RENOGY
TRUSTED ENERGY SOLUTIONS

RENOGY
ROOFTOP AIR CONDITIONER

RRA1215-C

USER MANUAL

CONTENT

1 Important Reminder

This product manual has been prepared by the manufacturer to provide the user with the necessary information/instructions for the proper and safe use and maintenance of the RV air conditioner.

As an important part of the air conditioner, this product manual shall be properly kept in good condition and protected from damage throughout the working life of the air conditioner. This manual must come with the air conditioner if the RV air conditioner is reinstalled in a new vehicle or sold.

The information in this product manual is for air conditioning installation and all related use and maintenance. This product manual specifies the diagrams for RV air conditioners and includes all the information needed for their safe and proper use. Following the contents of this product manual will ensure user safety, lower operating costs, and longer air conditioner life.

To make this clearer, this product manual is divided into sections, each of which deals with a specific topic. For quick access to detailed information on the corresponding topics, please refer to the table of contents.

We strongly recommend that you read the entire product manual as an effective way to ensure proper installation, use and long-lasting reliable performance of your air conditioner, and to prevent injury or damage.

The accompanying drawings in this product manual are for illustrative purposes only. Even though the unit you have may differ in some details from the illustrations in this manual, its safety and information are still guaranteed.

For your better use and maintenance of your RV air conditioner, please read carefully the instructions, guidelines, warnings, and other information provided in this manual. You are requested to understand and agree to abide by the terms and conditions described in this product manual.

Failure to read and follow the instructions, guidelines, warnings, etc. described in this product manual may result in injury to you and others, damage to the product, or loss of nearby property.

2 Symbol Description

WARNING!
All with “WARNING”, product safety and personal safety of users must be operated in strict accordance with the content of the "WARNING".

DANGER!
All with “NO”must be absolutely prohibited, otherwise it may cause damage to the unit or endanger the personal safety of the user.

CAUTION!
It indicates important information for the correct execution of the operation described in the product manual or for the proper use of the equipment.

3 Safety Guide

WARNING!

. RV air conditioners shall be installed and used in accordance with local national electrical and mechanical equipment installation codes.
. The external power outlet of RV air conditioners must be effectively grounded. Ungrounding or incomplete grounding may pose a risk of electric shock or fire hazard.
. The RV air conditioner shall be installed in accordance with the instructions in this manual. Any incorrect installation or modification of the product could result in damage to the product or personal injury.
. There may be wires between the roof and the ceiling, so be sure to cut off the power supply when cutting holes to avoid injuries and deaths caused by electric shock.
. Always crawl carefully when moving around on the roof of your RV to avoid injury.
. RV air conditioners shall be tested for leakage insulation after proper installation to prevent electric shock.
. The RV air conditioner shall only be installed and maintained by qualified personnel who are familiar with the relevant risks and regulations. Be sure to disconnect the power supply when installing or servicing. Otherwise it may cause personal injury.
. This product shall not be used without the supervision or guidance of a responsible person for persons who are unable to safely use the equipment due to insufficient physical, sensory, or mental abilities or lack of relevant experience and knowledge.
. This product is not a toy. Keep the product out of the reach of children or infirm persons. Do not allow them to use this product without the supervision of a responsible person.
. Do not drive over the automatic car washer after the product in this manual has been installed.
. Do not operate the product in this manual with the top cover open.

DANGER!

. Do not use this product near flammable or explosive materials.
. Do not spray paint or any insecticide on the surface of the unit.
. Do not put your hands into the product inlet and outlet or insert any foreign objects into the product.
. Please use the power supply according to the specified specifications of the product to avoid fire and electric shock. Do not use if the power cord is broken.
. When there is a strange odor when the unit is running, please immediately disconnect the power, stop using it, contact the after-sales personnel to prevent malfunction or fire and do not touch the unit to avoid electric shock.
. Do not alter or modify this product.
. In the event of a fire, do not loosen the top cover of the product in this manual. Use a proper fire extinguishing agent and do not extinguish the fire with water.

CAUTION!

. Disconnect the RV air conditioner when not in use for a long time.
. Keep the air inlet and outlet of the indoor and outdoor units of the RV air conditioner clear.

. Clean the indoor filter of the air conditioner regularly. If filters is blocked, the cooling and heating effect will be poor.
. The angle of inclination of the air conditioner must not be greater than 5° and the rear of the unit must not be higher than the front. For unknown conditions during installation, contact your local dealer.
. After selecting the cooling and heating mode, the compressor will start with a three-minute delay.
. If the refrigerant circuit of the product in this manual malfunctions, it must be checked and properly repaired by qualified personnel. The refrigerant must not be released into the air.

4 General Description

This product in this manual is only designed to be installed on the roof of an RV or station wagon, providing a comfortable artificial environment for the interior of the vehicle through cooling or heating.

4.1 Ensure the product works efficiently

There are a variety of factors that affect the total heat in your vehicle, and different factors can affect the working efficiency of the air conditioner. Before purchasing an air conditioner, the user is advised to consult with the RV or station wagon manufacturer to understand and evaluate the total heat in the vehicle and to select the appropriate air conditioner based on that evaluation. The following measures are extremely useful in reducing the heat in the vehicle and ensuring that the air conditioner operates more efficiently.

. Close all doors, skylights and windows, draw the curtains and open shades.
. Adjust the position of your vehicle to ensure that the shade faces to the south to avoid direct sunlight on the windows.
. Turn off all unnecessary appliances in the vehicle to reduce heat sources.
. Cook outside the vehicle.
. Park your vehicle in the shade as much as possible.
. In case of rare high temperatures, it is recommended to turn on the air conditioner earlier in the morning to achieve the desired cooling effect.
. Adjust the temperature set by the remote control reasonably to avoid frequent unit ON/OFF.
. Make sure that the inlet and outlet of the air conditioner are not obscured by cloth, paper, or other objects.

4.2 Power supply

The power supply used in the product in this manual is the AC power supply, but in some cases, it is necessary to use a generator or inverter to drive, and the requirements for the generator or inverter are: The power is efficient, the current is stable, the output power is ≥3kW, and the output waveform is a sine wave, which can meet the starting requirements of the compressor. Because of the variety and quality of generators or inverters on the market, air conditioner manufacturers cannot recommend a particular generator model or brand. Please consult the generator or inverter supplier and fully refer to their opinions.

4.3 Disclaimer

The products in this manual are not intended for use in trains, houses or apartments or for installation in construction machinery, engineering machinery or similar equipment. This manual

provides the information necessary for proper installation and use of the product. Improper installation and/or use and maintenance will affect product performance and may result in malfunction.

Accidental injuries or damage to the product are not covered by the warranty if they are caused by any of the reasons listed below:

. Incorrect assembly or connection.

. Use of the wrong power supply specifications, or a poorly performing generator or inverter outdoors.

. Condensation in the vehicle due to open RV doors and windows when the product is used in a high humidity environment.

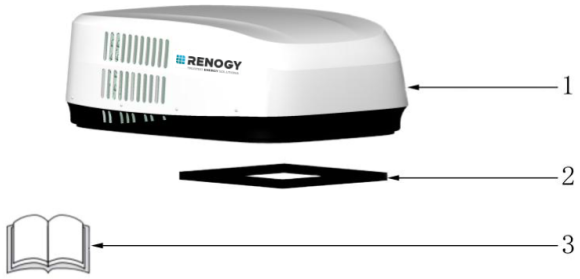
. Improper maintenance or incorrect use of spare parts other than those provided by the manufacturer.

. Modification of the product without the express permission of the manufacturer or dealer.

5 Product List

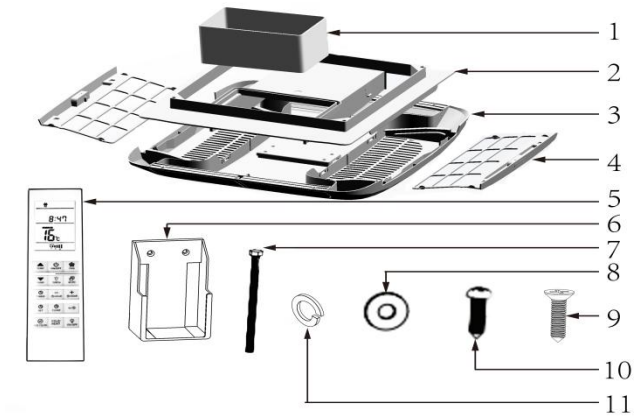
This product comes in this manual is put in two boxes. Please first check whether the parts are complete and please contact the manufacturer or local distributor if any parts are missing or damaged.

Outdoor unit:



1. Outdoor unit
2. Sealing gasket
3. Manual

Indoor unit:



1. Air duct
2. Panel installation bracket
3. Panel components
4. Filters
5. Remote control
6. Remote control holder
7. M6×120 hex head bolts
8. Flat washer 6
9. ST4×16 screw
10. ST2.9×16 countersunk head screw
11. Spring washer 6

6 Installation Guide

6.1 Pre-installation instructions

. Please read and understand this manual carefully before installing the product.
. National guidelines for the operation of electrical circuits need to be adhered to when installing.
. The installer must hold a refrigeration and electricity qualification certificate.
. For unknown conditions during installation, consult your manufacturer or local dealer.
. Please do not alter the product or add other parts during the installation.
. The RV or station wagon roof shall be able to support the weight of the RV air conditioner.
. The roof opening must be able to support the weight of the RV air conditioner and allow for related operations.
. The minimum thickness of the RV roof is ≥ 25mm (1"), and the maximum thickness is ≤ 85mm (3.35"). If the above range is exceeded, contact your manufacturer or local dealer to order an extended duct installation kit.
. The RV roof must be level and flat.
. When installing an air conditioner in an RV over 7m long, please consider using 2 or more AC units for better cooling/heating performance.

6.2 Roof opening

There are two different ways to get an air conditioner installation location on a typical RV, and you are free to choose one of them for your air conditioner installation:

a) Use the existing 360×360mm (14"×14") ventilation holes (vents) on the vehicle.

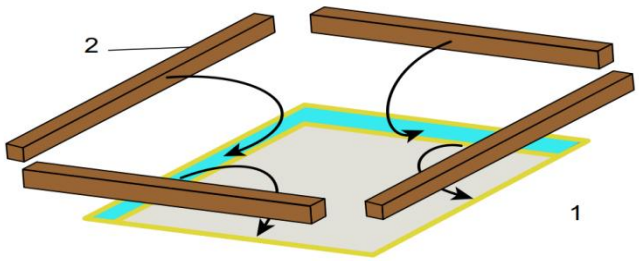
b) Open a new opening. If the roof is not pre-drilled, it is necessary to drill holes from the roof to the interior with roof holes as a guide.

For interior ceilings, the 360×360mm (14"×14") opening shall avoid the roof attachment and it is recommended that the vehicle manufacturer be consulted for the best method of drilling the holes.

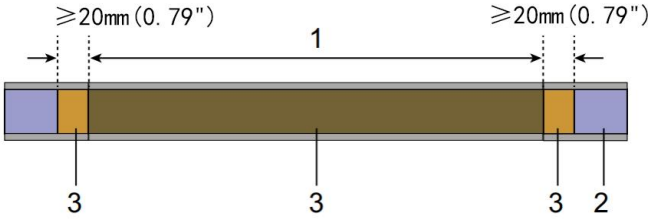
Regardless of which of the above methods is used, the air conditioner installation opening needs to be enhanced:

. The 360×360 mm (14"×14") square holes in the roof need to be reinforced with wood strips with a minimum thickness of 20mm (0.79") around the perimeter to ensure that they are able to withstand the pressure of the bolted fixing and to prevent air from entering the roof cavity.

. The longitudinal and transverse blocks need to be fixed firmly and against each other to distribute the weight.



1. Roof
2. Wooden strip



1. Roof opening
2. Roof insulation
3. Wooden strip

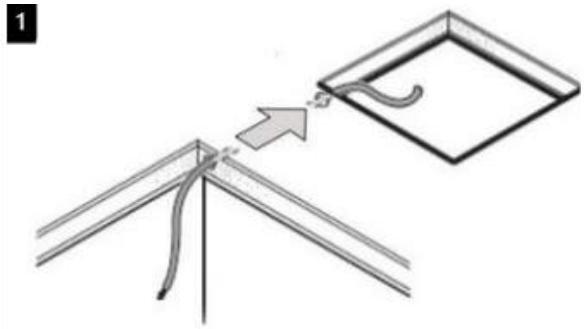
6.3 Power supply

To supply power to the air conditioner, a 3-core power cable (fire-null-ground) is required, with a cross-sectional area of conductors capable of carrying the maximum current specified in the product nameplate. The cables need to be routed through the internal insulation of the RV roof, and the stiffeners need to be drilled to allow the cables to pass through. Reserve at least 50mm of length in the openings to enable the cables to be connected to the air conditioner more easily. Cables must be laid with suitable protective coverings to ensure that they remain intact under all conditions of vehicle use.

Precautions:

1. Ensure that the air conditioner power supply has an earth leakage circuit breaker (< 30mA).
2. Install an all-pole switch with a contact opening width of at least 3.5mm (0.14") on the installation side of the air conditioner to protect the power cable to the air conditioner and to allow maintenance and repair of the unit.
3. Guide the cable through the roof insulation as shown.
4. Use the cable sheath to lay the cable through walls with sharp edges.
5. Do not lay loose or bent cables next to conductive materials (metals).

1

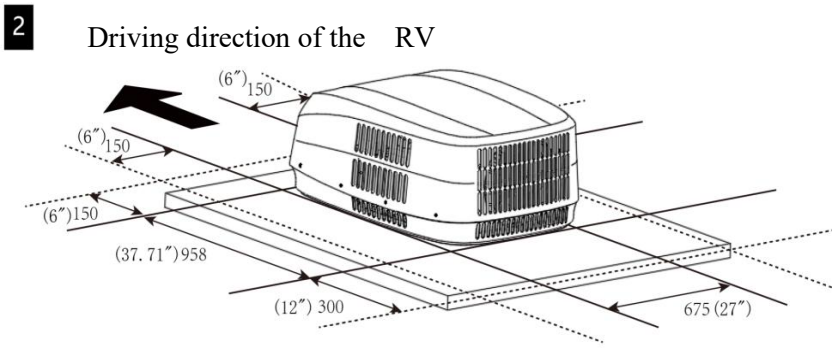


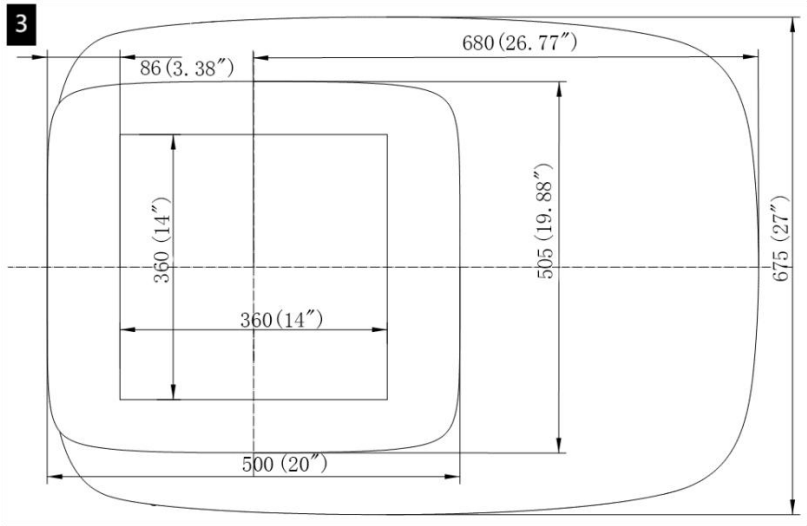
Power supply cable

6.4 Determination of installation position

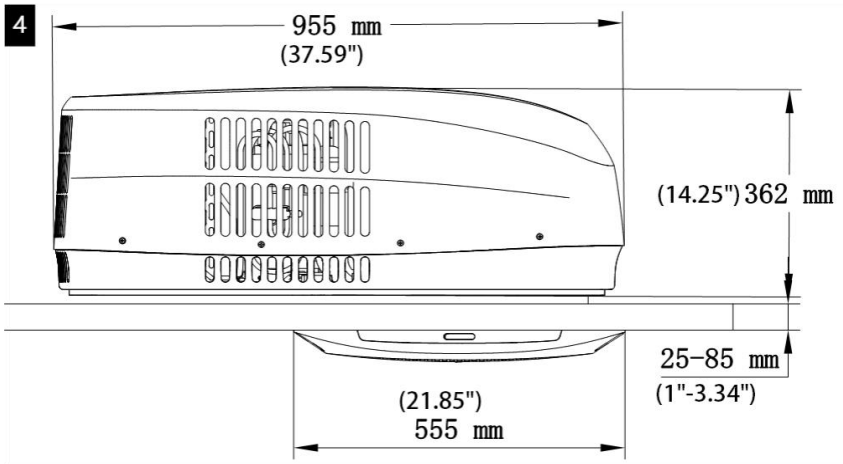
1. The outside air conditioning unit needs to be installed centered in the center of the roof as far as possible to ensure a balanced flow of air in the RV.
2. The installation position of the air conditioner must be consistent with the running direction of the vehicle (figure 2). The front and both sides pointed by the arrow in the figure shall leave at least 100mm (4") space and the rear shall leave at least 300mm (12") space, making it easy for the air conditioner to absorb and exhaust air. Otherwise, the air conditioner performance will be affected.
3. When installing the outdoor unit of the air conditioner, please make sure that the installation position of the panel in the vehicle (figure 3) shall avoid the positions of the skylight, fireplace or lamps that may have an impact on the air flow, and that it shall be at least 400mm (16") from the air outlet of the panel in the vehicle, so as not to cause the unit to start frequently.
4. The minimum distance of the panel installation position shown in the figure below is measured with reference to the 360×360mm (14"×14") hole position.

2

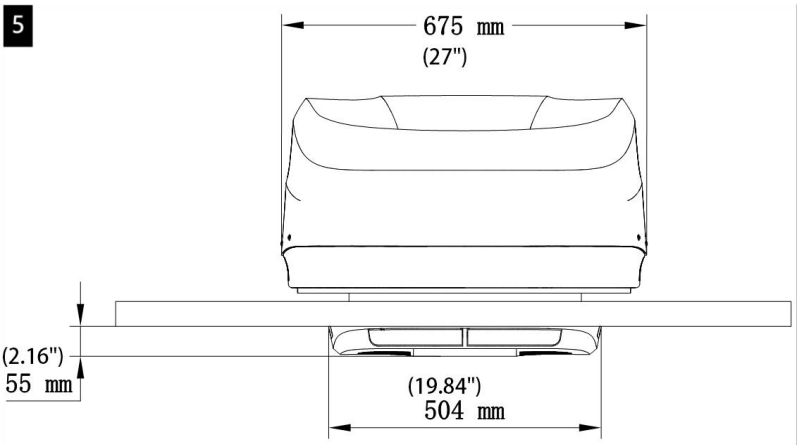




Top View of Air Conditioner Installation Dimensions



Side View of Air Conditioner Installation Dimensions



Front View of Air Conditioner Installation Dimensions

6.5 Installation of sealing gaskets

1. Before installation, make sure the roof is dry, clean and free of oil.

2. Remove the peeling paper on the back of the sealing gasket and stick it to the vehicle body by aligning the square holes.

3. Place the side with the adhesive down and press firmly to ensure that the sealing gasket is fully adhered to the vehicle body.

4. Fill the outer side of the sealing gasket with special sealant for RV. The sealant must be applied continuously and completely (green area in figure 6) to ensure no water leakage. Attention shall be paid to that the sealant cannot be in direct contact.

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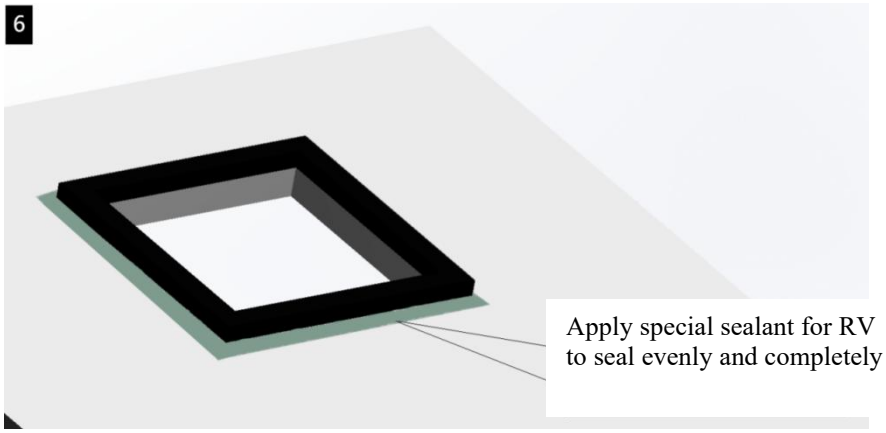


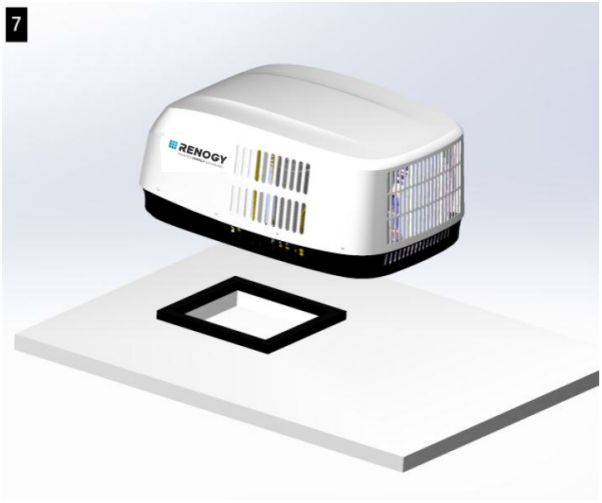
6.6 Installation of the outdoor unit

1. Place the outdoor unit on top of the sealing gasket (as shown in the figure 7) and make appropriate adjustments to the position to ensure that the four bolt holes at the bottom of the outdoor unit are aligned with the four corners of the 360×360mm (14"×14") square holes on the roof of the vehicle. When adjusting the position of the outdoor unit, someone inside the vehicle is required to check the position of the outdoor unit from the inside to ensure that it is aligned with the 360×360mm (14"×14") square holes on the roof of the vehicle (as shown in the figure 8).

2. Two people are required to lift the base and move the outdoor unit.

3. Do not push or side the outdoor unit directly, otherwise it will cause damage to the sealing gasket and lead to water and air leakage.

7



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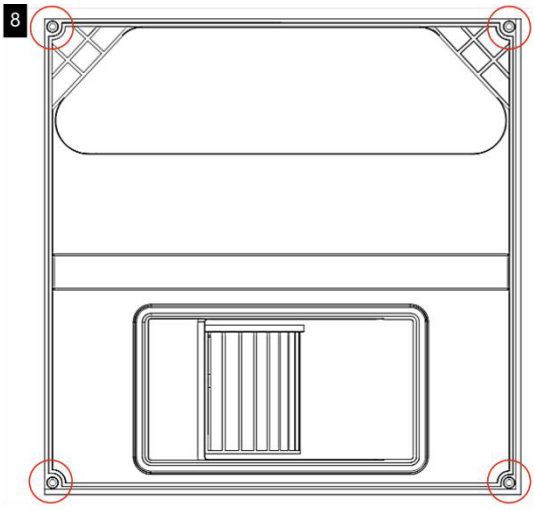
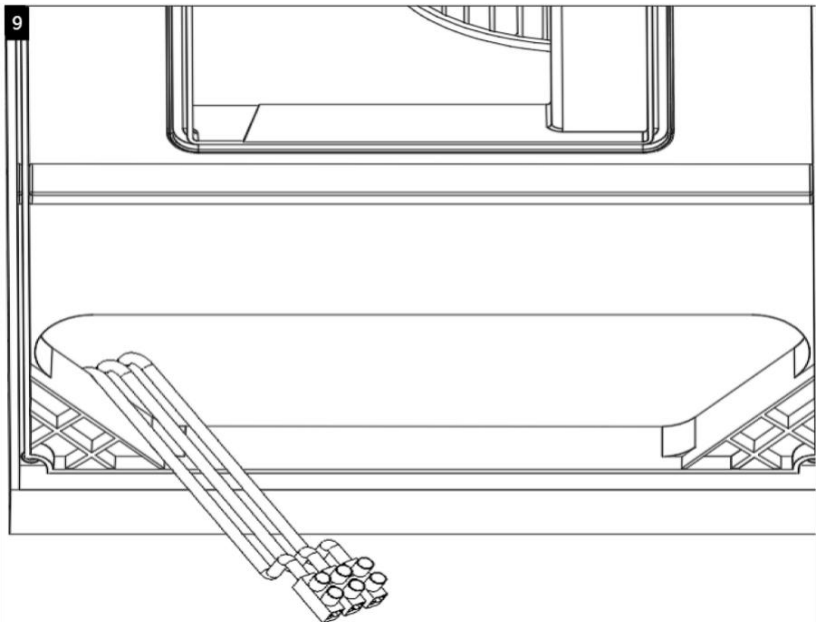


CORRECT ALIGNMENT

6.7 Connection of the power cord

1. Local national wiring regulations must be observed.

2. Connect the RV cable line (introduced from the side wall of the opening) to the outdoor unit through the three-position terminals in the following order: black-L (fire), white-N (null), green-G (ground); and tighten the terminal set screws to ensure that the power line is not loose or connected incorrectly(figure 9). Otherwise, it may easily cause a short circuit or fire.

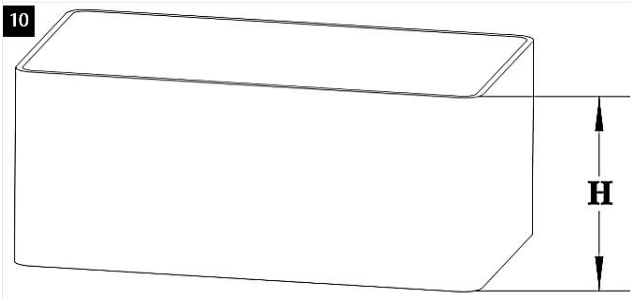


6.8 Installation of air ducts and panel installation brackets

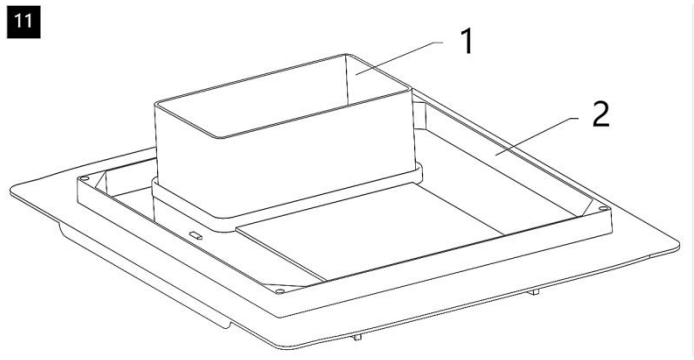
1. The air duct is a Rectangle structure, which needs to be snapped into the corresponding slot of the air outlet of the base of the outdoor unit and the slot of the panel installation bracket in place. Otherwise, it will cause an air escape branch, affecting the performance of the air conditioner, and causing the compressor to start frequently.

2. The height of the air duct needs to be cut accordingly to the thickness of the RV, and the height H can be calculated according to the following formula (figure 10): **DUCT HEIGHT ≈ RV roof thickness + 20mm (0.79")**

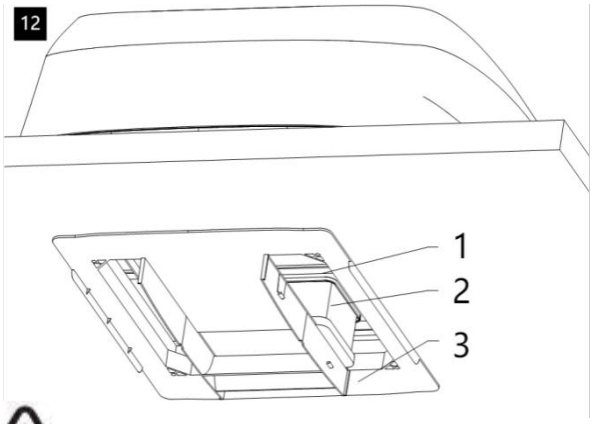
For example: if the thickness of the RV is 25mm (1"), the height of the air duct after cutting is about 45mm(1.77").



3. Snap the cut air duct (1) into the panel installation bracket (2) slot(figure 11).



4. Schematic diagram of air duct (2) snapping into the base (1) air outlet slot and panel installation bracket (3) slot(figure 12).



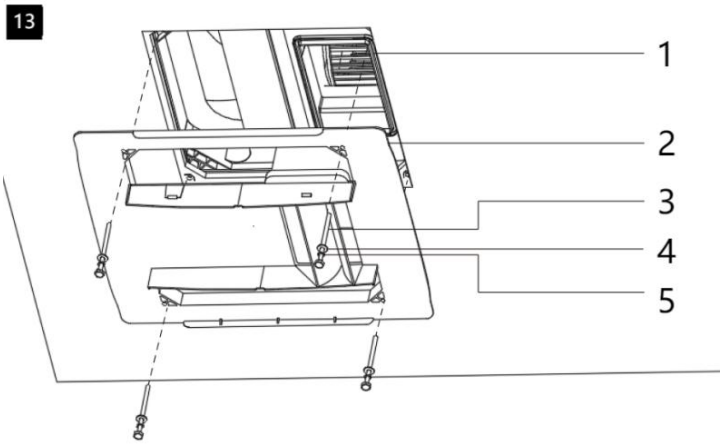
1. Base
2. Air duct
3. Panel installation bracket

Attention:THE DUCT NEEDS TO FITS EXACTLY INTO THE PROPER BASE !!

5. As figure 13, Sleeve the M6 bolts (3) with spring washer (5) and flat washer (4), pass it through the hole of the four corners of the panel installation bracket; pay attention to reserving 10mm for each bolt during installation, so that the angle can be adjusted.

6. Push the panel installation bracket (2) upward, snap it correctly into the open square hole of the RV, pay attention to the cooperation with the air duct, and snap PROPERLY it into the outlet slot of the base (1) to make sure that the air duct connection is sealed(figure 13).

Tips: If the air ducts are not installed properly, it will affect the performance of the air conditioner and cause the compressor to start and stop frequently.



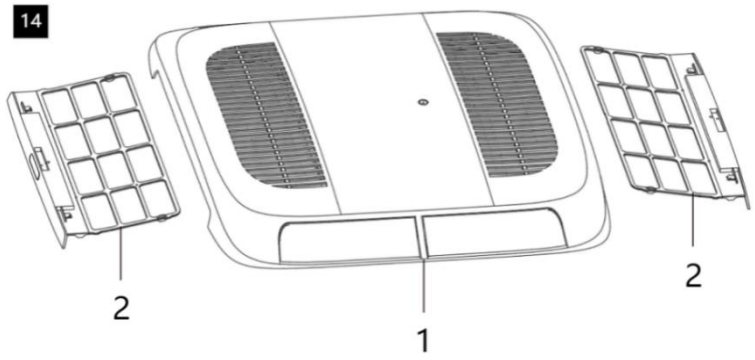
7. Screw in the M6 bolts 2 to 3 times by hand to ensure smooth screwing, and then tighten 4 M6 bolts in turn to make the panel installation bracket tighten and fix the outdoor unit.

Tips: It is recommended that the bolts be tightened with a torque of 2-2.5 N.m. so that optimum connection and sealing can be achieved between the outdoor unit and the sealing gasket.

6.9 Installation of panel components

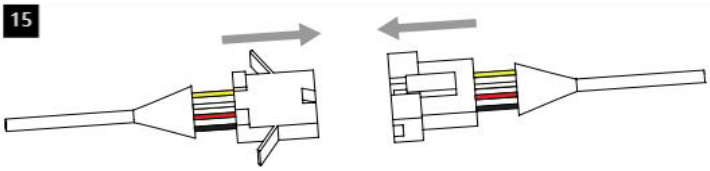
1. Remove the filters (2) on both sides of the panel (1) components(figure 14).

14



2. Connect the panel display board wires with the external controller connection wires, snap it into place, and pay attention to that the color marking of the wires corresponds one by one(figure 15).

15



3. Import the panel (3) upwards into the panel installation plate (1) and the slot (2). When you hear a clicking sound, it indicates that it is snapped in place(figure 16).

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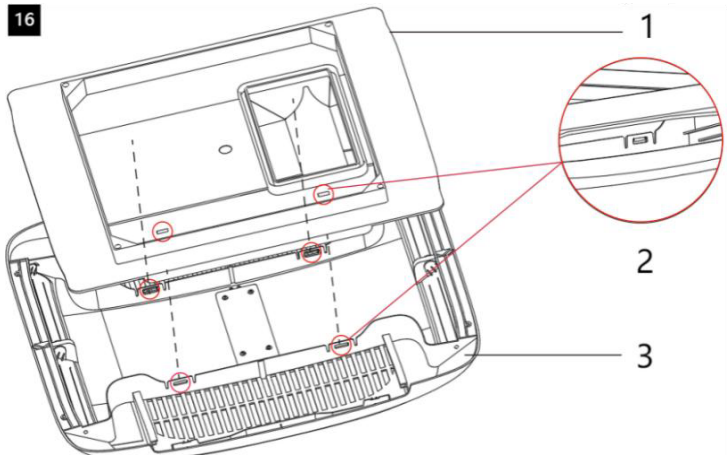
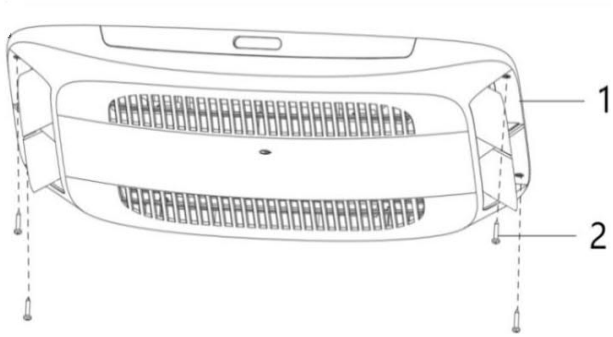


4. Open the air outlets (louvres) of the indoor unit (1), and fix the panel to the inner wall of the top of the RV with four (2) ST4×16 pan head screws as standard (figure 17-1).

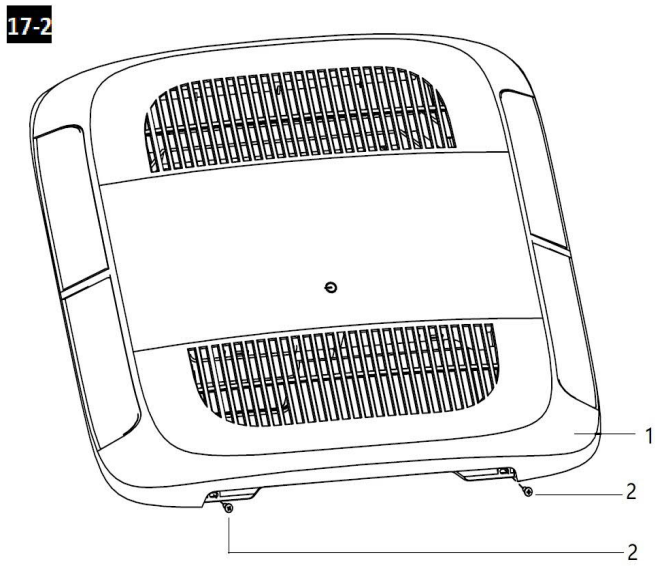
17-1



5. Screw four ST4×16 screws (2) into the left and right sides of the indoor panel (1) at an Angle of 45°. After fastening the indoor panel to the installation plate, determine the holes and drill holes of Φ3 to ensure that the screws do not squeeze the panel and support bars (figure 17-2)

Note: This step is not mandatory required. Perform operations based on actual installation requirements.

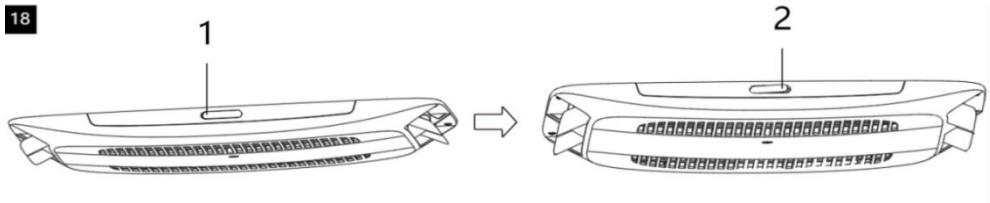
17-2



6.10 Remove the filters

1. Press the filters handle (1) to open the filters handle (2) at a suitable angle, grasp it with your hand, and gently force it to remove the filters for cleaning or replacement (figure 18).

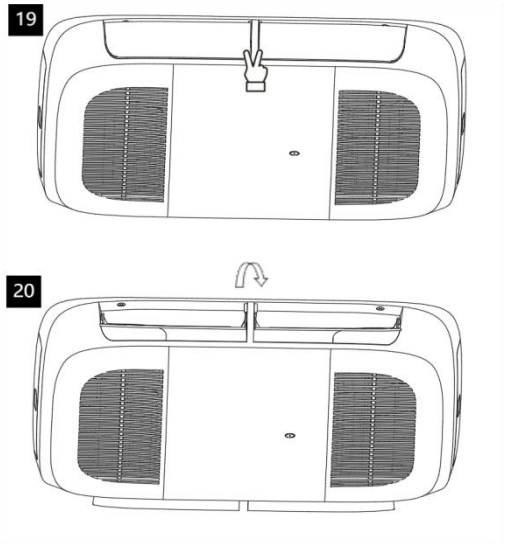
2. With the same pressure operation, grasp the handle to snap the filters into the panel along the guide rail, and push it in place.



6.11 Adjusting the air outlets

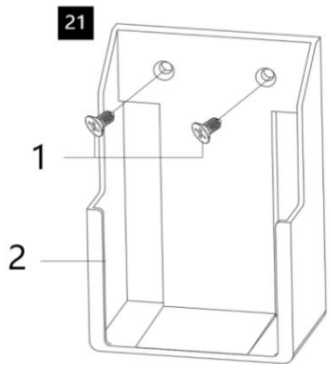
1. Press the bottom of the middle of the adjustable air outlets(louvres) to open the air outlets, and adjust the appropriate air outlet angle according to the needs of users(figure 19).

2. Press along the top of the air outlets (louvres) which can be turned off with the shaft with your hand(figure 20).



6.12 Fixation of remote control holder

As figure 21, Fix the remote control holder (2) in a suitable position in the RV with two countersunk screws (1).



6.13 Note before test

1. After the installation of the air conditioner, it is necessary to test the unit with reference to Part 7 for detailed operation.
2. Please make sure that the condenser outlet of the air conditioner is clear and unobstructed.
3. After installing the rooftop air conditioner, consult the RV manufacturer whether you need to change the vehicle documentation to enter the new RV height and weight parameters.

7 Operation Guide

7.1 Pre-use instructions

1. Before turning on the unit, please check whether the external power supply provides the correct voltage and frequency required by the product; whether the current of the external power supply is sufficient for the unit to start.
2. If the external extension cable of the vehicle is overheated or undervoltage, please unplug the external extension cable in time.
3. The cross-sectional area of the vehicle's external extension cable shall meet the requirements for air conditioner use.
4. To ensure optimal performance, always keep the air conditioner inlet and outlet airflow channels clear.
5. Do not close the two adjustable air vents when the air conditioner is running.
6. Please use the remote control to switch on and off the unit for the first time.

7.2 Unit test

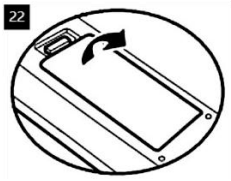
1. Turn on the power.
2. Turn on the unit, switch to the fan mode, select high, medium and low speeds, and check whether the internal fan is running normally.
3. Select the cooling mode and adjust the set temperature to one degree lower than the room temperature. Soon the indoor panel air outlets will start to blow cold air.
4. Select the heating mode and adjust the set temperature to one degree higher than the room temperature. Soon the indoor panel air outlets will start to blow warm air.

Tips: After selecting the cooling and heating mode, the compressor will start with a three-minute delay.

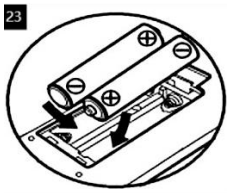
7.3 Remote control

7.3.1 Remote control battery installation

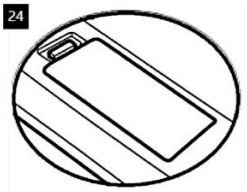
1. As figure 22,Press the battery cover and lift the back cover in the direction indicated by the arrow in the diagram.



2. As figure 23,Insert two LR03 AAA 1.5V batteries and observe the positive and negative terminals.



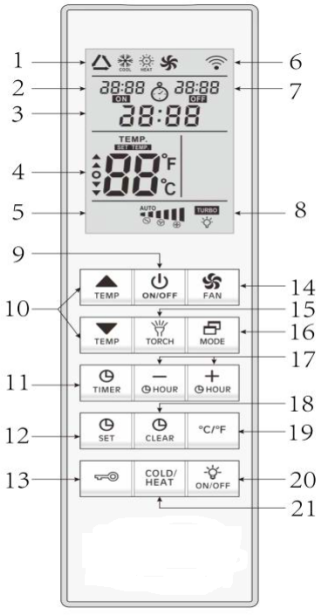
3. As figure 24,Re-close the back cover of the remote control.



7.3.2 Instructions for use of the remote control

1. The remote control needs to be aligned with the receiving element on the air conditioner display board.
2. Avoid obstacles between the remote control and the receiving element.
3. Do not throw the remote control.
4. Do not expose the remote control to direct sunlight or place it near heating equipment or other heat sources.
5. If the remote control is not used for a long time, please remove the batteries.
6. When the transmitter symbol on the remote control display is no longer clearly visible or the remote control is restarted by pressing the button, it means that the battery needs to be replaced.

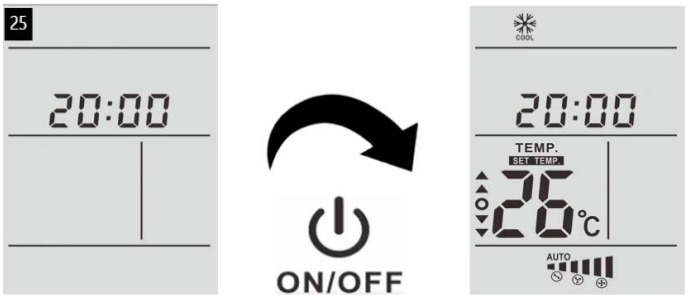
7.3.3 Instructions for remote control button



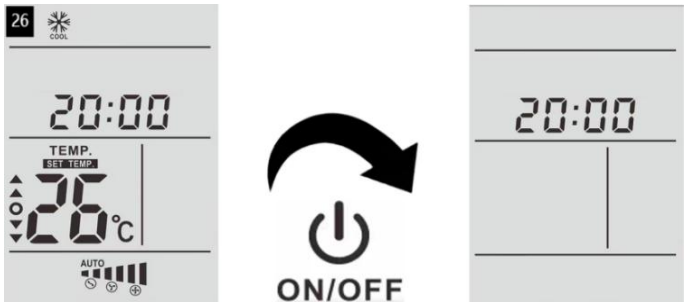
1.Mode display: Automatic/Cooling/Heating/Fan
2.Timing on display
3.Clock display
4.Temperature adjustment display, set temperature, unit Fahrenheit/Celsius
5.Wind speed display: low/medium/high/automatic
6.Signal emission display
7.Timing off display
8.Display light on display
9.ON/OFF
10.Temperature adjustment button
11.Timing button
12.Setting button
13.Touch switch lock button
14.Fan speed button
15.Flashlight button
16.Mode button
17.Time adjustment button
18.Timing on/off clear button
19.Fahrenheit/Celsius conversion button
20.Display board light display button
21.Cooling/heating quick conversion button

7.3.4 ON/OFF

Press ON/OFF of the remote control to turn on the air conditioner, as figure 25. At this time, the remote control display shows the operation mode, air speed and set temperature and the panel shows the operation mode and set temperature.

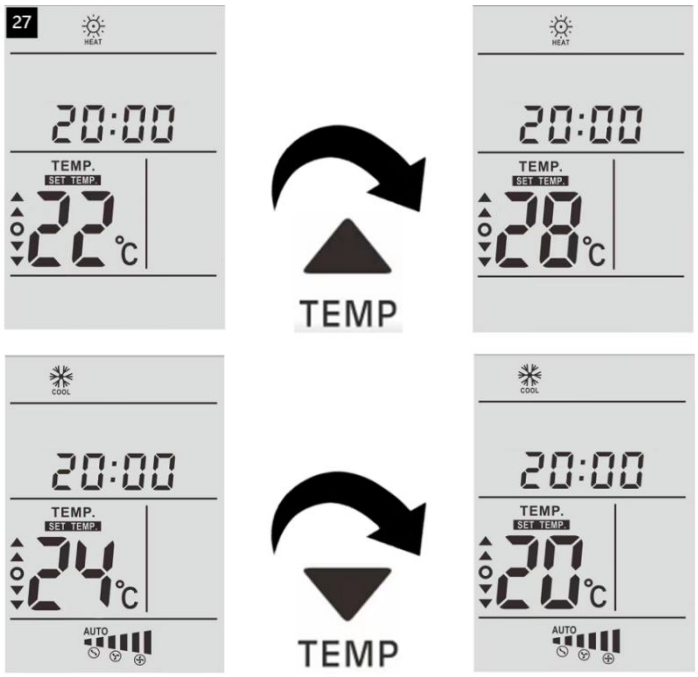


Press ON/OFF on the remote control again and the air conditioner will be turned off, as figure 26, only the clock will be displayed on the remote control display and the panel will be turned off with no display.



7.3.5 Adjustment of the set temperature

As figure 27,with the remote control is on, press TEMP or TEMP to adjust the set temperature.



7.3.6 Fan speed setting

As figure 28,When the remote control is powered, you can cycle through the low/mediu m/high/auto Fan speed every time you press the button FAN.

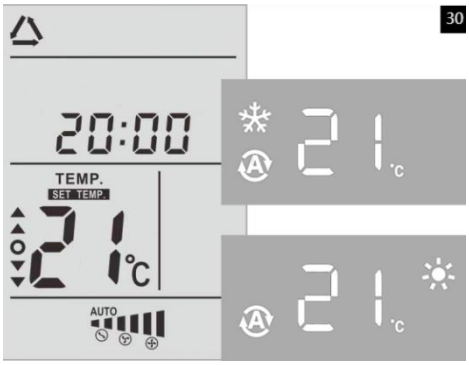
7.3.7 Operating mode setting

As figure 29,with the remote control is on, you can cycle through the desired operating mode every time you press MODE .

29

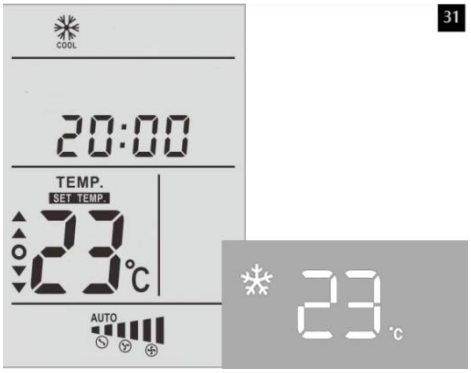
Automatic mode: the unit judges whether to run cooling or heating according to the difference between the set temperature and the temperature inside the RV. The set temperature and Fan speed can be manually adjusted with the indoor unit panel display on A and ❄ or A and ☀, as figure 30.

30

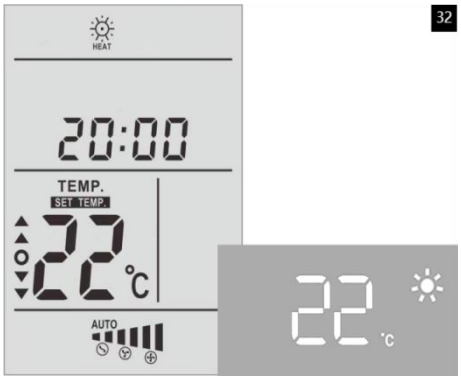


Cooling mode: The unit cools the RV. The set temperature and fan speed can be adjusted manually with the internal panel displaying ❄. The compressor will stop automatically when the temperature inside the RV is lower than the set temperature as shown on the panel of the indoor unit. The compressor can restart automatically once the temperature inside the RV exceeds the set temperature,as figure 31.

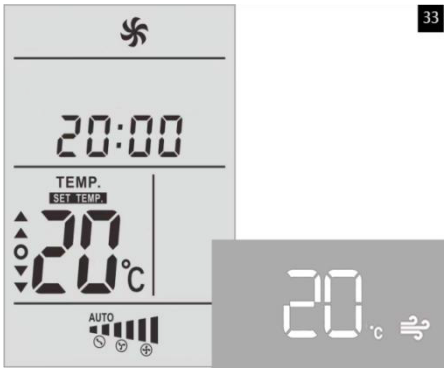
31



Heating mode: The unit heats the RV. The set temperature and fan speed can be adjusted manually with the internal panel displaying ☀. The compressor will stop automatically when the temperature inside the RV is higher than the stop temperature as shown on the panel of the indoor unit. The compressor can restart automatically once the temperature inside the RV is lower than the start temperature,as figure 32.

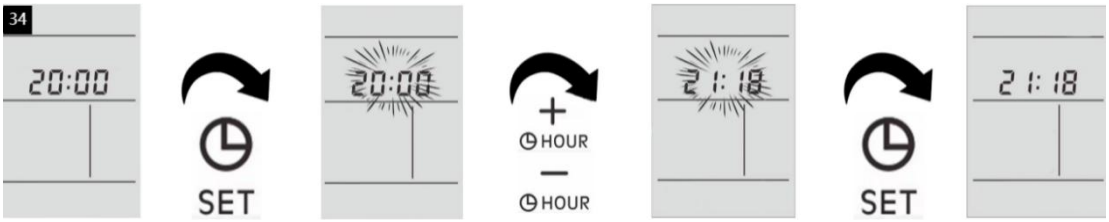


Fan mode: Only the internal fan of the unit works, and the fan speed can be selected manually. The indoor unit panel displays . Although it can be adjusted by setting the temperature, the temperature on the panel flashes and still shows the current temperature in the RV,as figure 33.



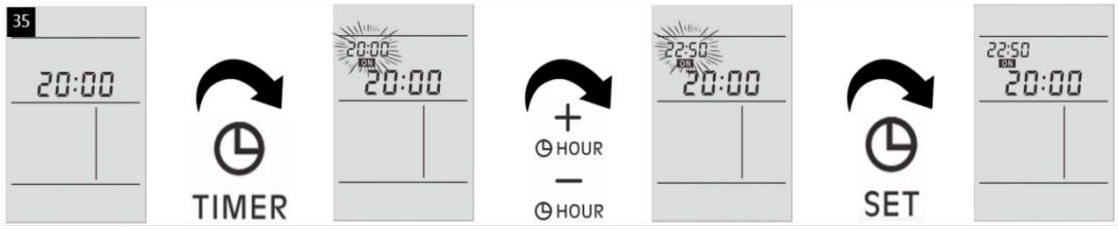
7.3.8 Clock setting

You can set the system time through the remote control. After inserting the batteries, press and hold down SET in the remote control until the system time number starts to flash, adjust the system time through +HOUR and −HOUR until it is the correct time and then press SET again,as figure 34. At this time, the time number will not flash anymore, which means that the clock is set. The clock can be set regardless of whether the remote control is on or off.

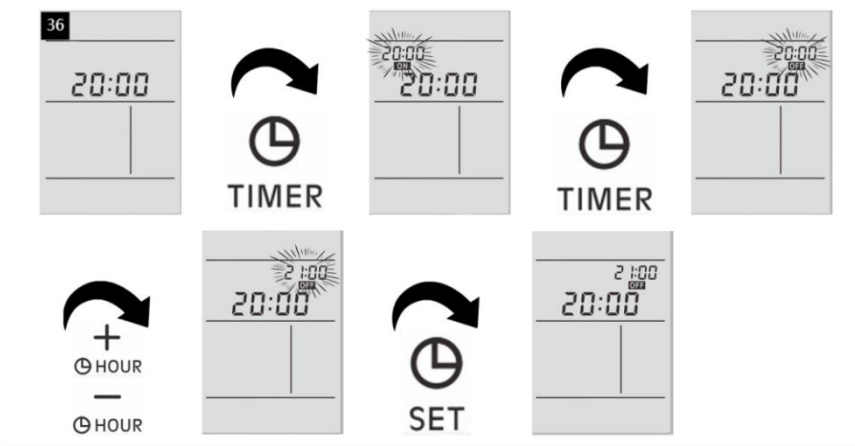


7.3.9 Timing on/off setting

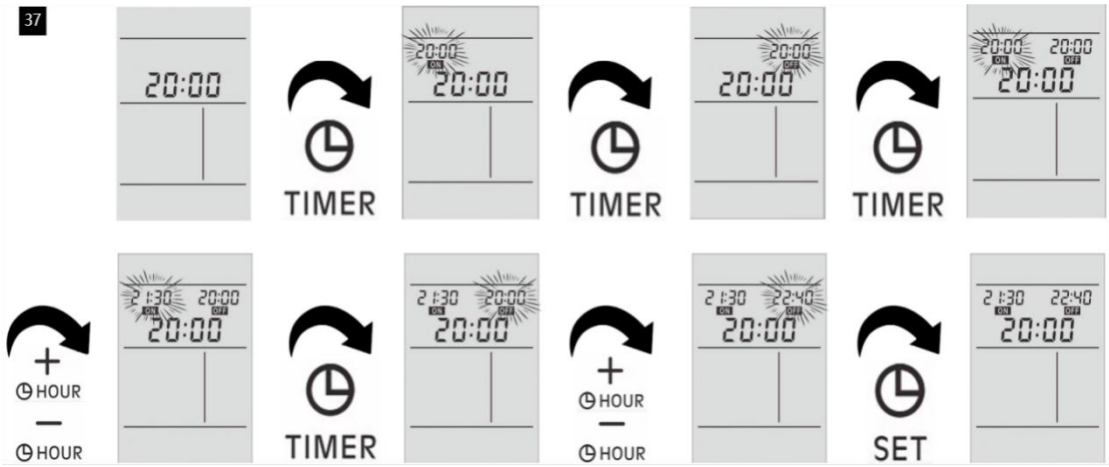
As figure 35,press TIMER on the remote control, and the ON time icon is activated and set the ON time with +HOUR and −HOUR .



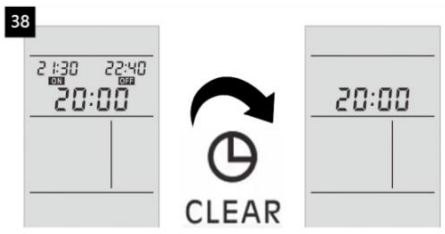
As figure 36,Press TIMER again, and the off time icon is activated, use and + HOUR to − HOUR set the off time after use. Press TIMER again to complete timing, press SET.



As figure 37,The minimum interval between on and off time settings is 10 minutes. The error between on/off time and set time is within 10 minute.

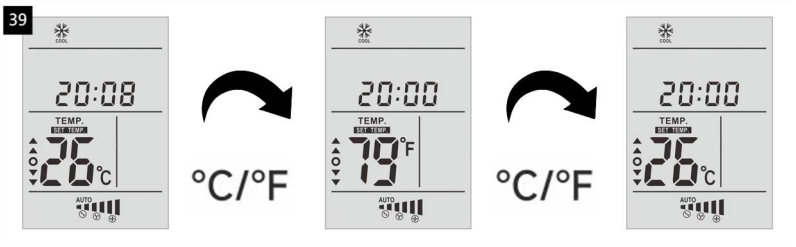


As figure 38,press CLEAR to cancel the timing on/off or replace the battery.



7.3.9 Fahrenheit/Celsius conversion

As figure 39,In the power-on state, in any mode, press ℃/℉ on the remote control to select Fahrenheit or Celsius. The indoor unit panel display also changes in synchronization with the remote control settings.



7.3.10 Panel display off

When the remote control is turned on, press the remote control light ON/OFF to turn on/off the control panel display.

7.3.11 Panel ON/OFF shielding

When the remote control is turned on, press the lock button to invalidate the control panel on/off button, and press it again to activate.

7.4 Panel display and operation

. Users can use the on/off button on the panel for basic operation of the air conditioner, which is very useful when the remote control is lost or malfunctioning.

. Press the on/off button on the panel. You can cycle through the settings among "Off->Cooling->Fan->Heating" modes to set the temperature at 24℃ and high speed air every time you press.

. When the temperature is lower than 0℃ in winter, the unit will be frosty during heating and the panel will display "dF", which is a normal phenomenon.

. Meaning of the panel display icons:switch , cooling , heating , auto , fan .

Tips:

. In case of very cold weather, the fan may start and stop automatically. This is normal so that the unit can defrost first before running agin. It is recommended to use other ways of heating at the same time if the heating effect is reduced.

. **The air-conditioner feature power cut memory and automatic starting up after power is restored.**

8 Maintenance

8.1 Cleaning

. Regularly remove dirt, leaves, etc. from the ventilation grille of the air conditioner, and do not damage the ventilation grille during the cleaning process.

. Clean the surfaces of the air conditioner's outdoor unit housing and indoor unit panel with water and a mild detergent.

. If you need to clean the heat exchanger of your air conditioner's outdoor unit, please contact a qualified professional cleaning company.

Tips:

. **Do not clean with sharp or hard objects.**
. **Do not spray into the openings of the unit with high pressure cleaners.**
. **Do not use hot cleaners or steam cleaners.**
. **Do not use gasoline, diesel fuel, solvents or reactive cleaners.**

8.2 Maintenance

. During the life of the air conditioner, the indoor unit filtes shall be inspected and cleaned regularly to prevent it from becoming clogged with dirt to ensure effective cooling and heating.

. Remove the filters from the indoor unit, then wash it with warm water and a mild detergent, and dry it before inserting it to reset.

. Check at least once a year to see whether the seal between the air conditioner and the roof is in good condition.

. Check at least once a year to see whether the fastening bolts between the outdoor unit and the roof are tightened to the proper torque (2.0 - 2.5N.m) and adjust if necessary.

. Check if the draining holes are blocked to avoid leaking into the RV.

9 Trouble shooting Guide

Problem	Cause	Corrective actions
If there is no display on the panel after the unit is on, the air conditioner does not work	Please check whether the power supply is properly connected to the RV and that the circuit breaker is disconnected.	Connect the power supply correctly and switch on the circuit breaker.
	Is the remote control turned on and is the battery sufficient?	Make sure the remote control is properly charged and powered on.
	Is the supply voltage too low?	Make sure that the supply voltage is within the permissible range.
Poor cooling effect	The air conditioner is not properly set for cooling mode.	Set to cooling mode.
	Ambient temperature is too high.	Move the RV to cooler conditions for work.
	The set temperature is higher than the ambient temperature.	Reduce the set temperature below the ambient temperature.
	The ambient temperature is below 16°C(60°F).	The RV air conditioner will only work in ambient temperature above 16°C(60°F).
	Damage to the evaporation fan or motor.	Please contact after-sales department for repair.
	Damage to the condenser fan or motor.	Please contact after-sales department for repair.
	The sensor is malfunctioning.	Please contact after-sales department for repair and replacement.
	Dirty and obstructed filters.	Clean the filters.
	Too high heat load.	Close the sun visor.
	The air outlet of the outdoor unit is obstructed or dirty	Remove the obstruction or dirt of the air outlet of the outdoor unit.
	Dirty and obstructed condenser	Please contact a qualified person or company to clean the condenser.

Poor heating effect	The RV air conditioner is not properly set for heating mode.	Set to heating mode.
	The temperature outside the vehicle is too low.	The RV air conditioners can only heat up effectively at ambient temperatures above 0℃(32℉).
	The set temperature is lower than the temperature inside the RV.	Set a higher operating temperature.
	Damage to the evaporation fan or motor.	Please contact after-sales department for repair.
	Damage to the condenser fan or motor.	Please contact after-sales department for repair.
The air output of the panel s too small	The air intake is obstructed or blocked	Clean the filter and remove the blockage.
	Evaporation fan or internal motor is malfunctioning	Please contact after-sales department for repair.
There is water in the vehicle	Blocked condensate drain opening	Remove dirt and condensation from the drain opening.
	Damage to the roof seals	Please contact after-sales department for repair.
The display reports E0	Communication fault	Please contact after-sales department for repair.
The display reports E1	The inner ambient temperature sensor is malfunctioning.	Please contact after-sales department for repair.
The display reports E2	The inner coil sensor is malfunctioning.	Please contact after-sales department for repair.
The display reports E3	The outer coil sensor is malfunctioning.	Please contact after-sales department for repair.
The display reports E4	Refrigerant is missing.	Please contact after-sales department for repair.
	The compressor does not work.	Please contact after-sales department for repair.
The display reports E5	Damage to the condenser fan or motor.	Please contact after-sales department for repair.
	Damage to the evaporation fan or motor.	Please contact after-sales department for repair.
	Dirty and obstructed condenser	Please contact a qualified person or company to clean the condenser.

Tips:

When contacting the after-sales department to diagnose a fault, please answer the following questions whenever possible:

. Are any error codes displayed?

. Is the monitor panel working properly? Can the temperature display be from 16 to 31°C (60 to 88°F) ?

. Is the temperature freely adjustable from 16 to 31 (60 to 88°F) when the unit is in cooling or heating mode?

. Does the display show a "0"?

. Does the display show garbled?

. Is it possible to switch among low, medium and high speed after the wind speed is set? Is there wind?

. Does the compressor work in cooling or heating mode?

This information you collect greatly assists the service team in correcting problems with the product - thank you!

10 Disposal

Please dispose of packaging materials in the appropriate recycling bins whenever possible. For detailed information on how to dispose of products according to the use of waste, please consult your local recycling center or specialist dealer.

Please take care of the environment! Do not dispose of batteries with general household waste. Be sure to dispose of defective or used batteries in accordance with hazardous waste sorting requirements.

11 Warranty

This product has a statutory warranty. In case of product failure, please contact your local distributor or retailer.

Please provide the following documents when sending the product for repair and warranty:

. Copy of the bill with the date of purchase.

. Cause of failure or elaboration.

. Product serial number (on the instruction manual, on the outdoor and indoor units of the product).

Self-repair or non-professional repairs may cause safety incidents and may void the warranty.

12 Technical Specifications

Model / Name	RRA1215-C
Power specification	115V~/60Hz
Cooling capacity	15000BTU/h
Heating capacity	14200BTU/h
Cooling input power	1380W
Heating input power	1150W
Cooling input current	13A
Heating input current	10.8A
Maximum input power	1650W
Maximum input current	15.0A
Maximum design pressure	550PSIG
Minimal design pressure	236PSIG
Maximum internal air volume	350CFM
Refrigerant charged	R32/600g(1.32lbs)
Net weight of outdoor /indoor unit	35.5/2.6(kg) 78.26/5.73(lbs)

Product dimensions	Outdoor unit	955×675×362mm(37.59"×26.57"×14.52")(see Figure 7)
	Indoor unit	555×504×55mm(21.85"×19.84"×2.16") (see Figure 7 and 8)
Maximum permissible inclination angle of the vehicle during operation		5°(=8,8%)
Normal operating temperature range		-5℃~50℃

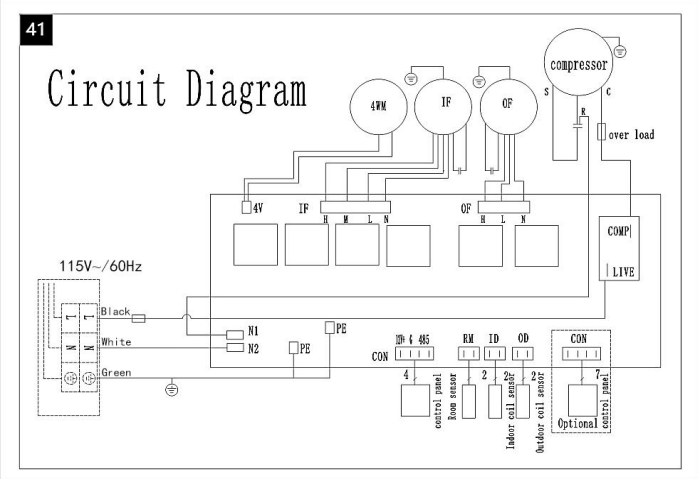
Tips:

1.The listed parameters are subject to change without notice and those on the nameplate of the product shall prevail.

2.All parameters of E&OE are for reference only, and we reserve the right to modify them.

Appendix 1: Product Wiring Diagram

RRA1215-C Wiring Diagram,as figure 41.

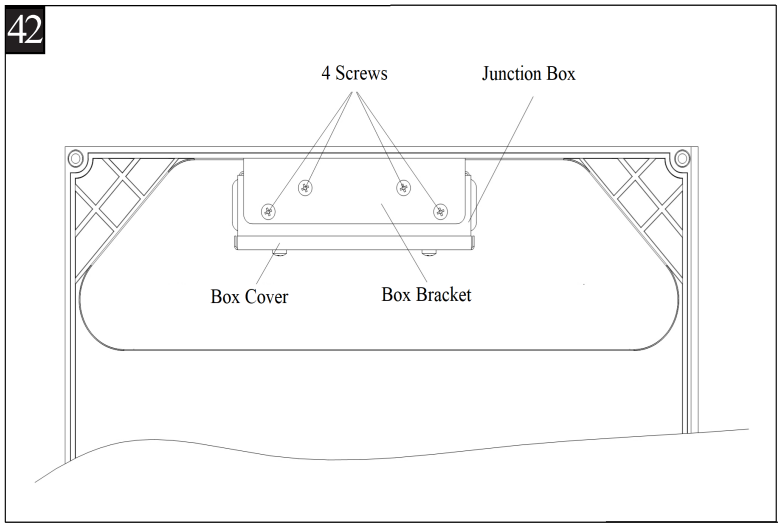


Tips: The wiring diagram is subject to change without notice, and the wiring diagram on the product shall prevail.

AppendixII:Instructions Of Power Supply Cord With Junction Box(For RRA1215-C Series)

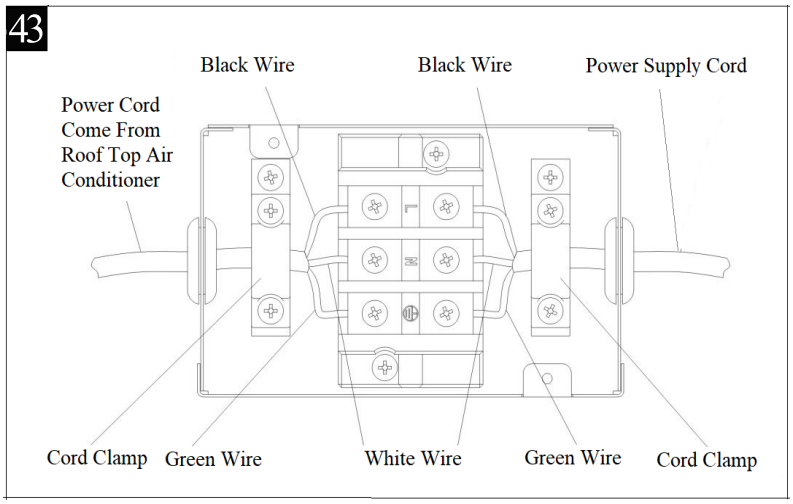
1.As figure 42,Remove the Junction Box from the box bracket (4 screws),open box cover and take the power cord and make it get into the box through the Cord Clamp.

42



2.As figure 43, Connect the power cord to the black,white and ground wires found in the junction box with a terminal block.CAUTION Connect black wire to black wire,white wire to white wire and green wire to earth.

43



3.Tighten the Cord Clamp to secure the supply power cord. DO NOT OVERTIGHTEN.Reinstall the box cover. Use 4 screws to fix the Junciton Box on the box bracket.

Renogy Support

To discuss inaccuracies or omissions in this quick guide or user manual, visit or contact us at:

renogy.com/support/downloads

contentservice@renogy.com

Questionnaire Investigation

To explore more possibilities of solar systems, visit Renogy Learning Center at:

renogy.com/learning-center

For technical questions about your product in the U.S., contact the Renogy technical support team through:

renogy.com/contact-us

1(909)2877111

For technical support outside the U.S., visit the local website below:

Canada | ca.renogy.com	China | www.renogy.cn
Australia | au.renogy.com	Japan | jp.renogy.com
Other Europe | eu.renogy.com	Germany | de.renogy.com
United Kingdom | uk.renogy.com	

Battery Recycling

The proper disposal and recycling of batteries are essential for environment protection and circular economy. We encourage correctly disposing of your batteries when they become depleted.

You can dispose your used batteries at any of Call2Recycle or Earth911 locations that accepts Renogy rechargeable Lithium-ion and Lead-acid batteries (AGM&GEL).

www.call2recycle.org/locator

search.earth911.com

Enjoy our community's incentive program when you properly dispose of your batteries. You can earn $20 gift cards to purchase any products on our website by participating. It's a simple way to be environmentally responsible and be rewarded for recycling.

renogy.com/support