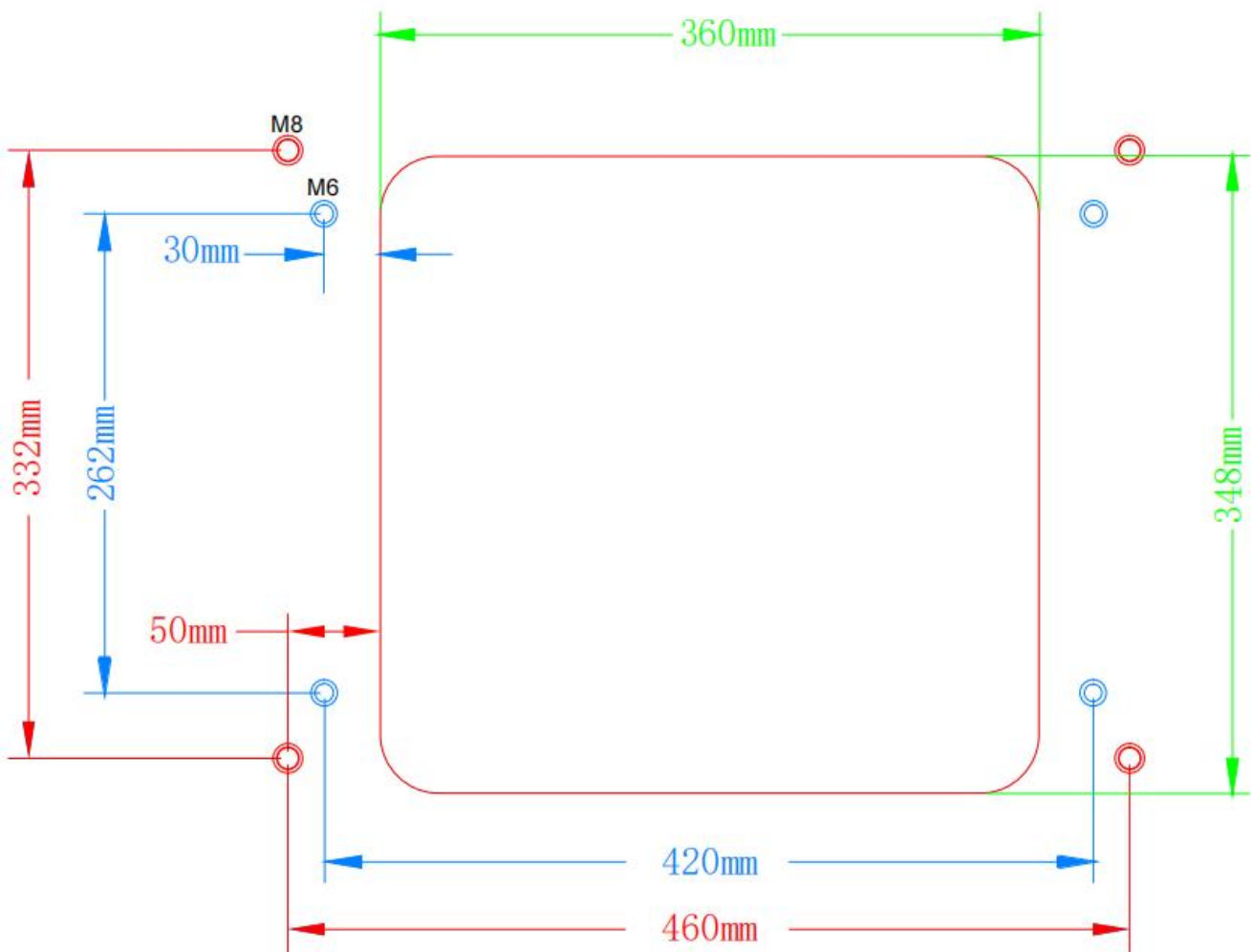
#### 1. M8 Rod Mounting Holes (x4):

- These holes are marked as #8 on the chassis of the outdoor unit.
- Use them to insert M8 threaded rods that connect the rooftop unit to the interior mounting brackets.
- The rods thread into these holes and are secured from inside the vehicle to hold the unit firmly in place.

#### 2. M6 Trim Mounting Holes (x4):

- These are marked as #7 on the chassis of the outdoor unit.
- M6 screws go into these holes to secure the indoor trim panel against the ceiling.
- They ensure the trim sits flush for a clean, professional interior finish.

**Tip:** All mounting hole positions on the outdoor unit chassis are clearly labeled with numbers for easy identification during installation.



M6 – For securing the indoor panel trim.  
M8 – For mounting brackets installation.

*The hole template is included in the package*

## Option 2: Create a 18.1 x 14.1 inch Opening

- This option is recommended for easier installation.
- The pre-positioned mounting holes on the rooftop unit will be visible from inside, so no drilling is needed.



### 3. Install the Flexible Foam Gasket & Apply Sealant

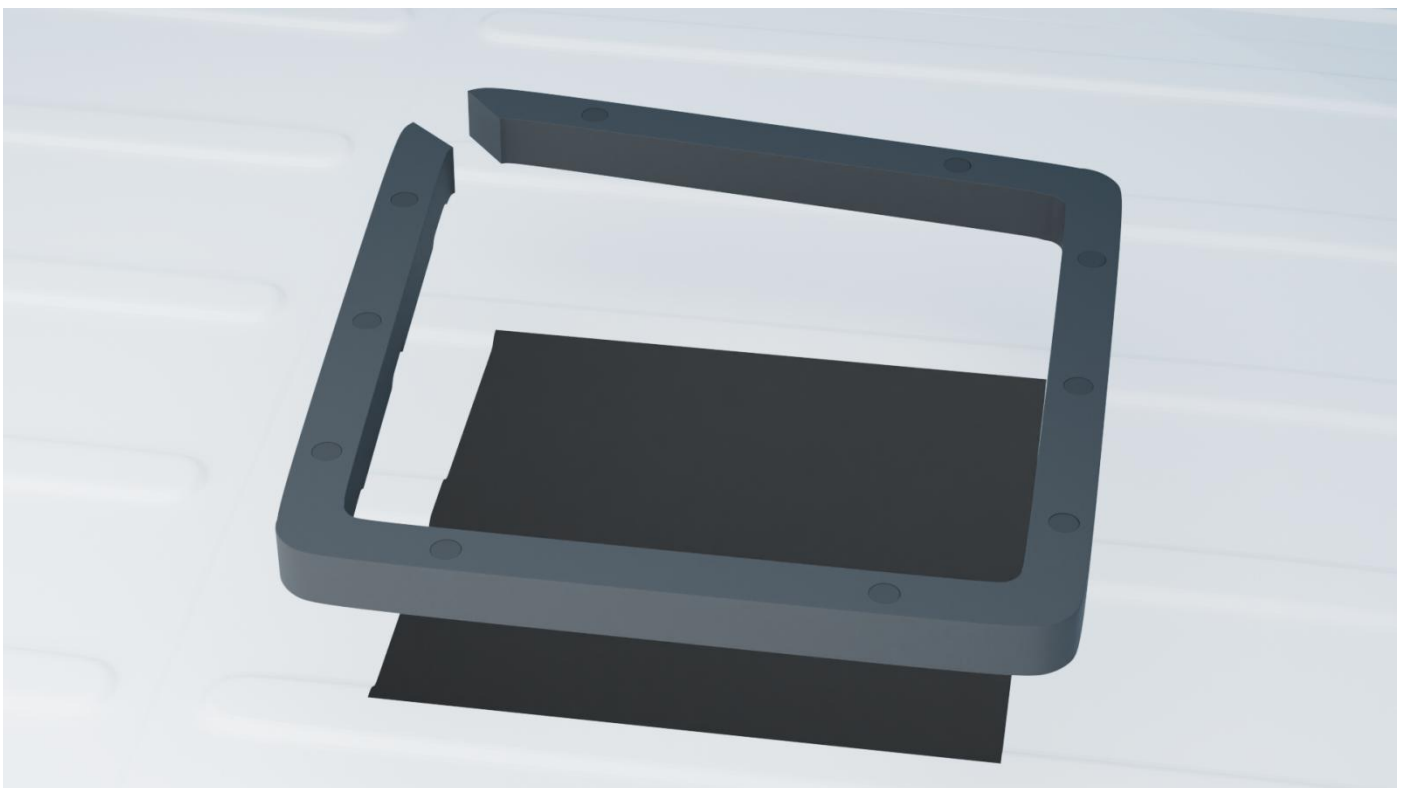
Use the included EPDM foam gasket to create a watertight seal around the roof opening.

Key Features:

- Flexible and stretchable to fit different size openings
- Holes for inserting support rubber columns to prevent deformation over time

Steps:

1. Clean the area around the roof opening.
2. Apply the gasket directly to the roof surface, surrounding the cutout.

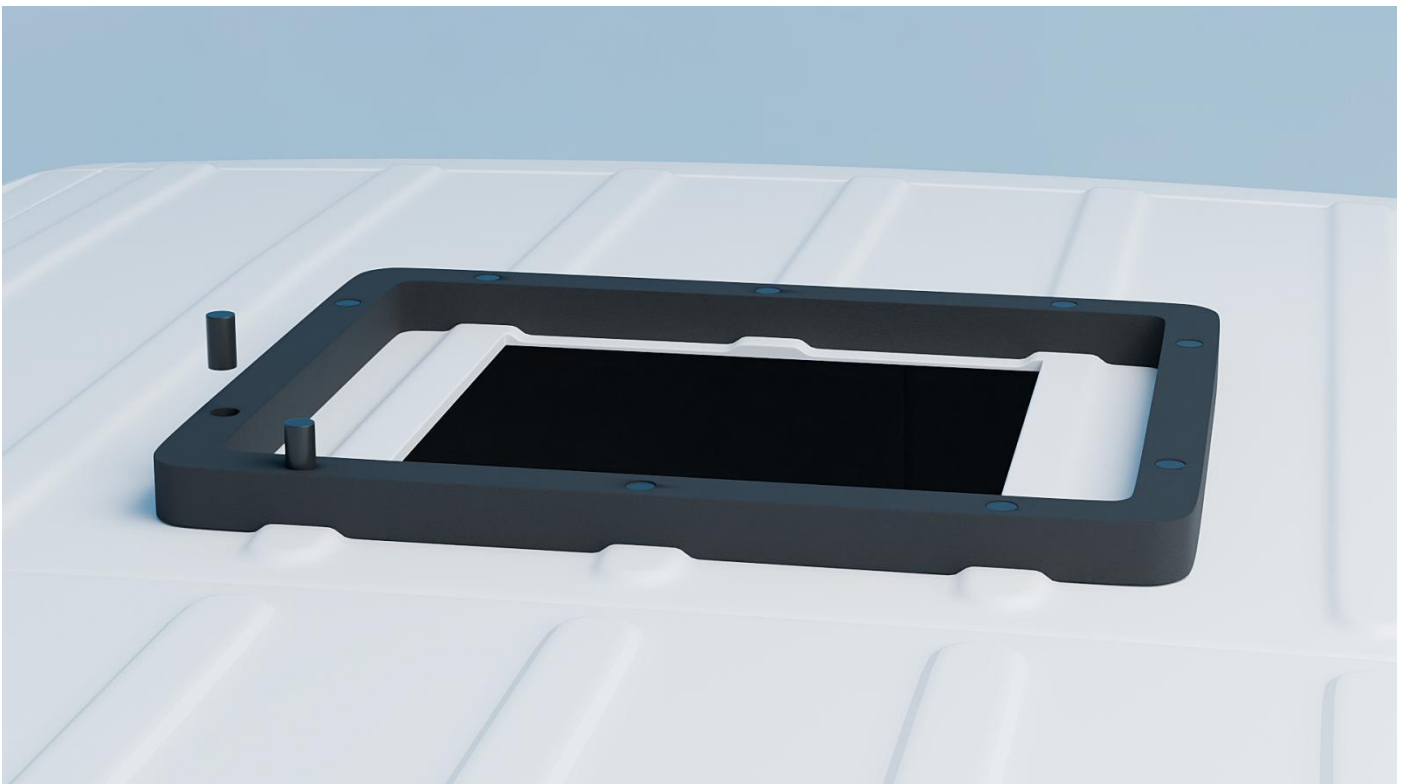


3. Stretch and cut the gasket to the needed length for a snug, gap-free fit.

4. For ribbed roofs, notch the gasket to match the surface contours.



5. Insert support columns into the pre-punched holes.

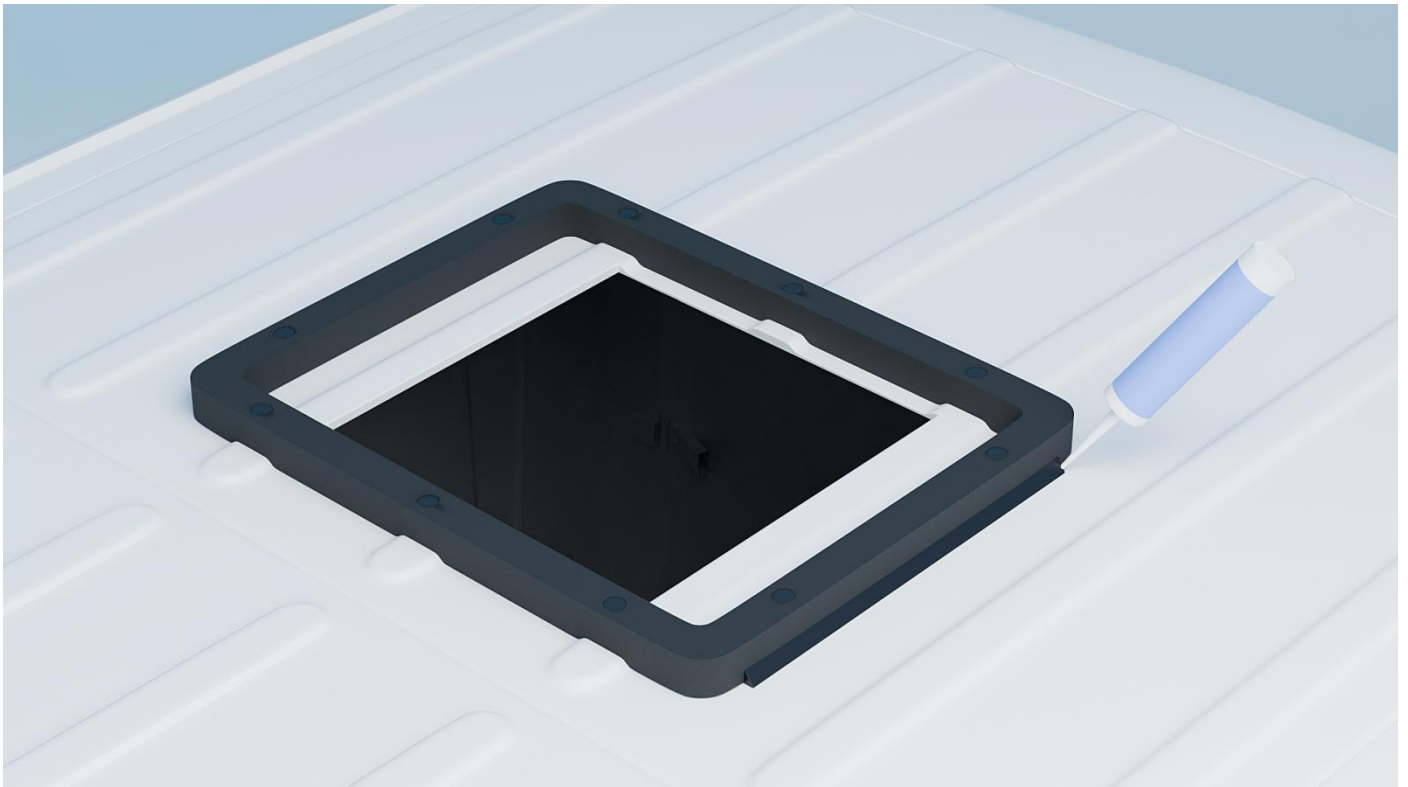


6. If a hole falls on a rib, trim the column to match the rib height.

7. Press the gasket firmly for strong adhesion.

## Seal the Gasket:

- Apply UV-resistant sealant around the outer edge.
- Smooth the sealant for full coverage.
- Let it fully cure before exposing to moisture.



#### 4. Position the Outdoor Unit

Carefully place the rooftop unit onto the gasket and over the roof opening.



#### ***Important:***

- *The chassis drainage cutout must remain outside the gasket for proper drainage.*
- ***The threaded rod holes (#7, #8) on the bottom of the outdoor unit must be positioned inside the gasket area.*** *This ensures the rods pass cleanly into the vehicle for bracket installation and that the gasket provides a proper seal around the mounting points.*

## 5. Route the Power Cable

Choose one of the following methods to bring the power cable inside:

### Option 1: Separate Roof Opening



- Drill a clean, round hole through the RV or truck roof near the unit's mounting area.
- Use a cable gland or rubber grommet to seal the hole and protect the wire from abrasion, water, and UV exposure.

## Option 2: Notch the Gasket

Cut a small notch in the gasket and pass the wire through the existing cutout beneath the unit.

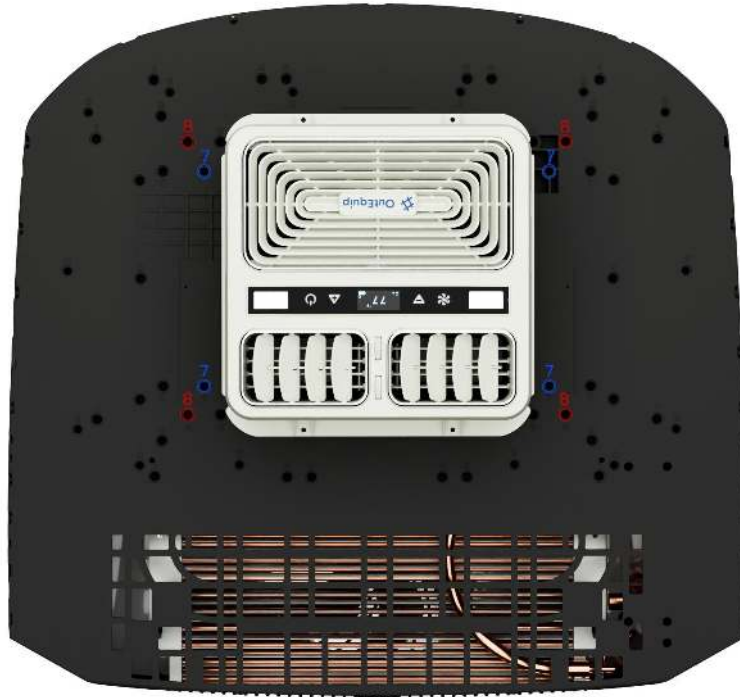
- The outdoor unit sits approximately 1 inch above the roof surface on the foam gasket.
- You can cut a small notch in one corner of the gasket, just wide enough to allow the power cable to pass through.
- Then, route the wire under the gasket and into the main roof opening—the same opening used for the air duct connection.



**Tip:** Ensure the notch is snug around the cable to maintain the watertight seal of the gasket. You may apply a small amount of RV-compatible sealant around the wire at the notch to reinforce water resistance.

## 6. Secure the Outdoor Unit

Secure the unit from inside the vehicle using the included mounting hardware.



### Steps:

1. Choose the proper length of M8 threaded rods based on roof thickness.
2. Insert the M8 threaded rods into the shown mounting holes (#8).
3. Hand-tighten four nuts all the way down to the bottom surface of the unit to secure the threaded rods.
4. Use the threaded rods as guidance to position the mounting brackets.
5. Secure the brackets using the provided washers and anti-slip nuts.
6. Tighten to a torque of 4.5 - 5.6 Nm (3.3 - 4.2 lb-ft).
7. Trim the rods to the desired length if necessary.

## 7. Install the Decor Trim

Finish installation by securing the decor trim to complete the interior appearance.

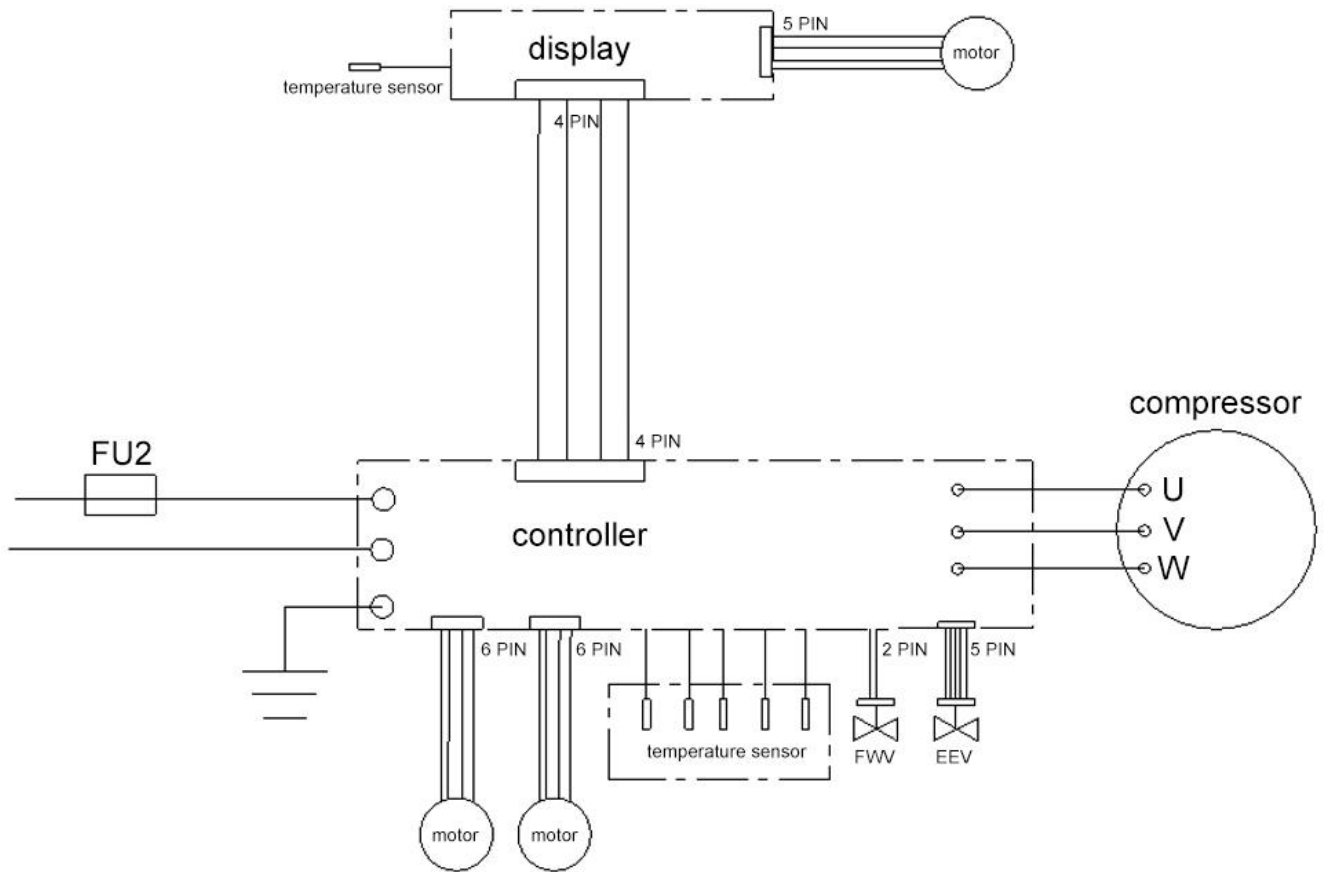


Steps:

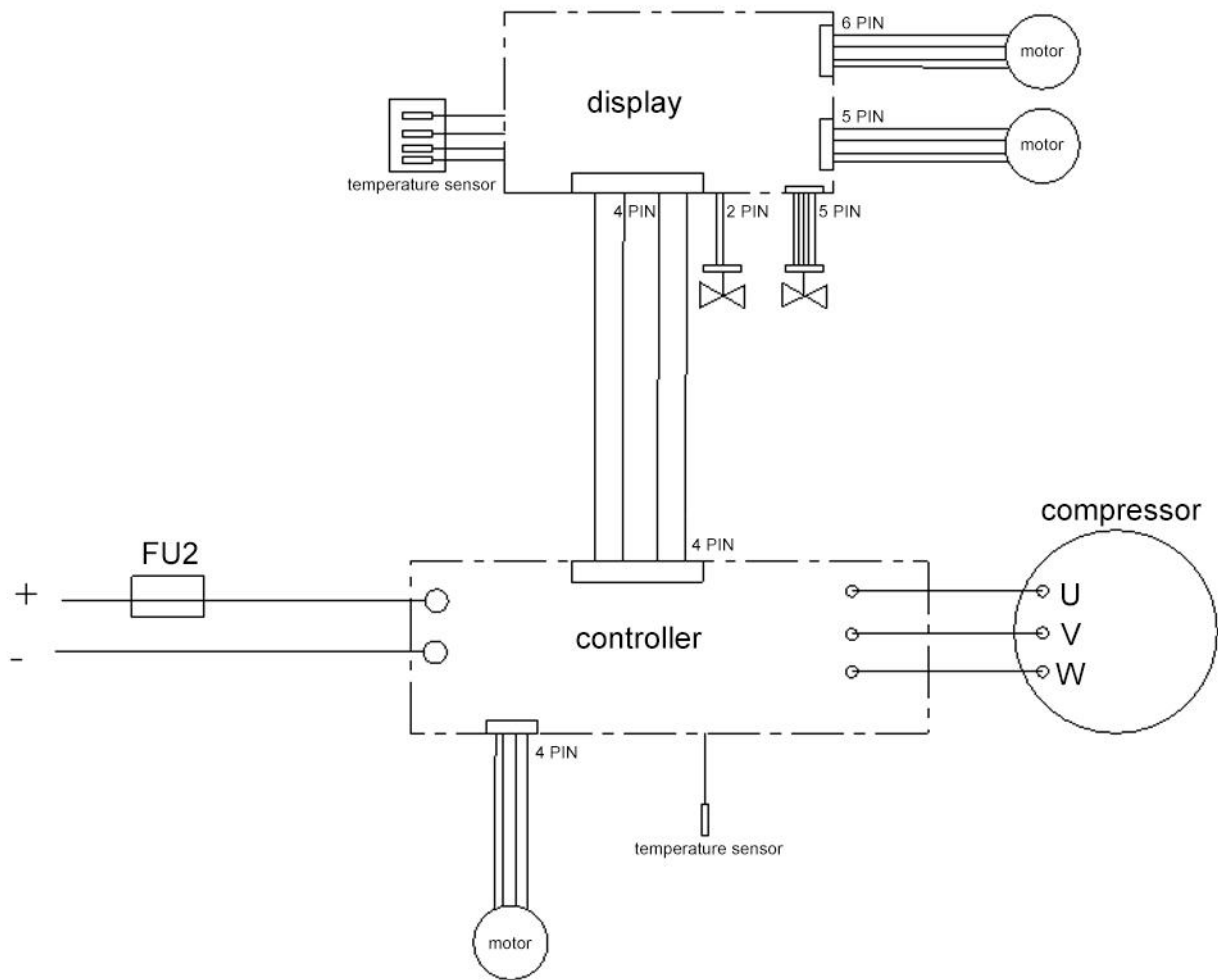
- Insert the M6 threaded rods through the #6 holes in the rooftop unit.
- Align the decor trim with the four exposed threaded rods.
- Place washers and nuts onto the rods from below.
- Tighten the nuts evenly to pull the trim flush against the ceiling.

**Tip:** Do not overtighten. Over-tightening may cause deformation or visible gaps in the trim finish.

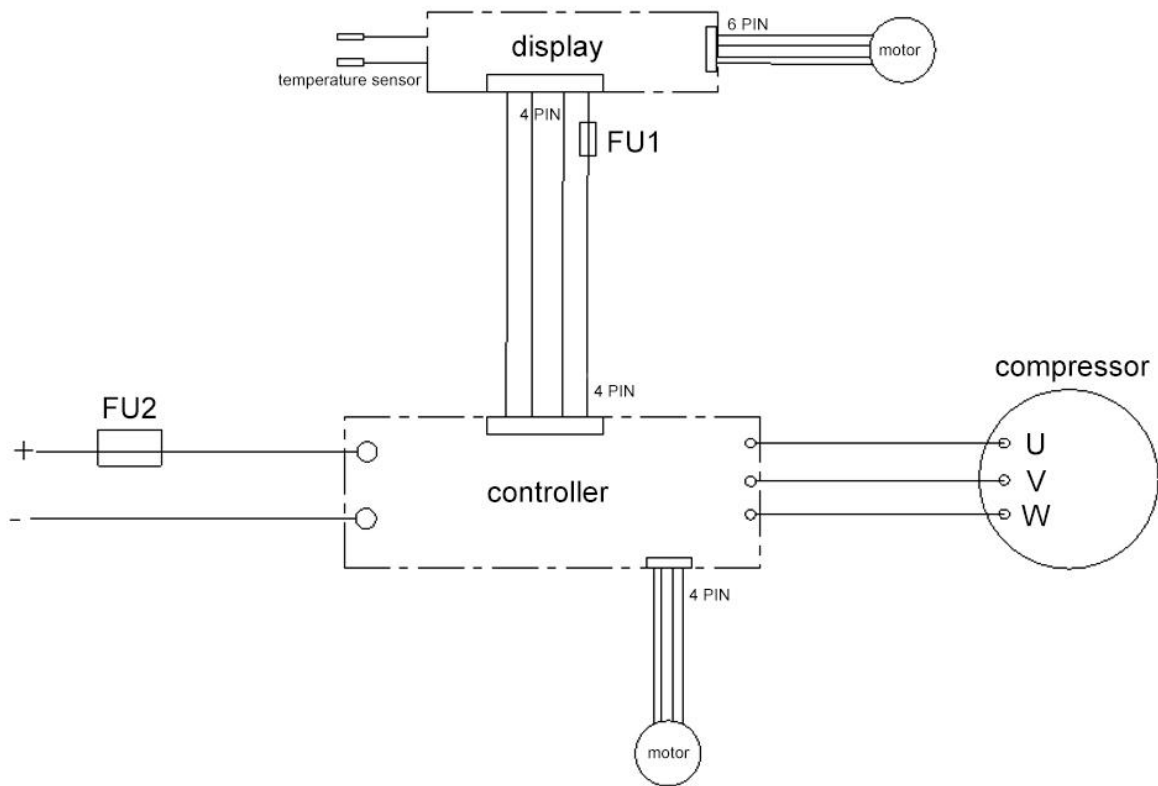
# UNIT FIELD WIRING DIAGRAM



*110V AC*



*12V AC with heat pump*



*12V AC without heat pump*

## **1-Year Limited Warranty**

Thank you for choosing our air conditioner. We are committed to delivering reliable, high-performance products backed by quality customer support. This air conditioner is covered by a 1-Year Limited Warranty from the date of original purchase.

### **What This Warranty Covers:**

For a period of one (1) year from the date of delivery, we will replace any part of the air conditioner that proves to be defective in materials or workmanship under normal residential or commercial use.

- Replacement parts are provided free of charge, including shipping.
- In certain cases, we may opt to replace the entire unit if the issue cannot be resolved with replacement parts.
- All replacement parts or units are covered only for the remainder of the original warranty period.

### **How to File a Warranty Claim:**

If you experience any issue with your air conditioner during the warranty period:

1. Contact our support team at [support@outequippro.com](mailto:support@outequippro.com) with your original order number and a description of the issue.
2. Provide photos or video of the problem to help us diagnose the fault quickly.

3. Once confirmed, we will ship the necessary replacement parts or a full replacement unit free of charge.

### **Conditions & Limitations:**

This warranty is void if:

- The unit is not installed according to the provided instructions.
- Damage is caused by misuse, abuse, accidents, alterations, or unauthorized repairs.
- Power supply issues, surges, or incompatible connections cause component damage.
- Normal wear and tear, cosmetic damage, or routine maintenance items are not covered.

### **Shipping Damage:**

Damage during shipping must be reported within 7 days of delivery. Please inspect the unit thoroughly upon arrival.

### **Transferability:**

This warranty applies only to the original purchaser and is not transferable.

### **Need Help?**

We're here to support you. Reach out any time at [support@outeqiuppro.com](mailto:support@outeqiuppro.com) for questions, troubleshooting, or to file a warranty claim.