



Rooftop DC Air Conditioner



Model: 3000R

Instruction Manual

Thank you for purchasing this VELIT3000R Rooftop Air Conditioner. For safety and the best performance, please read and follow these instructions carefully. The latest electronic version of this document is available for download at the product page. We wish you enjoy your Velit air conditioner. For any product questions or issues, you can reach out to us at support@velitcamping.com or use the online chat box at velitcamping.com.

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1. IMPORTANT SAFETY INFORMATION

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 code:

U.S: NFPA1192,NFPA70

CANADA: C22.1,CSA Z240

1.1 Understand Signal Words

⚠ WARNING

Indicates a hazardous situation that if NOT avoided, could result in death or serious injury.

⚠ CAUTION

Indicates a hazardous situation that if NOT avoided, could result in minor or moderate injury.

NOTICE

Indicates practices NOT related to physical injury

1.2 General Safety Message

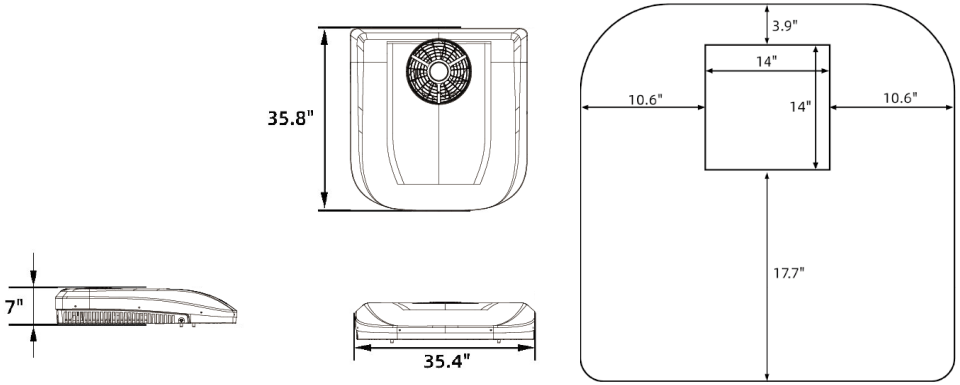
⚠ WARNING

- This unit MUST be installed and repaired by qualified personnel who are familiar with the risk involved.
- Do NOT modify this product in any way. Any 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 Velit.
- Do NOT use this unit in or near flammable environment.
- Do NOT let children use the unit without supervision.

NOTICE

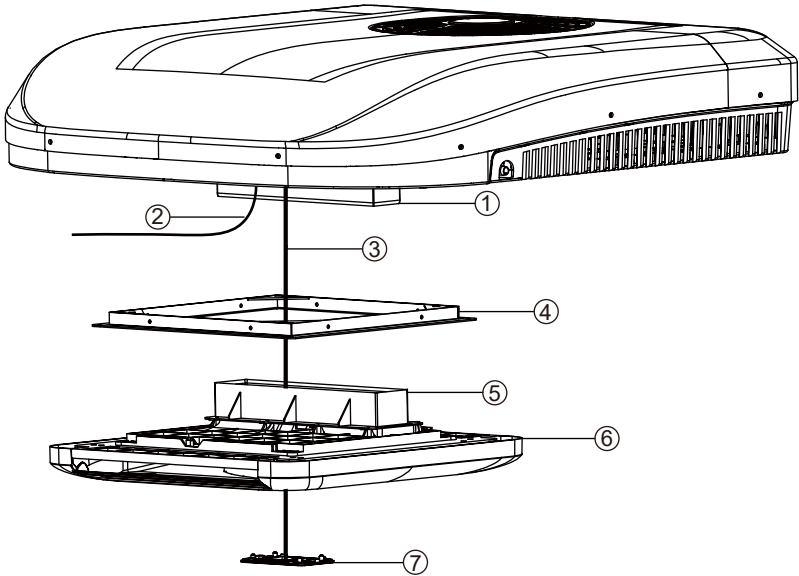
- Do NOT use this unit when the ambient temperature is lower than 40°F. This could cause frost inside the unit.
- Do NOT power wash the unit or use detergent to clean the unit.

2.SPECIFICATIONS

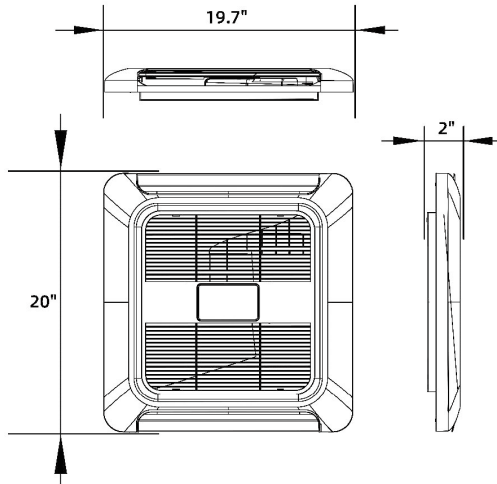


Model	3000R	
Input Voltage	DC 24V	DC 48V
Cooling Capacity	10000BTU	12000BTU
Operating Current	13-40A	8-25A
Rated Power	960W	1200W
Refrigerant	R32	
Operating Temperature	38-125°F / 0-52°C	
Noise Level	ECO mode:55dB Boost mode:65dB	
Exterior Unit Dimension	W35.8"*L35.4"*H7"	
Weight	75lbs / 34kg	

3 Motorized Air Distribution Box (Optional)



1. Outside Duct
2. Power Cable
3. Control Panel Wiring Harness
4. Mounting bracket
5. Inside Duct
6. Air Distribution Box
7. Control Panel



1. Disconnect Power Sources

2. Ensure all power supplies to the vehicle, including the battery, generator and shore power, are disconnected before starting the installation.

3. Roof Opening Requirements:

- a. The unit fits an existing 14 ¼" x 14 ¼" roof opening.
- b. For new installations, ensure the slope of the selected location is less than 15 degrees.

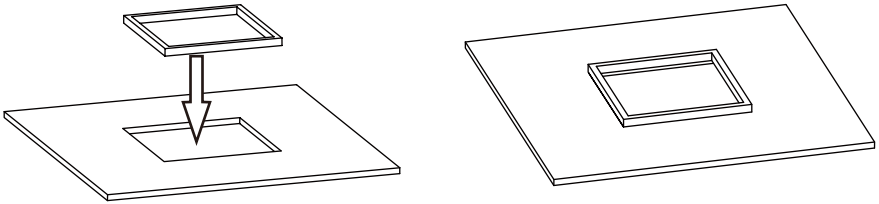
4. Check for Obstructions:

- a. Verify there are no obstructions in the selected area where the unit will be installed.
- b. Inside the camper, check for trim panel obstructions. Ensure a clearance of 3" around the edges of the roof opening.

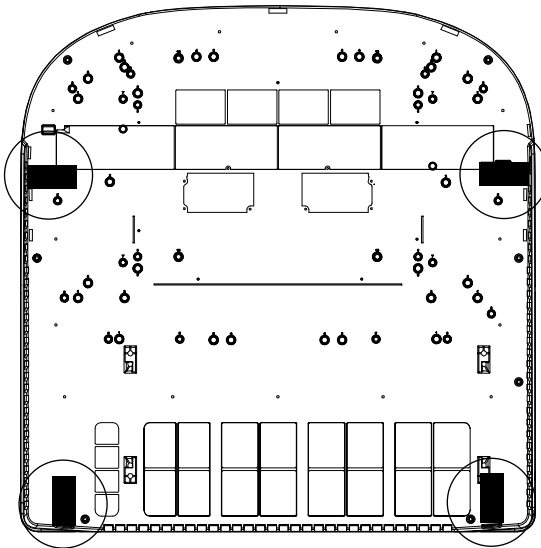
5. Power Cable Routing:

- a. Route the wiring harness to the roof opening, leaving at least 6 inch of slack.
- b. For cable runs longer than 15 feet, consult the National Electric Code (NEC) to ensure proper wire sizing. Refer to the specs for the maximum current used for sizing.

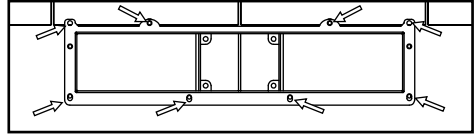
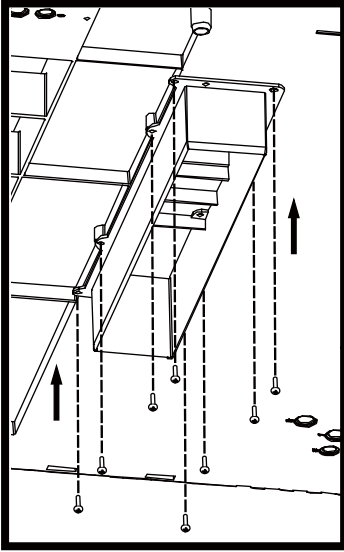
6. Place the sealing gasket over the opening with the adhesive side sticks to the roof. If necessary, trim the sealing gasket to match the contour of the roof ribs for a precise fit.



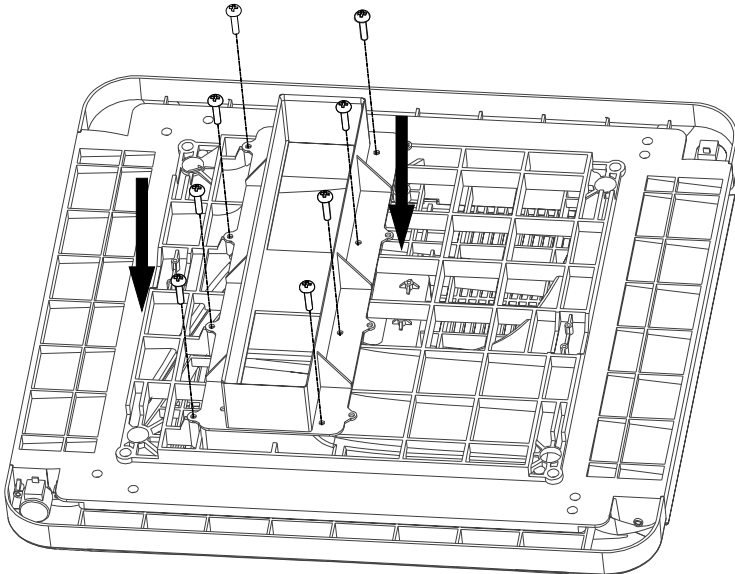
7. Stick support foam blocks around the perimeter of the AC unit to provide additional support.



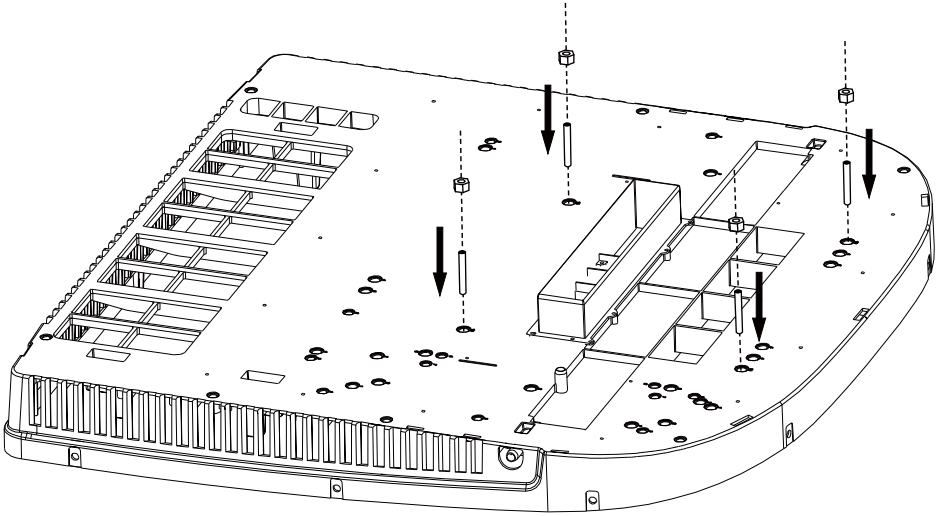
8. Install the outside duct onto the AC unit with eight M4*13 self-tapping screws



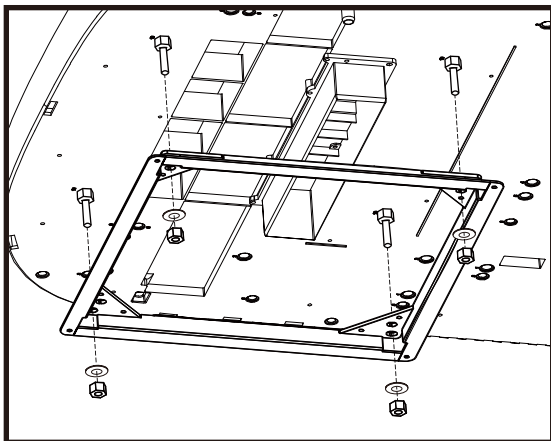
9. Connect the inside duct to the air distribution box (ADB) frame with eight M4*16 self-tapping screws



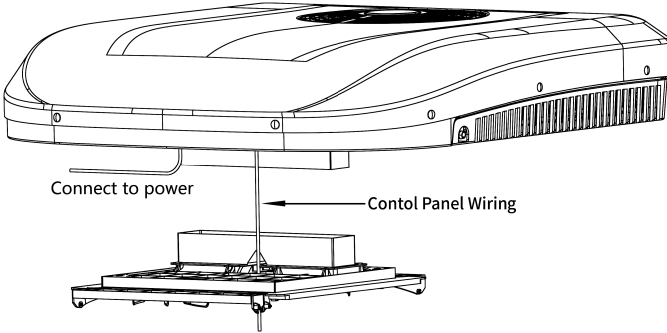
10. Insert four M8 threaded rods into the holes marked #10 on the AC unit.
11. Tighten the non anti-slip bolts all the way down to secure the threaded rods



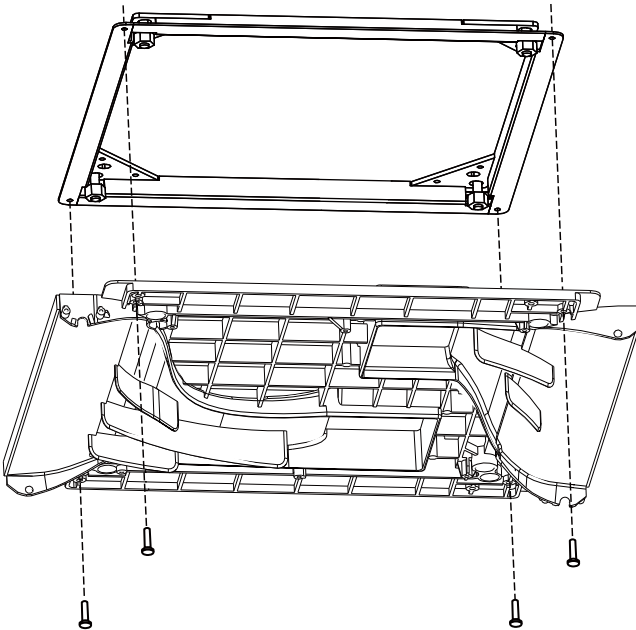
12. Carefully place the AC unit over the roof opening
13. Position the mounting bracket against the inner side of the roof opening, ensuring the M8 threaded rods pass through the four holes on the bracket.
14. Tighten the assembly with washers and anti-slip nuts to a torque specification of 3.3–4.2 lb.ft (4.5–5.6 Nm).



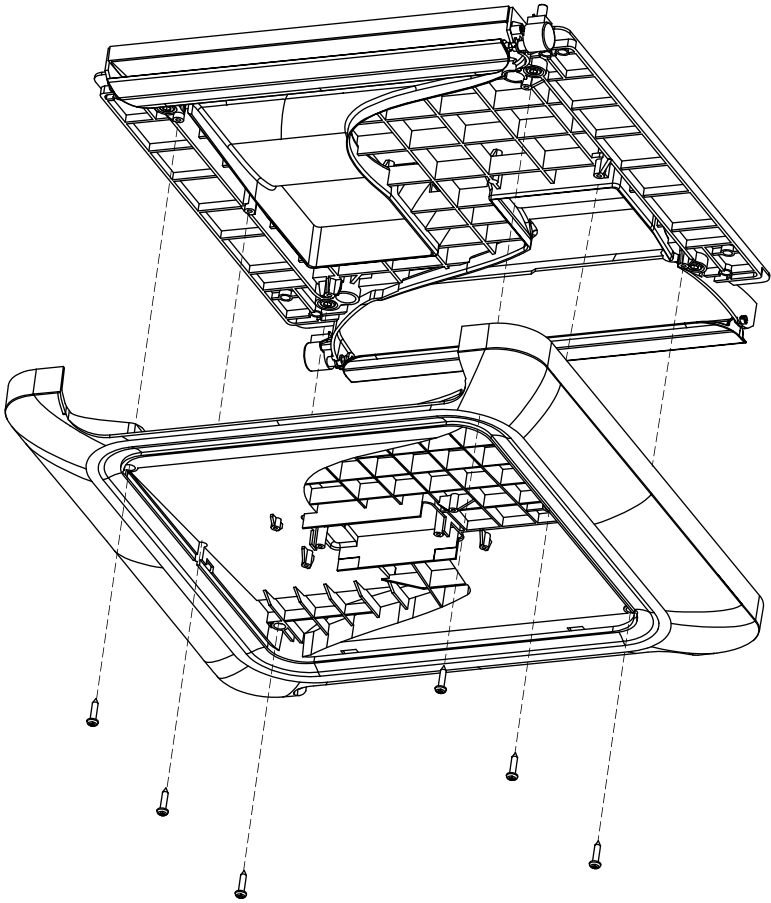
15. Connect the AC unit to the power supply and route the control panel wiring through the ADB frame.



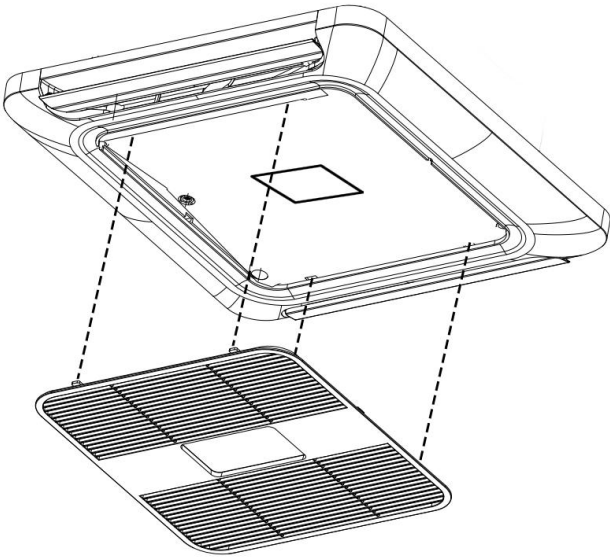
16. Attach the ADB frame to the mounting bracket using four M5*16 screws.



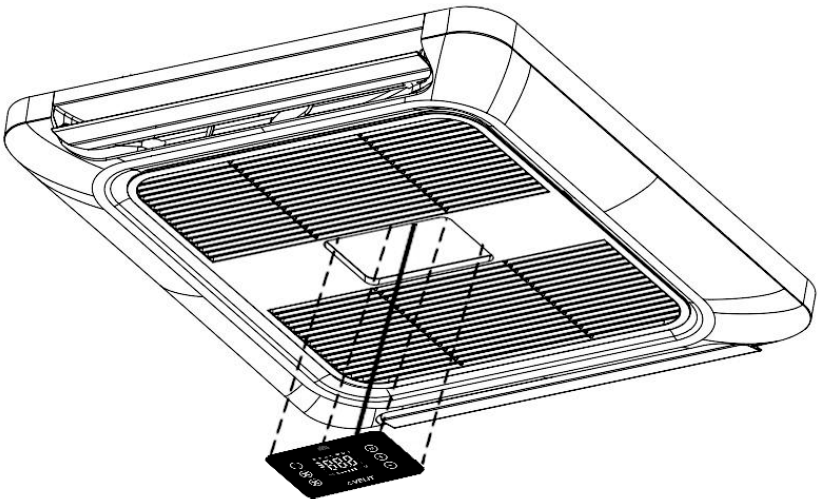
17. Secure the ADB cover to the ADB frame with six M5 self-tapping screws



18. Attach the intake grill to the ADB, ensuring it is securely in place.



19. Connect the wiring to the control panel and mount the control panel onto the intake grill.




4 OPERATION


4.1 Modes


Mode changes only the compressor speed, Fan speed can be adjusted separately.

Output from low to high:

Sleep: 

ECO: 

Cooling: 

TURBO: 


4.2 Control Panel





1. Power ON/OFF: Short press to turn on unit Long press 2s to turn off Short press to turn off/on display while the unit is running
2. Mode Switch: Short press to switch between operating modes:Output from low to high output: Sleep Eco Cooling Turbo The mode only changes compressor speed Fan speed can be adjusted separately.
3. Fan Speed + : ncrease fan speed
4. Fan Speed - : Decrease fan speed
5. Temperature + : Increase setting temperature


4.3 Remote Control


NOTICE This is a general-purpose remote. Some buttons do not apply to this model.


-  : Turn ON/OFF

-  : Switch between modes


-  : Change fan speed


-  : Increase temp


-  : Decrease temp


-  : Sleep mode


- ECO** : ECO mode


-  : Cooling mode


-  : Turbo mode


-  : View voltage


-  : Timer

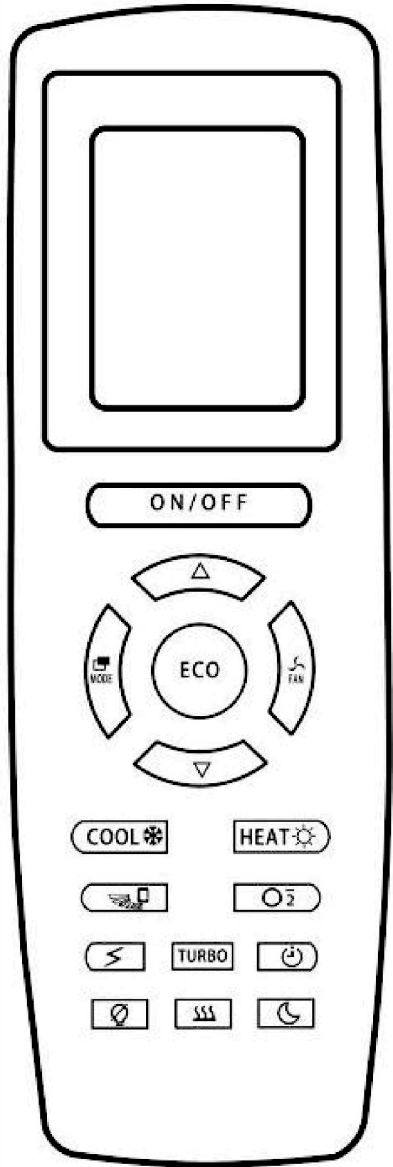
-  : N/A

-  : N/A

-  : N/A

-  : N/A

-  : N/A



4.4 Switch Display Unit °C/°F

Method 1: When the unit is on, long press Mode button 3s

Method 2: When the unit is powered off, on the remote control, short press the mode button and downarrow button at the same time. The display unit on the remote will switch. Turn on the unit with the remote and the unit on the display panel will sync with the remote.

4.5 Under/Over-Voltage Protection

Low voltage protection will auto shut off the unit when the supplied voltage is lower than the cut-off voltage (default 10.5/21.5/40V) and the low-voltage red light will light up. The unit will turn on automatically once the supplied voltage is higher than the recover voltage (default 12/23/42V)

When the supplied voltage is higher than 18/36/72V, the unit will turn off and the high-voltage red light will light up. The unit will turn on automatically once the supplied voltage is lower than 15/30/60V.

4.6 Edit Low Voltage Protection

Long press the Mode Switch to edit low voltage protection, Press Fan Speed + to increase cut-off voltage.

Press Fan Speed - to decrease cut-off voltage, Press Temperature + to increase recover voltage.

Press Temperature - to decrease recover voltage.

4.7 Remote Control App

Search for velit in App store / Google Play

5.Troubleshooting

Error Codes and Troubleshooting

Code	Cause	Troubleshooting
E0	Ambient temperature sensor (White 2 pin connector)	Use a flathead screwdriver to pry open the display panel. Ensure the white 2-pin connector is seated properly. Replace the sensor or the display panel if needed.
E1	Evaporator temperature sensor (Red 2 pin connector)	Use a flathead screwdriver to pry open the display panel. Ensure the red 2-pin connector is seated properly. Replace the sensor or the display panel if needed.
E2	Over-current	System pressure is high. Ensure the outside condenser fan and the side/bottom air inlet are not blocked. Rinse the condenser with water to remove debris, then power cycle the unit after letting it sit for 20 minutes.
E3	Blocked rotor	Ensure the three terminal screws securing the compressor wiring are tight. Then, power cycle the unit after letting it sit for 20 minutes. Contact customer service if the issue persists.
E4/EL	Low-voltage	Check the battery voltage and measure the voltage at the terminal when the error code occurs. By default, this error code triggers when voltage drops below 10.5V. Make sure the wiring is connected properly and there are no loose nuts or crimps
E5	Short protection/faulty controller	Ensure the three terminal screws securing the compressor wiring are tight. Then, power cycle the unit after letting it sit for 20 minutes. Contact customer service if the issue persists.
E6/EH	Over-voltage	Check the system voltage. It should be less than 15V for the 12V model.
E7	Compressor startup failure	Ensure the three terminal screws securing the compressor wiring are tight. Then, power cycle the unit after letting it sit for 20 minutes. Contact customer service if the issue persists.
E8	Condenser fan	Remove the shroud and make sure condenser the fan connector is properly seated
EF	Evaporator blower fan	Pry open the display panel and make sure the 4pin blower fan connector is properly seated.

Eb	Controller lack-phase	Ensure the three terminal screws securing the compressor wiring are tight. Then, power cycle the unit after letting it sit for 20 minutes. Contact customer service if the issue persists.
EU	Controller overheated	Ensure the outside condenser fan and the side/bottom air inlet are not blocked. Rinse the condenser with water to remove debris, then power cycle the unit after letting it sit for 20 minutes.
SP	Controller disconnected	Pry open the display panel and make sure the 4pin compressor connector is properly seated. Power cycle the unit.

