OutEquip

Installation Guide

Rooftop Air Conditioner

Model: Summit 2

12V/24V

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.
- 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.

***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

Overall Size: 28.3 x 28.3 inches (720 x 720mm)

Height: 6.3 inches (160mm)

These dimensions refer to the full exterior footprint of the rooftop unit and should be considered when evaluating available roof space.

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: 4.9 inches (124mm)
- Rear: 14.4 inches (365mm)
- Left Side: 7.3 inches (185mm)
- Right Side: 7 inches (178mm)

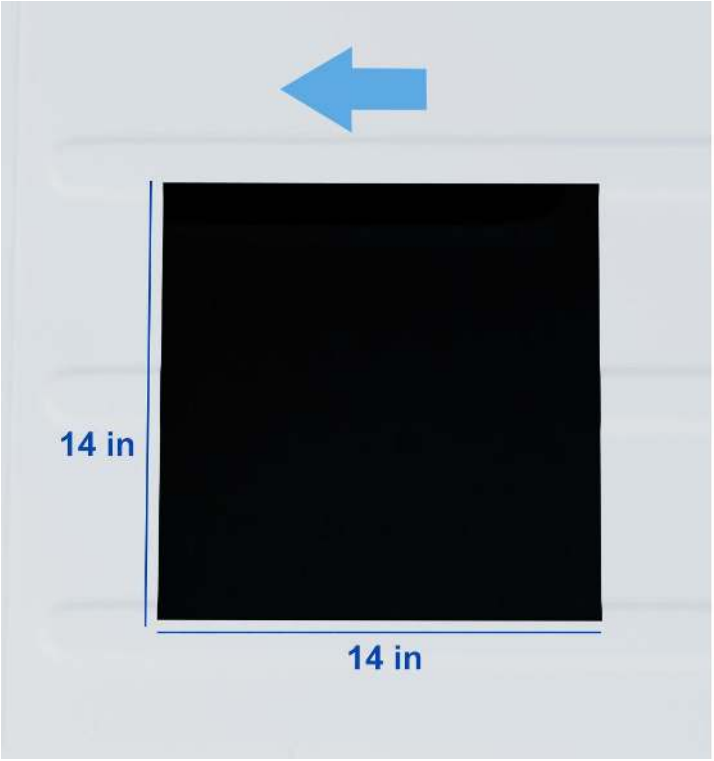
***Tip**: Measure rooftop space before installation to avoid interference with solar panels, roof racks, or other equipment.*

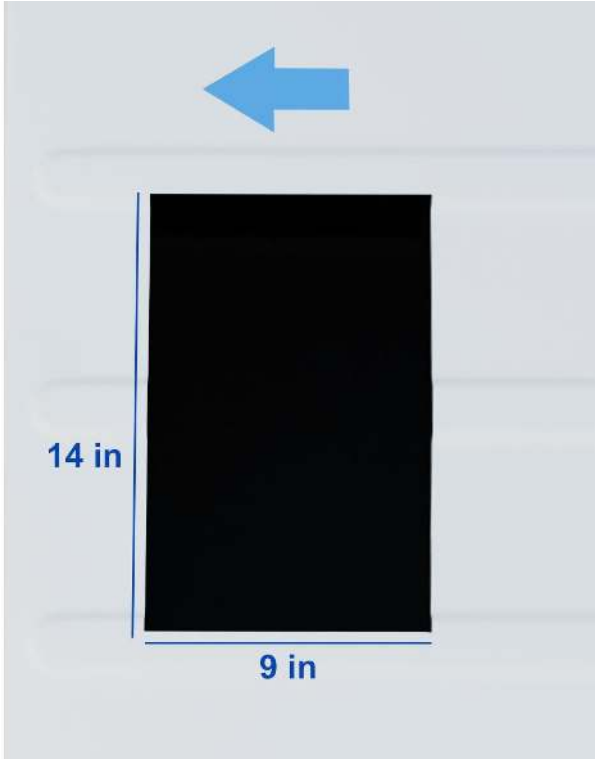
2. Roof Opening Requirements

Recommended Cutout Range:

- Minimum Size: 14 x 9 inches (355 x 230 mm)
- Maximum Size: 16.5 x 15.7 inches (420 x 400 mm)

***Tip**: If your RV does not already have a standard 14 x 14 inch fan opening, a 14 x 9 inch cutout is sufficient for this unit. Always verify that the opening aligns well with the air duct base of the air conditioner.*





Flat & Level Surface:

The surrounding roof surface must be flat, level, and strong enough to support the air conditioner's weight (around 45 lbs) 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.).

3. Install the Flexible Foam Gasket & Apply Sealant

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

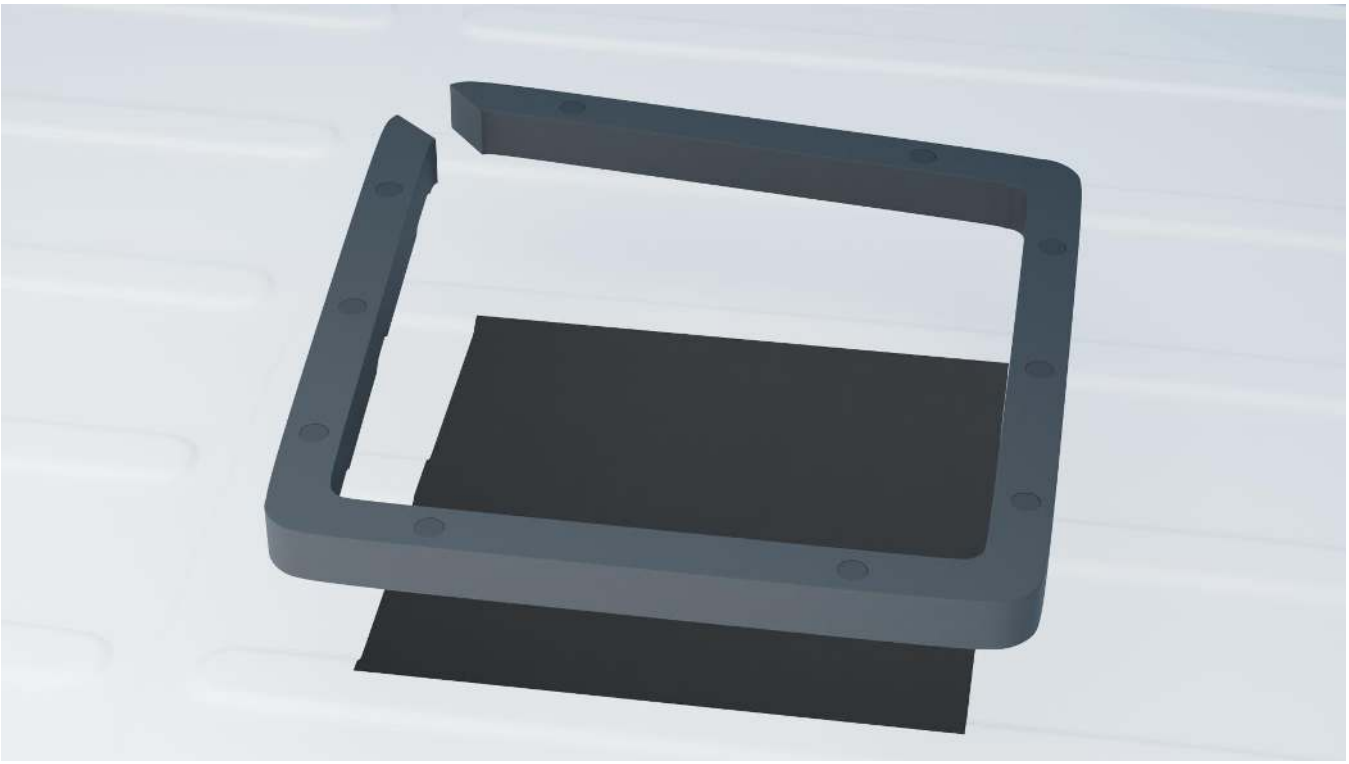
Key Features:

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

Steps:

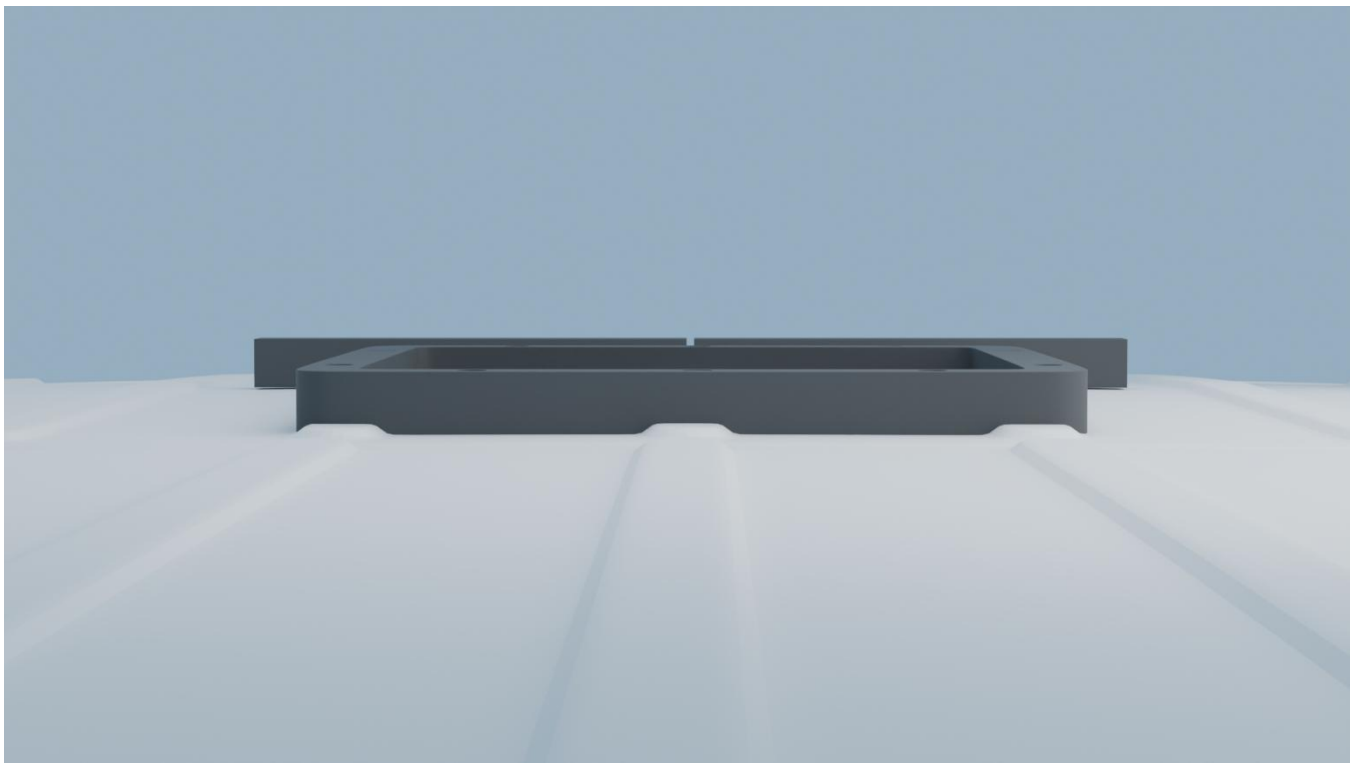
1.Clean the area around the roof opening.

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

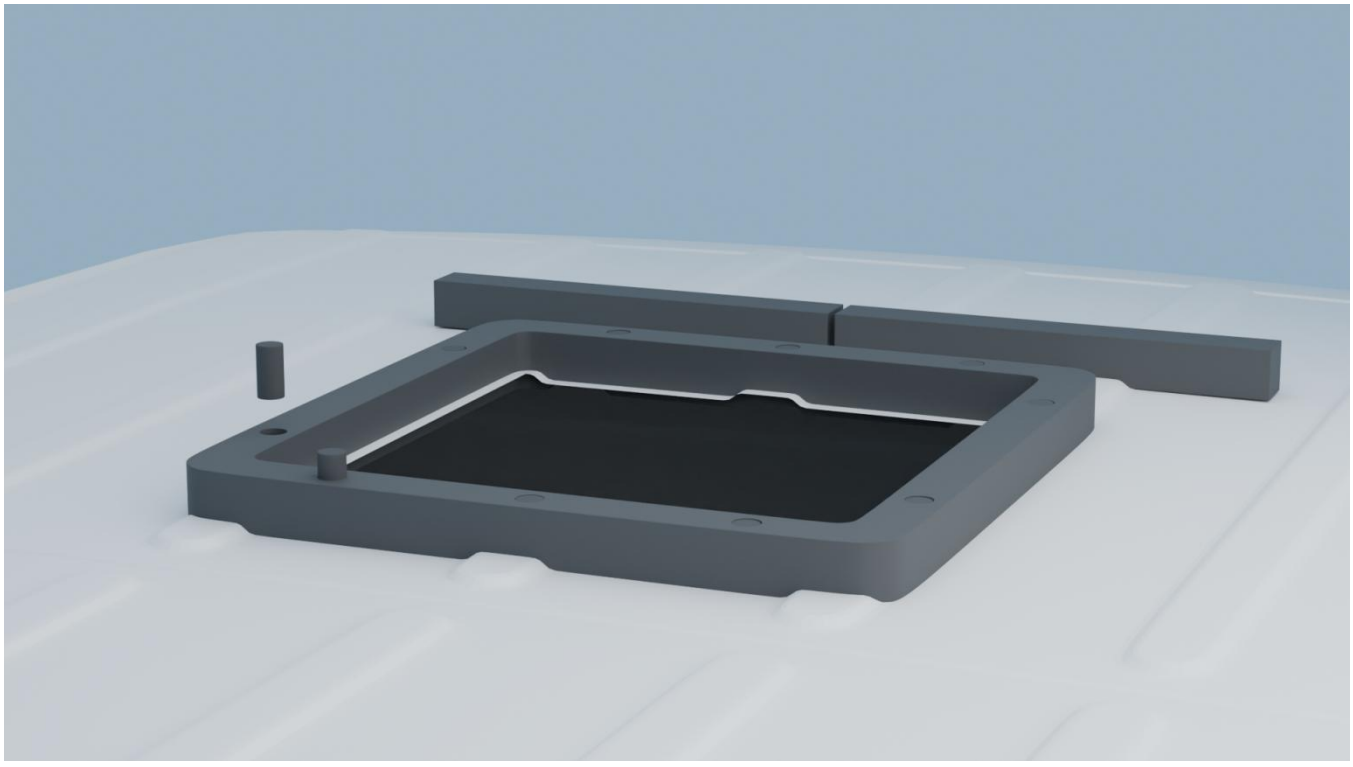


3.Apply the gasket directly to the roof surface, surrounding the cutout.

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



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

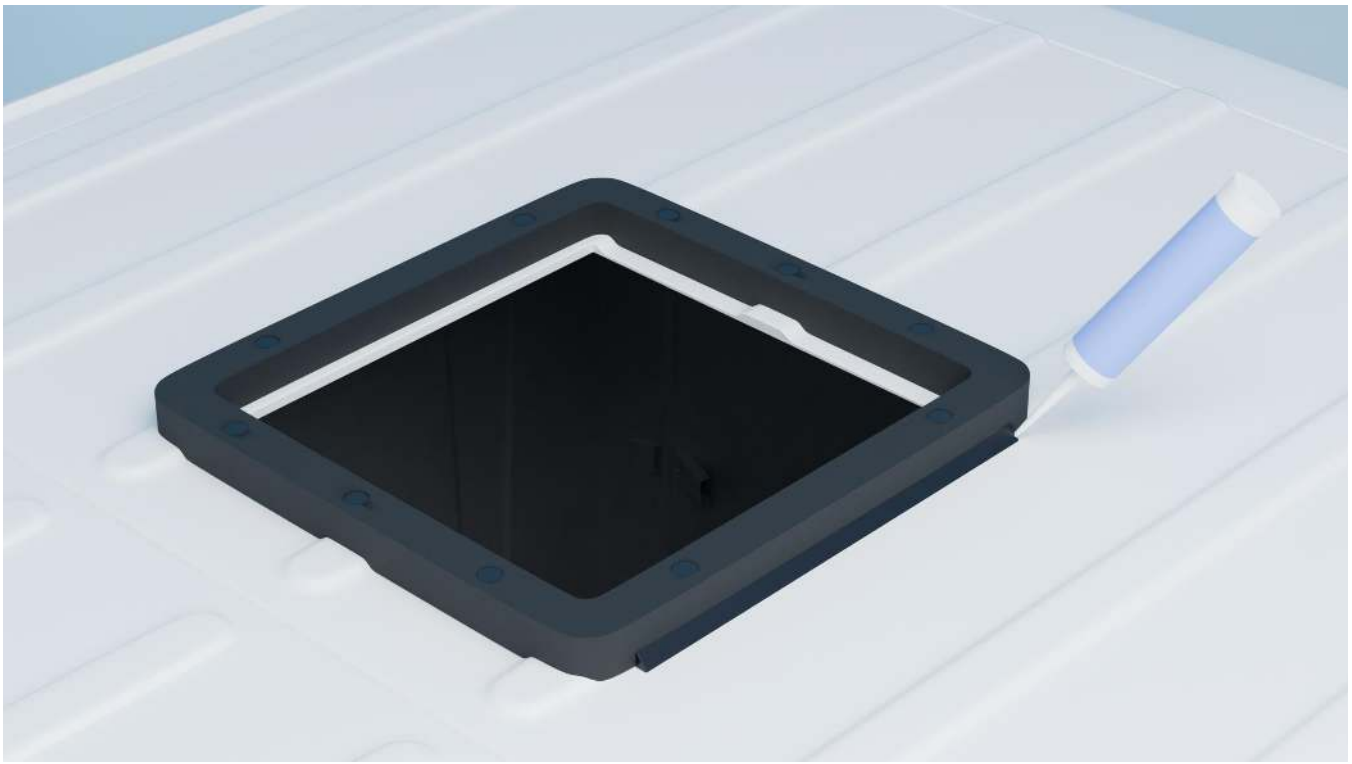


6.If a hole falls on a rib, trim the rubber column to match the rib height.

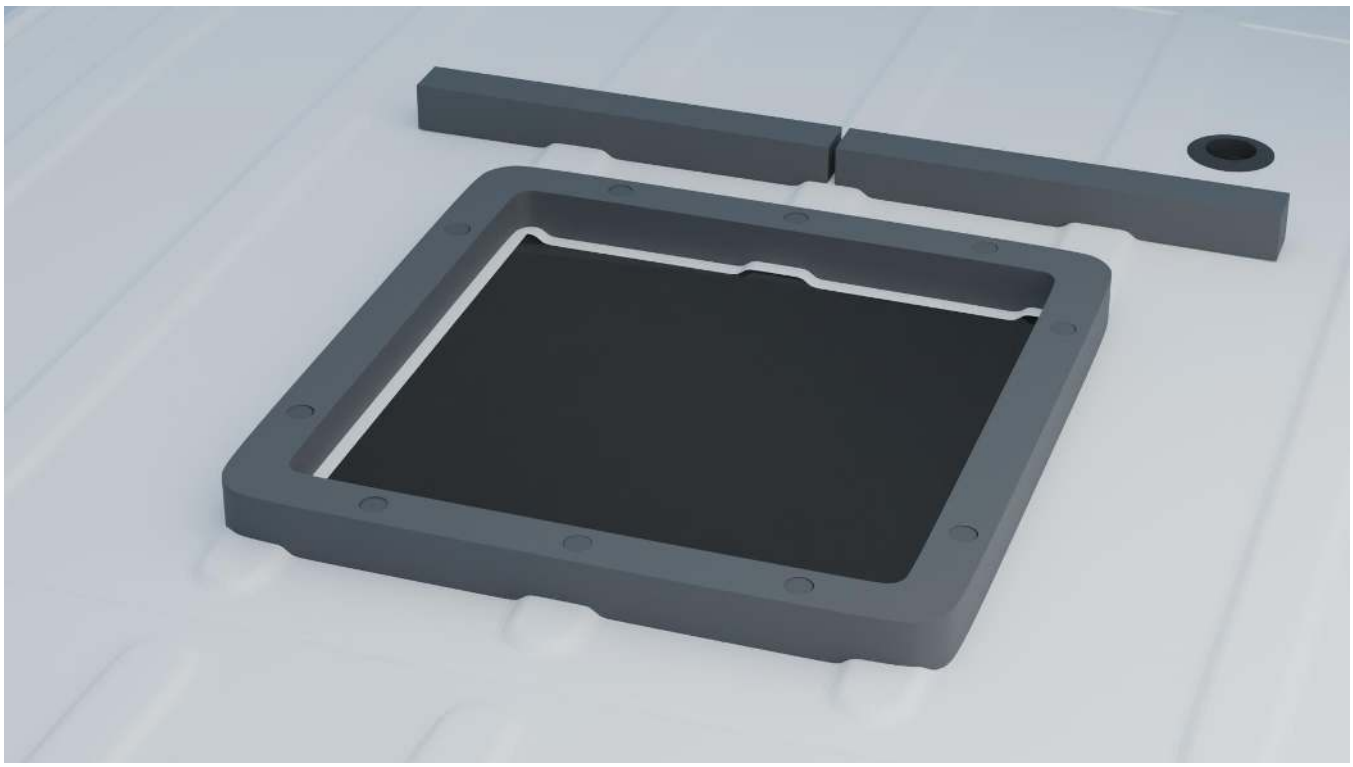
7.Press the gasket firmly for strong adhesion.

Seal the Gasket:

- Apply a continuous bead of UV-resistant RV sealant around the outer edge of the foam gasket, where it meets the RV roof surface.
- Smooth the sealant with a gloved finger or plastic applicator to ensure full, even coverage and prevent gaps or air pockets.
- Allow the sealant to fully cure according to the manufacturer’s instructions (usually 24 - 48 hours) before exposing the unit to rain, washing, or road spray.
- For additional moisture protection, you may also apply a thin bead of sealant along the inside edge of the roof opening—where the inner gasket edge meets the roof
  cutout.



4. Install Rear Support Foam Blocks



To support the chassis and ensure proper leveling:

- Place the hard foam blocks under both rear corners.
- Use a bubble level to check alignment.

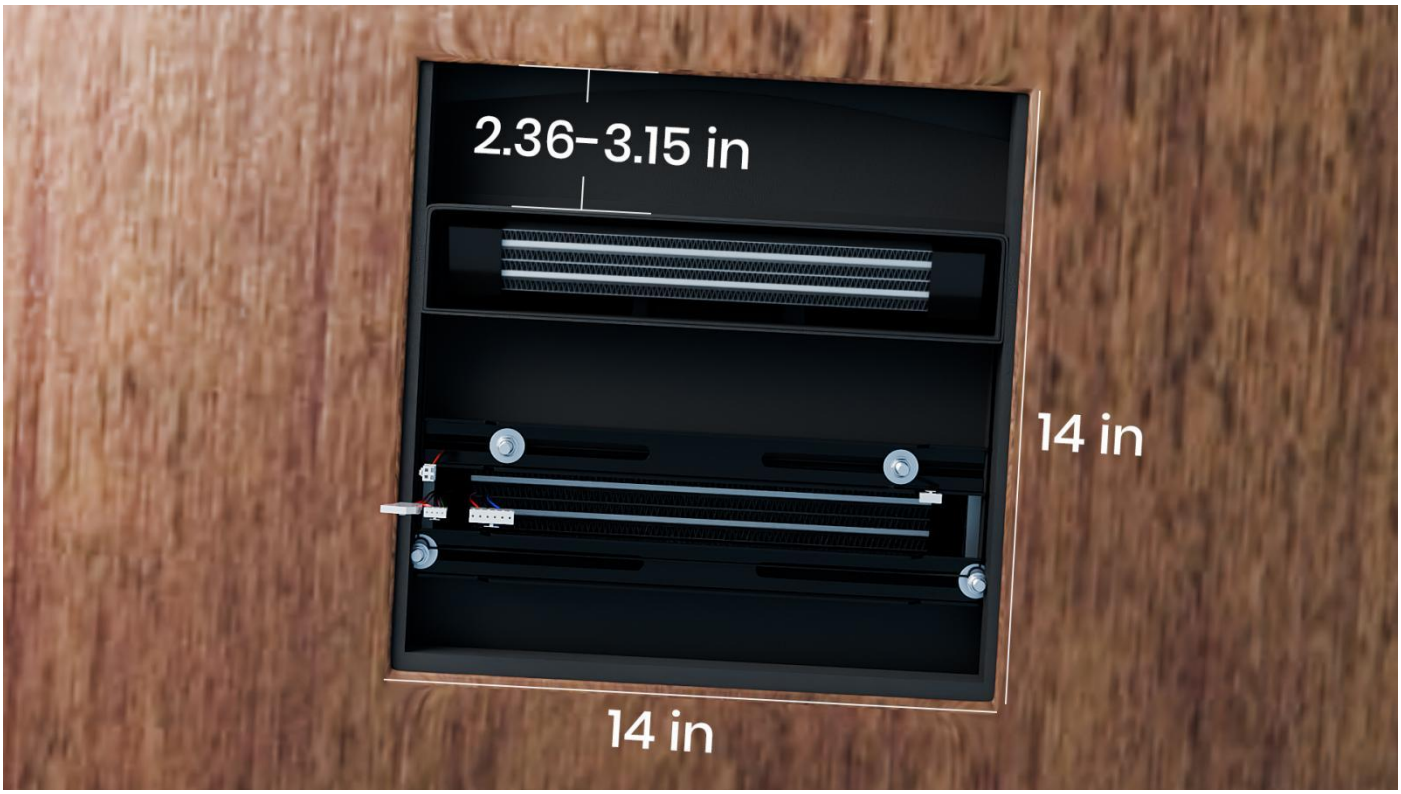
Important: *A roof slope of up to 15° front-to-back or side-to-side is acceptable for proper operation.*

5. 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.*

Important: For 14 x 14 inch openings, offset the air duct 2.36~3.15 inches rearward (toward the back of the vehicle) to ensure the drainage cutout remains outside the gasket.



6. Route the Power Cable

Choose one of the following 3 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.

Power Cable Specifications:

- The air conditioner's power cable is encased in a protective sleeve with an outer diameter of approximately 1.18 inches (30 mm).
- Inside the sleeve are two insulated wires (positive and negative), with a combined diameter of about 0.6 inches (15 mm).

Option 2: Through Return Air Duct

Run the cable through the return duct and existing roof opening.

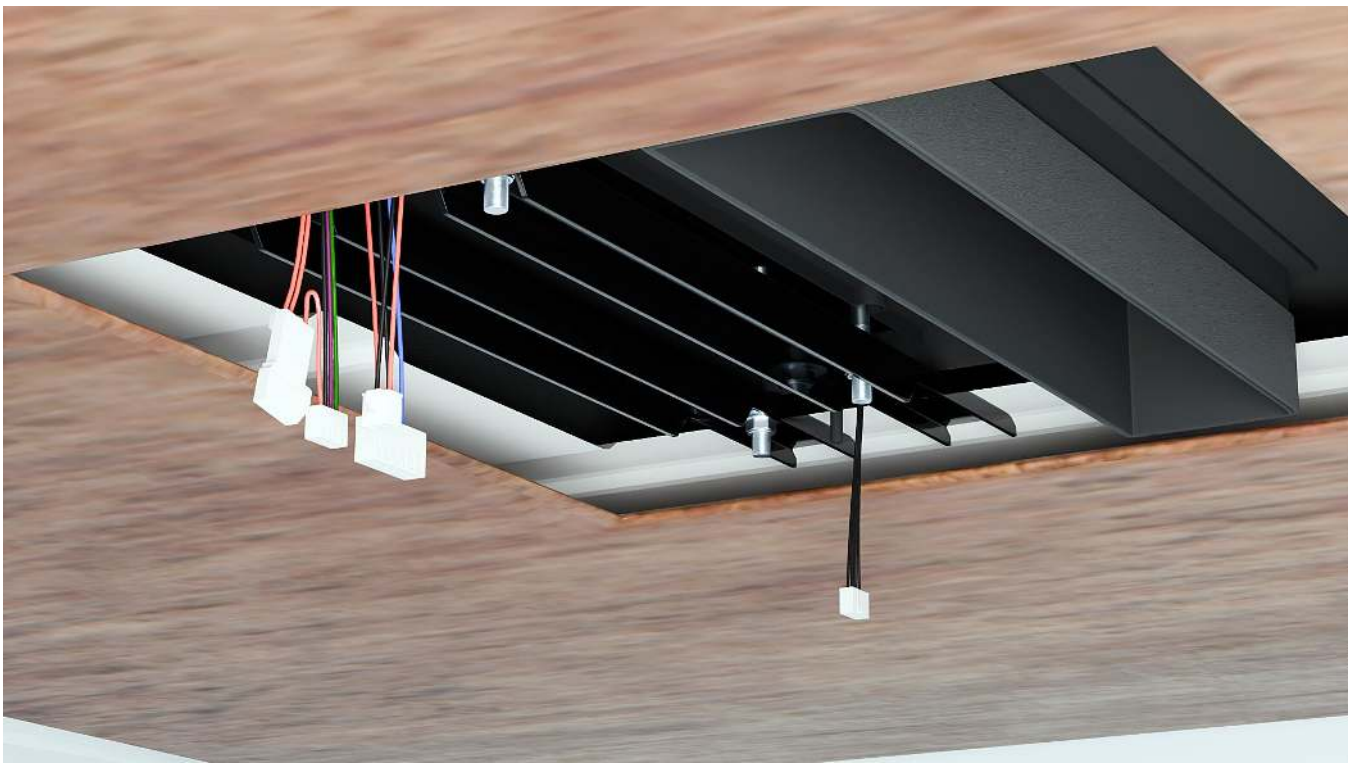
Option 3: Notch the Gasket

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.*

7. Secure the Outdoor Unit

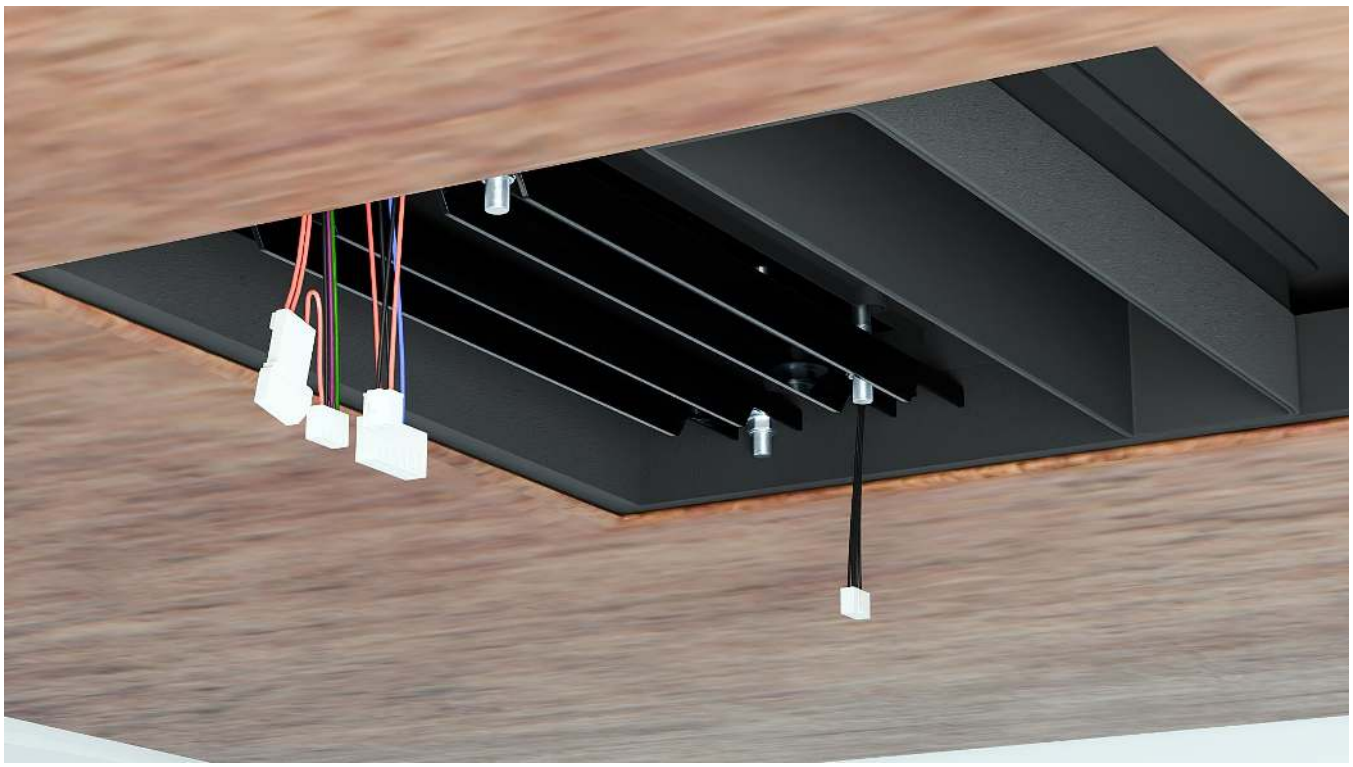


Secure the unit from inside the vehicle using the included mounting hardware.

1. Place brackets across the roof opening, aligned with mounting holes.
2. Ensure bracket ends rest on solid roof structure with at least 30mm contact.
3. Insert threaded rods upward into the rooftop unit (5 – 14 mm thread engagement).
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.

***Important**: Brackets must press against roof , not interior ceiling panel.*

8. Fill the Roof-to-Ceiling Gap (If Applicable)



In many RVs or truck cabins, there may be a gap between the structural roof and the interior ceiling panel. If left unsealed, this gap can allow hot air trapped in the cavity to be drawn into the air return duct, significantly reducing cooling efficiency and comfort.

Use included foam strips to block warm air between roof and ceiling:

1. Inspect for gaps between roof and interior ceiling.
2. Insert foam strips tightly on both sides of the opening.
3. Trim to fit. Ensure full coverage to prevent warm air recirculation.

***Tip**: This step is especially important for larger ceiling voids or in hot climates, where ceiling cavity air can become extremely warm and compromise system performance.*

9. Install the Indoor Panel & Connect Wiring

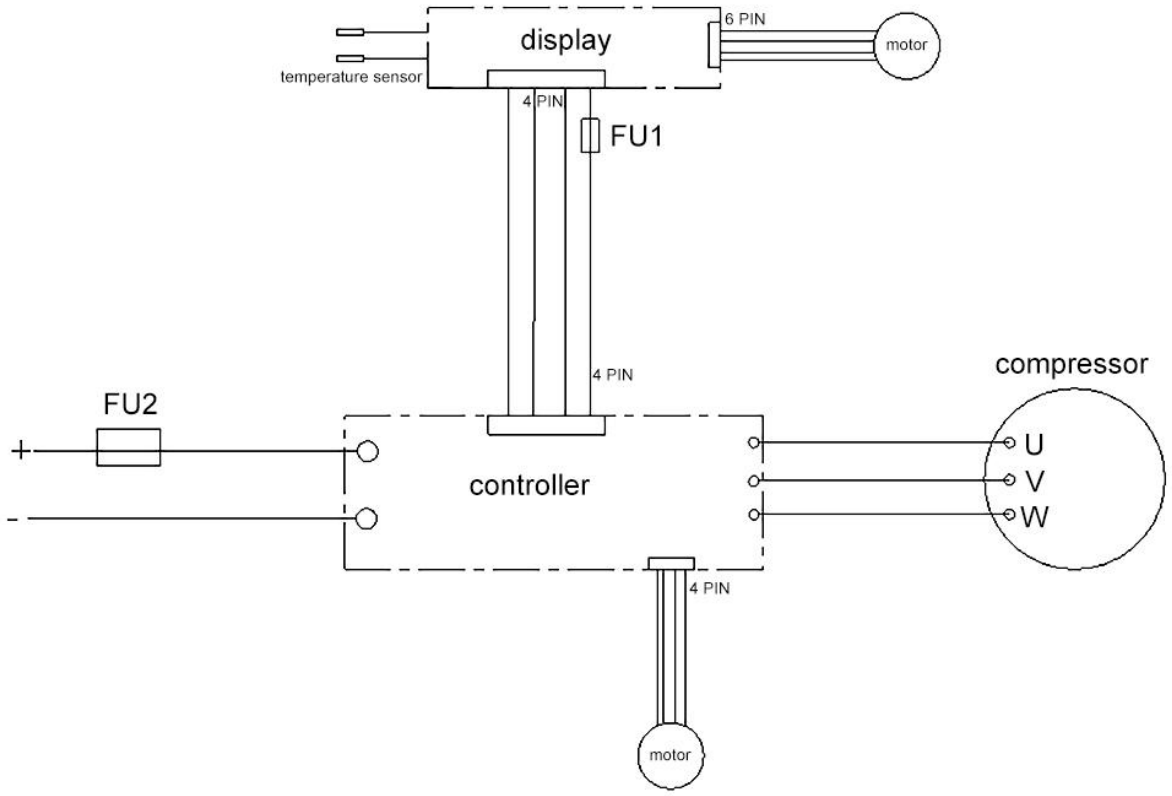
Finish installation by attaching the indoor panel and panel trim.

1. Place panel trim between ceiling and indoor panel.
2. Push upward until ducts connect and form a sealed air path.
3. Plug in wiring harness (connectors are keyed).

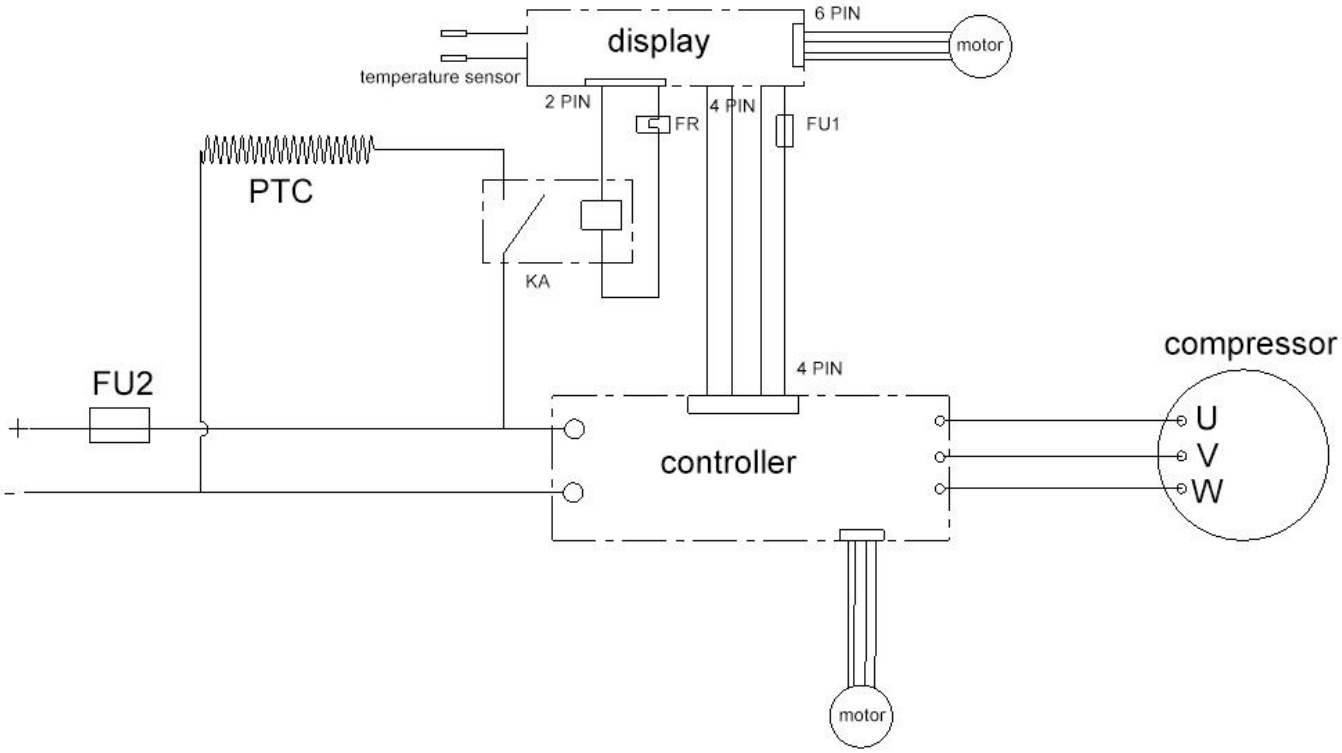
4. Use included screws (long/short) to fasten indoor panel to pre-threaded holes in rooftop unit.
5. Tighten screws evenly to pull trim flush against ceiling.

***Tip**: Do not overtighten. Ensure ducts remain connected and panel sits flat.*

Unit Field Wiring Diagram



Without Heater



With Heater

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 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 for questions, troubleshooting, or to file a warranty claim.