



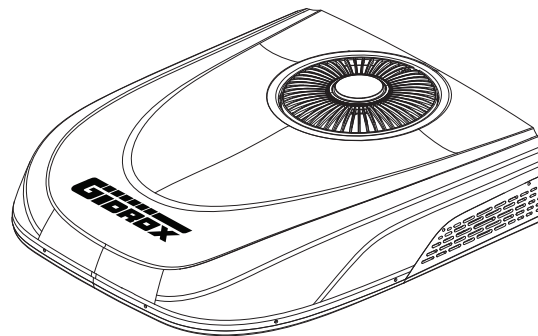
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If you come across a problem that cannot be resolved, don't hesitate to reach out to our customer service team for assistance. We're here to help!



INVERTER RV AIR CONDITIONER

Owner's Manual



- CLVE010C-D12 • CLVE010HC-D12
- CLVE012HC-D12 • CLVE012HC-D48
- CLVE012C-D12 • CLVE012TC-D12



WARNING: SAVE THIS MANUAL FOR FUTURE REFERENCE

The manual includes essential safety, operation, maintenance, and storage instructions. Read and understand all warnings and instructions before use to avoid serious injury or property damage.

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1. SAFETY GUIDELINES

Thank you for choosing **GIDROX**.

We hope it enhances your comfort and convenience during daily use.

Please read this manual before use to learn the main features and safety notes.

For any questions or feedback, contact us using the information provided at the end of this manual.

Before using this product, read all safety information and operating instructions in this manual carefully. Failure to observe these warnings may result in equipment damage, injury, or fire.

The manufacturer shall not be held responsible for any damage or injury resulting from misuse, improper installation, unauthorized modification, or failure to follow the instructions.

This product is intended for use only as described in this manual and within specified conditions.

Users should operate it with proper care and awareness of safety guidelines.

1.1 General Safety

- Avoid improper installation, adjustment, alterations, service, or maintenance of the product. Installation, service, and maintenance must be done by a qualified service person only.
- Keep the device away from children. Do not allow unattended operation.
- Use only manufacturer-authorized accessories and components.
- Do not operate the unit in flammable or explosive environments.
- Do not operate the unit when ambient temperature is below **32°F**, as performance may be affected and internal frost may occur.
- Do not operate the air conditioner above **122°F**, as cooling may decrease and the system may reduce output to prevent overload.
- Do not clean the unit with high-pressure water or chemical detergents. If cleaning is required, use a damp cloth to wipe the exterior housing and interior panel.
- Children must not operate the product without adult supervision.

1.2 Professional Installation

- This device is designed for RV roofs with a thickness of **1.5 to 3.5 in.**
- Disconnect the RV battery and main power before installation to prevent electric shock or fire.
- Use only hand tools or low-torque power tools; over-tightening may cause damage.
- Wear gloves and safety glasses during installation to avoid injury from sharp metal edges.
- Do not step directly on unsupported roof areas; use wooden boards to distribute weight if necessary.
- Apply proper sealing according to gasket and sealant instructions to prevent leaks and mold.
- When the wire passes through a sharp edge, it must be protected by casing.
- Do not excessively bend, loosen, or forcefully strain the wires, especially near metal conductors.
- During wiring, ensure cables are properly managed to avoid tripping hazards.
- Do not place the power cable near the signal wire or control wire.
- Make sure that no cloth, paper and other external objects block the air outlet and air return grille.

1.3 Compliance and Safety Standards

- The installation must comply with all applicable local or national codes, including the latest edition of the following standard:
U.S.:
 - ANSI/NFPA70, National Electrical Code (NEC)
 - ANSI/NFPA 1192, Recreational Vehicles Code
 - ANSI Z21.57, Recreational Vehicles CodeCanada:
 - CSA C22.1, Parts I & II, Canadian Electrical Code
 - CSA Z240 RV Series, Recreational Vehicles
- Ensure compliance with applicable state and local regulations.
- Use RV-grade, UV-resistant sealant compatible with roof materials.
- Secure all wiring properly to avoid contact with sharp or moving parts.
- After installation, test the system for normal operation and check for gaps, loose parts, or exposed wires.
- Use only accessories and replacement parts approved by the manufacturer.
- Ensure that the vehicle's overall height after installing the air conditioner does not exceed the locally permitted maximum height.

WARNING

This unit is designed for **DC power** systems only.

Do not connect to unsupported power sources. Doing so may cause permanent damage and severe safety hazards.

2. PRODUCT OVERVIEW

Intended Use

The unit delivers **cool or warm dry air** into the cabin, ensuring a pleasant environment in varying weather conditions.

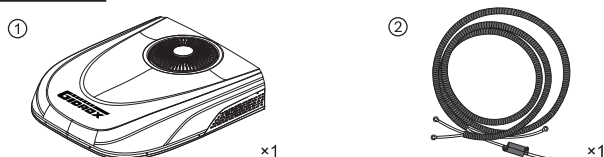
Applicable Scope

This rooftop air conditioner is designed for motorhomes, travel trailers, and other vehicles with living spaces. It is **not suitable** for construction, agricultural, or similar equipment, as excessive vibration may cause malfunction or shorten the unit's lifespan.

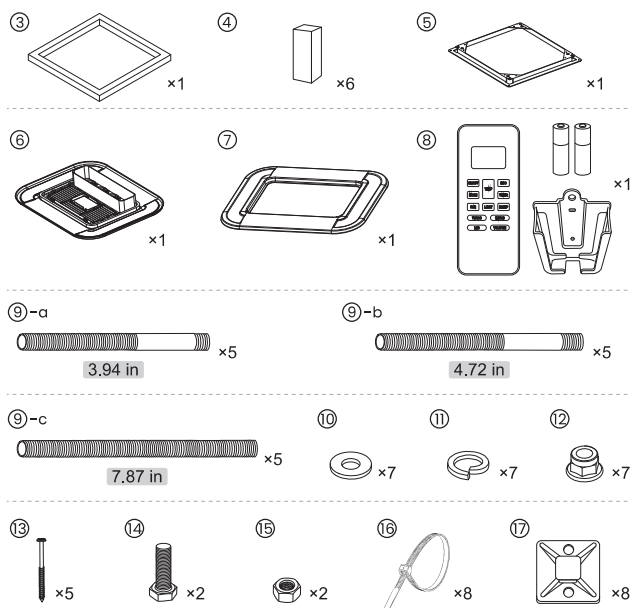
Package Contents

REF.NO.	DESCRIPTION	REF.NO.	DESCRIPTION
①	Outdoor Unit	⑨-b	M8 Bolt (4.72 in)
②	Power Cable	⑨-c	M8 Bolt (7.87 in)
③	Flexible Foam Gasket	⑩	M8 Washer
④	Strip-shaped Foam	⑪	Spring Washer
⑤	Bracket	⑫	M8 Lock Nut
⑥	Indoor Unit	⑬	M4 Screw (2.76 in)
⑦	Indoor Unit Decorative Panel	⑭	M4 Hex Bolt
⑧	Remote Control (with battery and base)	⑮	M4 Hex Nut
		⑯	Zip Tie
⑨-a	M8 Bolt (3.94 in)	⑰	Zip Tie Mount

Outer Box



Accessory Box



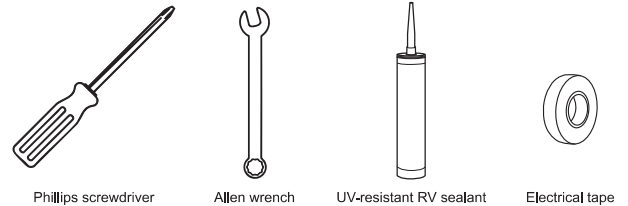
3. PRODUCT SPECIFICATIONS

MODEL	CLVE010C-D12	CLVE010HC-D12	CLVE012HC-D12	CLVE012HC-D48
Input Voltage	12V DC	12V DC	12V DC	48V DC
Cooling Capacity	10,000 BTU	10,000 BTU	12,000 BTU	12,000 BTU
Rated Input (C)	700 W	700 W	720 W	860 W
Rated Current (C)	58 A	58 A	60 A	18 A
Heating Capacity	/	4,500 BTU	9,000 BTU	11,000 BTU
Rated Input (H)	/	700 W	700 W	820 W
Rated Current (H)	/	58 A	58 A	17 A
EER	12	12	12.3	13
Inrush Current	30 A	30 A	30 A	12 A
Power Cable Specification	6 AWG	6 AWG	6 AWG	8 AWG
Working Temp.	32~122°F	32~122°F	32~122°F	32~122°F
Set Temp. Range	63~86°F	63~86°F	63~86°F	63~86°F
Air Volume	270 CFM	270 CFM	270 CFM	270 CFM
Noise	42 dB	42 dB	40 dB	40 dB
Refrigerant/Proper Input	R134a / 0.88 lbs	R134a / 0.88 lbs	R410a / 1.21 lbs	R410a / 1.21 lbs

4. INSTALLATION INSTRUCTIONS

4.1 Pre-Installation Preparation

Tools (Not supplied)



Pre-Installation Inspection

- Ensure the roof surface is flat, level, and structurally sound.
- Confirm that the roof vent opening size is 14 × 14 in.
- Measure the roof space to avoid interference with solar panels, luggage racks, or other equipment. Maintain at least 2–3 in clearance from other devices.
- The roof slope should not exceed 15° front-to-back or side-to-side.
- The unit should not be tilted more than 5° from horizontal, with the rear not higher than the front.

Wiring Requirements

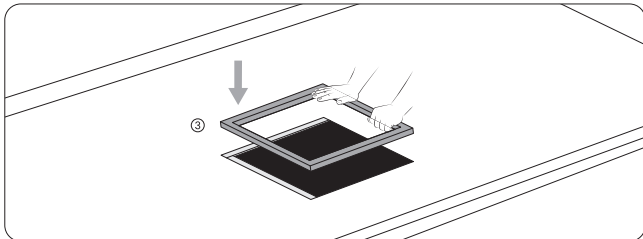
A 19.7-foot power cable is included. The power cable is equipped with a built-in fuse. Route the cable to the rooftop from inside or outside the vehicle, then connect it directly to the RV auxiliary battery. Ensure proper grounding.

- Follow all applicable national and local wiring codes.
- Protect wires entering the roof opening from damage.
- Connect the negative (–) first, then the positive (+).

4.2 Installation Procedure

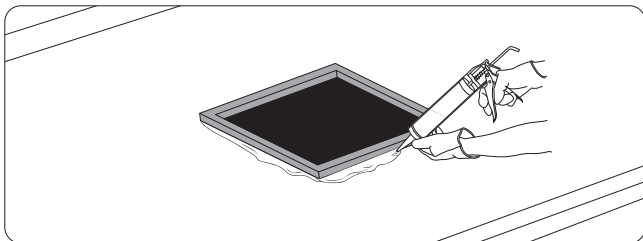
4.2.1 Attach the Flexible Foam Gasket

- Attach the Flexible Foam Gasket (pos.3) close to the inner edge of the roof opening.



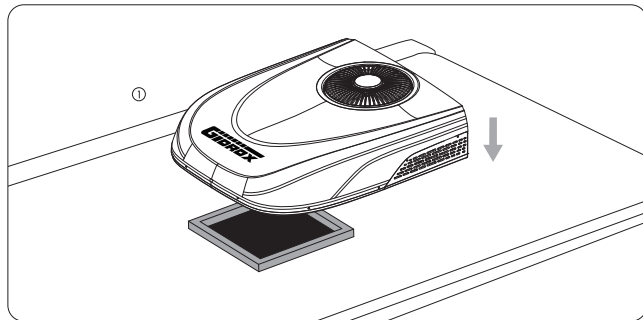
NOTICE

You may apply additional sealant to prevent water infiltration due to poor sealing, loose base bolts, or vibration noise.



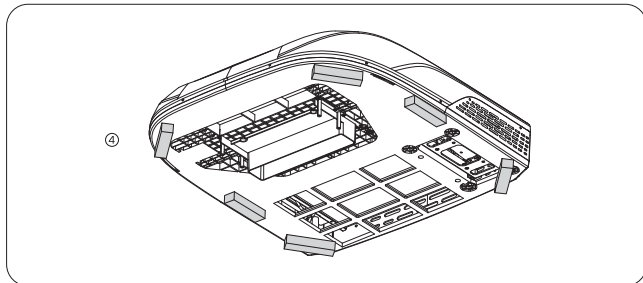
4.2.2 Position the Outdoor Unit

- Align the Outdoor Unit (pos.1) with the gasket and adjust it to the proper position, ensuring the A/C faces the same direction as the vehicle's front.



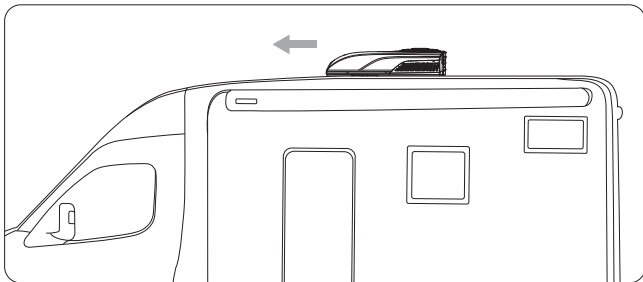
- Insert 6 x Strip-shaped Foam (pos.4) around the Outdoor Unit (pos.1), ensuring the unit is tilted no more than 5° from horizontal, with the rear lower than the front.

*Be careful not to block the drainage outlet.



NOTICE

Please ensure that the air conditioner is aligned with the front of the vehicle.

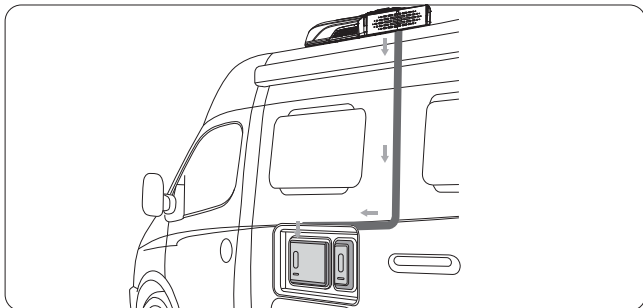
**4.2.3 Route the Main Power Cable**

- Route the Power Cable (pos.2) from the rooftop to the lithium battery location.

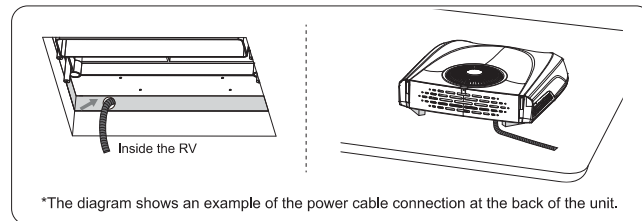
Two wiring options are available: Interior Wiring and Exterior Wiring.

Interior Wiring:

- Route the Power Cable (pos.2) through the vehicle's wiring channel into the interior.

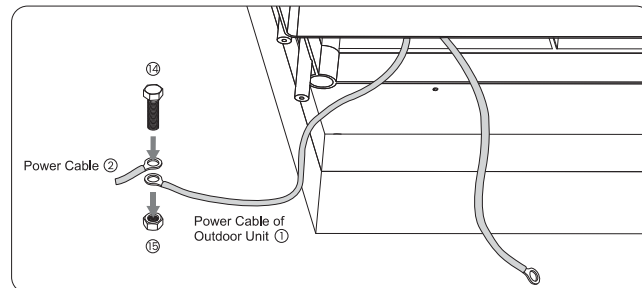
**Exterior Wiring:**

- Cut a small notch in the Flexible Foam Gasket (pos.3), sized to allow the power cable to pass through smoothly. Thread the power cable through the notch and lead it into the roof opening.
- Zip Ties and Zip Tie Mounts (pos. 16&17) can be used to secure the power cable.
*Ensure that the opening is properly sealed and waterproofed.



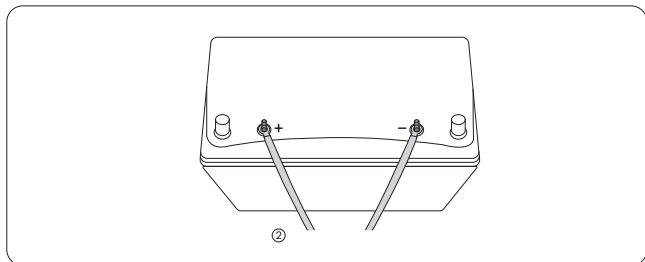
- Pull out the Power Cable from the bottom of the Outdoor Unit (pos.1), connect the wires to the matching colors on the Power Cable (pos.2) with **2 × M8 Hex Bolts and Nuts** (pos.14&15).

*Please make sure to connect the red cable to red and the black cable to black, and wrap the connections with insulating tape to prevent short circuits and electric shock.



- Connect the Power Cable (pos.2) to the lithium battery (not supplied).

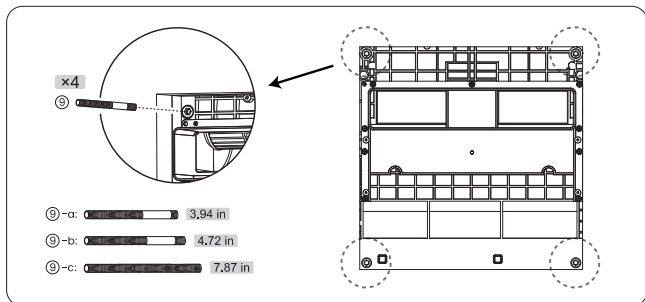
*The red wire is positive (+) and the black wire is negative (-). Connect the negative (-) first, then the positive (+).



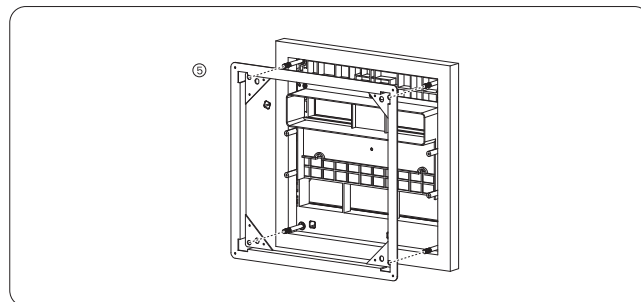
4.2.4 Install the Bracket

- Move inside the RV. Screw **4 x M8 Bolts** (pos.9) onto the mounting holes of the Outdoor Unit (pos.1).

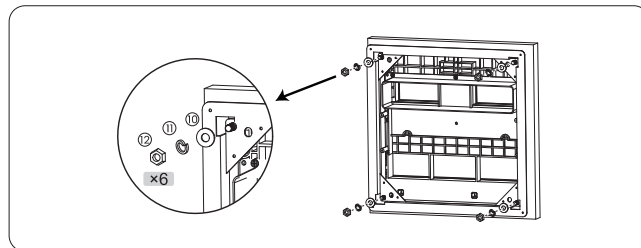
*Three bolt sizes are available to accommodate different RV roof thicknesses.



- Install the Bracket (pos.5) onto the RV roof.

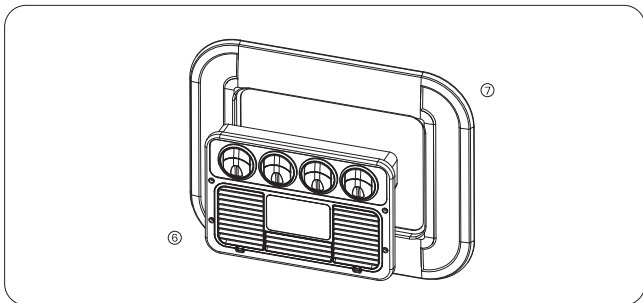


- After installing the Bracket (pos.5), secure it with **6 x M8 Washers & Spring Washers & Nuts** (pos.10&11&12), ensuring all nuts are properly tightened.



4.2.5 Install the Decorative Panel

- Press and snap the Indoor Unit (pos.6) onto the the Indoor Unit Decorative Panel (pos.7).

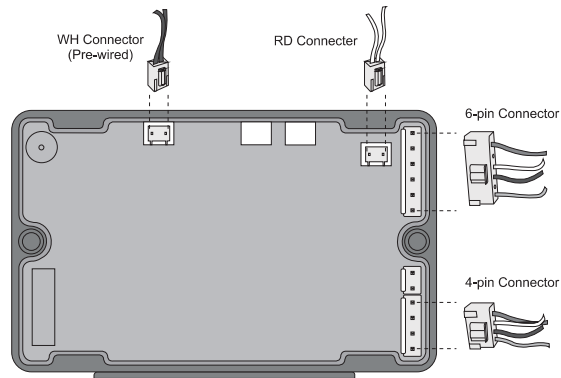


4.2.6 Install the Control Panel

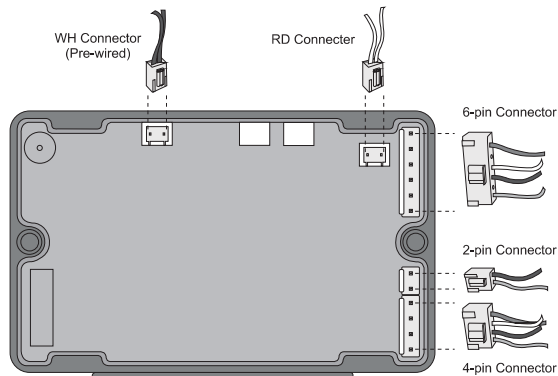
- Connect each cable from Outdoor Unit to the Control Panel of Indoor Unit as shown in the diagram.
- Wiring methods may vary slightly between models. Please make sure to check your model before proceeding with the connections.

CLVE010C-D12 / CLVE010HC-D12 / CLVE012HC-D12 ~ CLVE012HC-D48

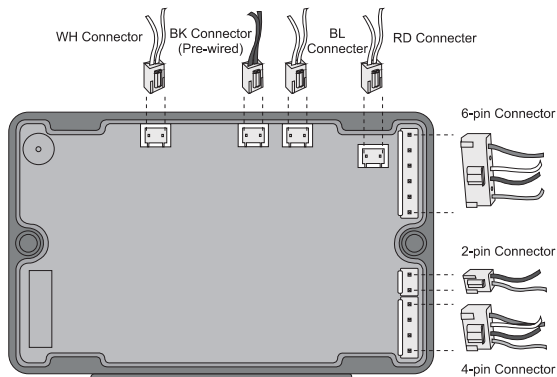
- For **CLVE010C-D12**



- For **CLVE010HC-D12**

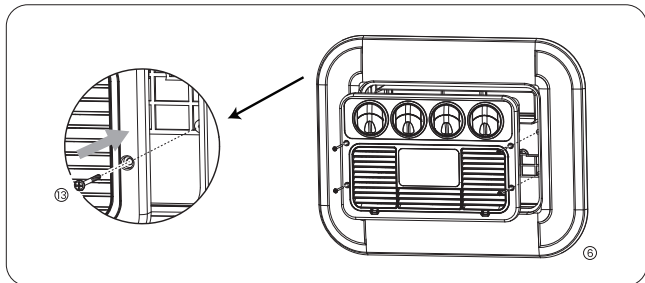


- For CLVE012HC-D12 ~ CLVE012HC-D48



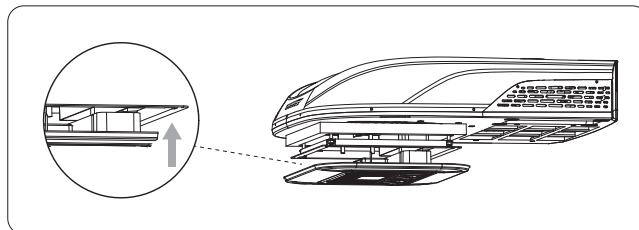
4.2.7 Install the Indoor Unit

- Attach the Indoor Unit (pos.6) to the Indoor Unit Decorative Panel (pos.7), making sure the air ducts are aligned.
- And use **4 x M4 Screws** (pos.13) to mount the Indoor Unit onto the Outdoor Unit.



NOTICE

When installing, make sure to align the Inner Air Duct with the Outer Air Duct.



5. OPERATION INSTRUCTIONS

5.1 Function Instruction

Modes

- Cool: Cools the air to reduce the interior temperature.
- Heat: Heat the air to increase the interior temperature (CLVE010C-D12 not available).
- Ventilation: Circulates air without heating or cooling.
- Dehumidify: Removes indoor humidity for a more comfortable environment.

Function Modes (Effective only in Cool & Heat)

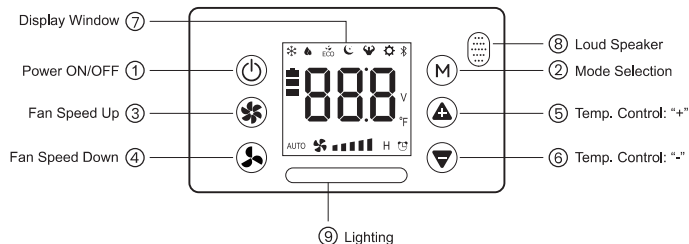
- Turbo: Cool: 63°F, Fan speed F5; Heat: 86°F, Fan speed F5.
- ECO: Cool: 79°F; Heat: 68°F.
- Sleep: Cool: Decrease from the initial set value to 79°F, Fan speed F1 & F2; Heat: Increase from the initial set value to 68°F, Fan speed F1 & F2.

Fan Speed

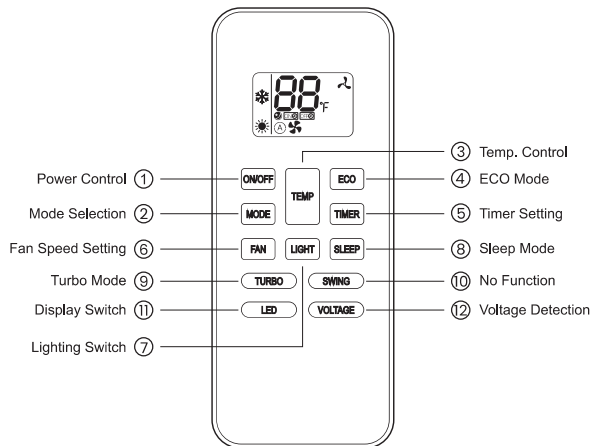
- There are 5 fan speed levels, including **F1 (lowest)** to **F5 (highest)**.

5.2 Control Methods

A. Control Panel (on Indoor Unit)



B. Remote Control



Timer Setting:

Press button ⑤ during power **ON/OFF** to set the timer for automatic **shutdown/startup**. Each press increases the time by **1 hour**. When **ON(O)** / **OFF(O)** appears on the screen, the setting is successful.

*If another button is pressed while the timer is set, causing the display to change, the previously set timer will reappear on the screen after a few seconds.

Switch °C / °F:

Press and hold ⑨ **Turbo** and ⑩ **Swing** buttons simultaneously to switch between °C and °F.

C. App Control

1. Download "Allink"

- Search "Allink" in AppStore or GooglePlay.
- Scan the following QR code.

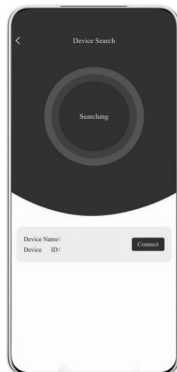


2. Connect the Conditioner

- Open "Allink" and click . The system automatically searches for nearby air conditioner units via Bluetooth.



- Select your device from the list by its device name.



- Connected successfully.



6. MAINTENANCE & CLEANING

To ensure optimal performance and extend the lifespan of your RV air conditioner, follow the maintenance and cleaning instructions below. Always **disconnect power** and make sure the unit has fully stopped before performing any maintenance.

Recommended Maintenance Frequency

- **Monthly:** Inspect indoor and outdoor air passages for dust, leaves, insects, or debris.
- **Every 1–3 months:** Clean or replace the air filter, depending on usage and environmental conditions.
- **Every 3–6 months:** Clean the indoor and outdoor vents, grilles, and condenser fins.
- **Annually:** Have a qualified technician perform a full inspection of the blower wheel, evaporator, and condenser coils.

Maintenance frequency may need to be increased in dusty, humid, or extreme environments.

Preparation Before Cleaning

1. Turn off the unit and unplug the power supply.
2. Wait until the fan has completely stopped.
3. Avoid cleaning the outdoor unit during rain or in high-humidity conditions.
4. Do not use high-pressure water jets or corrosive chemicals for cleaning.

Air Inlet / Outlet & Vent Path Cleaning

This unit is equipped **with an air filter**, and keeping both the filter and air paths clean is critical:

- Clean the air filter regularly according to usage conditions to maintain proper airflow.
- Use a soft brush or cloth to remove dust, spider webs, or debris from the indoor and outdoor vents.
- Check the ventilation channels to ensure they are unobstructed.
- Avoid using sharp tools that may damage the filter, vent grilles, or internal ducts.
- If airflow becomes noticeably weak, inspect the air filter, vents, and duct paths for blockage.

Condensate Management

This air conditioner has a **condensate drain outlet** without a connected hose. Condensate is discharged onto the rooftop surface and safely flows away from the unit during operation:

- Ensure the bottom edge of the outdoor unit is clear and free of debris.
- A small amount of water dripping during operation is **normal**.
- If water accumulates inside the RV or around the ceiling opening, stop using the unit and inspect the rooftop seal and installation for gaps or obstruction.

Outdoor Unit Maintenance

1. Regularly inspect the outdoor unit top cover and condenser fins for dust, leaves, insects, or debris.
2. Clean fins gently using a soft brush along the fin direction to avoid bending.
3. Ensure sufficient clearance and ventilation around the outdoor unit.
4. Stop using the unit and seek professional service if you notice unusual noise, odor, or vibration.

Maintenance Before Long-Term Storage

1. Clean the outdoor unit thoroughly.
2. Set the unit to **Fan Mode** and run for 10–15 minutes to remove internal moisture.
3. Disconnect the power supply and remove the batteries from the remote control.
4. During winter storage, ensure the RV is parked in a location where the outdoor unit will not be buried or stressed by snow or ice.

Important Notes

- Do not disassemble critical components such as the compressor, control board, or refrigerant system.
- Stop using the unit immediately if you smell burning, hear severe noise, or suspect electrical leakage.
- Improper cleaning methods—such as using high-pressure water jets or strong acidic / alkaline cleaners—may result in damage and void the warranty.

7. TROUBLESHOOTING

NO.	Trouble Description	Maintenance Place
EL	Under Voltage Protection	The battery and minimum protection voltage are incorrectly set.
EH	Over Voltage Protection	The battery and maximum protection voltage are incorrectly set.
EC	Sensor Error	The sensor is in poor contact or damaged. The control panel is damaged.
EF	Evaporator Blower Faulty	The cable disconnected, the fan is blocked or damaged.
E2	Overcurrent Protection	The amount of refrigerant charged, the condenser is dirty blocked or its fan is faulty.
E3	Lock Protection	Compressor cable contact error and compressor blocking.
E4	Controller Undervoltage Protection	Controller power supply circuit, controller damaged.
E5	Phase Line Short Circuit	Compressor cables are worn, short-circuited, or damaged.
E6	Controller Overvoltage Protection	The power supply circuit or controller damaged.
E7	Continuous Stall Protection	Compressor cable contact or compressor blocking.
E8	Condenser Fan Error	The cable is disconnected, the fan is blocked or damaged.
H2	Compressor Phase Protection	Compressor /Controller cable or Controller damaged.

8. WARRANTY & SERVICE

Thank you for purchasing this Inverter RV air conditioner. To ensure you receive complete after-sales support, please read the warranty information below carefully. This product is covered by a limited warranty starting from the date of purchase. The warranty scope, duration, and service process are as follows:

Warranty Period

- **Standard warranty: 24 months** from the date of purchase (based on a valid proof of purchase).
- You may obtain **extended warranty coverage** by completing product registration or meeting the requirements of promotional programs (subject to the specific terms of the promotion).

Warranty Coverage

1. This warranty covers **product failures caused by defects in materials or workmanship** under normal use conditions.
2. The warranty **does not cover**:
 - Damage resulting from improper installation, incorrect operation, misuse, or lack of maintenance;
 - Damage caused by disassembly, modification, or repair performed by unauthorized service providers;
 - Failures resulting from operating the product outside the specified environmental conditions (e.g., extreme temperatures, high humidity, corrosive environments);
 - Damage caused by external factors such as abnormal voltage, power surges, lightning strikes, impacts, or transportation damage;
 - Normal wear and tear or aging of consumable components, such as filters, seals, and fasteners.

Warranty Requirements

To ensure your warranty remains valid:

1. Keep a **valid proof of purchase** (invoice, receipt, or order record).
2. Ensure the **serial number, label, and nameplate** remain intact and legible.
3. Install, operate, and maintain this product as instructed in the manual.

Warranty Service Procedure

1. If you need warranty service, please **contact our customer support first**. The support team will perform an initial diagnosis and guide you through basic troubleshooting.
2. If repair or replacement is required, you will be instructed to send the product, **properly packaged**, to the designated service center.
3. If the issue is covered under warranty, repair or replacement will be provided **at no charge**. If the issue is not covered, we will inform you of the repair options and any potential costs.
4. After service is completed, the product will be returned via standard shipping.

Note: Please remove any personal add-on accessories (such as aftermarket brackets, external controllers, or extension tubing) before returning the product to avoid loss.

User Responsibilities

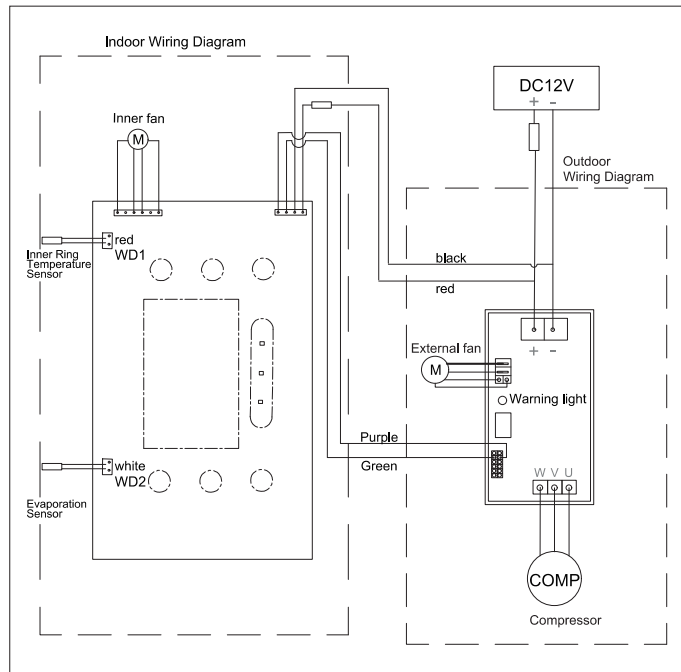
- The user is responsible for installing and operating the unit according to the manual and performing routine maintenance, including checking filters, condensate drainage, and wiring connections.
- Failure to perform proper maintenance may affect warranty eligibility.

Disclaimer

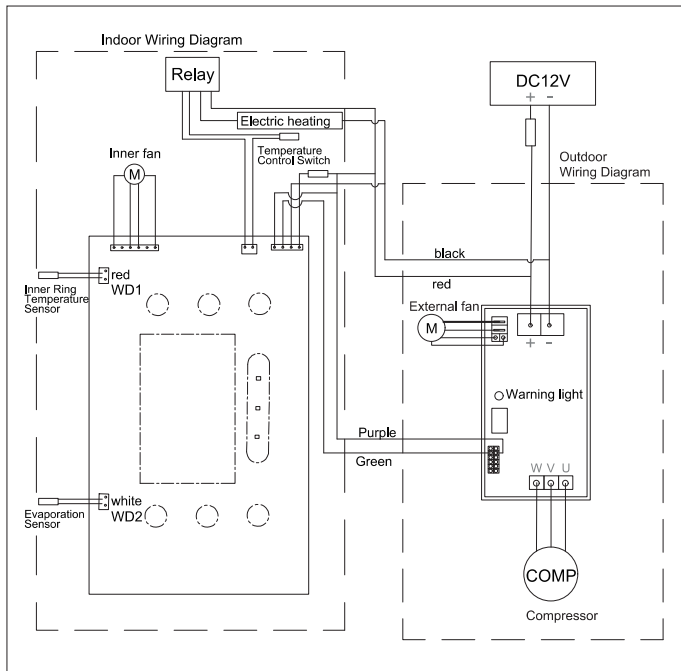
The manufacturer is not liable for any indirect or consequential damages arising from product downtime or service delays, including but not limited to travel interruptions or commercial losses. To the extent permitted by law, this warranty constitutes the entire agreement between the user and the manufacturer.

9. WIRING DIAGRAMS

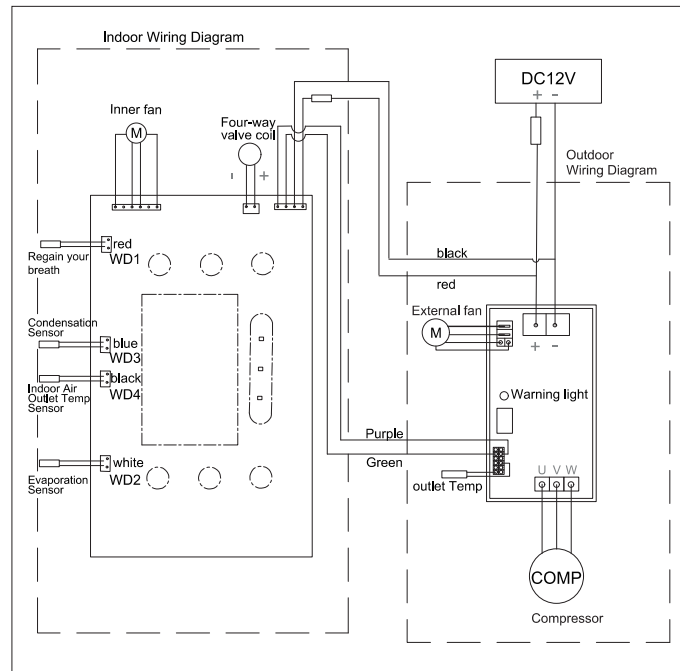
CLVE010C-D12



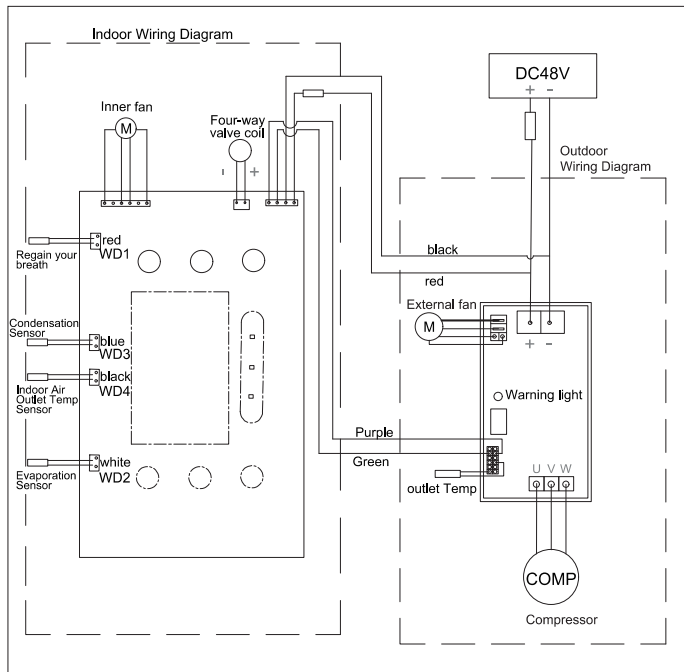
▪ CLVE010HC-D12



▪ CLVE012HC-D12



▪ CLVE012HC-D48



10. FCC STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.