# OWNER'S AND INSTALLATION MANUAL

## MOBILE HOME AIR CONDITIONER




ENGLISH

# WAVE

## HTW-VE-035V1

Thanks for choossing our product.
Please, read carefully this manual
before using the product

HTW
HIGH TECHNOLOGY WORLD

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- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
- Children shall not play with the appliance.
- Cleaning and user maintenance shall not be made by children without supervision.

# INSTALLATION PRECAUTION

## ⚠ WARNING:

- Observe all governing codes and ordinances.
- Do not use damaged or non-standard power cord.
- Be caution during installation and maintenance. Prohibit incorrect operation to prevent electric shock, casualty and other accidents.

## Working temperature range

Suggested working temperature range: +4 ~ 46℃. Outdoor unit may stop operation due to various kinds of protection within working temperature range.

## Selection of Installation Location

### Basic requirement

Installing the unit in the following places may cause malfunction. If it is unavoidable, please consult the local dealer:

1. The place with strong heat sources, vapors, flammable or explosive gas, or volatile objects spread in the air.
2. The place with high-frequency devices (such as welding machine, medical equipment).
3. The place near coast area.
4. The place with oil or fumes in the air.
5. The place with sulfureted gas.
6. Other places with special circumstances.

### Requirement of air conditioner

1. Air inlet should be far away from obstacles and do not put any objects near air outlet. Otherwise, it will affect the radiation of heat-removal pipe.
2. Select a location where the noise and outflow air emitted by the outddor unit will not affect neighborood.
3. Please try your best to keep far away from fluorescent lamp.
4. The appliance shall not be installed in the laundry.

## Requirements Forelectric Connection

### Safety precaution

1. Must follow the electric safety regulations when installing the unit.
2. According to the local safety regulations, use qualified power supply circuit.
3. For appliances with type Y attachment,the instructions shall contain the substance of the following.If the supply cord is damaged,it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
4. Properly connect the live wire, neutral wire and grounding wire of power socket.
5. Be sure to cut off the power supply before proceeding any work related to electricity and safety.
6. Do not put through the power before finishing installation.
7. The air conditioner is first class electric appliance. It must be properly grounding with specialized grounding device by a professional. Please make sure it is always grounded effectively, otherwise it may cause electric shock.
8. The yellow-green wire or green wire in air conditioner is grounding wire, which can't be used for other purposes.
9. The grounding resistance should comply with national electric safety regulations.
10. The appliance shall be installed in accordance with national wiring regulations

# A FEW WORDS ABOUT YOUR NEW AIR CONDITIONING UNIT

Thank you for choosing the Recreational Vehicle Air Conditioner.

This manual will supply you with all the information for installation, operation and maintenance.

Take a few minutes to discover how to get the most in cooling comfort and economic operation from your new air conditioner.

Please keep this manual well for future reference.

An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring.

# ELECTRICAL DATA

1. All wiring must be complied with local and national electrical codes. All wiring must be installed by qualified electricians. If you have any questions about the following instructions, contact a qualified electrician.

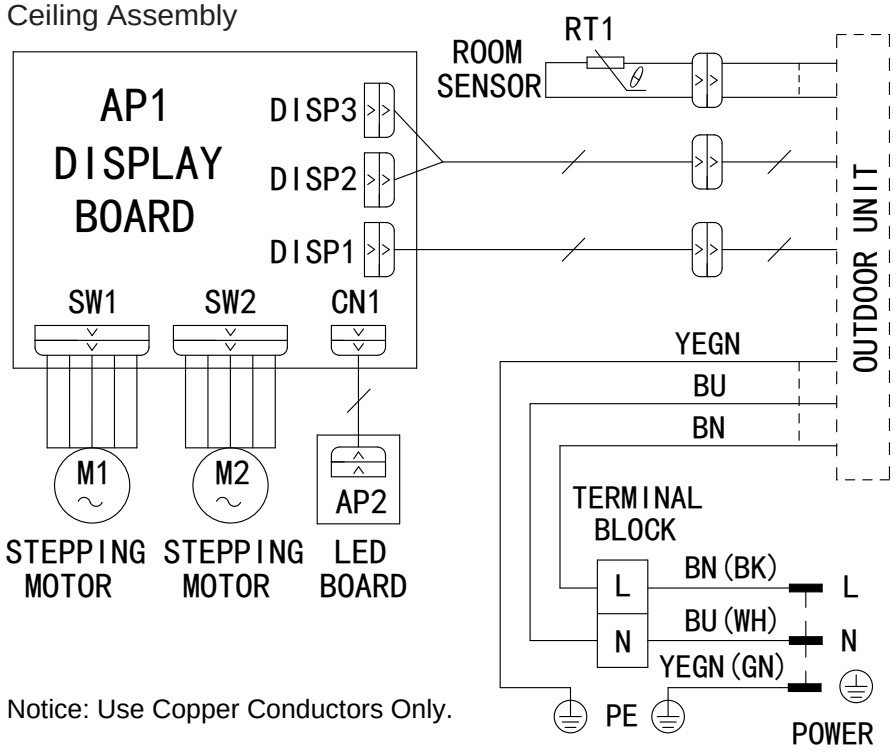
2. Check the available power supply and resolve any wiring problems BEFORE installing and operating this unit.

3. This air conditioner is designed to operate from a 220-240V AC, 50Hz, 1 Phase power supply.

4. The wiring diagrams are located on the cover of the control box. The assembly unit wire diagrams are located on the ceiling panel.

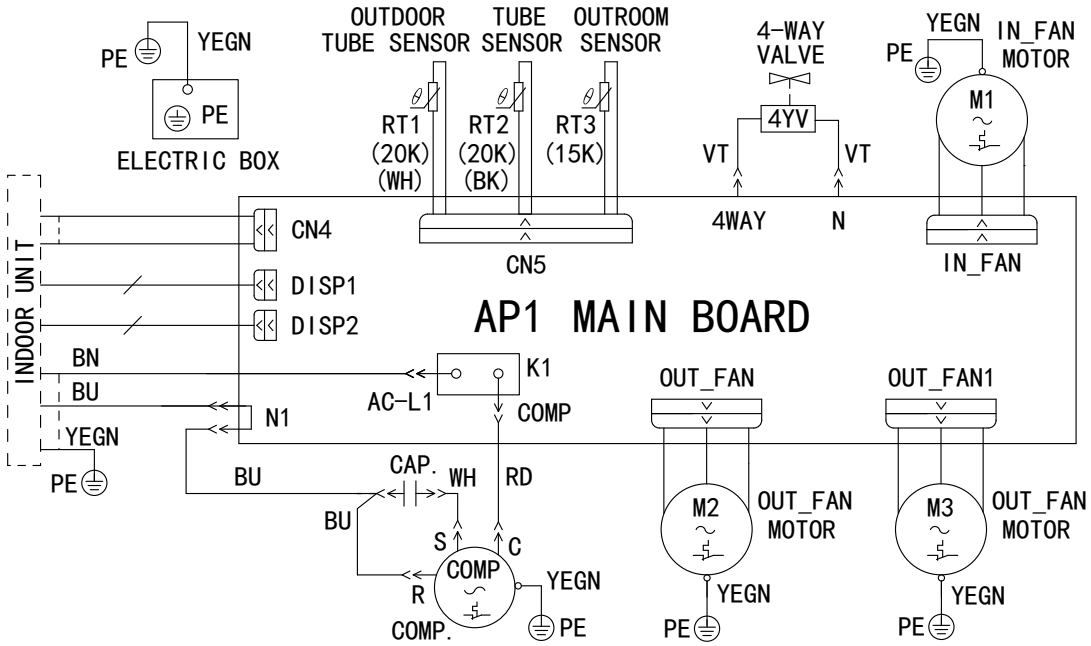
# ELECTRIC DIAGRAM

Ceiling Assembly



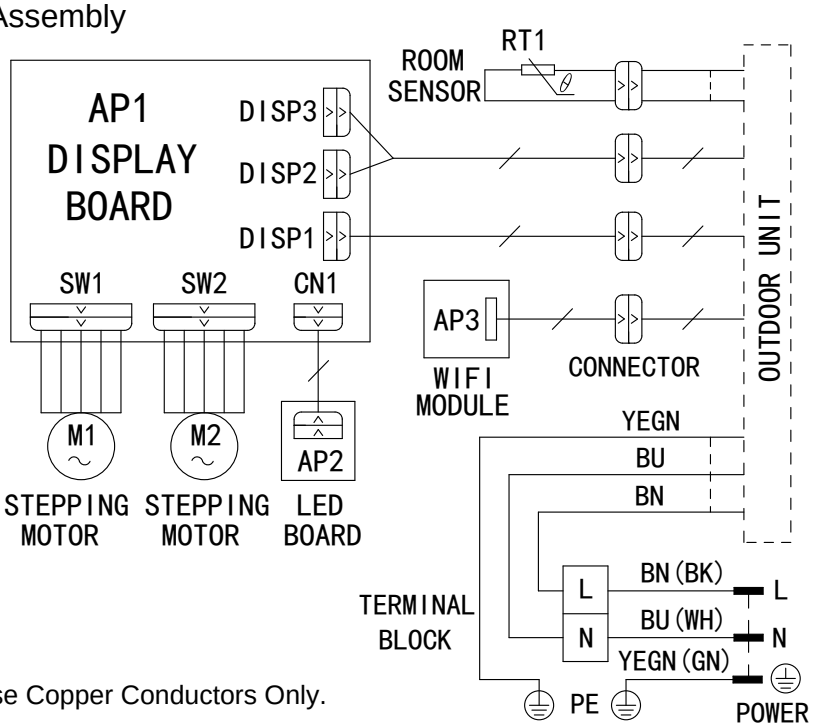

Notice: Use Copper Conductors Only.

Roof Top Air Conditioner



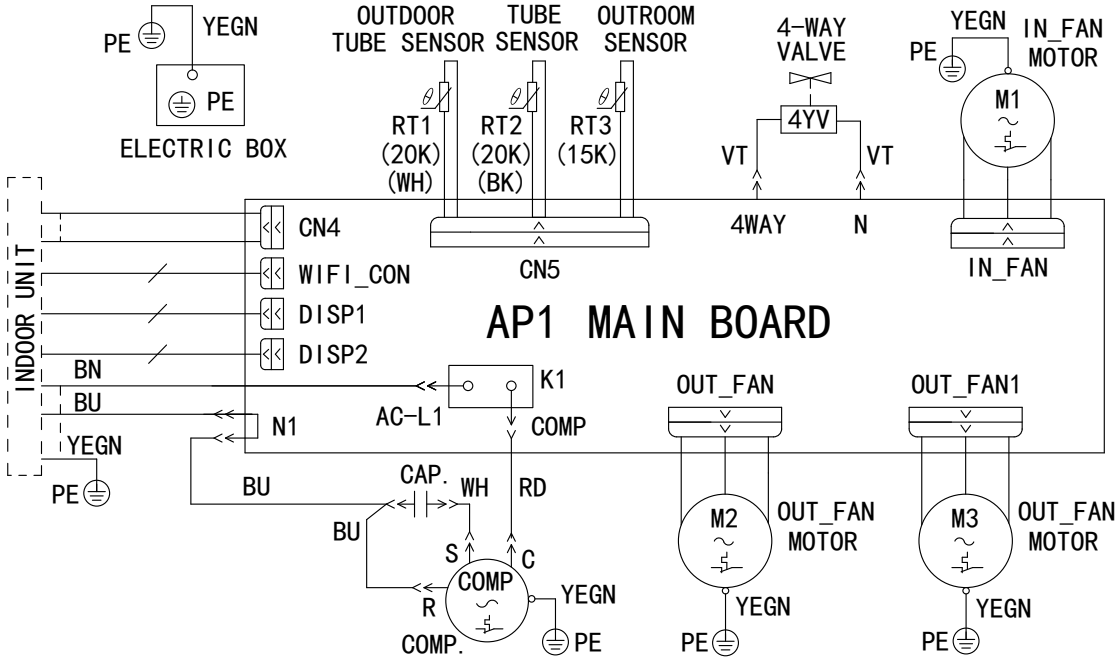
# ELECTRIC DIAGRAM
# GRH085DA-K3NA1A(WIFI)
# GRH120DA-K3NA1A (WIFI)

Ceiling Assembly



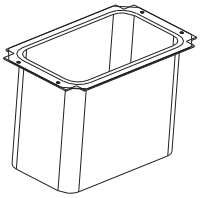
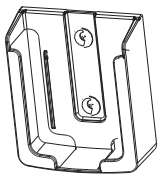
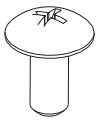
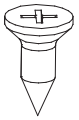
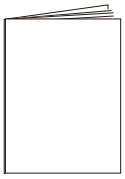
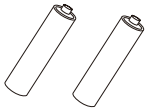
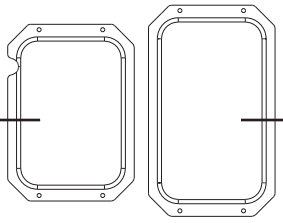
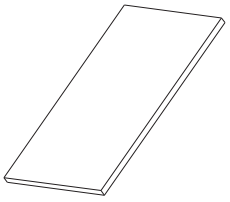

Notice: Use Copper Conductors Only.

Roof Top Air Conditioner

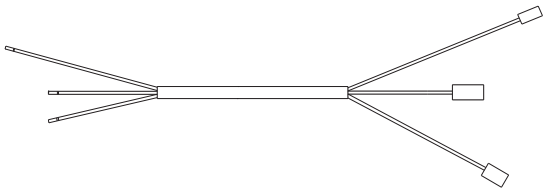
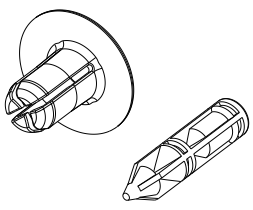


# PACKING LIST

## Packing List of Indoor Unit

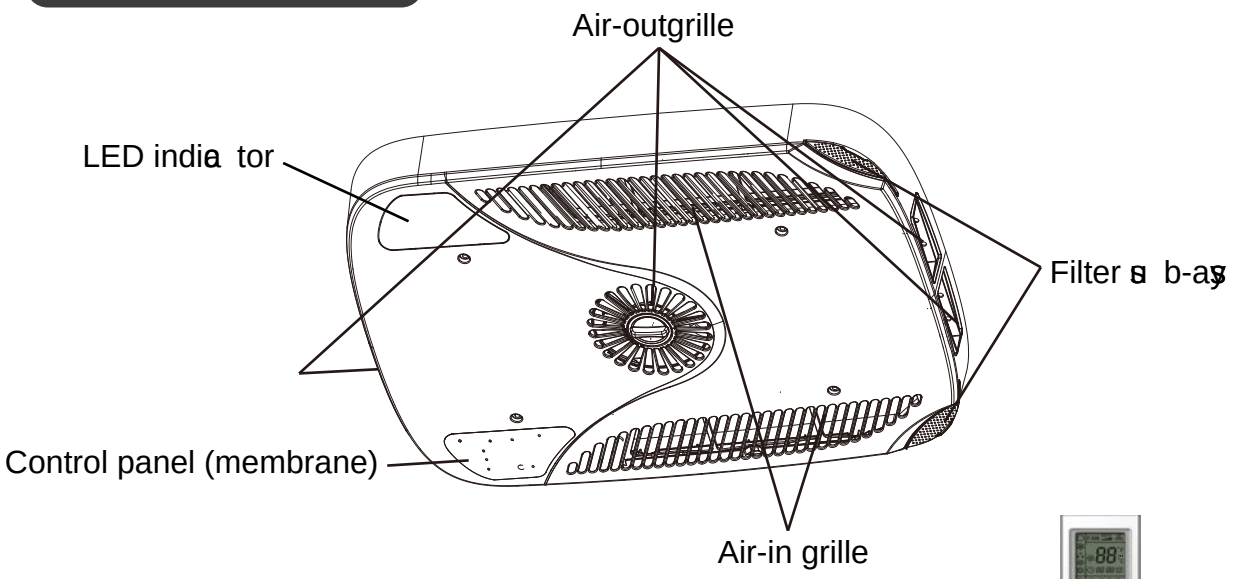
| | | | |
|---|---|---|---|
|  Bolt assembly M8X135 (4) |  sponge (air duct) |  remote controller |  Remote controller holder |
|  Tapping screw ST4.2X9.5 TA (8) |  Screw cap (6) |  Sunk screw (2) (remote controller holder) |  owner's manual |
|  battery (2) (AAA 1.5V) | use in indoor (bottom)  use in outdoor (upper) Plate of air vent | |  Double-sided gummed paper |

## Packing List of Outdoor Unit

| |
|---|
|  power supply circuit |
|  cap (10) |

# PARTS NAME

## Indoor Unit

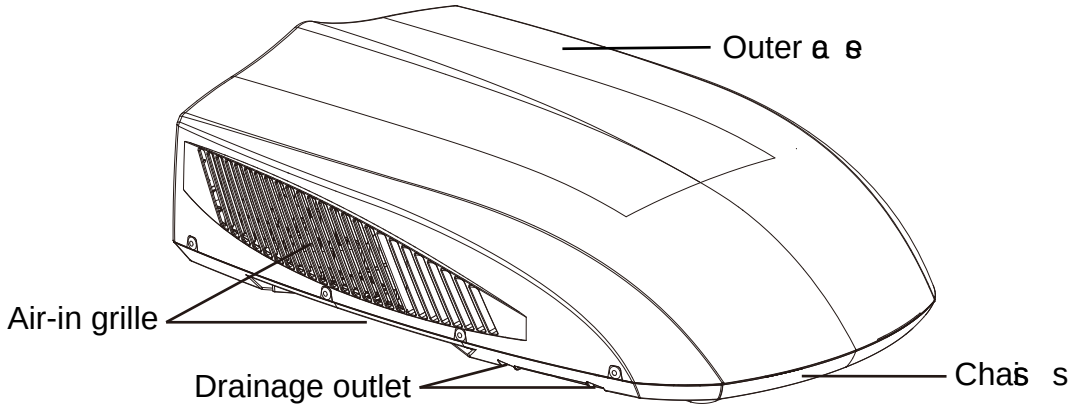



(Display content or position may be different from above graphics, please refer to actual products)



remote controller

## Outdoor Unit




***NOTICE:***

Actual product may be different from above graphics, please refer to actual products.

# OPERATION OF WIRELESS REMOTE CONTROLLER

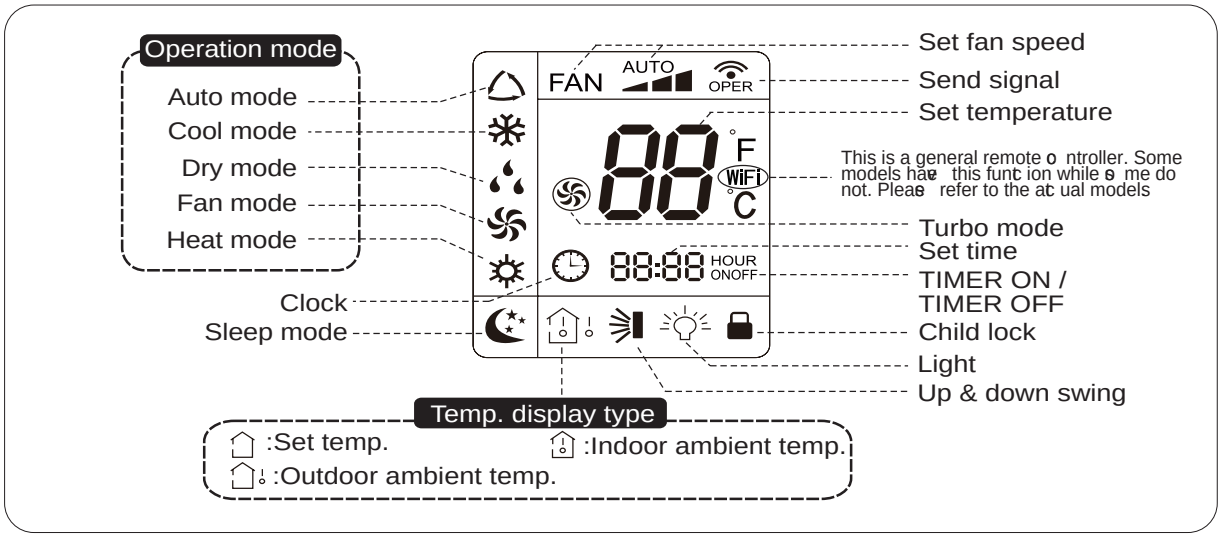
## ■ Buttons on remote controller

Note: This remote controller is the universal remote controller. Some function is not available for this unit.




1. ON/OFF button
2. MODE button
3. - button
4. + button
5. FAN button
6. button
7. CLOCK button
8. LED button
9. TIMER ON button
10. TEMP button
11. TIMER OFF button
12. TURBO button
13. SLEEP button
14. LIGHT button

## ■ Introduction for icons on display screen



## ■ Introduction for buttons on remote controller

Note:

● This is a general use remote controller, it could be used for the air conditioners with multifunction; For some function, which the model doesn't have, if press the corresponding button on the remote controller that the unit will keep the original running status.

● After putting through power, air conditioner will give out a sound and operation indicator "⏻" is ON (red indicator). You can operate the air conditioner through the remote controller.

● At ON status, after each pressing button on remote controller, the signal icon "((•))" on remote controller will flash once.Air conditioner will give out a sound,which indicates the signal has been sent to air conditioner.

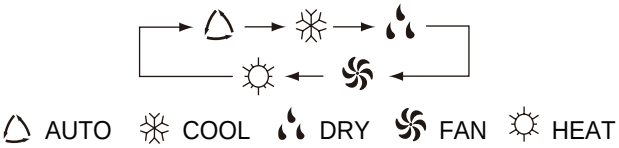
● Under off status, set temperature and clock icon will be displayed on the display of remote controller (If timer on, timer off and light functions are set, the corre-sponding icons will be displayed on the display of remote controller at the same time); Under on status, the display will show the corresponding set function icons.

### 1 ON/OFF button

Press this button, the unit will be turned on, press it once more, the unit will be turned off. When turning on or turning off the unit, the Timer, Sleep function will be canceled, but the presetting time is still remained.

### 2 MODE button

Press this button, Auto, Cool, Dry, Fan, Heat mode can be selected circularly. Auto mode is default while power on. Under Auto mode, the temperature will not be displayed; Under Heat mode, the initial value is 28℃(82℉); Under other modes, the initial value is 25℃(77℉).




(Only for cooling and heating unit. As for cooling only unit, it won't have any action when it receives the signal of heating operation.)

### 3 - button

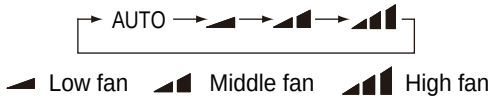
Presetting temperature can be decreased. Press this button, the temperature can be set up, continuously press this button and hold for two seconds, the relative contents can quickly change, until unhold this button and send the order that the℃(℉) signal will be displayed all the time. The temperature adjustment is unavailable under the Auto mode, but the order can be sent by if pressing this button.

### 4 + button

For presetting temperature increasing. Press this button, can set up the temperature, when unit is on. Continuously press and hold this button for more than 2 seconds, the corresponding contents will be changed rapidly, until unpress the button then send the information, ℃(℉) is displlaying all along. In Auto mode, the temperature can not be set up, but operate this button can send the signal. Centigrade setting range: 16-30; Fahrenheit scale setting range 61-86.

## 5 FAN button

Press this button, Auto, Low, Middle, High speed can be circularly selected. After powered on, Auto fan is not available for this mode. When pressing AUTO button, the fan speed will not change.

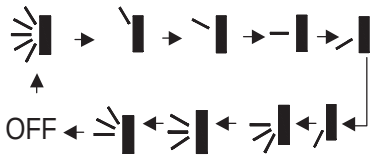



Note: Under the Dry mode, the fan speed isn't adjustable, low fan speed is imperative, but when operating this button, the wireless adjustable, low fan speed is imperative.

## 6 button

Press this button turn on swing function; 4s later, press this button to turn off the swing and it will operate like that circularly.

Other air conditioners, press this button, to set up swing angle, which circularly changes as below:




This is an universal use remote controller. If remote controller sends the following three kinds of status that the swing status of main unit will be:



When the guide louver start to swing up and down, if turn off the Swing, the air guide louver will stop at current position.

which indicates the guide louver swings up and down between that all five positions.

## 7 CLOCK button

Press this button, the clock can be set up, signal blink and display. Within 5 seconds, the value can be adjusted by pressing + or - button, if continuously press this button for 2 seconds above, in every 0.5 seconds, the value on ten place of Minute will be increased 1. During blinking, repress the Clock button, signal will be constantly displayed and it denotes the setting succeeded. After powered on,12:00 is defaulted to display and signal will be displayed. If there is signal be displayed that denotes the current time value is Clock value, otherwise is Timer value.

## 8 LED button

Press this button can turn on or turn off the LED light on the panel.

## 9 TIMER ON button

Timer On setting: Signal “ON” will blink and display, signal will conceal, the numerical section will become the timer on setting status. During 5 seconds blink, by pressing + or - button to adjust the time value of numerical section, every press of that button, the value will be increased or decreased 1 minute. Hold pressing + or - button, 2 seconds later, it

quickly change, the way of change is: During the initial 2.5 seconds, ten numbers change in the one place of minute, then the one place is constant, ten numbers change in the tens place of minute at 2.5 seconds speed and carry. During 5s blink, press the Timer button, the timer setting succeeds. The Timer On has been set up, repress the timer On button, the Timer On will be canceled. Before setting the Timer, please adjust the Clock to the current actual time.

## 10 TEMP button

Press this button, could select displaying the indoor setting temperature or indoor ambient temperature. When the indoor unit firstly power on it will display the setting temperature, if the temperature's displaying status is changed from other status to " ", displays the ambient temperature, 5s later or within 5s, it receives other remote control signal that will return to display the setting temperature. if the users haven't set up the temperature displaying status, that will display the setting temperature. (This function is applicable to partial of models)

After powered on, the setting temperature displaying is defaulted, (according to customers requirements to display, if there is no requirement that will default to display the presetting temperature and there is no icon displayed on wireless remote control). Press this button, (When displaying ), will display presetting temperature; (when displaying ) will display indoor ambient temperature, current displaying status will not be changed. If current displays indoor ambient temperature, if received the other remote control signal, it will display presetting temperature, 5s later, will back to display the ambient temperature.
(This function is applicable to partial ofmodels)

## 11 TIMER OFF button

Once press this key to enter into TIMER OFF setup, in which case the TIMER OFF icon will blink.
The method of setting is the same as for TIMER ON.

## 12 TURBO button

In Cool or Heat mode, press this button can turn on or turn off the Turbo function. After turned on the Turbo function, its signal will be displayed. When switching the mode or changing fan speed, this function will be canceled automatically.

## 13 SLEEP button

Press this button, Sleep On and Sleep Off can be selected. After powered on, Sleep Off is defaulted. After the unit is turned off, the Sleep function is canceled. After Sleep function set up, the signal of Sleep will display.In this mode, the time of timer can be adjusted. Under Fan and Auto modes, this function is not available.

## 14 LIGHT button

Press this button to select LIGHT on or off in the displayer. When the LIGHT on is set, the icon will be displayed and the indicator light in the displayer will be on. When the LIGHT off is set, the icon will be displayed and the indicator light in the displayer will be off.

# ■ Introduction for special function

### About AUTO RUN

When AUTO RUN mode is selected, the setting temperature will not be displayed on the LCD, the unit will be in accordance with the room temp. automatically to select the suitable running method and to make ambient comfortable.

### About turbo function

If start this function, the unit will run at super-high fan speed to cool or heat quickly so that the ambient temp. approachs the preset temp. as soon as possible.

### About Blow over heat (This function is applicable to partial of models)

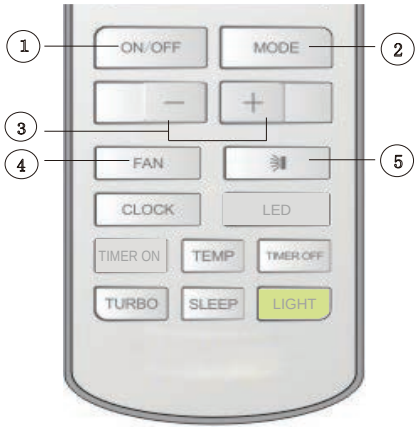
When the unit is running in Heat mode or Auto Heat mode, compressor and indoor fan is running, to turn the unit off, the compressor, outdoor fan will stop running. The upper and lower guide board rotate to horizontal position, then the indoor fan will run at low fan speed, 10s later, the unit will turn off.

### WIFI Function

Press "MODE" and "TURBO" button simultaneously to turn on or turn off WIFI function. When WIFI function is turned on, the " WiFi " icon will be displayed on remote controller; Long press "MODE" and "TURBO" buttons simultaneously for 10s, remote controller will send WIFI reset code and then the WIFI function will be turned on. WIFI function is defaulted ON after energization of the remote controller. (This function only applicable for some models. )

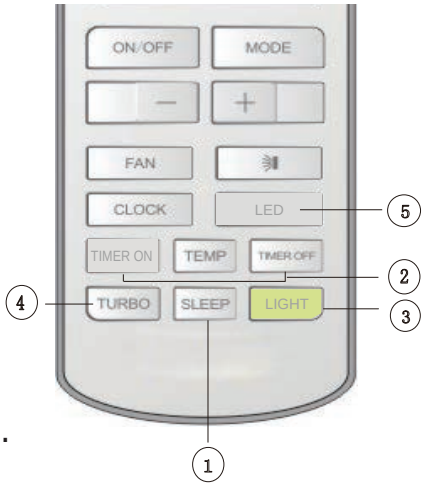
# ■ Operation guide

## General operation




1. After powered on, press ON/OFF button, the unit will start to run. (Note: when it is powered on, the guide louver of main unit will close automatically.)
2. Press MODE button, select desired running mode.
3. Pressing + or - button,to set the desired temperature. (It isunnecessary to set the temp. at AUTO mode.)
4. Pressing FAN button, set fan speed, can select LOW, MID and HIGH.
5. Pressing button, to select the swing.

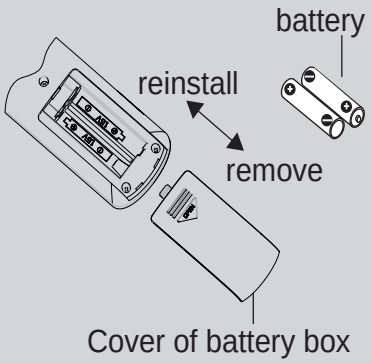
## Optional operation




1. Press SLEEP button, to set sleep.
2. Press TIMER ON and TIMER OFF button, can set the scheduled timer on or timer off.
3. Press LIGHT button, to control the on and off of the displaying part of the unit (This function may be not available for some units).
4. Press TURBO button, can realize the ON and OFF of TURBO function.
5. Press LED button,can open or close the light on the panel.

## ■ Replacement of batteries in remote controller

1. Press the back side of remote controller marked with "OPEN", as shown in the fig, and then push out the cover of battery box along the arrow direction.
2. Replace two 7# (AAA 1.5V) dry batteries, and make sure the position of "+" polar and "-" polar are correct.
3. Reinstall the cover of battery box.

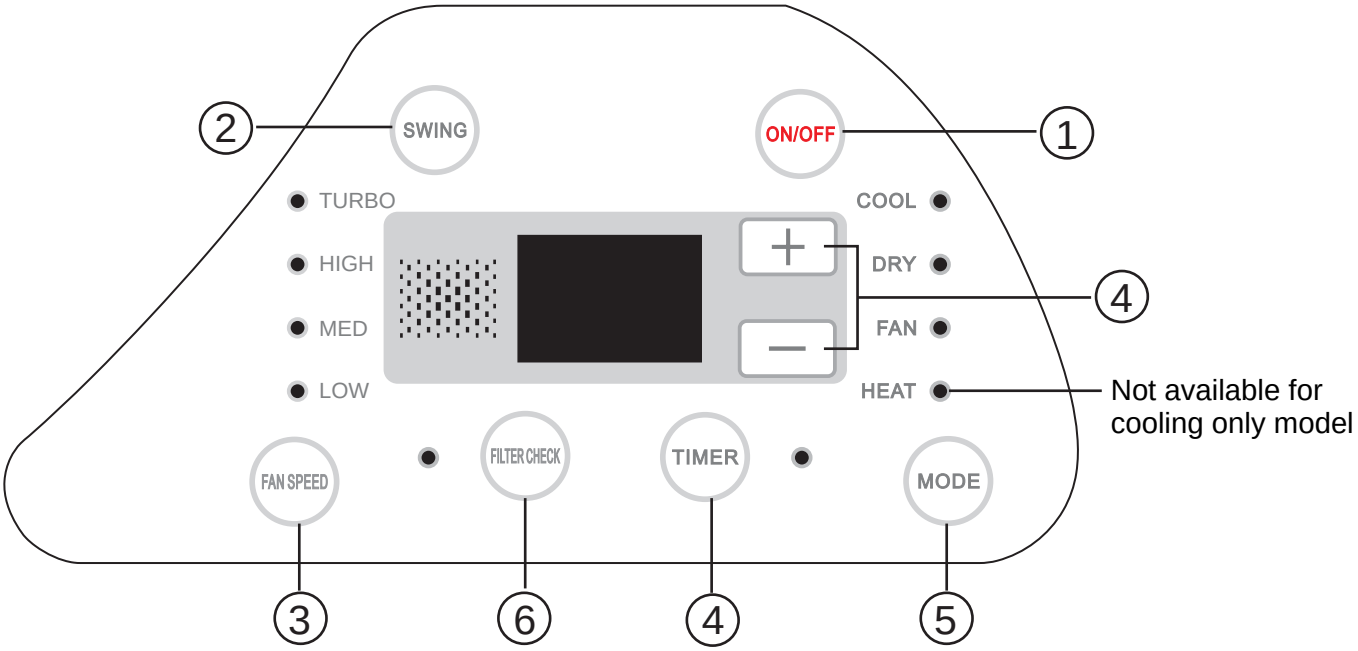



**NOTICE**

- During operation, point the remote control signal sender at the receiving window on indoor unit.
- The distance between signal sender and receiving window should be no more than 8m, and there should be no obstacles between them.
- Signal may be interfered easily in the room where there is fluorescent lamp or wireless telephone; remote controller should be close to indoor unit during operation.
- Replace new batteries of the same model when replacement is required.
- When you don't use remote controller for a long time, please take out the batteries.
- If the display on remote controller is fuzzy or there's no display, please replace batteries.

# CONTROL PANEL

Note: If the remote controller is missing, operate on the control panel.




### 1 ON/OFF button

Operation starts when pressing this button, and stops when pressing this button again.

### 2 SWING button

Activate the automatic air swing function.

### 3 FAN SPEED button

Select the fan speed LOW, MED, HIGH and TURBO in sequence.

### 4 (+/-) / TIMER button

Press the + button to increase the set(operating) temperature of the unit,and press the - button to decrease the set(operating) temperature of the unit. the temperature setting range is from 16~30℃ (61~86℉).

Press TIMER button,then press +/- to increase and decrease the time setting.If the time setting is no more than 10 hours,the increment/decrement is 0.5 hour by each press,if more than 10 hours, the increment/decrement is 1 hour by each press. The time setting range is 0.5~24 hours.

### 5 MODE button

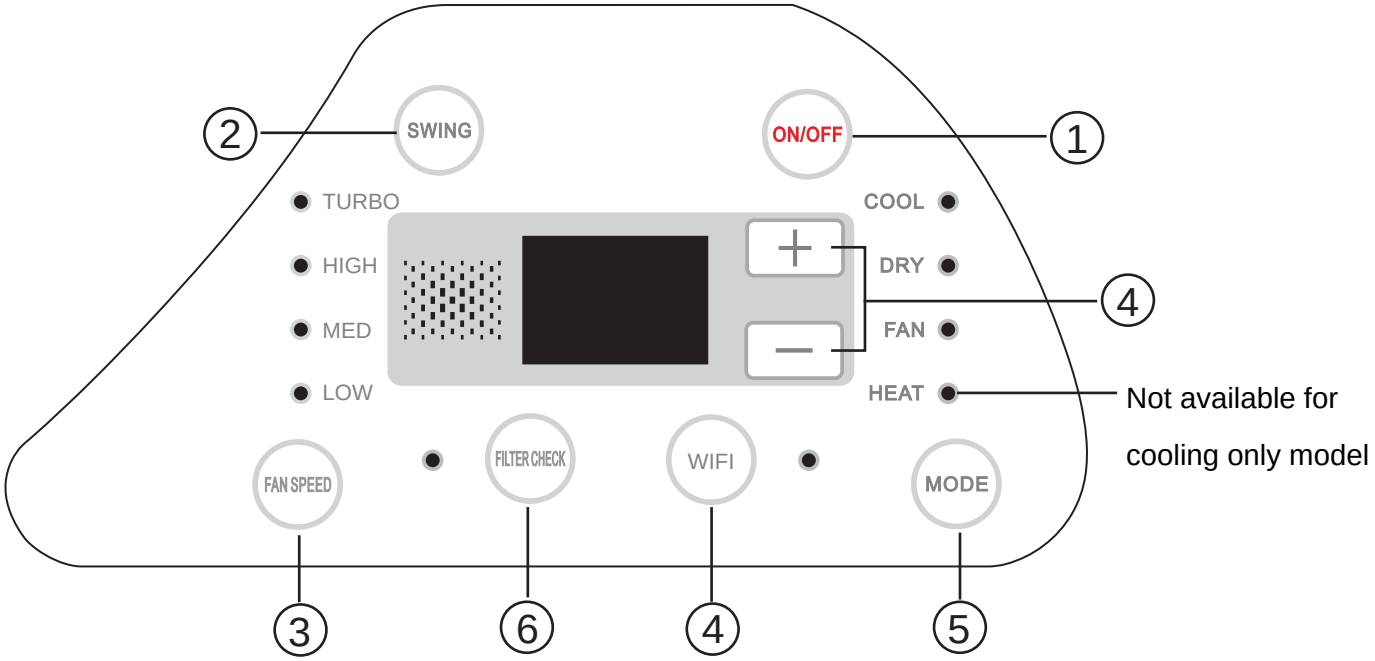
Select the operation mode, COOL, DRY, FAN, HEAT (for heat pump model) or COOL, DRY, FAN (for cooling only model).

### 6 FILTER CHECK button

This feature is a reminder of cleaning the air filter(normal maintenance) for more efficient operation. The light will turn on automatically after the fan works more than 250 hours. If the light is on, turn off and power off the unit, take the air filter out and clean it, then re-install the air filter, power on and turn on the unit, the light will still be on, press FILTER CHECK button,the light will turn off.

# CONTROL PANEL
# GRH085DA-K3NA1A(WIFI)
# GRH120DA-K3NA1A (WIFI)

Note: If the remote controller is missing, operate on the control panel.




1 ON/OFF button

Operation starts when pressing this button, and stops when pressing this button again.

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4 (+/-) / WIFI button

Press the + button to increase the set(operating) temperature of the unit,and press the - button to decrease the set(operating) temperature of the unit. the temperature setting range is from 16~30℃ (61~86℉).

Press WIFI button to turn on or turn off WIFI function. When WIFI function is turned on, the wifi light will be displayed. (The function only applicable for some models. )

5 MODE button

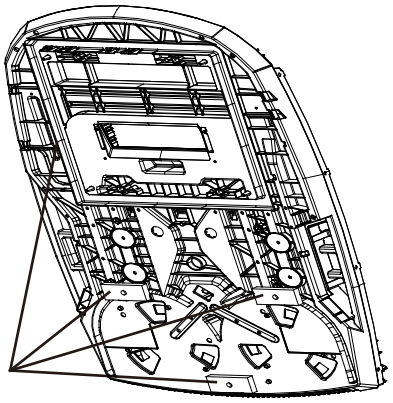
Select the operation mode, COOL, DRY, FAN, HEAT (for heat pump model) or COOL, DRY, FAN (for cooling only model).

6 FILTER CHECK button

This feature is a reminder of cleaning the air filter(normal maintenance) for more efficient operation. The light will turn on automatically after the fan works more than 250 hours. If the light is on, turn off and power off the unit, take the air filter out and clean it, then re-install the air filter, power on and turn on the unit, the light will still be on, press FILTER CHECK button,the light will turn off.

# INSTALLATION INSTRUCTION

## BEFORE INSTALLATION



Testrun the unit with proper power supply. Refer to the operation instruction section in the Owner's Manual Operation & Installation. Make sure all the controls operate correctly then disconnect the power supply of the unit.

- Before installation, please check whether the unit is assembled with three pieces of rubber pads and square sealing strip.

## ⚠ WARNING

Moving parts may cause personal injury. Be careful when test the unit. Do not operate the unit with exterior cover removed.

## STEP 1-SELECTING AN INSTALLATION LOCATION & INSTALLING THE ROOF TOP AIR CONDITIONER

Your air conditioner has been designed for use in recreational vehicles.

Check the roof of the vehicle to determine if it can support both the roof top unit and the ceiling assembly without additional support. Make sure the interior ceiling mounting area will not interfere with existing structures.

Once the location for your air conditioner has been determined. A reinforced and framed roof hole opening must be cut (if there is no hole) or you may use existing vent holes.

## CASE A.

If a roof vent is already present in the desired mounting location for the air conditioner, the following steps must be performed:

1. Remove all screws which secure the roof vent to the vehicle. Remove the vent and any additional trim. Carefully remove all chalking from around the opening so the surface is clear.
2. It may be necessary to seal some of the old roof vent mounting screw holes which may fall outside of the air conditioner basepan gasket.
3. Examine the roof opening size, if the opening is small than 356x356mm, the opening must be enlarged. If the opening exceeds 356x356mm, a mounting plate (frame) must be fabricated to reduce the opening size (See Figure 1).

## CASE B.

If a roof vent opening is not used,a new opening(see figure 1)will be cut into the vehicl roof. A matching opening will also have to be cut into the interior vehicle ceiling,be careful when cutting the ceiling opening because if the ceiling opening is carpeted,snagging could occur. After the opening in the roof and interior ceiling are the correct size,a framed support structure must be placed between the exterior roof top and interior ceiling.The reinforced framed structure must follow the follwing guidelines:

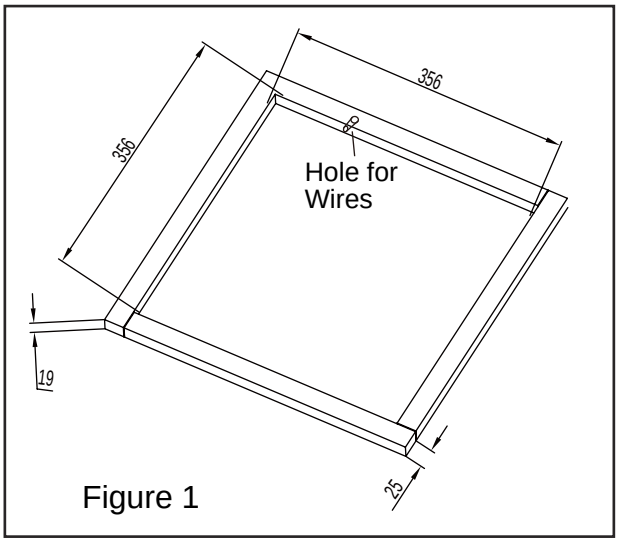


Figure 1

1. It must be capable of supporting both the weight of the roof top air conditioner and the interior ceiling assembly.

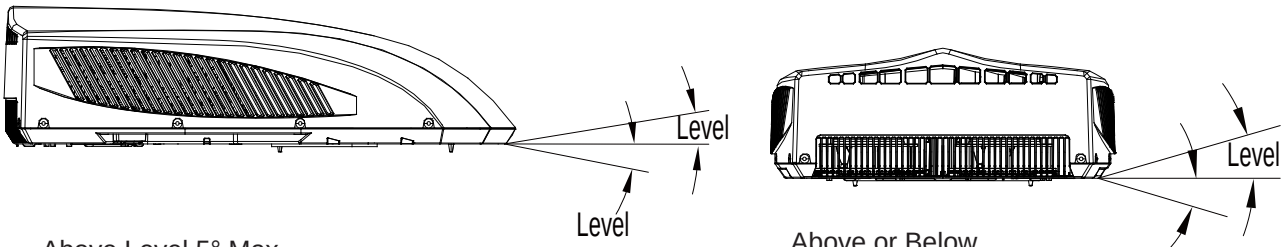
2. It must be capable of holding the roof outer surface and interior ceiling apart and supporting them, so that when the roof top air conditioner and ceiling assembly are bolted together,no collapsing occurs. A typical support frame is shown in Figure 1.

3. There must be an opening through the frame for the power supply wiring.Route the supply wiring through the frame at the same time the support frame is being installed.

## CAUTION

1. The roof top air conditioner must be mounted on a level plane from front to rear and side to side when the vehicle is parked on a level plane. Figure 2 shows maximum allowable degrees that the unit can be mounted above or below level.
2. If the roof of the vehicle is sloped (not level) such that the roof top air conditioner cannot be mounted within the maximum allowable degree specifications, an exterior leveling shim will need to be added to make the unit level. A typical leveling shim is shown in Figure 3.
3. Once the roof top air conditioner has been leveled, some additional shimming may be required above the interior ceiling assembly. The roof top air conditioner and the interior ceiling assembly must be square with each other before they are secured together.
4. After the mounting hole area is properly prepared, remove the carton and shipping pads from around the roof top air conditioner. Carefully lift the unit on top of the vehicle. Do not use the outer plastic shroud for lifting. Place the roof top air conditioner over the prepared mounting hole.
5. The point end (nose) of the shroud must face toward the front of the vehicle.

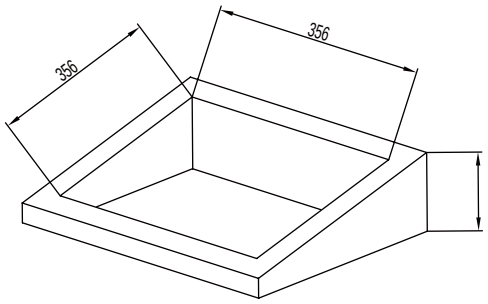
Note: Try you best to put the unit on the horizontal surface for operation. The unit can only operate for a short time at the maximum sloping angle of 5º for preventing water leakage.




Above Level 5° Max
Below Level 0° Max

Figure 2

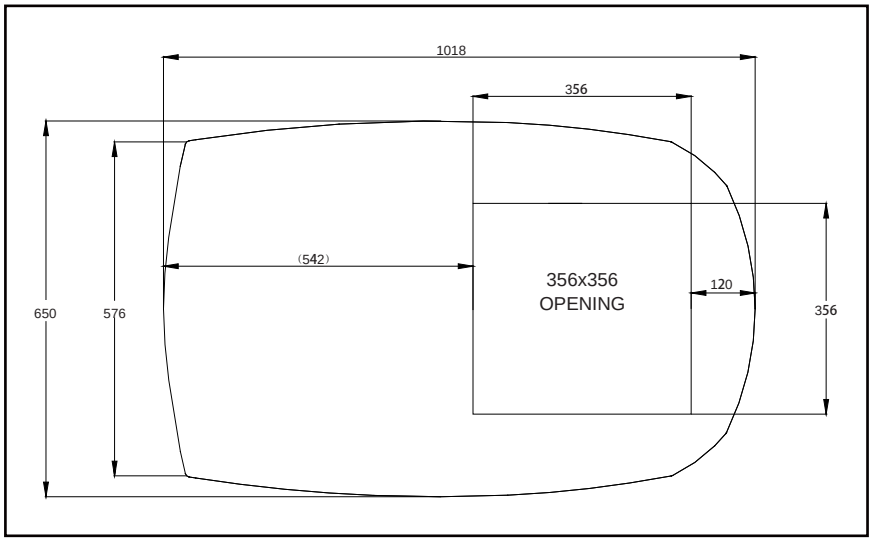
Above or Below
Level 5° Max




Height Varies to Make Unit Level

Figure 3

# NOTE AIR CONDITIONER DIMENSIONS (ROOF OF UNIT)



# STEP 2-MOUNTING OUTDOOR UNIT

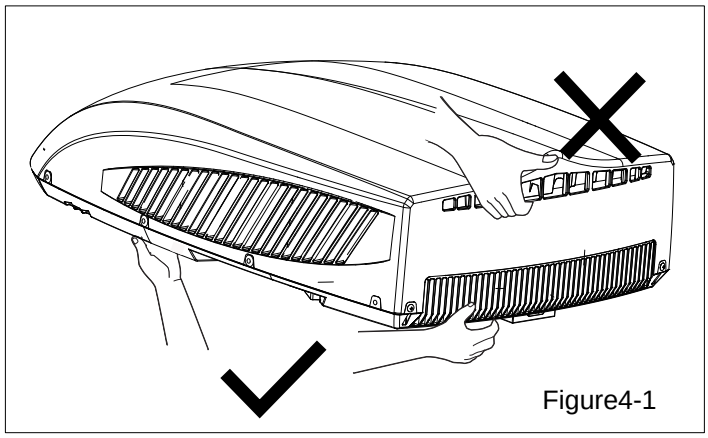


Figure4-1

1.Open the package and take out the outdoor unit

1) When taking out the outdoor unit after unpacking, do not lift the air outlet grille at the back of outer case (see Figure4-1).

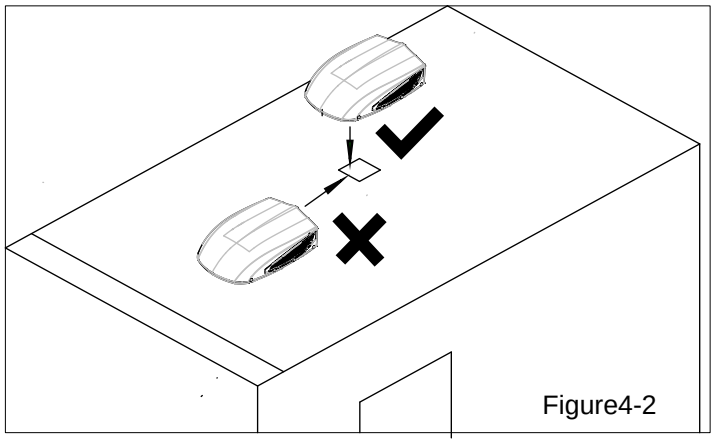


Figure4-2

2.Fix the outdoor unit at the roof of vehicle and then drill holes.

1) Place the outdoor unit at the roof of vehicle; lift the outdoor unit and then place the outdoor unit after drilling holes at the roof of vehicle. Do not drag the outdoor unit. Otherwise, the sealing strip may fall off (see Figure4-2).

# STEP 3-INSTALLING THE CEILING ASSEMBLY

Make sure that you have properly matched the roof top air conditioner and interior ceiling assembly.Caution before tightening bolts:

1.The applicable thickness of vehicle roof ranges from 30mm~80mm.

2.Before tightening bolts, screw in the four bolts manually and prohibit screwing forcibly.

3.When screwing bolts, you can use automatic tool. Do not tighten one bolt completely and then tighten other bolts, in order to prevent sticking of screw thread.

4.The max torque for tightening ranges from 2.3Nm~2.5Nm.

The following step by step instructions must be performed in the following sequence to ensure proper installation.

1. Carefully take the ceiling assembly out of the carton (The remote control packed with the ceiling assembly).
2. Remove the ceiling grille from the ceiling assembly.
3. Before the ceiling assembly can be mounted to the roof top air conditioner, the fabric duct collar must be fastened to the basepan of the roof top air conditioner with 4 screws by upper duct plate (see Figure 5-2、Figure 6-1、Figure 5、Figure 5-1).
4. Before lifting the ceiling assembly, pull the fabric duct collar so it hangs out of the way and does not get caught under the ceiling assembly frame.

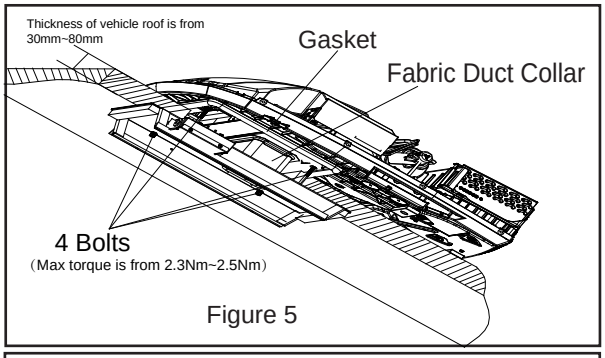


Figure 5

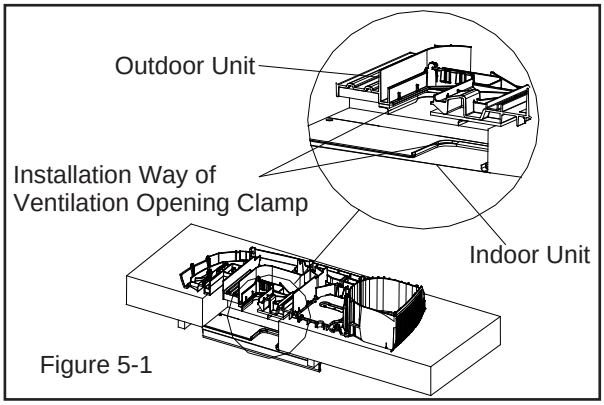


Figure 5-1

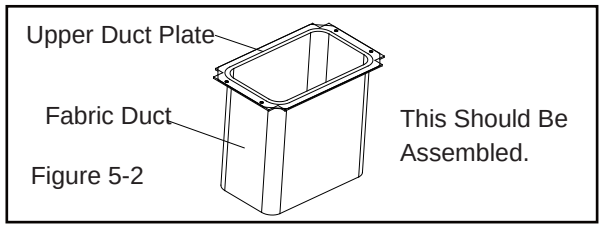


Figure 5-2

5. Secure the ceiling assembly frame to the roof top air conditioner with the mounting bolts(see Figure 5).You must start (thread) themounting bolts by hand to avoid cross-threading. DO NOT START THE MOUNTING BOLTS WITH AN AIR GUN. The mounting bolts should be tightened, process is completed when the basepan gasket has been evenly compressed.
6. Set the fabric air duct into the duct opening of installation plate sub-assy and cut off four corner of fabric air duct. Because the thickness of vehicle top is different, the distance between the opening and the installation plate sub-assy is shown in figure 6.
7. Fasten each side of the fabric duct with fitting the bottom duct plate to the ceiling assembly frame with 4 screws (see Figure 6).Trim any excess fabric that may extend beyond edge of bottom duct plate.

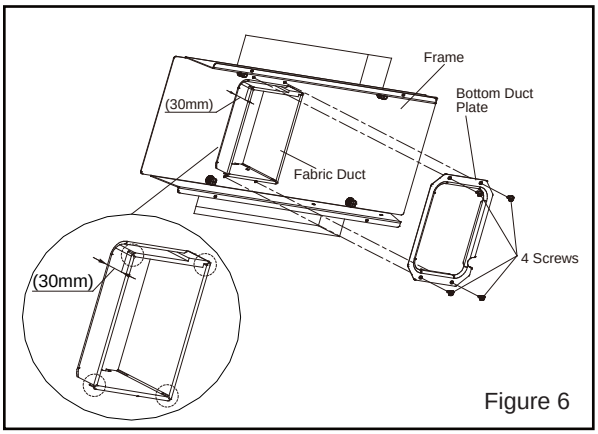


Figure 6

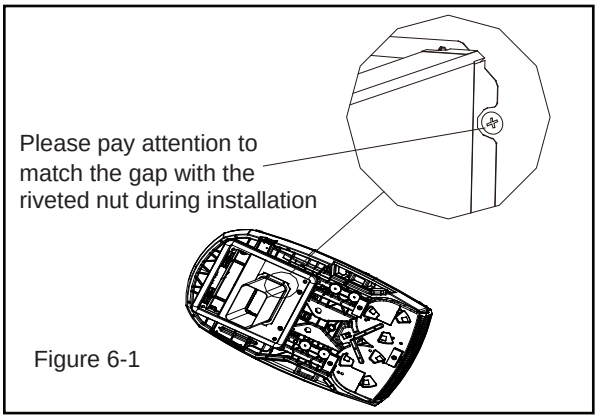


Figure 6-1

# STEP 4-ELECTRICAL WIRING

## ROUTING 220-240V AC WIRING

### ⚠ WARNING

Make sure that all power supply to the unit is disconnected before performing any work on the unit to avoid the possibility of shock or injury and/or damage to the equipment. After the interior ceiling assembly frame is properly secured to the roof top air conditioner, the following electrical connections must be performed.

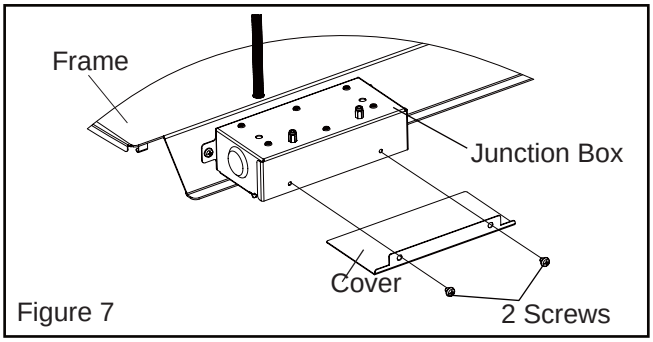


Figure 7

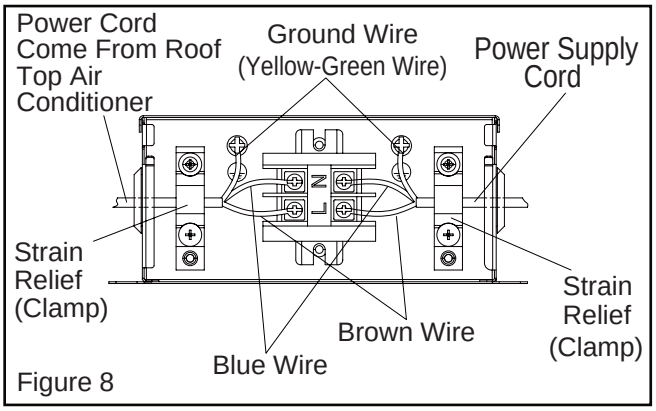


Figure 8

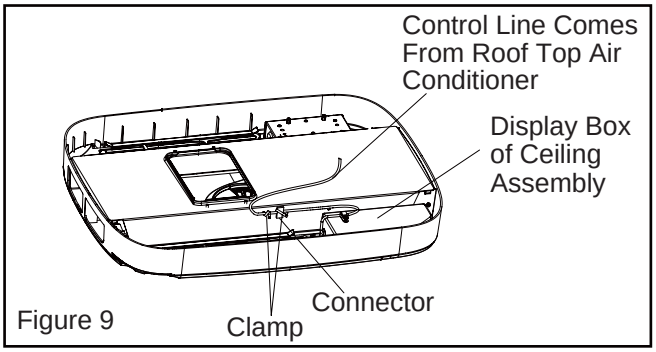


Figure 9

1. Route a copper ,with ground, supply wiring with minimum 1.5mm$^2$, the wiring from its power source to the junction box. Do not attach them at this time.
2. Take the roof top air conditioner power cord to connect to the side of the junction box.
3. Remove the junction box cover (2 screws). Take the power cord and make it get into the box through the strain relief that is provided (see Figure 7).
4. Connect the power cord to the brown, blue and ground wires found in the junction box with a terminal board. CAUTION Connect brown wire to brown wire, blue wire to blue wire and the ground wire to earth. (see Figure 8).
5. Tighten the strain relief clamp to secure the supply power cord. DO NOT OVERTIGHTEN. Reinstall the junction box cover.
6. Connect the three connector (four connector) and secure the clamp (see Figure 9 and Figure 9-1). The connector should be placed above the mounted plate of indoor unit, and it should be higher than the clamp.

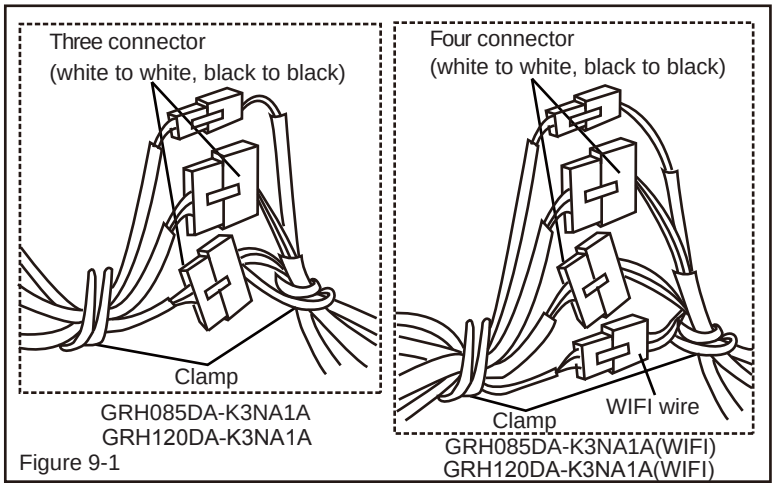


Figure 9-1

# STEP 5-COMPLETING THE INSTALLATION

To complete the installation and system checkout requirements, the following steps must be performed.

1. Check the thermostat position. Make sure the thermostat is routed through the holding guide and is not touching any metal surface.
2. Make sure the guide louver and the filters are properly positioned in the ceiling grille.
3. Secure the ceiling grille to the ceiling assembly frame with 4 screws. (see Figure 10).
4. Install screw caps into four screw holes.
5. Switch on the power supply and check the unit work or not.

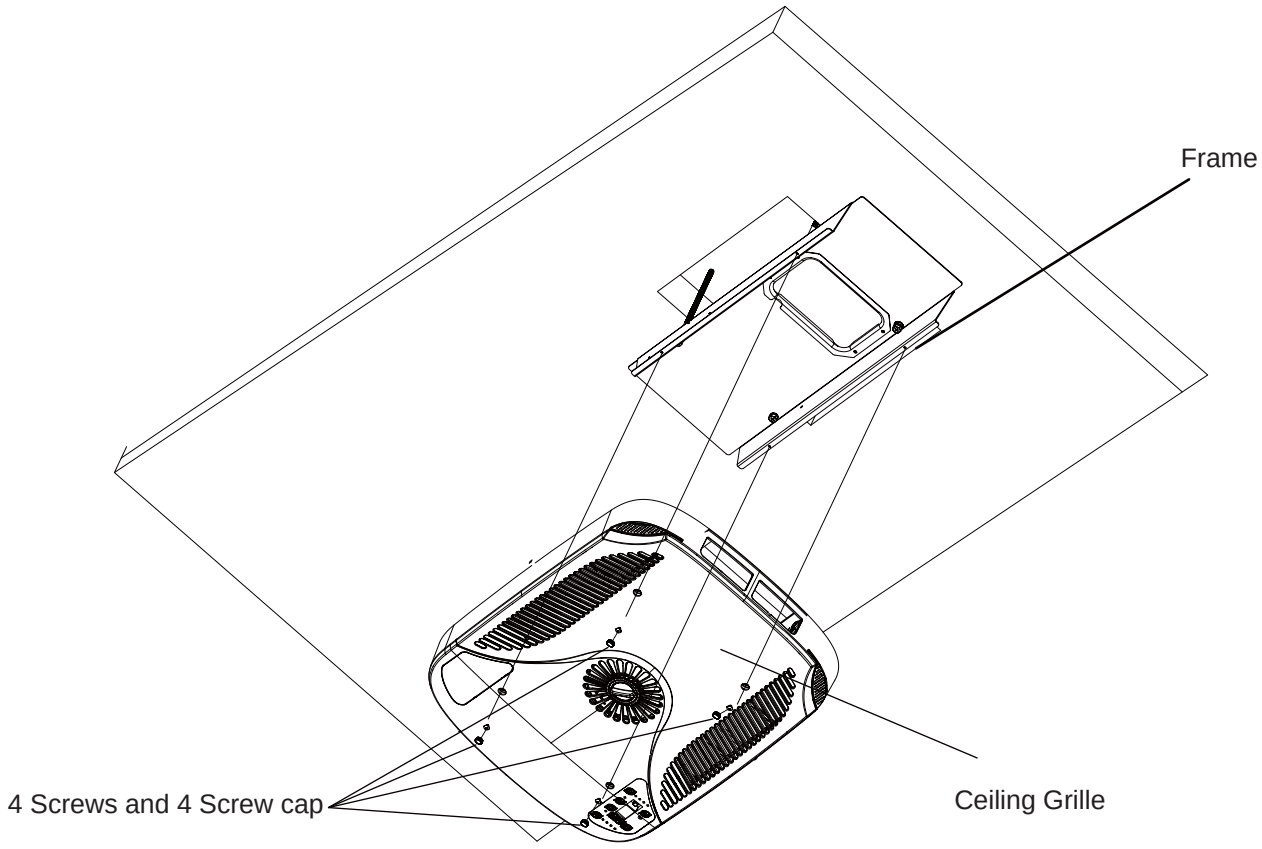



Figure 10

# TROUBLESHOOTING GUIDE

If you have problems with your recreational vehicle air conditioner, check this guide before contacting your service representative.

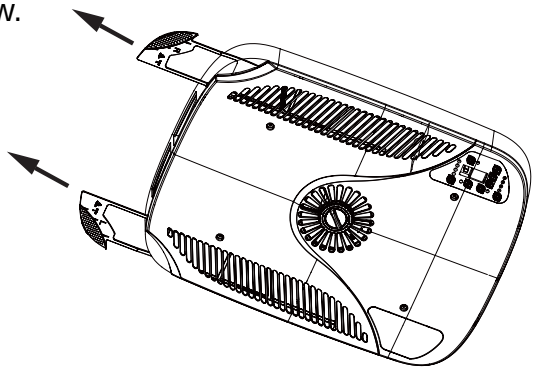
| TROUBLE | POSSIBLE CAUSE | SOLUTION |
|---|---|---|
| The unit can not start | The unit may not be connected to the power supply correctly. | Check the power supply of the vehicle and make sure it is provided correctly. |
| The unit can not cool the room | The roof top air conditioner is not level. | Mount the roof top air conditioner as level as possible from front to rear and side to side when the vehicle is parked.Make sure that the mounting of the air conditioner is correct and level. |
| | The temperature setting is too high. | Reset the remote control to a lower temperature setting. |
| | The air filter is dirty. | Remove and clean the filter. |
| | The room was already very hot before the unit was turned on. | Allow a sufficient amount of time for unit to cool the room. |
| The unit is making noise | The unit is click and gurgle. | These noise are normal during the operation of the unit. |
| The unit has water dripping inside | The basepan gasket has not been evenly compressed. | Mounting bolts should be tightened evenly by compressing the basepan gasket. |
| The unit has ice or frost on the coils | The temperature is low inside. | Select FAN mode at HIGH fan speed. |
| | The filter is dirty. | Remove and clean the filter. |

# NORMAL MAINTENANCE PROCEDURES

| ACTIVETY | FREQUENCY |
|---|---|
| Remove the cover and wash the condenser coil | Twice a year. |
| Clean the filter<br>(More frequent cleaning may be necessary depending on the air quality) | When the air conditioner FILTER CHECK light on. |

## HOW TO REMOVE THE AIR FILTER

Remove the air filters by pulling them as illustrated below.



## HOW TO CLEAN THE AIR FILTER

Wash away dust from the air filters with clean water or vacuum the filter with an electric household vacuum cleaner.

## HOW TO DISMANTLE CLASP

1. Concrete dismantle method: use the similar tool in Figure b, align the clasp core and insert it, as Figure a is shown. The inserted depth is about 3mm, as shown in Figure c, which the clasp is detachable. When you hear a sound, buckle the clasp base with your hands to take out the clasp.

**Note:** If you insert it too deep, the clasp might be blocked, compulsory dismantle will damage the clasp and it might be invalid. At this moment, use the tool whose diameter is smaller than the clasp to completely insert the core axis to separate the clasp base and core axis, then it is dismantled.

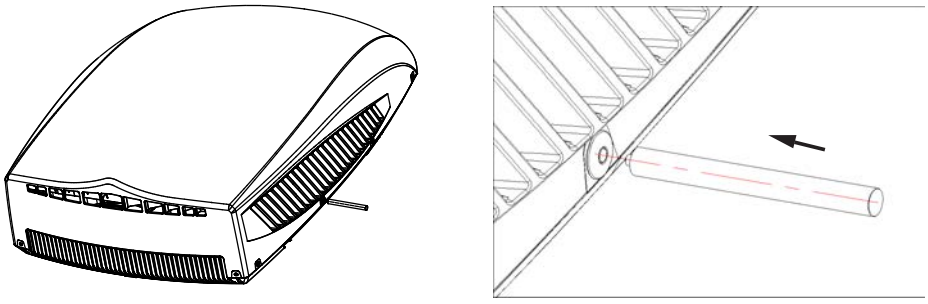


Figure a

## 2. Sketch map of claspdismantle tool

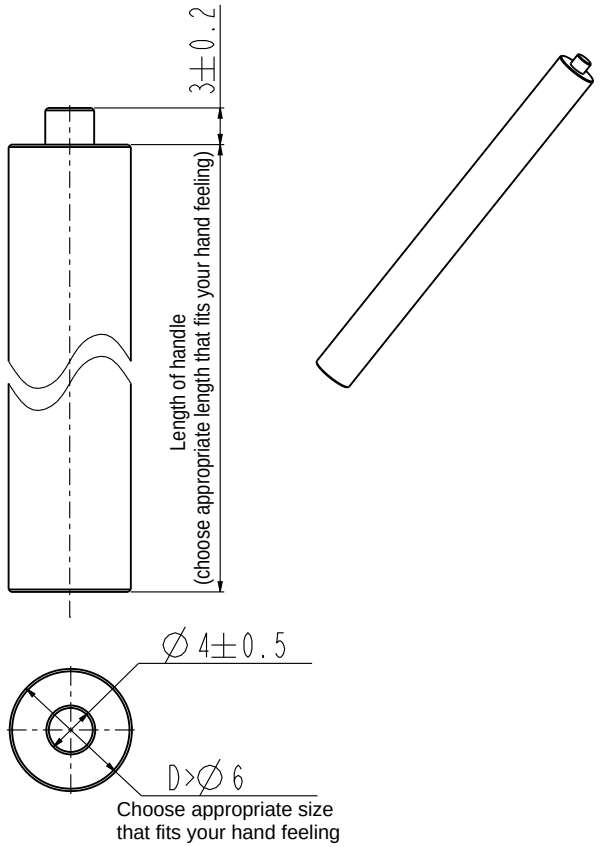



Figure b

## 3. Sketch map of clasp in different status

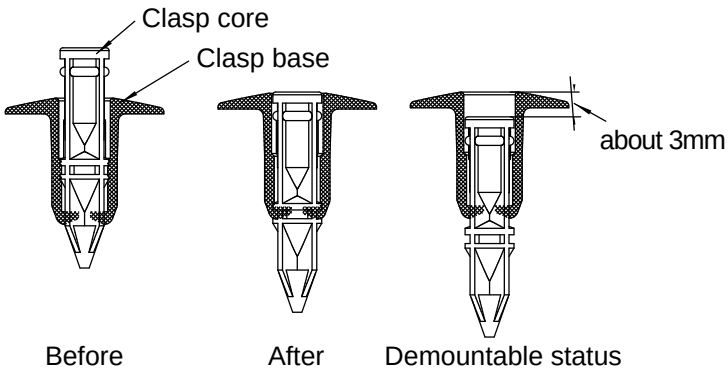



Figure c

## ⚠ WARNING

FAILURE TO FOLLOWING INSTRUCTIONS COULD RESULT IN SERIOUS PERSONAL INJURY

1. Don’t touch the capacitor terminals without the electric discharge, the capacitor still may have the high voltage even though the power supply is turned off.
2. Be careful when you maintain the refrigeration system, which has the high internal pressure.
3. Do not block the filter and the indoor air inlet badly to prevent water leakage.

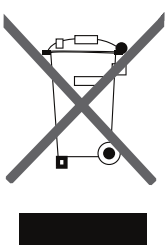
HTW
HIGH TECHNOLOGY WORLD

C./ Industria, 13 I Polígono Industrial El Pedregar
08160 Montmeló
Barcelona (Spain)

**Phone:** 93 390 42 20
**Fax:** 93 390 42 05

info@htwspain.com

GIA GROUP



IMPORTANT INFORMATION FOR CORRECT DISPOSAL OF THE PRODUCT
IN ACCORDANCEWITH EC DIRECTIVE 2002/96/EC.

At the end of its working life, the product must not be disposed of as urban waste.
It must be taken to a special local authority differentiated waste collection centre or to a dealer pro viding this service.
Disposing of a household appliance separately avoids possible negative consequences for the environment and health deriving from inappropriate disposal and enables the constituent mate-rials to be recovered to obtain significant savings in energy and resources.As a reminder of the need to dispose of household appliances separately, the product is marked with a crossed-outwheeled dustbin.