



MODEL NUMBER: _____

SERIAL NUMBER: _____

DATE PURCHASED: _____

OWNERS MANUAL

CARAVAN AIR - CONDITIONER

BELAIR

MODEL

A3501

T3500

A3800



Ducted Air-Conditioning System



For your safety please read this manual carefully
before installing and using the product.

Safety Notices

Dear user, thank you for choosing a HOUGHTON caravan air-conditioner. For your ease of use and safe maintenance, we have included the following symbols in this manual:



All the contents with this “Warning” logo are about the safety of the user and the air-conditioner, the user shall operate in strict compliance with the instructions.



All the contents with this “Prohibition” logo are about the actions that shall be prohibited, or else the air-conditioner may be damaged or the user’s personal safety may be endangered.

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Safety Notes

-  Make sure the external electric supply socket of the caravan air-conditioner is effectively grounded in accordance with your local regulations.
-  Failure to ground the unit correctly may cause electric shock or fire.
-  If you are not to use the air-conditioner for a long time, please isolate the power supply.
-  Clean the filter of the air-conditioner regularly, A dirty filter will decrease air flow and lead to poor heating and cooling performance.
-  Use the remote controller or wall pad controller to operate the air-conditioner.
-  Install the air-conditioner in compliance with the instructions of this manual.
-  Incorrect installation methods or alteration of the product may cause damage to the product or personal injuries to the user.
-  Be careful when installing the unit on the roof of the caravan, crawl boards may be required.
-  There may be wires between the roof and the ceiling. When cutting into the roof, make sure that the power is isolated to prevent risk of electric shock.
-  Installation and maintenance of the air-conditioner must only be performed by personnel with appropriate trade qualifications and holding current licenses for such work.
-  Do not over-tighten the power connection terminals.
-  Do not put hand into discharge duct during installation as this may damage the foam coil tray.
-  Ensure that your electrical supply and wiring is correctly sized for the power demand of the air-conditioner. Refer to the unit specifications (page 21).
-  This appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge. Children are not to play with this appliance and should be supervised at all times.

-  Keep the inlet and outlet of the inside and outside units of the caravan air-conditioner clear.
-  Do not spray any paint or insecticide on the surface of the air-conditioner.
-  Immediately turn off the air-conditioner and isolate power supply if there is any unusual odor, smoke or fire detected. Contact after-sales service personnel in case of unit fault.

Product Introduction

A. Purpose

HOUGHTON BELAIRE is designed to provide a comfortable environment inside a recreational vehicle or caravan.

B. Achieving effective heating & cooling

Many factors will affect the total heat load within the caravan and many factors can also affect the working efficiency of the air-conditioner. Before purchasing HOUGHTON BELAIRE air-conditioners, the user should consult with the caravan manufacturer to understand the total heat load of the caravan and to choose the correct air-conditioner for the application.

The following measures are very useful to reduce the heat load within a caravan or RV and improve the performance of the air-conditioner.

- Close all the doors, skylights and windows, draw the curtains, and open the sunshade or awning.
- Adjust the caravan's position to make sure the sunshade is on the southern side in the northern hemisphere or on the northern side in the southern hemisphere. This will reduce the exposure to direct sunshine.
- Turn off the unnecessary electrical appliances within the caravan to reduce the heat-load.
- Cook outside of the caravan when possible.
- Park the caravan in the shade if possible.
- In case of exceptionally high temperatures, turn on the air-conditioner in advance during the morning.

C. Condensation

When warm moist air within the caravan meets with the cold surface, condensate water may be caused. This is also known as "sweating". In this case, make sure the following measures are taken:

- Close and seal all the doors, skylights, windows to reduce the entrance of warm moist air.
- Operate the inside fan on high fan speed, avoid low and auto fan speeds.

During the operation of the air-conditioner, condensate water will be produced and allowed to drain onto the roof. This is normal. The amount of condensate water is a function of air humidity. High humidity inside the caravan will result in more condensate being generated. Close all doors, windows and hatches to reduce this to a minimum.

Please note that losses caused by the condensate water are not within warranty scope.

D. Choice & Use of a generator

HOUGHTON BELAIRE requires a mains quality AC power source for correct operation. If you decide to supply power using a generator then you are strongly recommended to consult with the generator supplier to confirm suitability and sizing of the generator for your application.

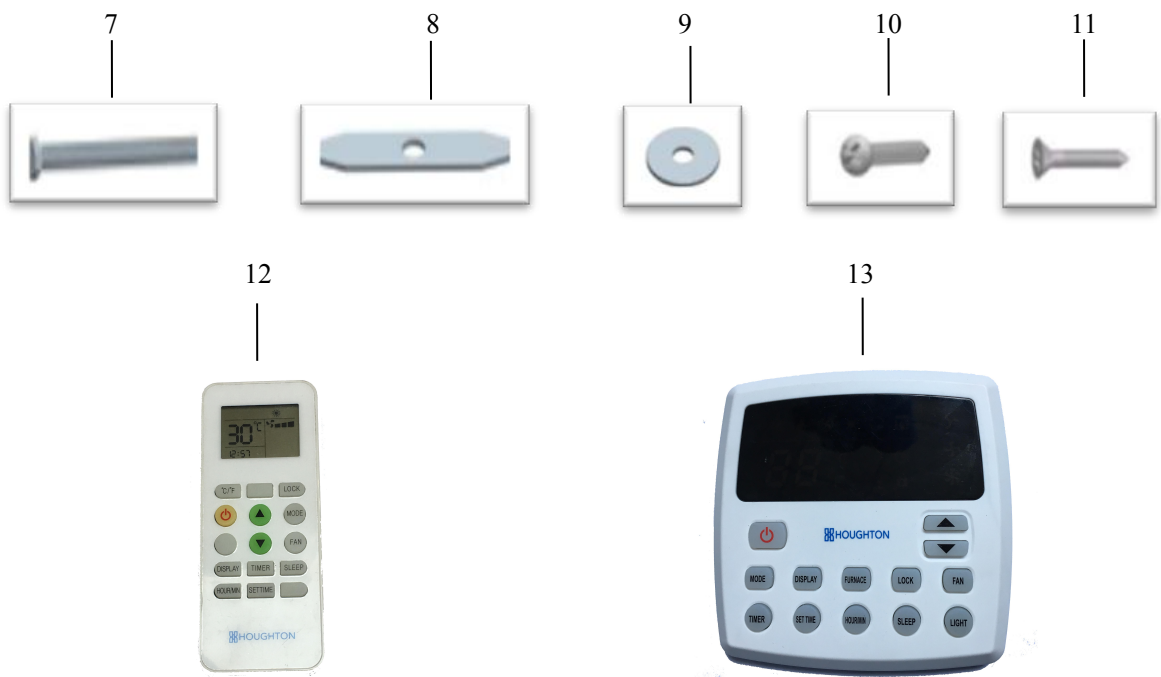
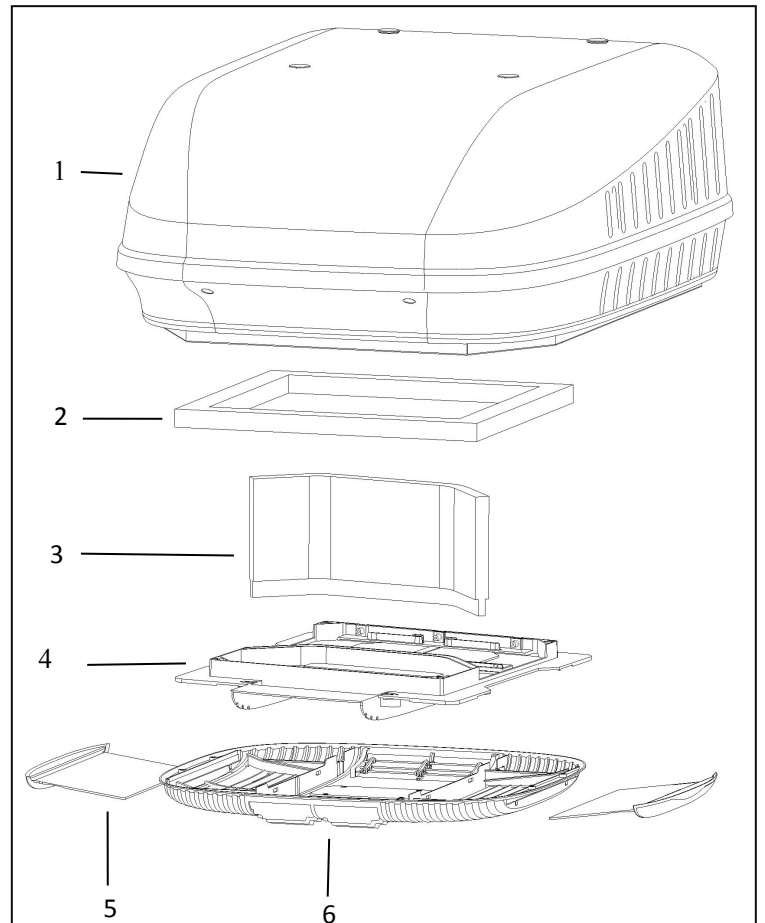
Please note that losses caused to the product by the use of a generator are not within warranty scope.

Packing List

Installation parts list

Main parts:

1. BELAIRE air-conditioner outdoor unit ×1
2. Outlet gasket ×1
3. Air flow partition×1
4. Plenum mounting bracket ×1
5. Return air filters ×2
6. Plenum assembly ×1
7. M8 x 180 mm hex head bolts ×4
8. Metal clamping bar ×4
9. Large M8 washer ×4
10. Plenum screw-ST4.2×16 Pan head screws ×4
11. Countersunk head self-tapping screw ×6
12. Remote controller ×1
13. Wall pad controller ×1



Installation Guidance

Installation instructions

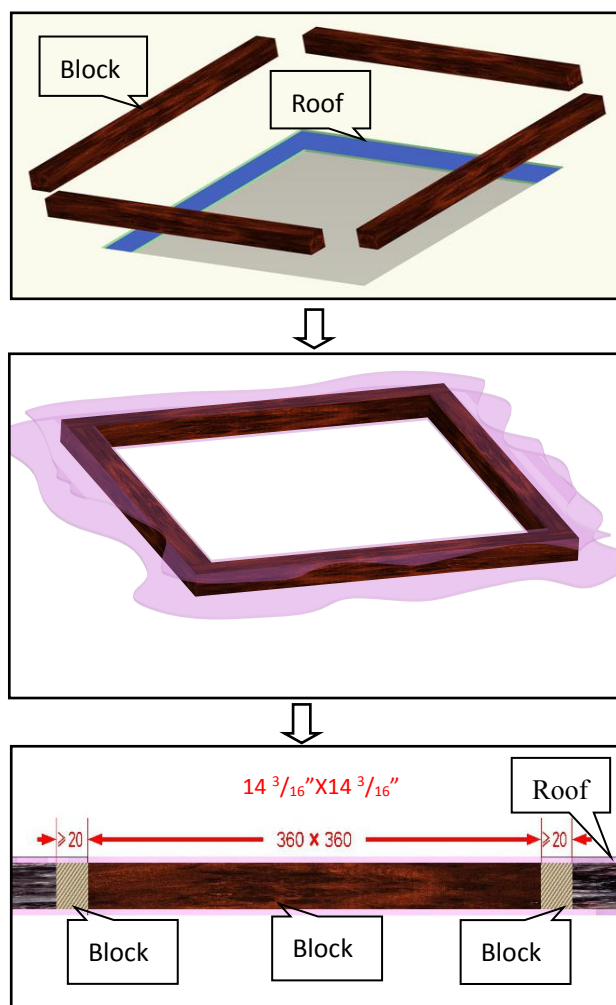
- Thoroughly read and understand this manual before installation.
- Abide by the national wiring rules in your country.
- Do not add any other parts or modify the product in the installation.
- The installers shall have refrigeration technician qualification certificates and/or suitable electrical trade qualifications.
- Consult with HOUGHTON or the local distributor in the case of unusual applications or installation conditions that are not specifically covered by this manual.

Installation requirements

- The RV or caravan roof shall support the air-conditioner's weight (40kg/88 lbs) without distortion.
- Minimum thickness of roof is 75mm/3". Maximum thickness of roof is 135mm/5 $\frac{5}{16}$ ".
- If the roof's thickness is greater than 135mm/5 $\frac{5}{16}$ " you can purchase a "Thick roof kit" to suit your unit from HOUGHTON or the local distributor.

Load bearing of roof

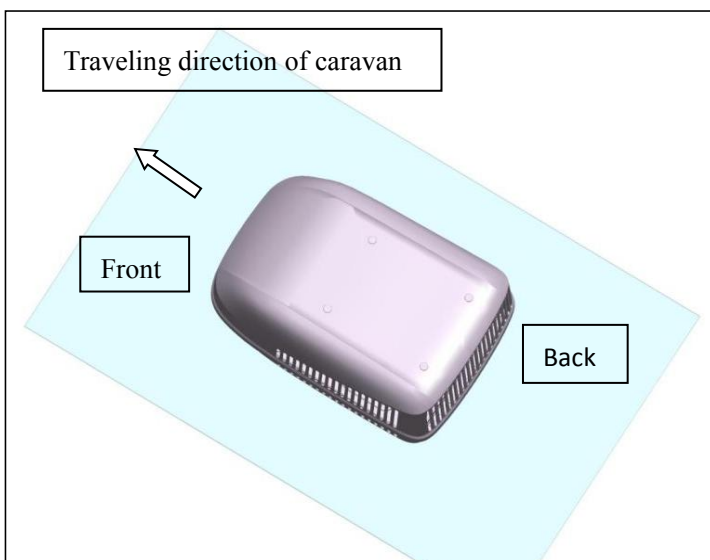
- The roof shall be able to bear the weight of the air-conditioner and shall be level without accumulating water. It is suggested that the caravan manufacturer confirms the suitability of the roof for load bearing.
- If the installation hole is not preexisting, then consult your caravan manufacturer for the most suitable way to cut the installation hole.
- The 360×360mm/14 $\frac{3}{16}$ "x 14 $\frac{3}{16}$ " hole shall be boarded up with wood sections that are at least 20mm/ $\frac{3}{4}$ " thick. This boarding is to ensure that the roof will not crush from the installation bolts and that air-conditioned air does not enter the ceiling space.



Installation position

Before the installation, consider the installation position:

- At least 150mm/6" is needed on the left and right side.
- At least 200mm/8" is need at the front and back area.
- At least 50mm/2" is needed for the height.
- The installation of the outdoor unit shall be consistent with the traveling direction of the caravan.
- It's suggested to install 2 or more units on a caravan which is more than 7 meters/23' long to achieve desired cooling effect.
- Confirm the position of rooftop unit as per below drawing, Check the position of plenum in the inside of caravan.

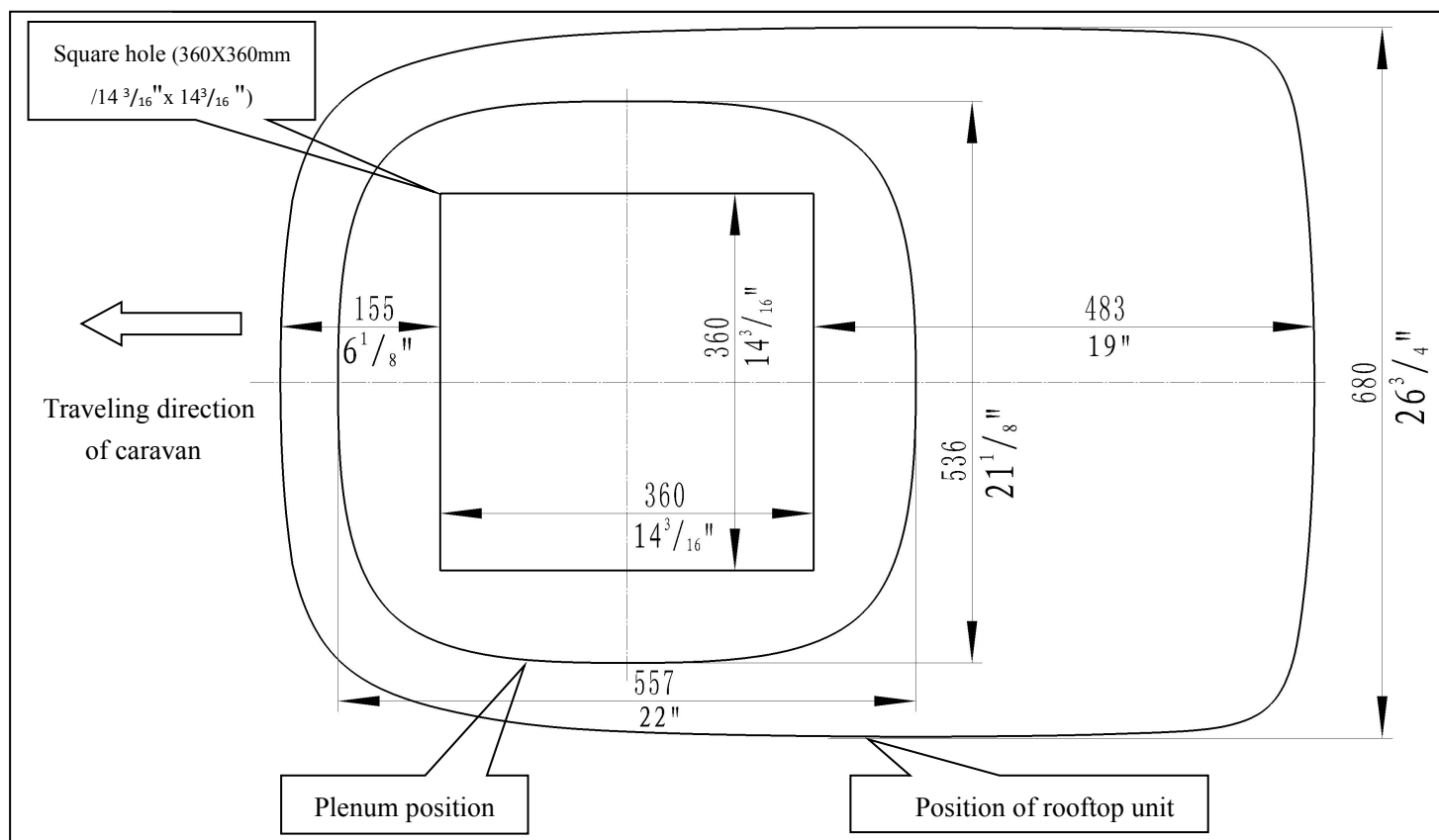


Note

Angle of inclination of the air-conditioner shall not be larger than 5°.

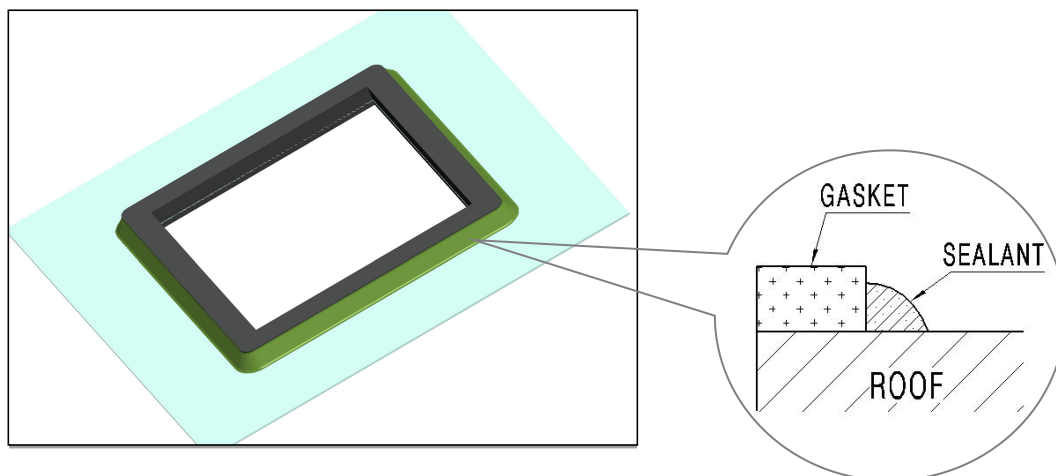
The back of the air-conditioner shall not be higher than the front.

For advice on installations outside of these limits, please contact with the local distributor.



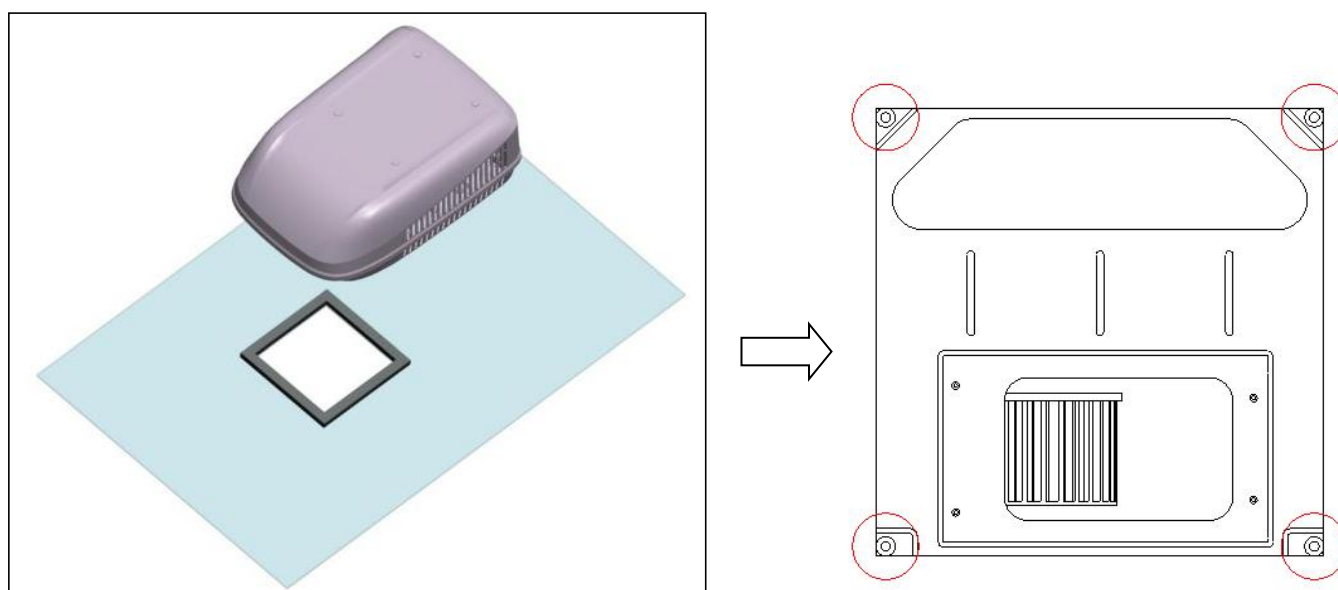
Install outlet gasket

- Make sure the roof is clean, dry and free from oil or grease.
- Take off the paper from the back of the outlet gasket and stick the outlet gasket onto the roof over the square hole.
- Press the outlet gasket to make sure the outlet gasket is closely adhered to the roof.
- Apply a bead of suitable sealant around the entire perimeter where the gasket meets the roof.



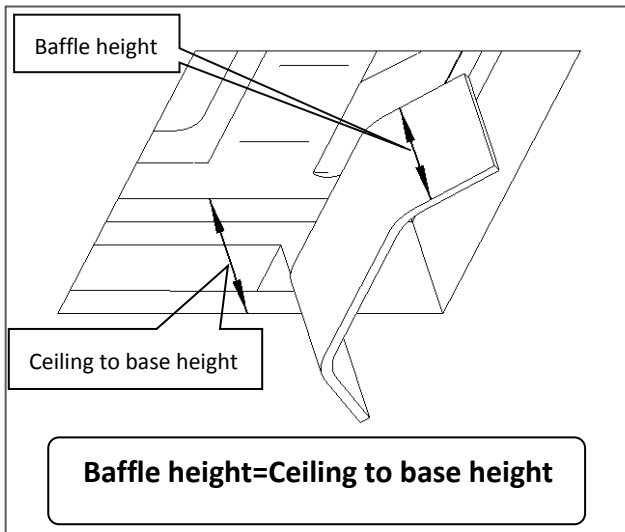
Install outdoor unit

- Place the outdoor unit over the outlet gasket and adjust position to make sure the 4 bolts under the outdoor unit are aligned with the 4 corners of the square hole (360x360mm/14 3/16" x 14 3/16"). When the position of outdoor unit is being adjusted a person needs to go to the inside of caravan to ensure the alignment.
- Do not push or pull the outdoor unit while it is resting on the gasket. Lift and align the unit before resting it back on the gasket. Sliding the unit across the gasket may cause damage to the outlet gasket and lead to leakage of air and water.
- The 4 holes which receive M8 bolts on the base of the outdoor unit should align with the 4 corners of the square hole (360x360mm/14 3/16" x 14 3/16") on the roof.

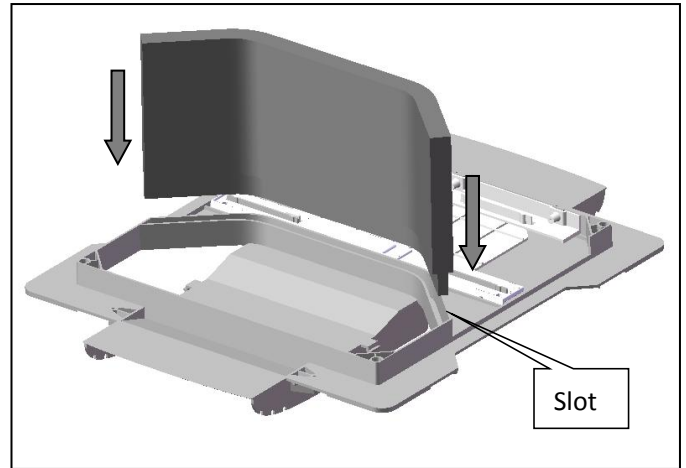


Install air flow separation baffle

- A. Measure the height from ceiling to the steel base of the air conditioner and trim the baffle to this height.

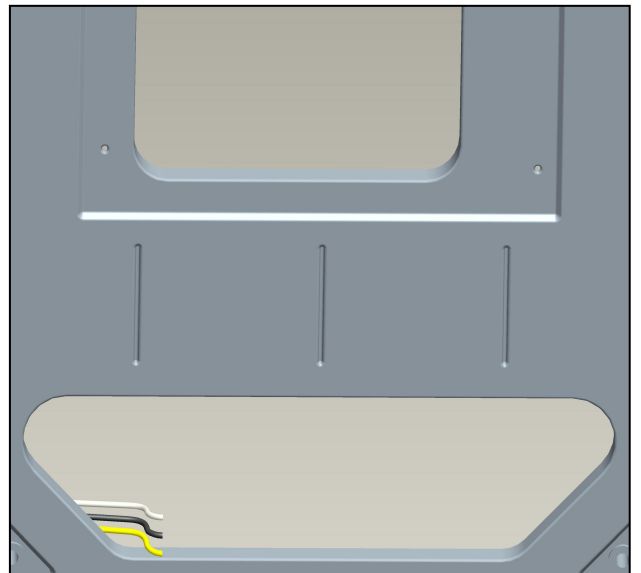


- B. Insert the trimmed air flow separation baffle into the slot of the plenum mounting bracket.



Connect the power supply

- It is the installers responsibility to ensure that local wiring regulations are followed when connecting to mains supply.
- The air conditioner shall be connected to a dedicated supply circuit that can be isolated and has the correct capacity.
- Look upward from inside the caravan and locate the power cord as shown in the figure.
- Connect the external power lines to the 3-pole terminal block and note the positions of the active, neutral and ground.

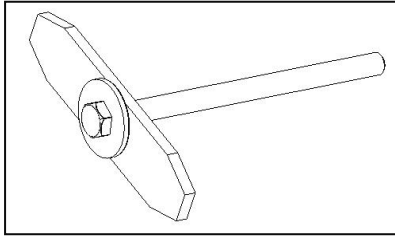


Note

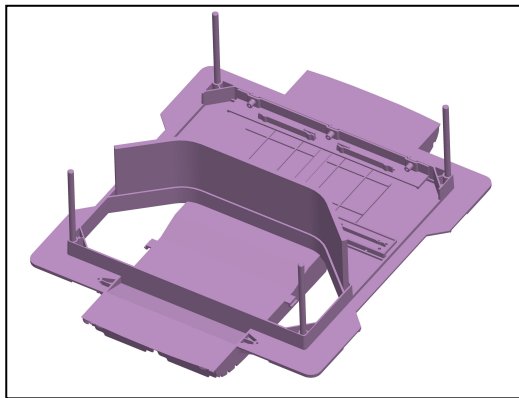
Match the corresponding active, neutral and the ground wire and firmly tighten up the screws to make sure the power line is not loose or improperly connected, otherwise a short circuit or fire could be caused.

Install plenum mounting bracket

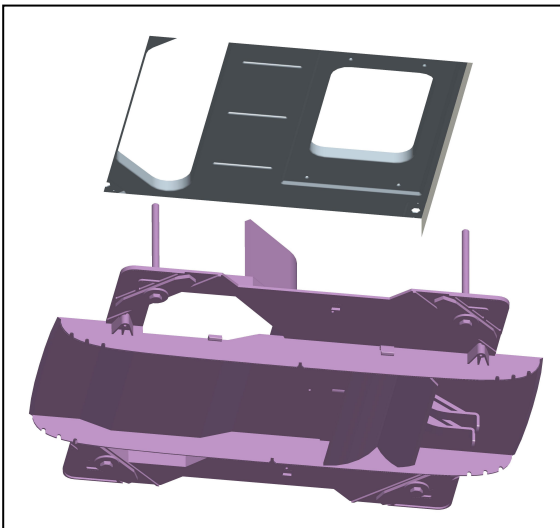
- A. Assemble M8 bolts, washer and metal fixing plates in order shown.



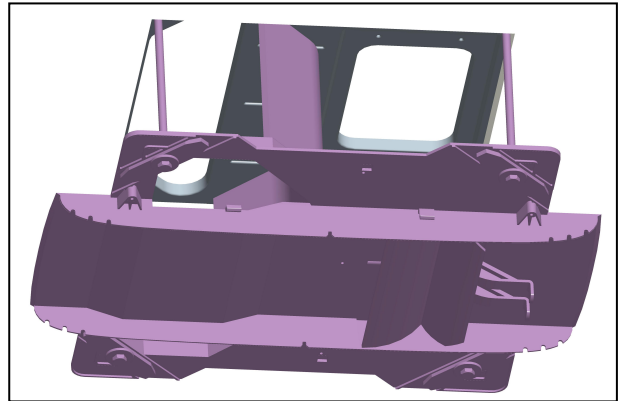
- B. Make sure the four fixing plates are 10mm/ $\frac{3}{8}$ " distance from the plenum mounting bracket in order to adjust angle during installation.



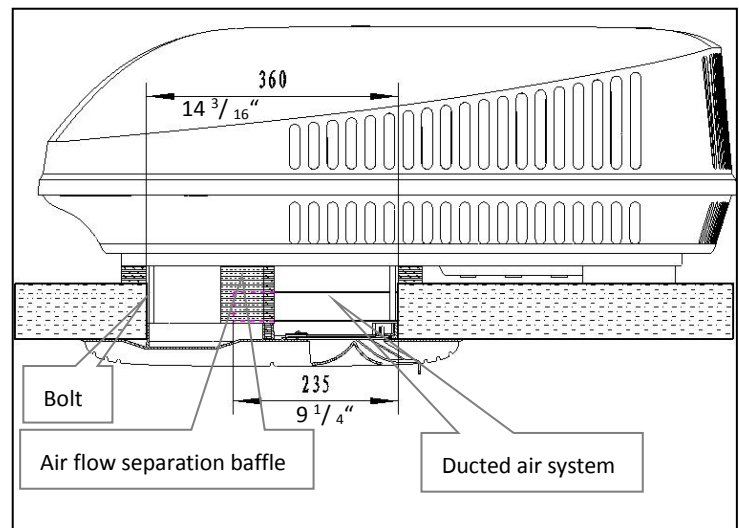
- C. Push the plenum mounting bracket upward into the square installation hole.



- D. Tighten the M8 bolts to make sure the plenum mounting bracket is connected with outdoor unit tightly.
- E. It's suggested that when screwing the bolt, torque should be 7N.m/ 5ft-lbs which could make the connection between outdoor unit and outlet gasket perfect. Important – Do not exceed 7 N.m/5 ft-lbs! Damage caused by over tightening these bolts will not be covered by warranty.

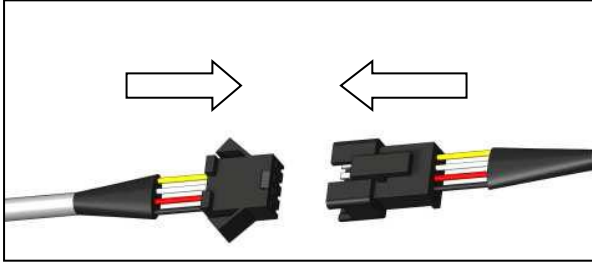


- F. Check if the plenum mounting bracket is completely embedded into the square hole.

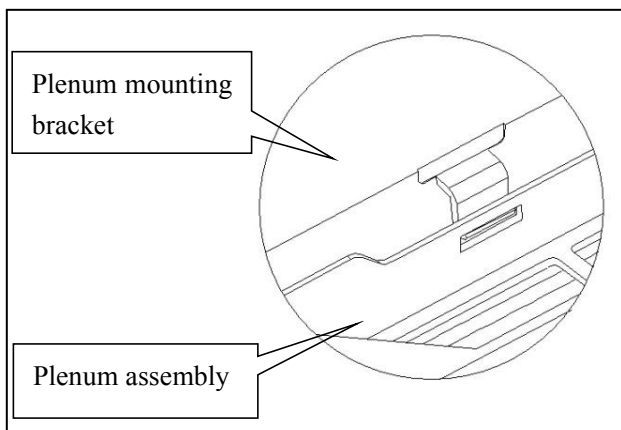


Install plenum assembly

- A. Connect the socket and plug of the display panel wires and the controller wires. please note that colors of the wires should be match (**yellow to yellow, red to red, etc.**)



- B. Attach the plenum assembly to the plenum mounting bracket by engaging the two parts. You will hear four clicks to as the parts connect.



- C. Fix the plenum assembly on the plenum mounting bracket with four ST4.2x16 pan head screws (#10) .



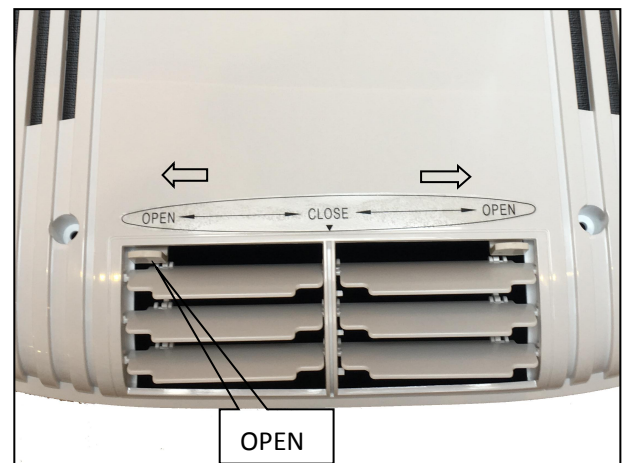
- D. Remove both air filters (#5) from the plenum and fix the plenum to the ceiling with four countersunk head self-tapping screws (#11).



- E. Finally, fit both air filters into the plenum.
The installation is complete.

Switch air outlet

- Adjust the air outlet on the plenum as required.



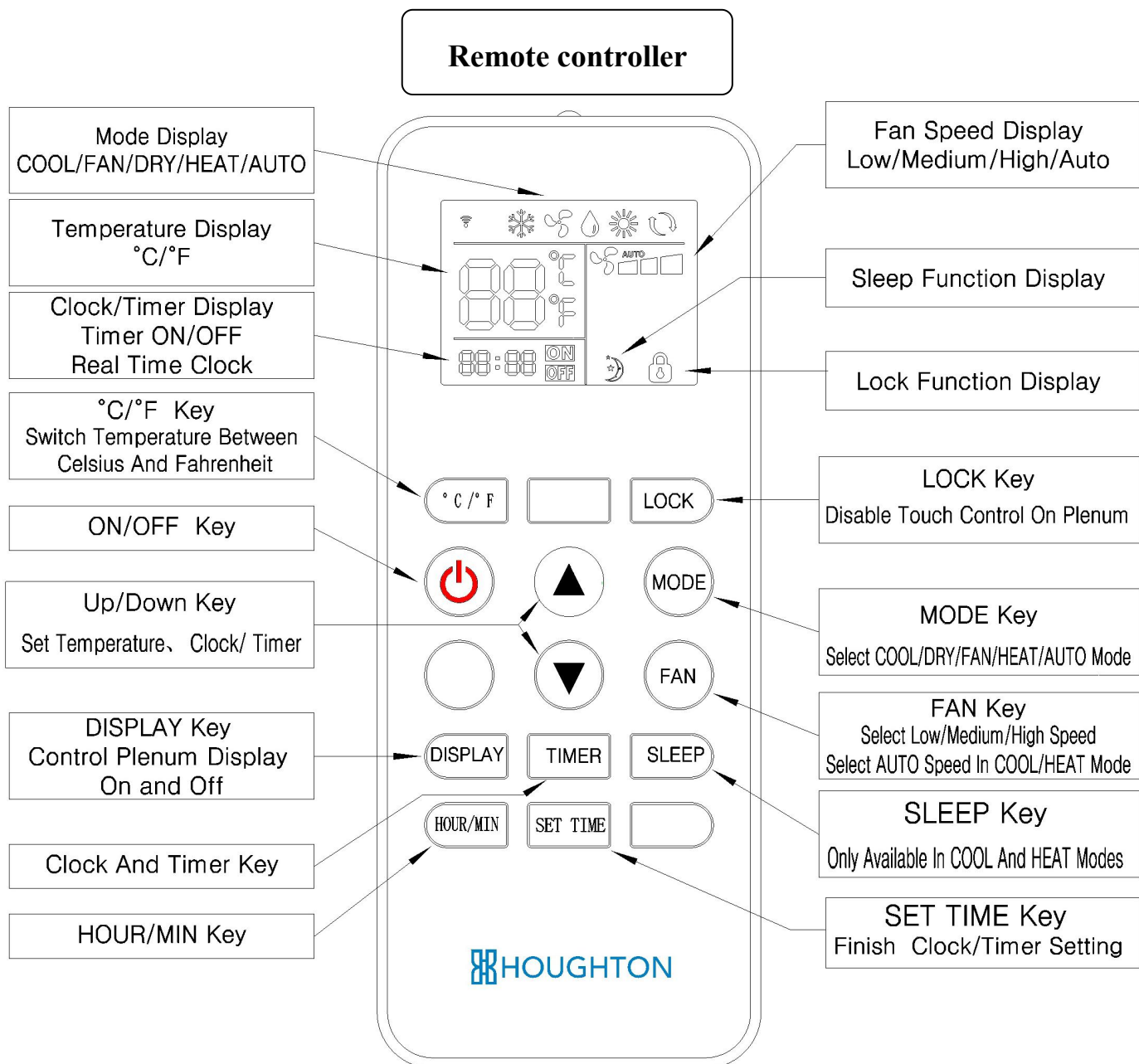
Instructions for Use

- Switch on the power to the air-conditioner at the isolation breaker.
- Start the air-conditioner by using the remote control and pressing the “ON” button. Then select fan function by pressing the “MODE” button.
- Operate in low FAN, medium FAN and high FAN in turn to check normal operation.
- Select COOL mode. Adjust the set point temperature to three degrees lower than the room temperature. The unit will start to blow cold air shortly after the compressor starts.
- Select HEAT mode. Adjust the set point temperature to three degrees higher than the room temperature. The unit will start to blow hot air after the compressor starts and the inside coil reaches temperature.

Note

After selecting the COOL or HEAT mode, the compressor may delay starting for 3 minutes. This is a feature to protect the compressor.

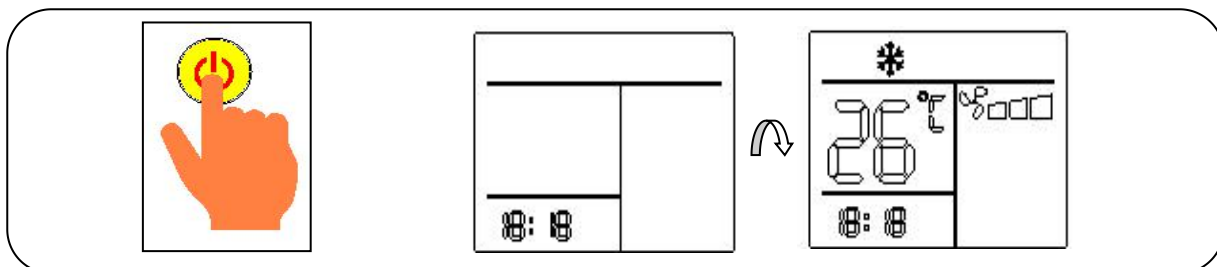
Operation Instruction



1. Operation of the remote controller

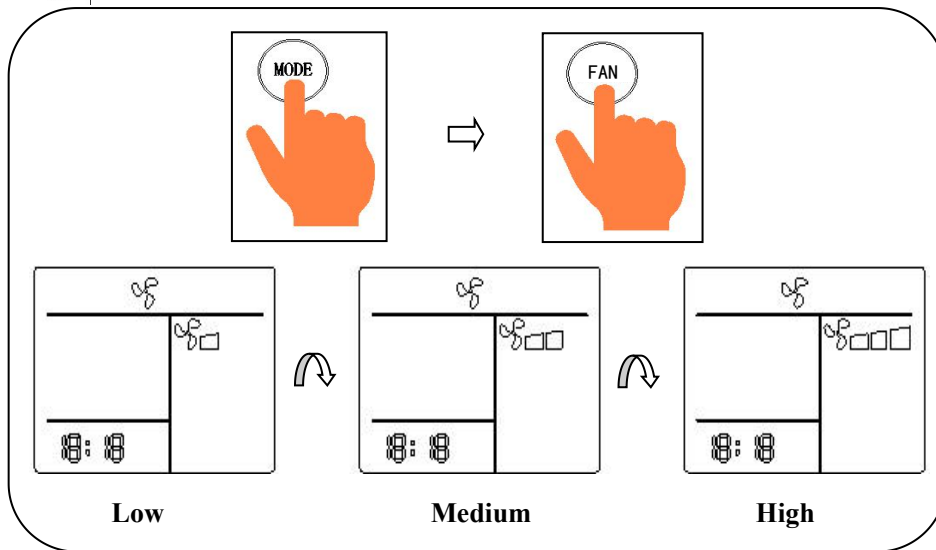
Turn on

- Press the on/off “” key, the unit turns on. The panel buzzer beeps once time and the running mode and temperature will be displayed.



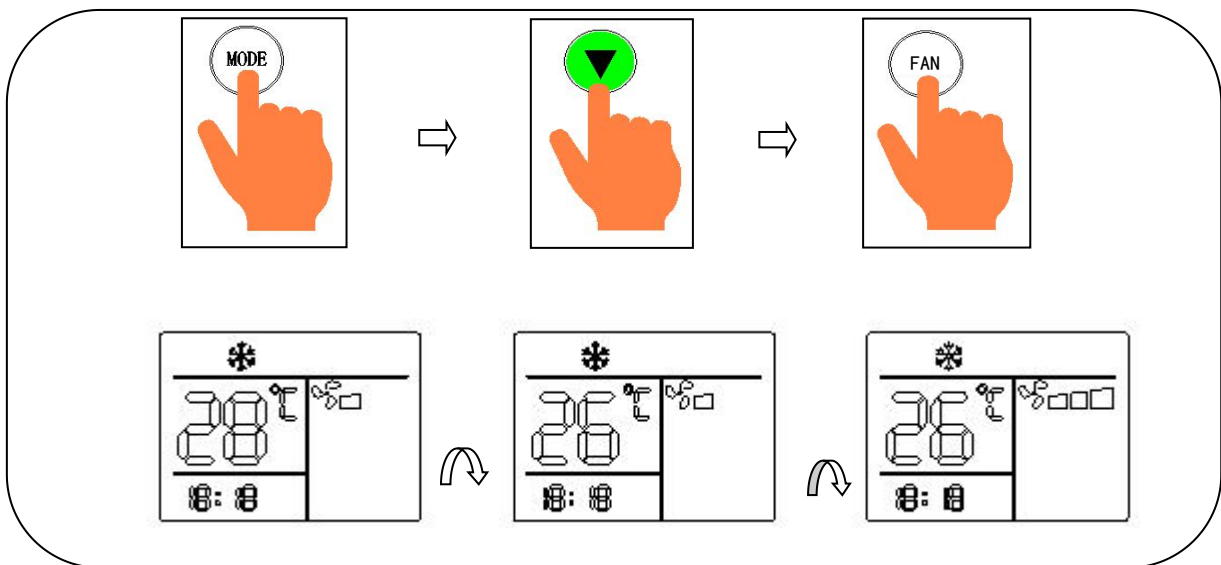
FAN mode

- Press the “MODE” key, select the “” mode. Press the “FAN” key to select Low/Medium/High FAN speeds. The panel will display “” and the indoor environment temperature.



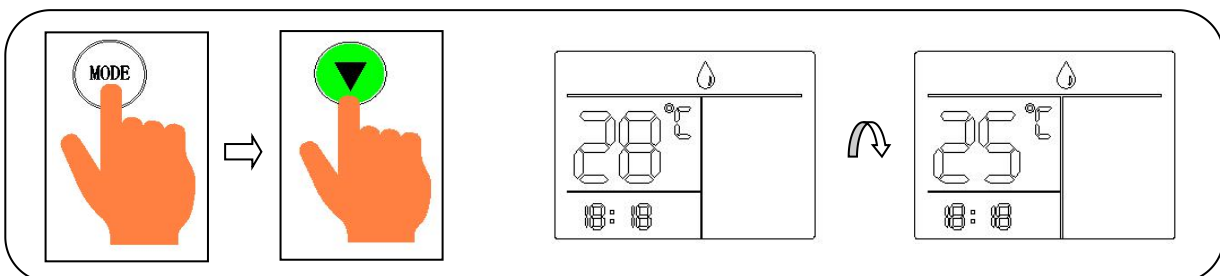
COOL mode

- Press the “MODE” key, select the “” mode. Press the down “▼” key to decrease the room temperature. Press the “FAN” key to select different speed. The panel will display “” and the indoor environment temperature (Initial 3 seconds flashing the set point temperature) .



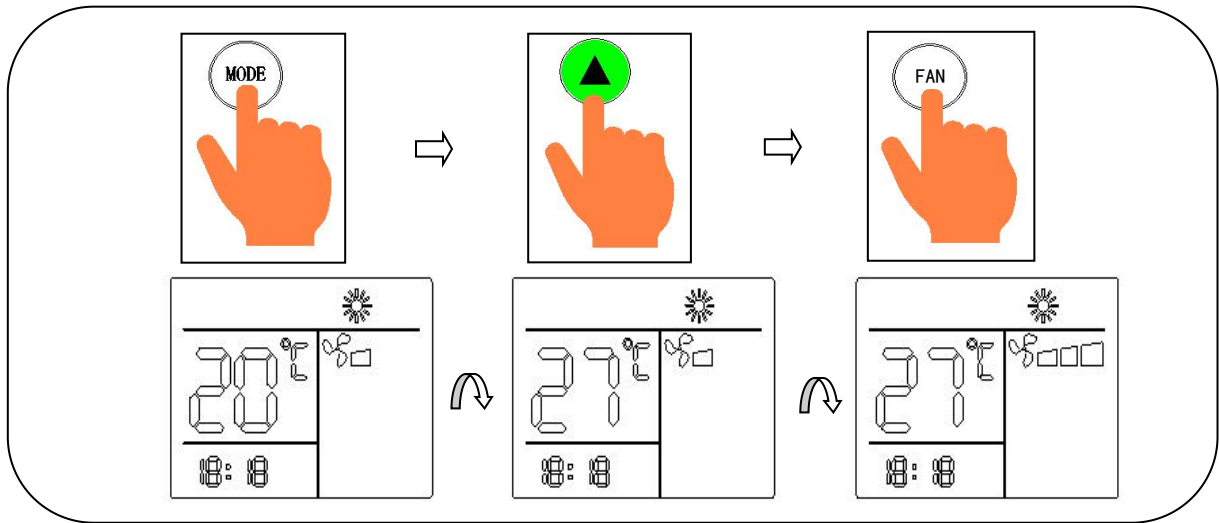
DRY mode

- Press the “MODE” key, select the “” mode. Press the down “▼” key to set the temperature 1°C lower than the room temperature. The panel will display “” and the indoor environment temperature (Initial 3 seconds flashing the set point temperature) .



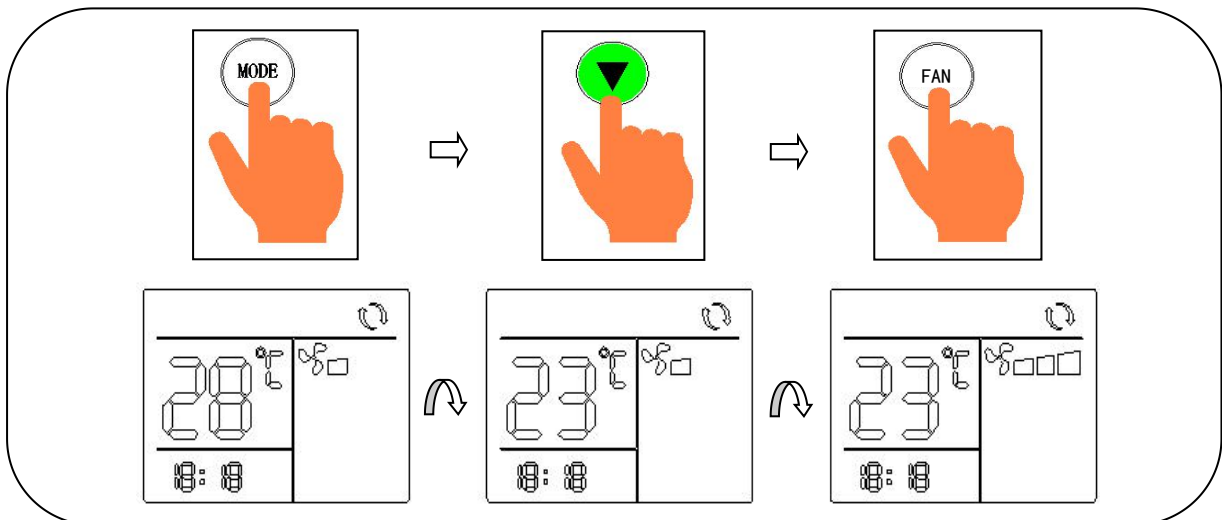
HEAT mode

- Press the “MODE” key, select the “☀” mode. Press the up “▲” key to increase the room temperature. Press the “FAN” key to select different speed. The panel will display “☀” and the indoor environment temperature (Initial 3 seconds flashing the set point temperature) .



AUTO mode

- Press the “MODE” key, select the “↻” mode. Press the up “▲” or down “▼” key to adjust the set point temperature . Press the “FAN” key to select different fan speed. The panel will display “↻” and “☀” or “❄” and the indoor environment temperature (Initial 3 seconds flashing the set point temperature) .

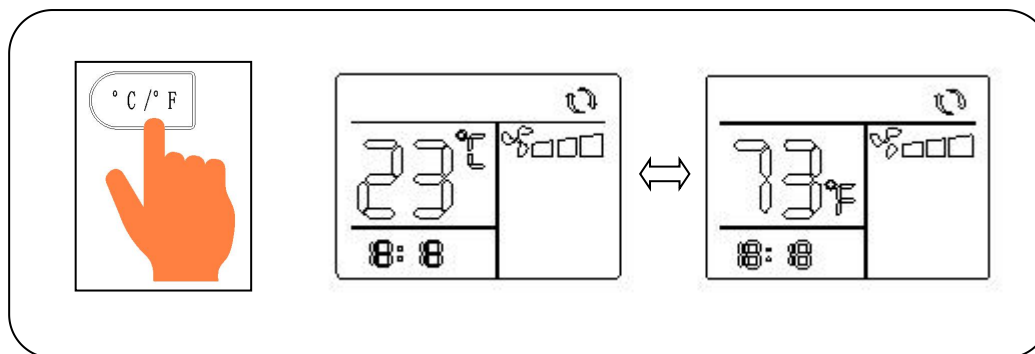


Note

When in the AUTO mode, according to the difference between the set point temperature and the environmental temperature , the panel will display “↻” and “☀” (automatic heating) , or “↻” and “❄” (automatic cooling) at the same time.

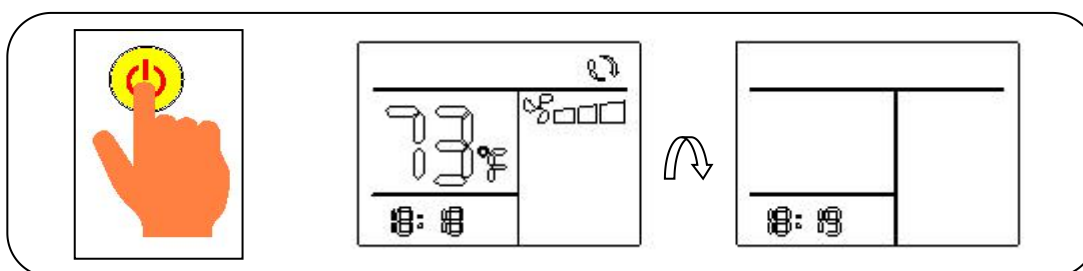
Celsius and Fahrenheit degree change

- In any mode, press the “°C/°F” key to select temperature unit of Celsius and Fahrenheit.



Turn off

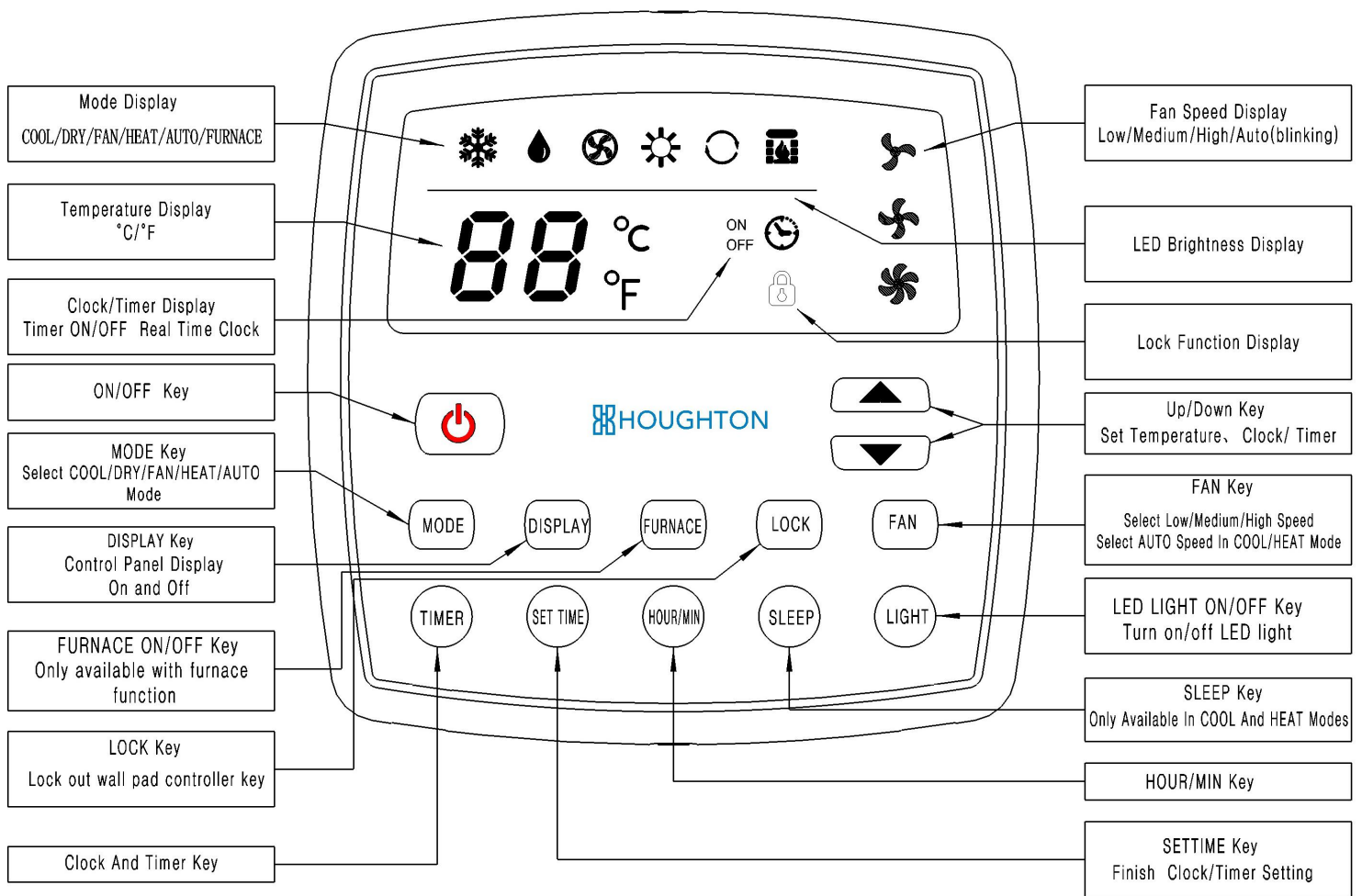
- Press the on/off “” key again, the unit turns off and the panel will be blank.



Timing function

- Set clock and timer.
 - Press the “SET TIME” key, the Hour digit will flash. Press “▲” or “▼” key to set hour. Press the “HOUR/MIN” key, the Minute digit will flash. Press “▲” or “▼” key to set minute. Clock setup is done.
 - Press the “SET TIME” key, until “ON” shows on the upper right side of the clock and hour digit flashes. Then press the “HOUR/MIN” key, and “▲” or “▼” key, to set the desired time to turn the unit on.
 - Press the “SET TIME” key, until “OFF” shows on the lower right side of the clock and hour digit flashes. Then press the “HOUR/MIN” key, and “▲” or “▼” key, to set the desired time to turn the unit off.
- Clock and timer is now set. Keep on pressing the “SET TIME” key to check again clock and programmed time to turn unit on and off. When all setup is done, after 10 flashes, it will return to clock display.
- Timing to turn on: Press the “TIMER” key until “ON” flashes and shows the time to turn on. When “ON” is displayed after its 10 flashes, and the current clock is displayed, then the setup of timing to turn the unit on is done.
- Timing to turn off: Press the “TIMER” key until “OFF” flashes and shows the time to turn off. When “OFF” is displayed after its 10 flashes, and the current clock is displayed, then the setup of timing to turn the unit off is done.
- Timing to turn on and off: Press the “TIMER” key until “ON” and “OFF” flashes simultaneously and shows the time to turn off. When “On” and “OFF” are displayed after their simultaneous 10 flashes, and the current clock is displayed, then the setup of timing to turn the unit on and off is done.
- Turn off timing function: Press the “TIMER” key. When it only shows the clock, the timer function is turned off.
- Note: If the timer function is activated and the unit is not powered off, then the air conditioner will be turned on and off according to the set time every day. Simple method to shut down the timer function: remove battery from the remote control and then replace. The remote control will be restored to the factory settings, and the timer function is turned off.

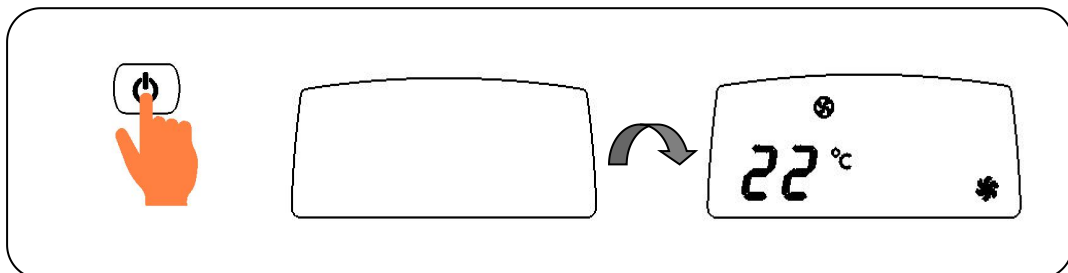
Wall pad controller



2. Wall pad controller operation

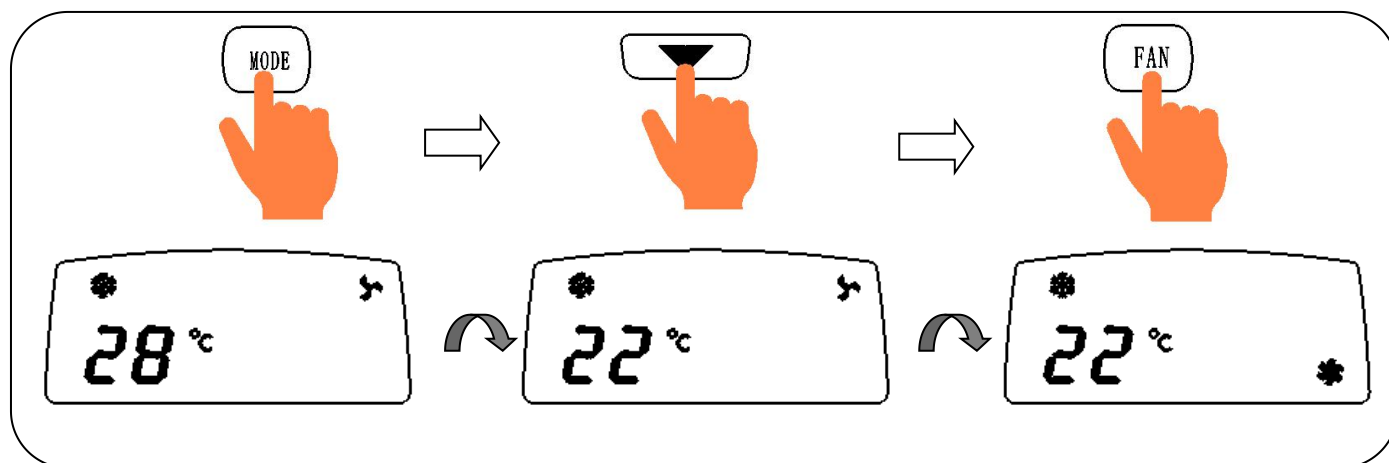
Turn on

- Press the ON/OFF “” key, the unit turns on. The buzzer of the panel beeps once time and the running mode and temperature will be displayed.



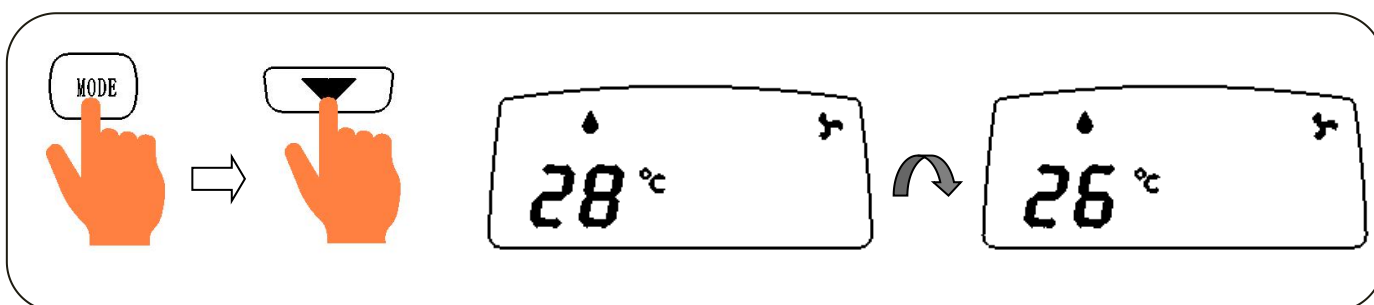
COOL mode

- Press the “MODE” key, select the “❄️” mode. Press the down “▼” key to set the temperature lower than the room temperature. Press the “FAN” key to select different speed. The panel will display “❄️” and the indoor environment temperature (Initial 3 seconds flashing the set point temperature) .



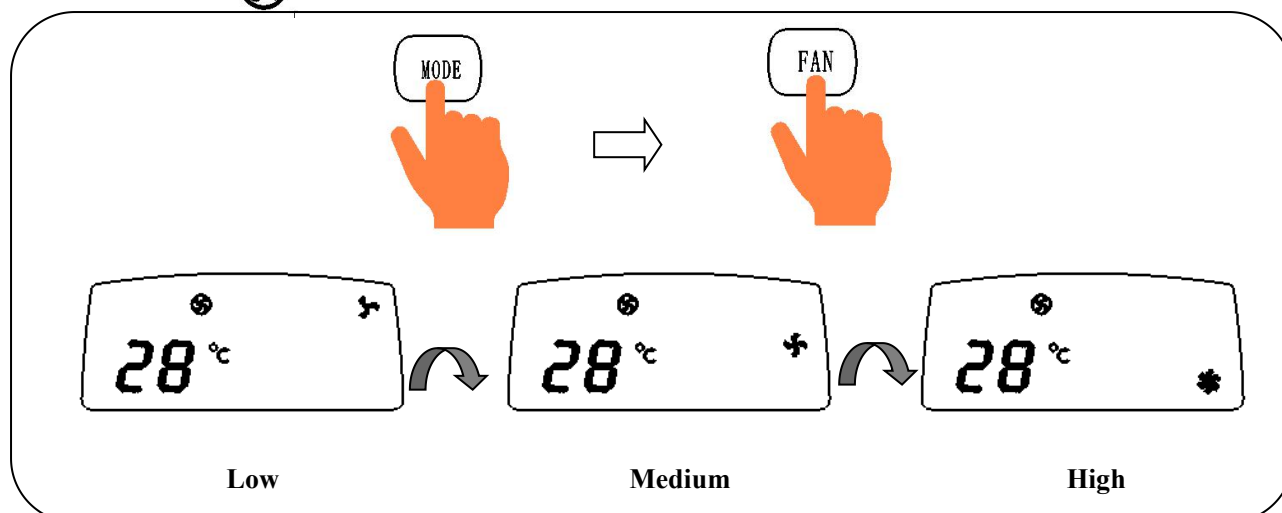
DRY mode

- Press the “MODE” key, select the “💧” mode. Press the down “▼” key to set the temperature 1°C lower than the room temperature. The panel will display “💧” and the indoor environment temperature (Initial 3 seconds flashing the set point temperature) .



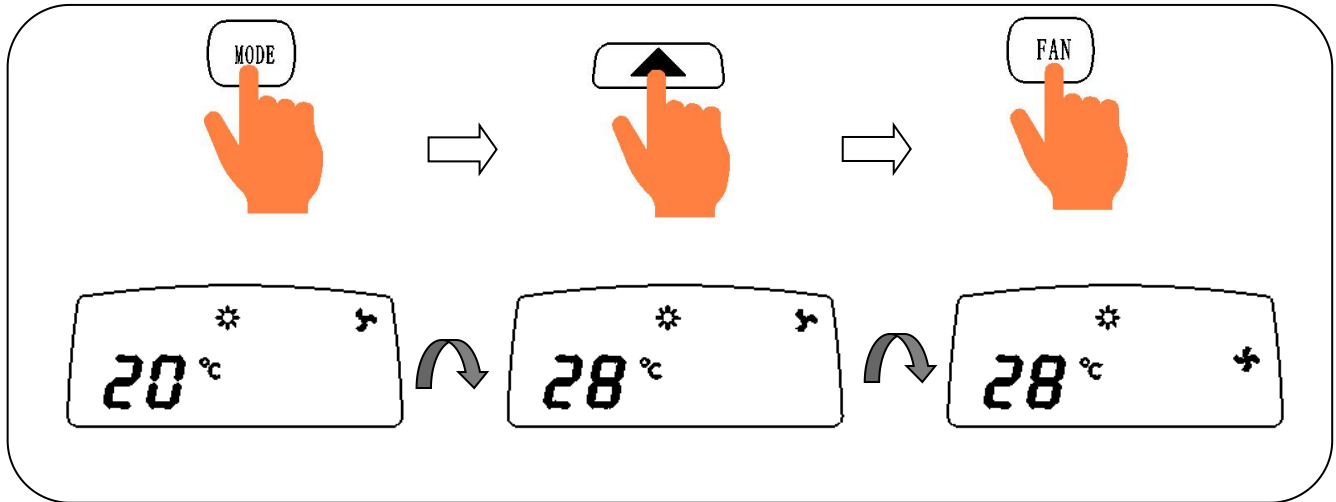
FAN mode

- Press the “MODE” key, select the “🌀” mode. Press the “FAN” key and cycle through Low/Medium/High FAN. The panel will display “🌀” and the indoor environment temperature.



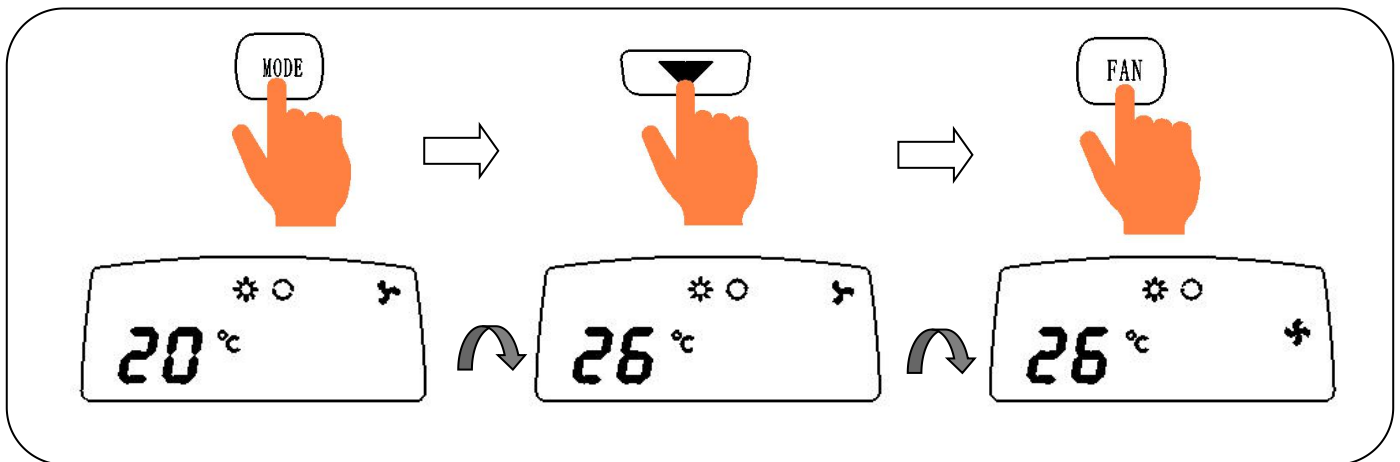
HEAT mode

- Press the “MODE” key, select the “☀” mode. Press the up “▲” key to set the temperature higher than the room temperature. Press the “FAN” key to select different speed. The panel will display “☀” and the indoor environment temperature (Initial 3 seconds flashing the set point temperature).



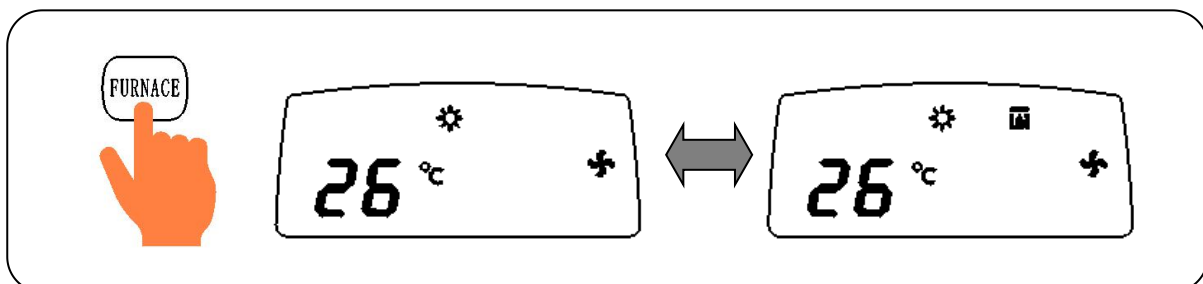
AUTO mode

- Press the “MODE” key, select the “⦿” mode. Press the up “▲” or down “▼” key to set different temperature. Press the “FAN” key to select different fan speed. The panel will display “⦿” and “☀” or “❄”, and the indoor environment temperature (Initial 3 seconds flashing the set point temperature).



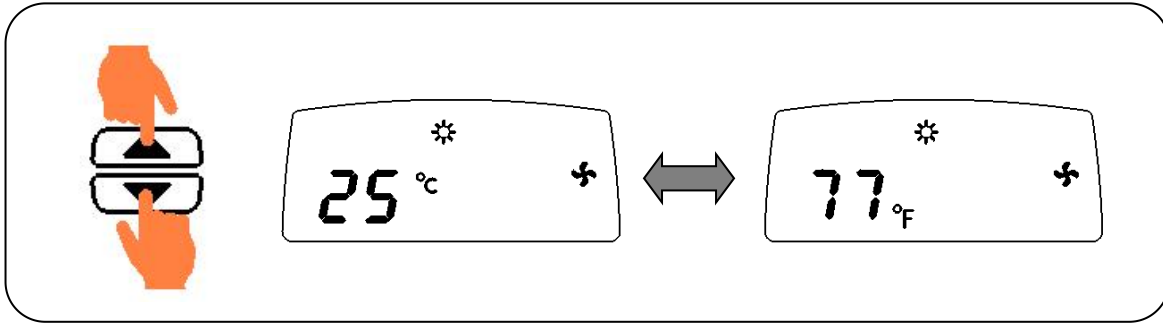
FURNACE mode

- This function is available in heat pump & furnace model only. Press the “FURNACE” key to activate furnace as primary heating and the buzzer sounds once. Heat pump operation will stop. Press the same key again to disable this overriding function and the buzzer will sound twice.



Celsius and Fahrenheit degree change

- In any mode, press up “▲” and down “▼” key at same time for 3 seconds. Switch temperature between Celsius and Fahrenheit units.

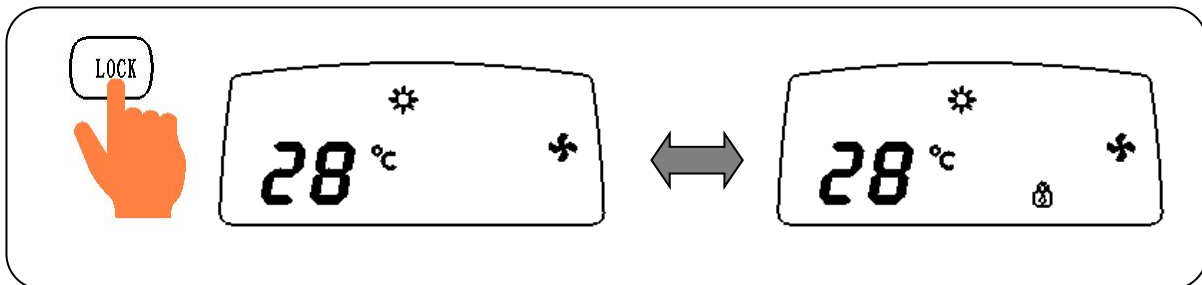


SLEEP

- Only available in COOL and HEAT modes. Press the “SLEEP” key to enter or exit sleep mode. Sleep mode is selected when the buzzer sounds once. The buzzer will beep twice when Sleep mode is cancelled. Sleep mode allows the set point temperature to change slightly when you sleep. This promotes greater comfort so that you don’t wake up too cold or heat.

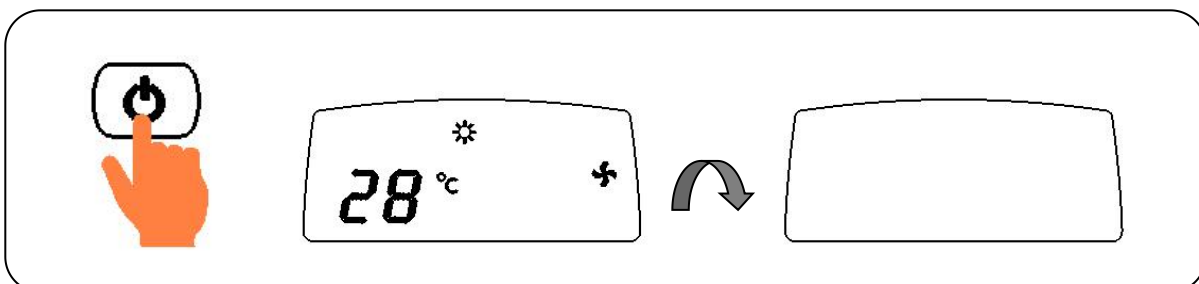
LOCK

- Short press of the “LOCK” key and the  symbol will display. Long press of 3 seconds to unlock. The other keys on the wall pad are invalid except for the ON/OFF “” key when the  symbol is displayed.



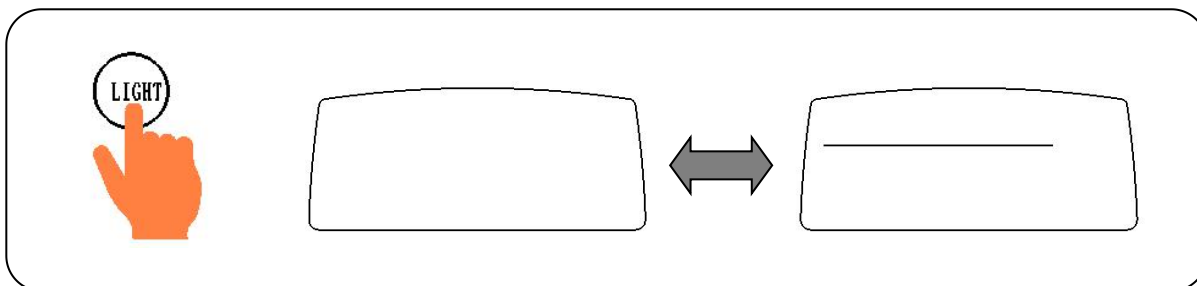
Turn off

- Press the ON/OFF “” key again, the unit turns off and the panel will be blank.



LIGHT

- This function only applies to air conditioners with LED lights.
- Control of the LED lights is independent of the ON/OFF “” key. Short press the “LIGHT” key to control the LED lights ON/OFF. When the LED light is ON long press the “LIGHT” key for 3 seconds to set the LED lights brightness and can be adjusted by up “▲” and down “▼” key.



Tips

- The remote controller should be operated by directing it toward the wall pad controller, which will beep once when a signal is received.
- The air-conditioner features power cut memory and automatic start up after power is restored.
- During operation in heating mode with low ambient temperatures the unit may occasionally enter an automatic defrost cycle to remove ice from the outside coil. Heating will temporarily cease, and the wall pad controller will show “dF”. Heating will resume as soon as the coil is defrosted.
- When the environmental temperature is lower than 0°C/ 32° F, the heating effectiveness is reduced.
- If the device is left unused for long time, please remove the batteries from the remote controller.

Product Maintenance

Filter

- The return air filters (#5) are the only components that need periodic maintenance.
- Check and clean the filter each week when in use to prevent the filters from being blocked by dirt and lint.
- The filter should be washed frequently to ensure effective cooling and heating.
- Pull out the filter from the plenum before washing in warm water with a touch of detergent.



Replacement filters can be ordered separately.

Hold down bolt check

- It is recommended that the bolts holding the unit to the roof are checked for tightness 3 months after the first installation of the product.
- These bolts should be regularly inspected every 12 months through-out the air-conditioners life.

Maintenance

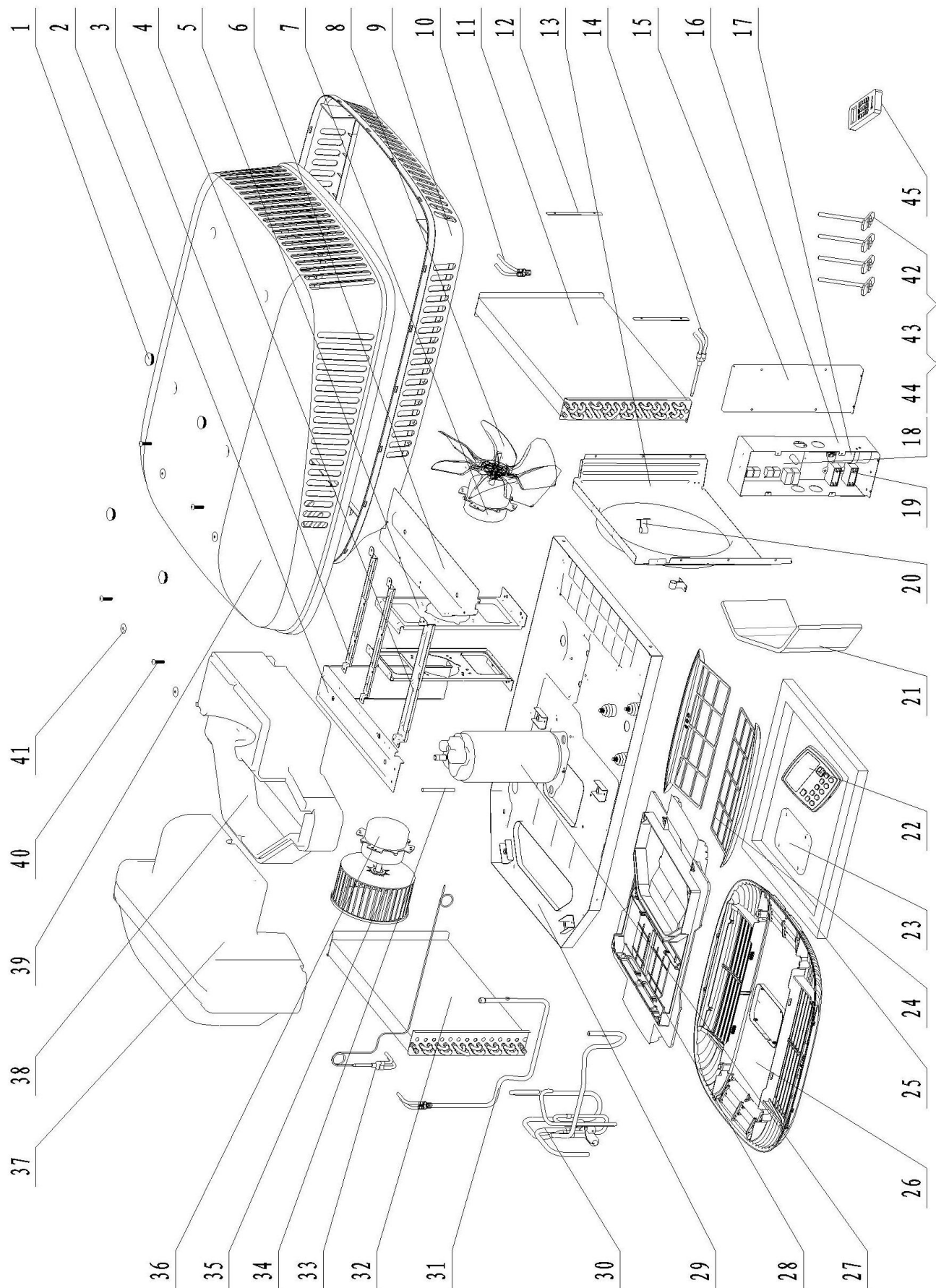
- It is recommended that the air-conditioner is operated regularly to ensure good performance.
- In the case of a caravan that will not be used regularly then the unit should be operated for 20-30 minutes every 6 months.

Specification

Model	A3501	A3800	T3500
Power supply	115V~/60Hz	115V~/60Hz	220-240V~/50Hz
Refrigerant charged	R410A/470g	R410A/650g	R410A/590g
Rated cooling capacity	13500BTU/H	15000BTU/H	3500W
Rated heating capacity	-----	15000BTU/H	3500W
Input power for cooling (W)	1300	1500	1300
Input power for heating (W)	-----	1300	1200
Rated current for cooling(A)	12	14	5.6
Rated current for heating(A)	-----	12	5.2
Maximum input power (W)	1550	1750	1500
Maximum current(A)	14	16	6.5
Maximum design pressure	550PSIG	550PSIG	4500kPa
Minimum design pressure	236PSIG	236PSIG	3000kPa
Maximum air flow	341CFM	341CFM	150l/s
Installed weight	74+6 (lbs)	80+6 (lbs)	35.5+2.8 (kg)
Outdoor unit dimension: Height 340mm/13 ³ / ₈ " Width 680mm/26 ³ / ₄ " Length 998mm/39 ¹ / ₄ " Plenum unit dimension: Height 43mm/1 ¹¹ / ₁₆ " Width 536mm/21 ¹ / ₈ " Length 557mm/21 ¹⁵ / ₁₆ "			

- Notes:** 1. All parameters listed are subject to change without notice and the nameplates on the machine shall prevail.
2. E&OE All values are approximate & subject to change.
3. Rated test condition: indoor 27°C DB/19°C WB、 outdoor 35°C DB/24°C WB

Exploded Diagram and Parts List



No.	Figure No.	Name	Qty
1	7330-1000-21	Screw cap	4
2	7330-1000-02	Spiral case	1
3	7330-1000-10	Motor mounting plate	2
4	7330-1000-09	Compressor mounting plate	1
5	7330-1020-01	Motor bracket	2
6	7330-1000-07	Condenser cover	1
7	7270-1020-02	Outdoor fan motor	240V
	7280-1020-02	Outdoor fan motor	115V
8	7270-1000-06	Axial fan	1
9	7330-1080-02	Base	1
10	7330-1522-00	Condenser inlet tube assembly	1
11	7330-1521-00	Condenser assembly	1
12	7330-1080-09	lining board	2
13	7330-1070-01	Fan ring	1
14	7330-1523-00	Condenser outlet tube assembly	1
15	7330-1000-11	Control box cover	1
16	7330-1700-01	Control box	1
17	TDQ-04205	Compressor Capacitor	240V
	7280-1700-03ZH2	Compressor Capacitor	115V
18	7330-1700-08	Main board	240V
	7370-1700-08	Main board	115V
19	TDQ-04106	Fan capacitor	240V
	7280-1700-04	Fan capacitor	115V
20	7270-1000-17	Pipe clamp	2
21	7379-1000-01	Air flow partition	1
22	7379-1710-00	Wall pad controller	1

No.	Figure No.	Name	Qty
23	7339-1010-07	Display mounting cover	1
24	7339-1010-06	Filter	2
25	7270-0000-08	Outlet gasket	1
26	7339-1010-01	Plenum assembly	1
27	7270-1000-01ZH1	Compressor	T3500
	7300-1000-01ZH2	Compressor	A3800
	7280-1000-01ZH2	Compressor	A3501
28	7379-1010-00	Plenum mounting bracket	1
29	7330-1010-00	Chassis base	1
30	7330-1500-00	Four way valve assembly	240V
	7370-1500-00	Four way valve assembly	115V
31	7330-1512-00	Evaporator outlet tube assembly	1
32	7330-1511-00	Evaporator assembly	1
33	7330-1513-00	Evaporator inlet tube assembly	1
34	7280-1000-08ZH1	Compressor locating rod	1
35	7330-1000-05	Centrifugal fan	1
36	7330-1030-02	Indoor fan motor	240V
	7340-1030-02	Indoor fan motor	115V
37	7330-1050-02	Upper foam housing	1
38	7330-1060-03	Lower foam housing	1
39	7330-1080-01	Canopy	1
40	18-10-60	Bolt, Pan head M6	4
41	18-33-18	Large M6 washer	4
42	4709-1100-01	Metal clamping bar	4
43	18-10-62	Bolt, Hex head M8	4
44	18-33-17	Large M8 washer	4
45	7339-1700-02 (GG)	Remote controller	1

Trouble Shooting Guide

No display on the wall pad controller when unit turn ON

- Check whether power is supplied to the RV.
- Check circuit breaker for AC supply power is ON.
- Check whether the remote battery is OK.
- Poor connection between the outdoor unit and the wall pad controller.

Cooling not available

- Make sure Cooling mode is chosen and the symbol is displayed “❄”.
- The set point temperature on the remote controller should be lower than the indoor temperature.
- The compressor has a start delay of three minutes.

Heating not available

- Make sure heating mode is chosen, and the symbol is displayed “☀”.
- The set point temperature on the remote controller should be higher than the indoor temperature.
- The compressor has a start delay of three minutes.
- More time will be needed to start heating under extremely cold conditions.

Poor cooling capacity

- Make sure the filter is clean.
- Turn the fan to high FAN to obtain the maximum cooling capacity.
- Make sure all the doors, windows and sunroof are closed.
- Curtains and awnings can be used to decrease the heating load.

Fault codes displayed on the panel

Communication fault	E0
Room temperature sensor fault	E1
Indoor coil temperature sensor fault	E2
Outdoor coil temperature sensor fault	E3
No cooling effect	E4
Outdoor coil temperature too high	E5
Outdoor temperature sensor fault	E8
Wall pad room temperature sensor fault	E9

E0: Wall pad and unit are not communicating correctly.

E1: Room temperature sensor

Temperature sensor fault.

E2: Indoor coil temperature sensor

Temperature sensor fault.

E3: Outdoor coil temperature sensor

Temperature sensor fault.

E4: No cooling effect.

E5: Outdoor coil temperature too high.

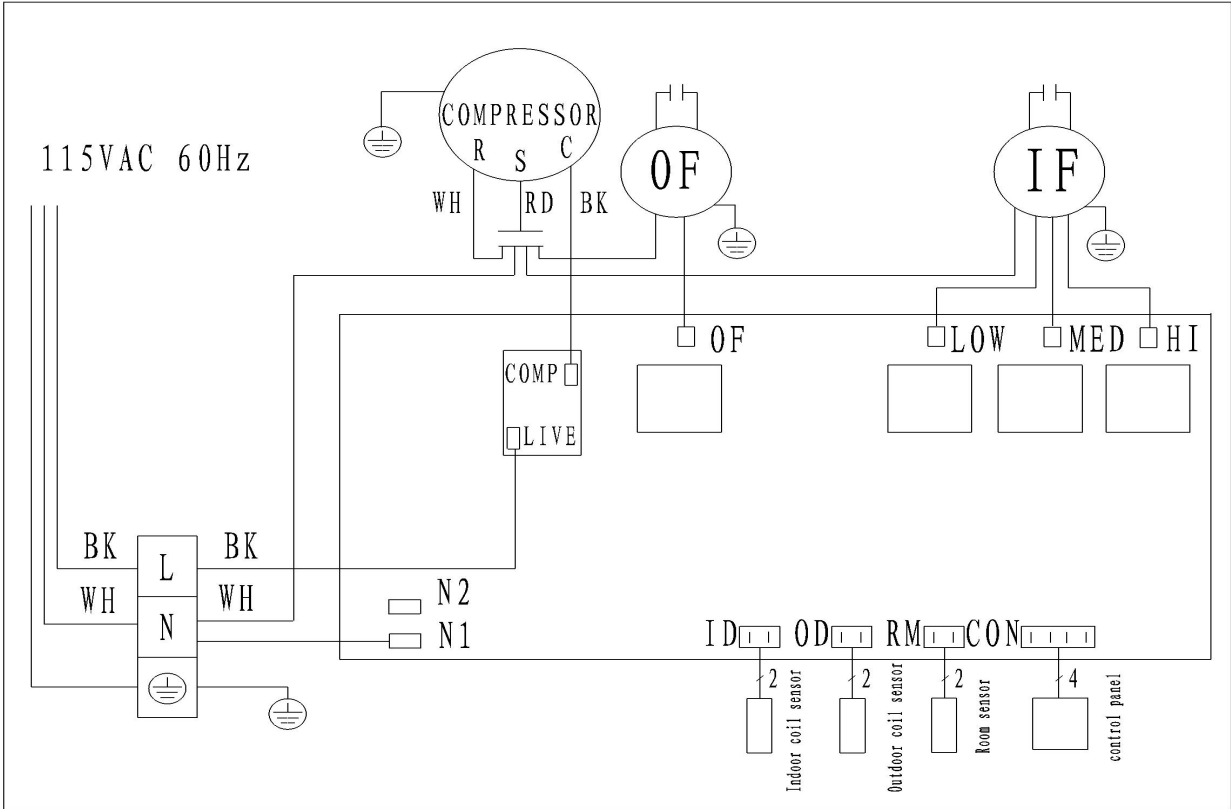
- In case where there is “0” or jumbled display characters this may indicate unstable supply voltage.

Answer the following questions as far as possible when contacting for fault diagnosis:

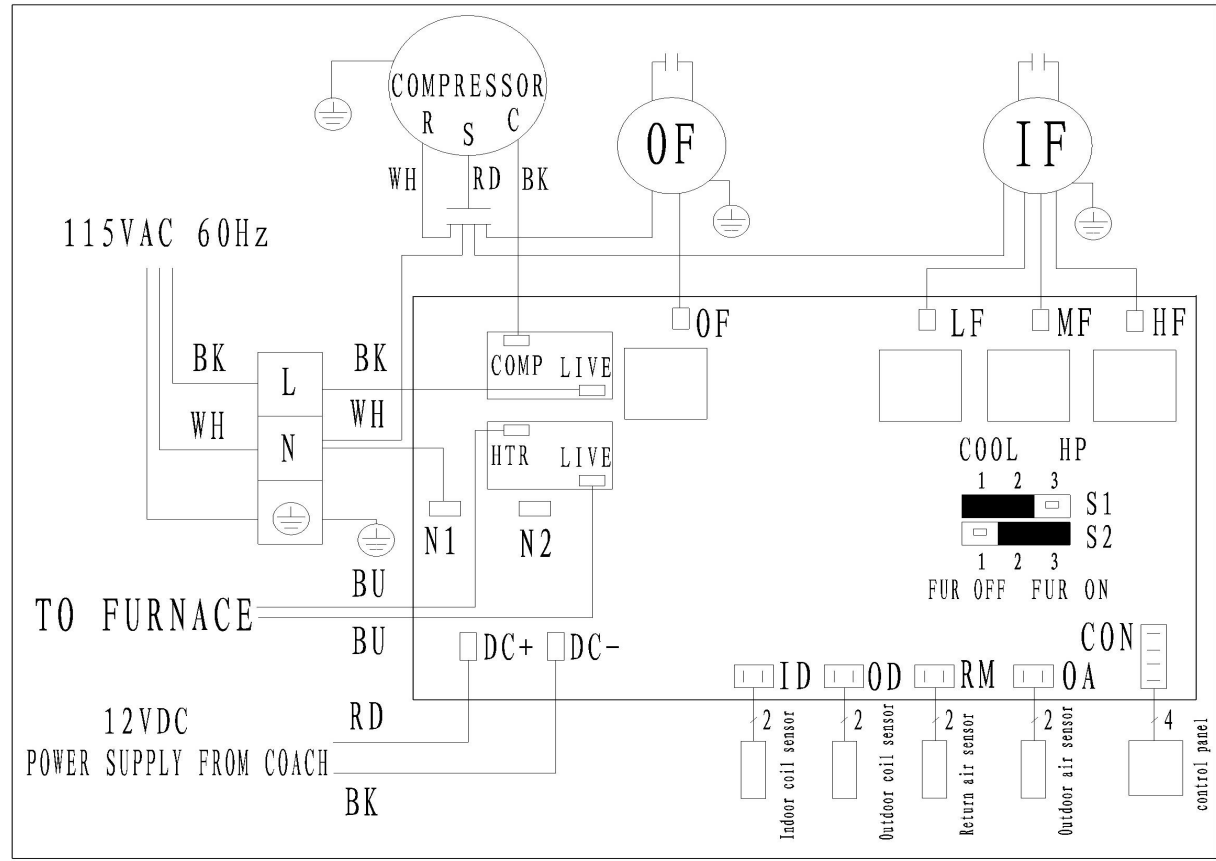
- Are any error codes displayed?
- Is the wall pad controller operating normally or not? Can you change the set point temperature from 16 to 30° C (60 to 86 °F) when in heating & cooling mode?
- Is there a “0” shown in the display?
- Are there jumbled characters shown on the display?
- Can you change the fan speed from low to medium & high and feel or hear the air flow changing?
- Can you hear the compressor starting or stopping?

Circuit Diagram

A3501

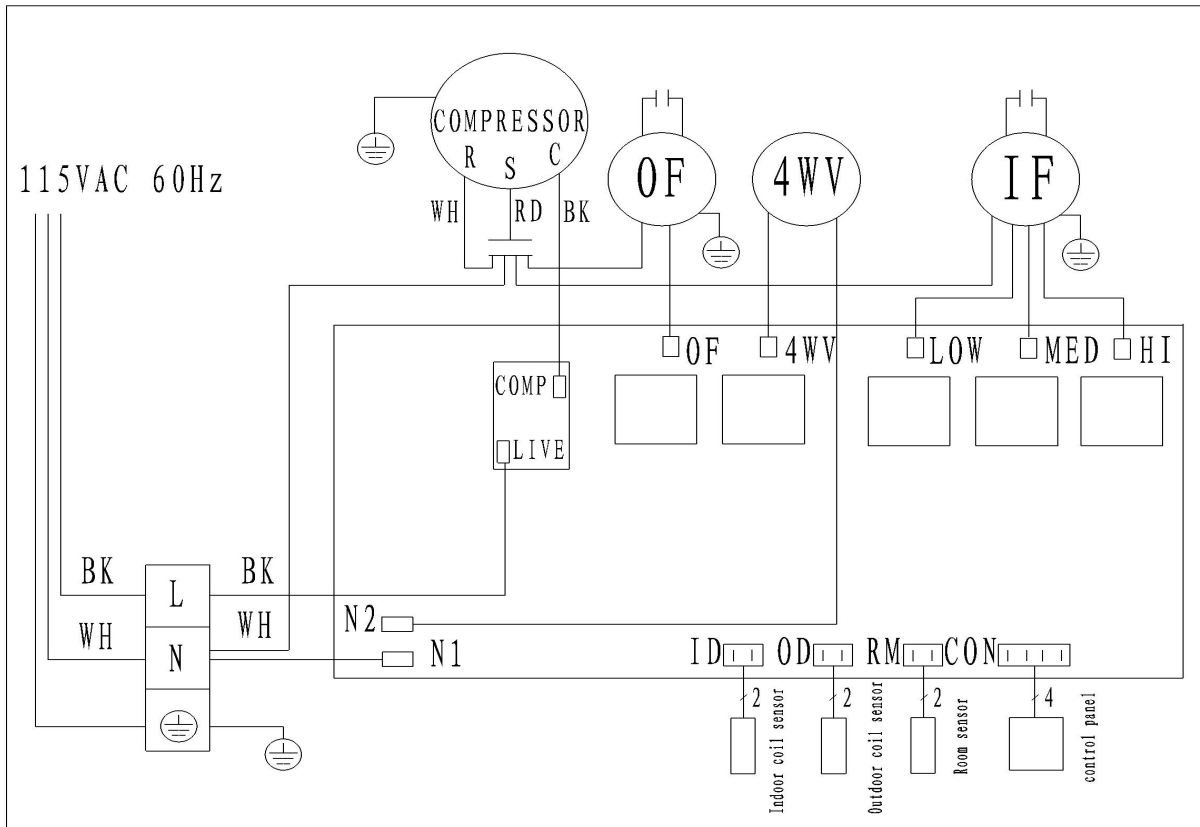


No FURNACE

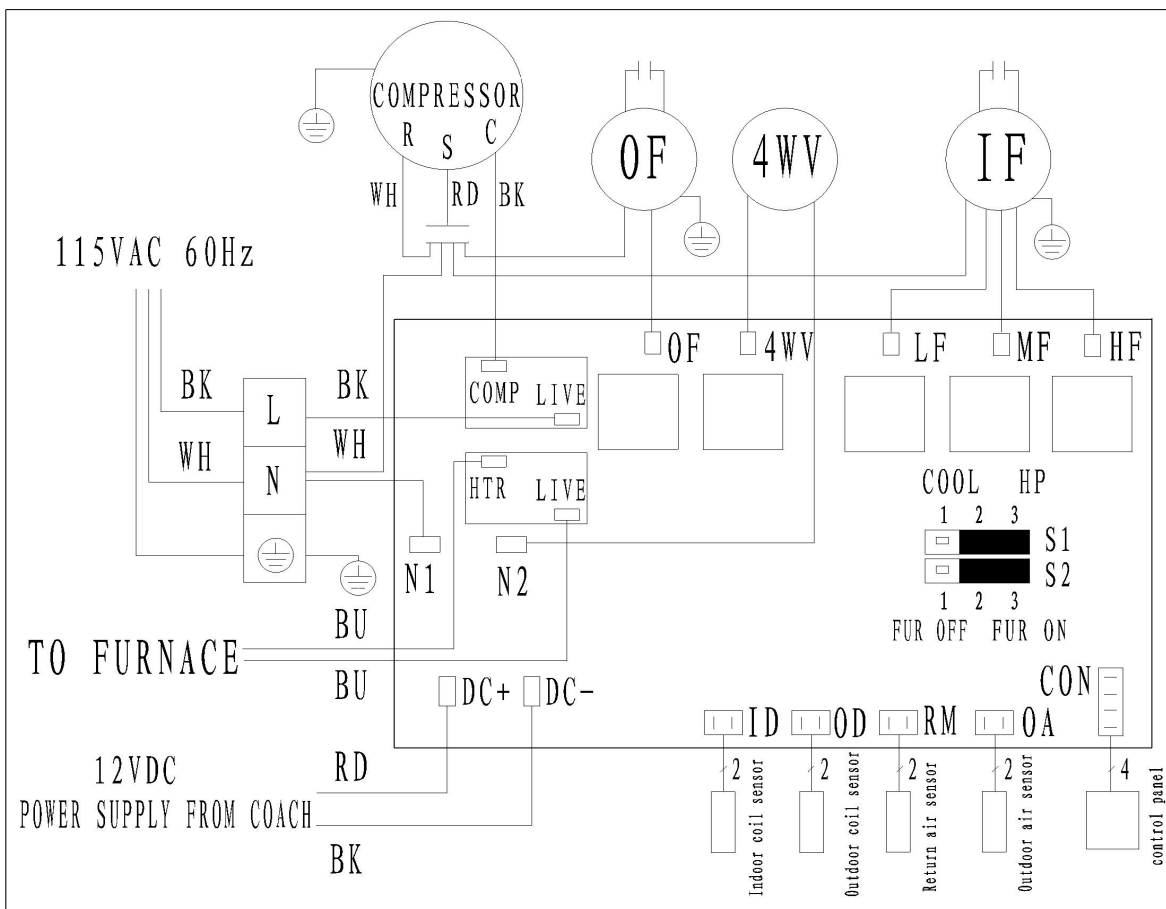


FURNACE

A3800

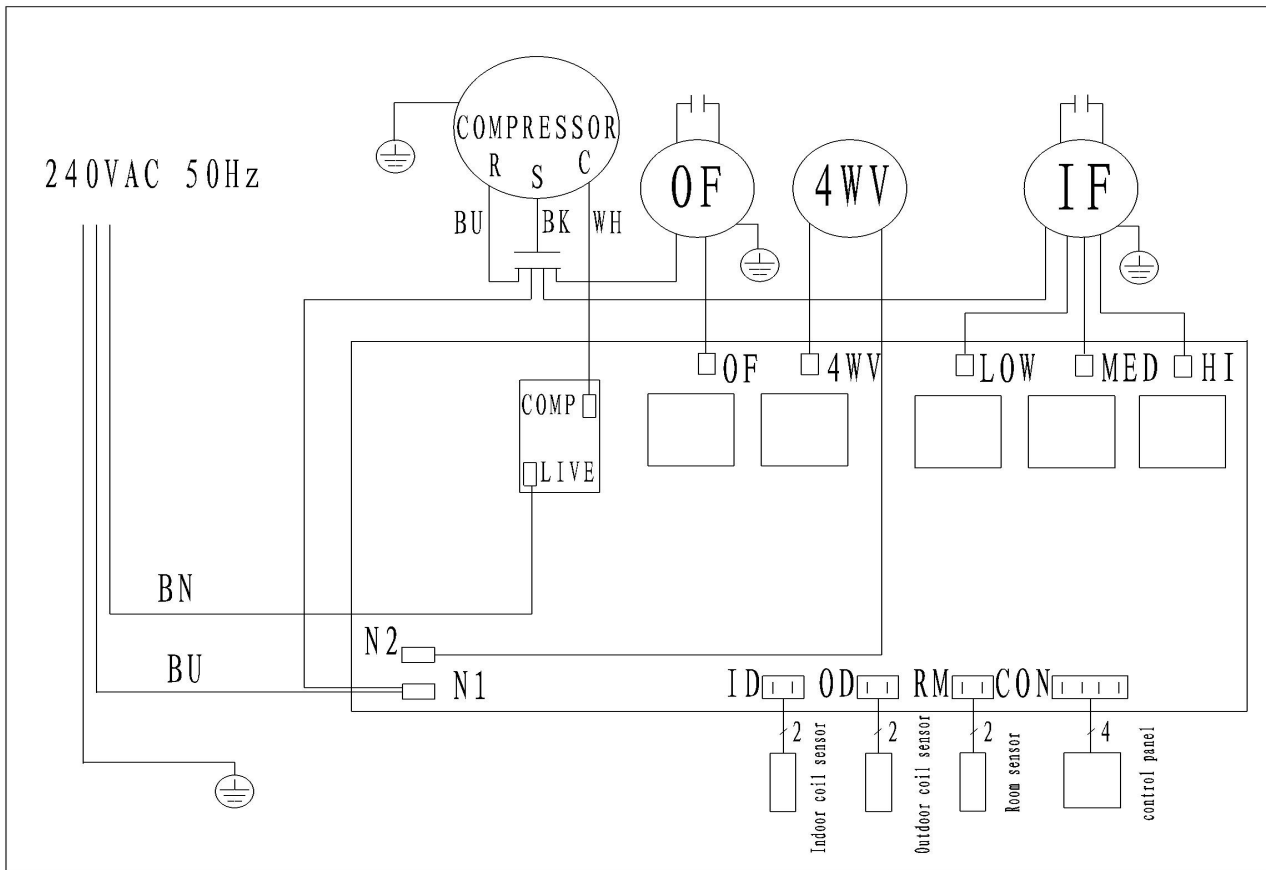


No FURNACE



FURNACE

T3500





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