
**SPLIT TYPE WALL-MOUNTED HEAT PUMP
ACDC HYBRID INVERTER SOLAR AIR
CONDITIONER**

OPERATION MANUAL



- To guarantee operating the unit correctly and safely, please read this manual carefully before using. Keep a suitable storage for reference.
- Please consign to professional to install the air conditioner to guarantee the safety and function.
- The unit must be earthed reliably.

1. PREFACE

This wall-mounted split air conditioner takes the modern design like the super quiet operation and the computerized control system.

Only proper installation and operation can assure the capability of the air conditioner. The air conditioner should be set up by the qualified technician to ensure safety use and good working.

2. SAFETY PRECAUTION

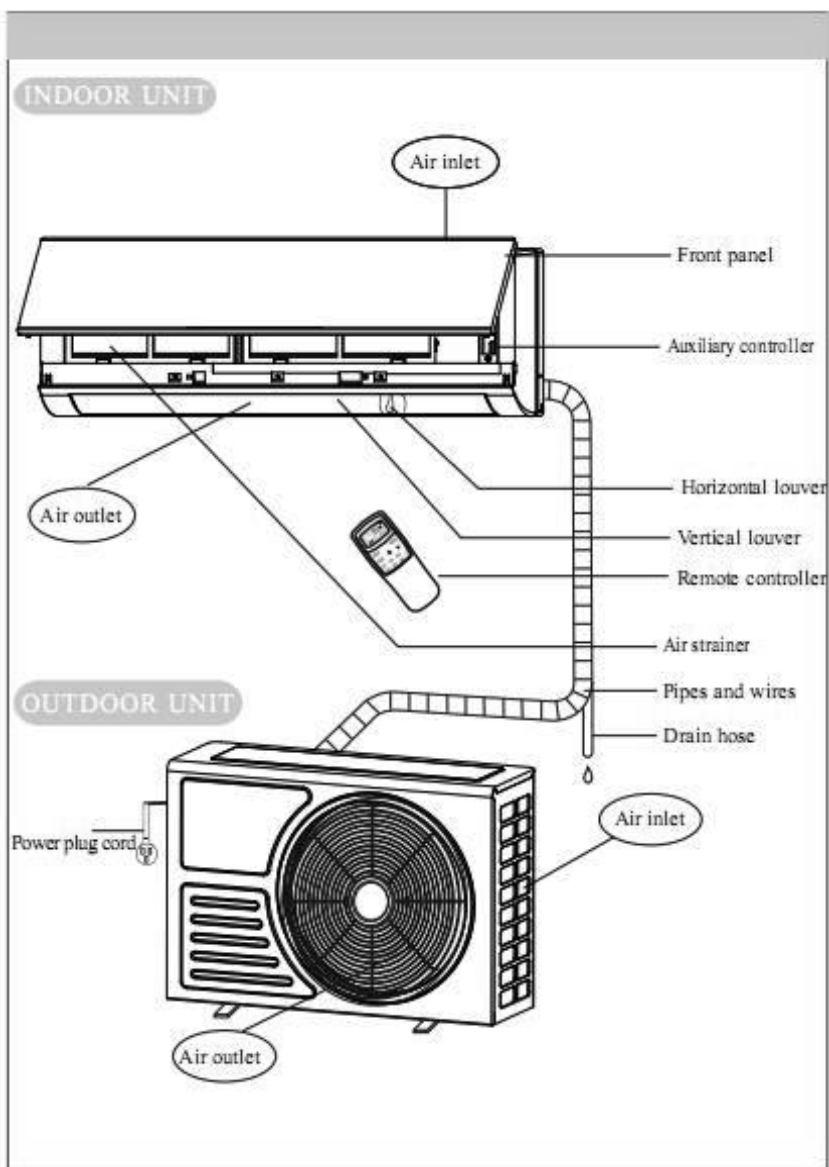
CAUTION

1. Do not take upon yourself to install, remove or re-install the air conditioner, improper installation may cause water leakage, fire or electric shock.
2. The unit must be earthed reliably; otherwise, it may cause shock, fire or other accident.
3. Ensure the plug plugged in reliably; otherwise it will lead to shock, overheated or fire.
4. Do not stop the unit by pulling out the plug; otherwise the plug will be loosened.
5. Do not damage the wire or use unspecified wire; otherwise it will cause shock or fire.
6. Do not connect the plug and other plugs on one socket; otherwise it will lead to shock or fire.
7. Do not operate with wet hand; otherwise you will get a shock.
8. Do not insert obstacle into the air inlet or air outlet, otherwise mechanical injury or other danger will happen.
9. Do not expose persons to single direction airflow for a long time to avoid harm to your health.
10. Shut off the power if there is abnormality (smoke, sparks or flame). Please contact the agent or maintenance department.
11. Do not attempt to repair the air conditioner by yourself, improper reparation will cause shock or fire, please contact the agent or maintenance department.

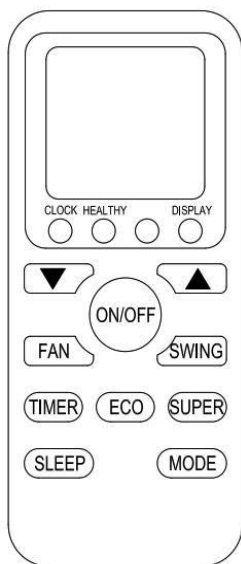
NOTICE

1. The quality of the electric outlet must be reliable; otherwise it will cause fire or other accident.
2. Ensure proper connection of drain pipe. Otherwise, it may cause water leakage or moisten the wall.
3. The base and bracket of the unit must be rigid and stable. Otherwise, the units may drop down or produce abnormal vibration and noise.
4. The unit must be kept away from flammable gases. Leakage gas that surround the air conditioner may cause fire.
5. Do not remove plug by pulling the cord, pull the plug body only. Otherwise overheating and fire would happen.
6. Please remove the plug if not using air conditioner for a long time. Overheating and fire would happen if much dust in plug.
7. Clean the unit only after shutting off the power to prevent from shock or damage to the unit.
8. Do not use air conditioner for other purpose. The air conditioner is not suitable to conserve precise instrument, foodstuff, plant, etc.
9. Do not put the heater in front of the air conditioner. Incomplete burning may release toxic gas carbon monoxide.
10. Do not use water to clean the air conditioner, it may cause a shock.
11. Please check the reliability of the unit's brackets after a long term application. If the bracket is defective, the outdoor unit may drop or become damaged.
12. Do not get on the outdoor unit or put anything on it to prevent from drop.

3. STRUCTURE



4. OPERATION METHOD



TEMP UP	Press it to increase the temperature /time setting
TEMP DN	Press it to increase the temperature /time setting
ON/OFF	Press it to start or stop operation
FAN	To select the fan speed low/mid/high
TIMER	Press it to set auto-off timer
SLEEP	To activate the function "SLEEP"
ECO	Press it , the air conditioner will work in Fixed frequency, run in Economic operation method
MODE	To select the mode of operation
SUPER	Press it to activate/deactivate the Super function which enables the unit to reach the preset temperature in the shortest time.
SWING	To activate /deactivate the movement of fan blade
CLOCK	Press it , the time will be flickering; then press UP/DOWN to adjust the time. Press this bottom again to fix the time
DISPLAY	To switch on/off the LED display
HEALTHY	To switch on/off HEALTHY function, it is a button which controls the Ionizer or plasma generator for inverter models

Installation of batteries:

- Remove the cover of batteries box
- Insert two batteries. Make sure that the batteries are inserted in the correct direction.
- Replace the cover.

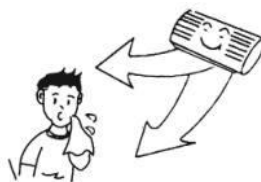
	1. Point the remote controller at the receiver window.
	2. Be sure that there is no ay barrier between the receiver window and the remote controller. Valid distance is less than 7m.
	3. Do not leave any liquid flow into remote controller or place it under the sunlight or any heat source.
	4. Do not fall down the remote controller or expose it to strong impact. A 'Du' sound is heard when a signal is received.

5. OPERATION GUIDE

Set temperature to proper level. For your health and saving energy, the temperature shouldn't be set too low or too high.



Set suitable air flow direction. Best effect with horizontal louvers swing down in heating and flat in cooling.



In order to enhance cooling efficiency, you should close the door, window and window curtain, avoid solarization directly.



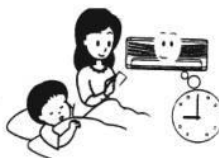
Please regularly clean the air strainer, if it is blocked the heating/cooling efficiency will reduce. Clean the air strainer once every two weeks at least, dry it after cleaning.



Do not obstruct the air outlet of outdoor unit or else reduce heating/cooling effect.



Properly select timing or sleeping function on your demand only.



6. MAINTENANCE

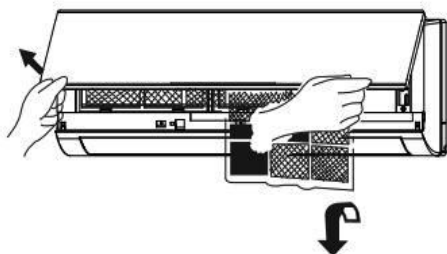
(a) Clean the air strainer

Clean the air strainer

Because there is dust in the room, please clean the air strainer regularly. Follow the direction below:

- 1) Open the front panel.
- 2) Pull the air strainer and clean it.

Clean dust in the air strainer with dust collector or washing in cold water. Then air in shady place.



(b) Maintenance

A. When the unit will not be used for a long time

Run in ventilating mode for 3~4 hours to dry the indoor unit

Switch off the air conditioner and unplug it

Take out the batteries in the remote controller

Clean the air strainer

Clean dust and rubbish on the outdoor unit

If the outdoor unit is rusty, the position rusted should be painted to prevent expanding.

B. Please check the unit before use, after a long time period of no operation

Check the reliability of earthing

Check if any obstacle clogging air intake and air outlet of outdoor unit

Check if drain hose is damaged

Check if any damage occurred of bracket of outdoor unit

Check if batteries in remote controller require replacement

Running the air conditioner for 15minutes, if temperature difference between intake air and exhausted air in cooling mode is $\geq 8^{\circ}\text{C}$, that is normal.

1. Turn power off during cleaning and maintenance.
2. Do not clean the units with water or wet them, there is a danger of shock.
3. Do not use water with temperature $\geq 40^{\circ}\text{C}$ to clean air conditioner or air strainer, or may cause distortion.
4. Volatile liquid like gasoline will damage the surface of air conditioner.

7. TROUBLE CHECKING

Trouble checking

Following are not troubles, so please check again before calling for service.

Phenomena	Analyze
The air conditioner will not start immediately	After stopping, the air conditioner will start again after 3 minutes.
At the moment of starting, sometimes peculiar smell is emitted.	The reason is air conditioner suck into and blow out again the smell of furniture and cigarette when it conditioning the air.
Slight flowing noise will be heard while the unit is running.	This is the noise of refrigerant in the refrigerant cycle.
Sometimes mirage appears in cooling mode	This is caused by quick freezing of the air.
Sometimes light sound of cackle is heard while the unit is powered on/off.	This is caused by grating of swell of some parts like front panel causing by the varieties of temperature.
The air conditioner doesn't work.	Check if power is off.
	Check if plug is unplugged.
	Check if circuit breaker is open.
	Check if voltage is normal.
	Check if the temperature setting is correct.
	Check if timed on function is properly set.
Performance of cooling and heating of air conditioner is bad.	Check if the temperature setting is proper.
	Check if any obstacle clogging air inlet and outlet of outdoor unit.
	Check If the air strainers are clogged by dust
	Check if airflow speed is set at low speed.
	Check if there are any other heat sources.
The remote controller will not work.	Check if all the windows and doors are closed
	Check if the batteries' power is in full, otherwise replace them.
	Check if the distance is in the receivable range or there are any barrier.
There is big noise when running.	Check if auxiliary controller of indoor unit is set at 'Remote.'
	Check if installation of air conditioner is not horizontal.
The LED display defrosting in heating, indoor unit stops working for 10 minutes.	The unit is thawing out frost piles on the outdoor unit at the moment.
	Do not repair the air conditioner by yourself, improper reparation may cause shock or fire.

TROUBLE CHECKING

Trouble checking

Please shut off the power if there is abnormality as following, and contact the agent.

There is harsh noise when the air conditioner working.

- The fuse and breaker often act.
- The power cord and plug are very hot.
- The indoor unit leaks water.
- The surface of the unit becomes electriferous.
- There is peculiar smell during the air conditioner working.



8. INSTALLATION

(a) Requirement of indoor unit

- * Install air conditioner on a rigid wall without vibration and level it.
- * No obstacle in front of air intake and outlet grills.
- * Keep away from heat sources, flammable gases and places with high humidity.
- * Do not expose the front panel to sunlight directly, should not have strong magnetoelectric disturbance in the using occasion.
- * Convenient to connect with outdoor unit, exhaust water can be drained easily.
- * Near the power outlet or special cable.
- * Leave enough space for convenient maintenance.
- * The indoor unit should be set up higher than the eye level.

b) Requirement of outdoor unit

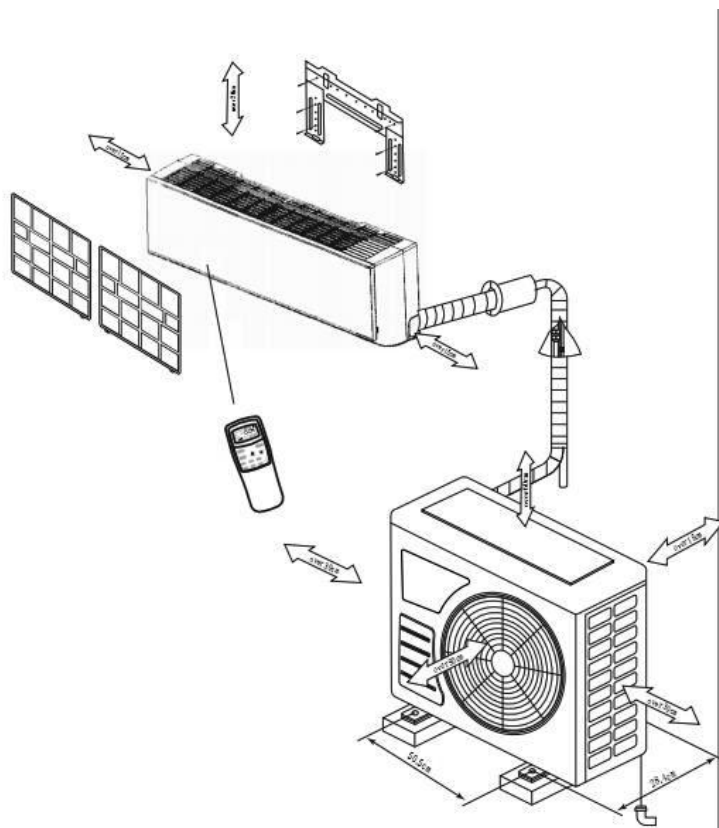
- * The outdoor unit should be installed on a rigid base.
- * It is necessary to leave certain space around the outdoor unit.
- * To prevent from rain and direct sunlight, a shelter is needed.
- * The unit must be away from heat sources and flammable gases.
- * Avoid neighborhood trouble caused by noise and hot air.

Air conditioner is not suitable for using in the following working condition:

Vehicles and vessels	Places with high oil fumes
Places with high humidity like bathroom and basements.	High corrosive places like sulfur springs.
Special condition	Places with high frequency equipment

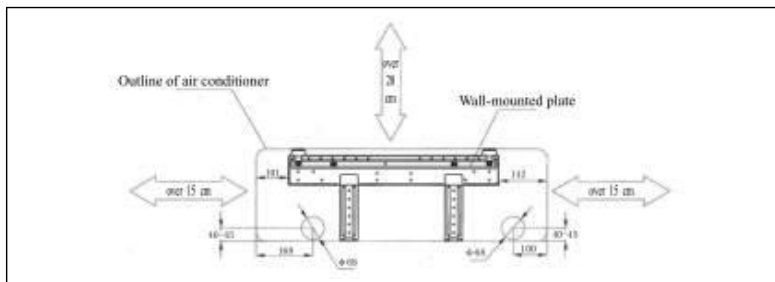
INSTALLATION

c) Installation step



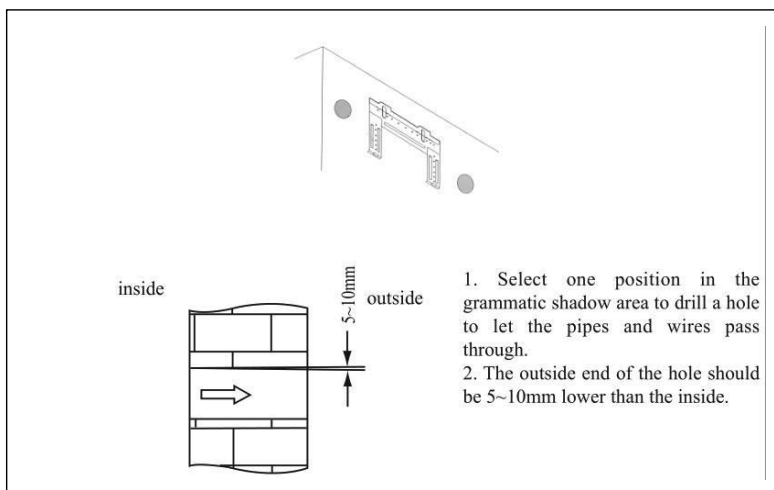
INSTALLATION

(1) Install wall-mounted plate



1. Fix the location of wall-mounted plate according to the installation position of indoor unit and the direction of pipes. Please leave enough place for installation.
2. The wall-mounted plate should be fixed horizontally and vertically, or the water will drop on the floor.
3. The wall-mounted plate is directly fixed to the wall with 6 screws at least.
4. The wall-mounted plate should be able to bear a weight of 50kg.

(2) Drill hole



1. Select one position in the grammatic shadow area to drill a hole to let the pipes and wires pass through.
2. The outside end of the hole should be 5~10mm lower than the inside.

INSTALLATION

(3) Requirement for electricity

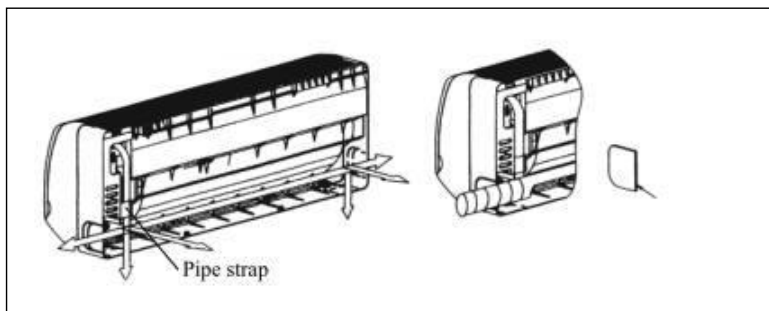
Note:

- Use a special power circuit with suitable capacity for the air conditioner. ($\geq 16A$)
- Select proper fuse and match with a leakage protector.
- The air conditioner should be equipped with a special switch, a plug and earthed reliably.
- Do not change power cord or plug.
- The voltage range of the power supply should be DC /AC as the specification.

(4) Install the connecting pipes

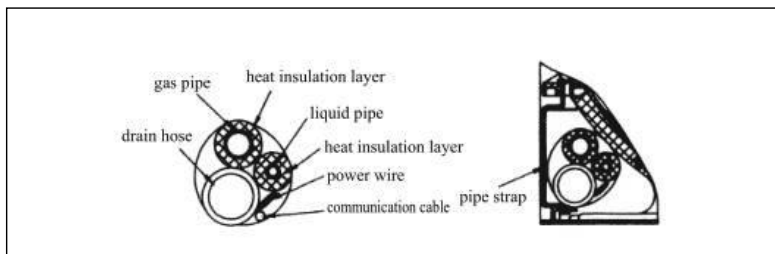
Note:

- Never turn the nuts off from the connecting pipes' ends before connecting the pipes of indoor and outdoor units.
- After turning the nuts off from the connecting pipes' ends, the pipes should be connected immediately to prevent dust and water entering the system.
- The tie-in nut can not be fixed excess tight or loose, otherwise leakage will easily occur.
- If pipes need to be bent when connecting, attention must be paid not to bend the pipes shriveled, the bending radius should be over 10cm.
- Frequently bending or stretching the pipe will harden it, so bending a pipe in the same section should not be over 3 times.
- Before bending the pipes, please arrange the wires, drain hose and pipes. Do not damage the drain hose.
- Be careful when bending, do not damage the heat insulation layer.
- Do not remove the pipe strap when connecting.



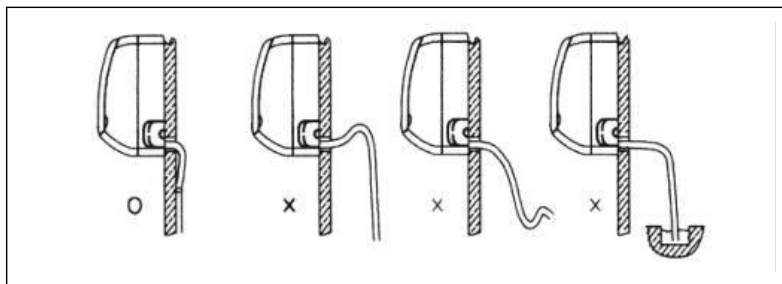
INSTALLATION

1. Please select a suitable direction of the connecting pipe according to what you need, a slot should be sawed for the passing of the connecting pipes.
2. Remove the nuts from the connecting pipes and pipes inlets of the indoor unit.
3. Drop a little refrigerant oil to the flare fitting of connecting pipe, then align the flare fitting with the outlets and tightly secure the nuts.
4. To bind the connecting pipes, power wire and drain hose together with binding belt. The drain hose must be set below.
5. Hand the indoor unit to the wall-mounted plate, move the unit to ensure if it is fixed, press the left and right of the unit with hands till a sound of 'click'.



(5) Installation of the drain hose

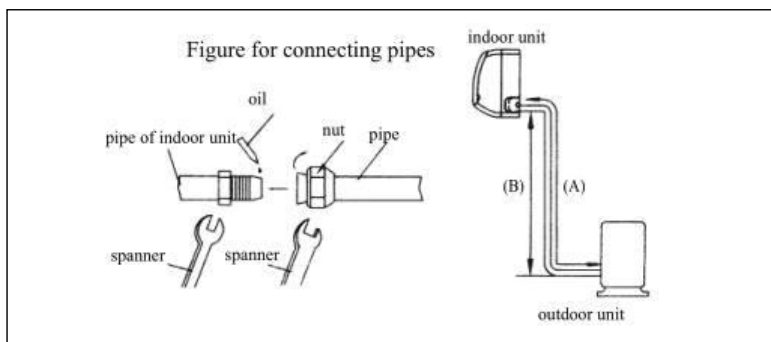
1. The drain hose should be distributed downward so the water can drop, the hose can not be skew, undulant or scraggly, and do not put the end of the hose to the water.
2. If the drain hose is not long enough, additional hose can be connected with, the hose in the room should be bound with heat insulation material.



INSTALLATION

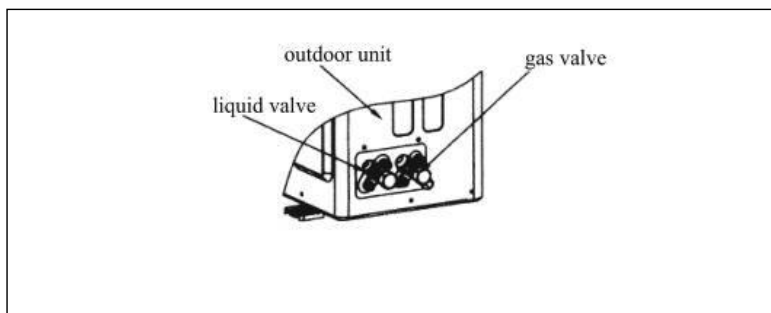
(6) Connect the pipes of indoor and outdoor unit

1. Drop a little refrigerant oil to the flare fitting of connecting pipes, then align the flare fitting with the outlets and tightly secure the nuts.
2. Two spanners should be used when connecting the indoor unit connecting pipes especially for the liquid pipe. If fixed excess fasten the pipe will be distorted and damaged.
3. Length of single connecting pipe allow max.length (A): 7m;
4. The max fall of connecting pipe (B): 4m
5. Refrigerant must be added 30g/1m as the connecting pipes lengthened.



(7) Air exhausting of system

Air exhausting of system must be discharged from gas valve.



INSTALLATION

(8) Leakage checking

Method of leakage checking

- Special leakage checker

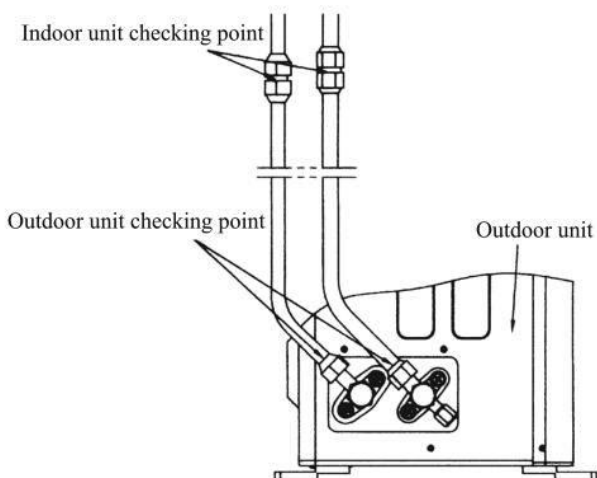
Turn on the checker, and set the checker on 'auto', and set the sensibility on 10Stdcc/s. Put the finger to zero and preheating for 2-3 minutes. Make sure the checker is OK.

Keep the sensor near the surface to detect for 2-5mm, and move it slowly. When the checker gives a warning, it need check again. If the checker does not warn, it shows the leakage doesn't occur. If the checker gives a warning continuously, it shows the leakage occurs.

- Soap water leakage check

Dip sponge or cloth in soap water, then coat the soap water to checking point with it. Check if there is any bubble. If yes, repair it then check again until there is no leakage. After the leakage checking finished, wipe off the soap water and bind the pipes.

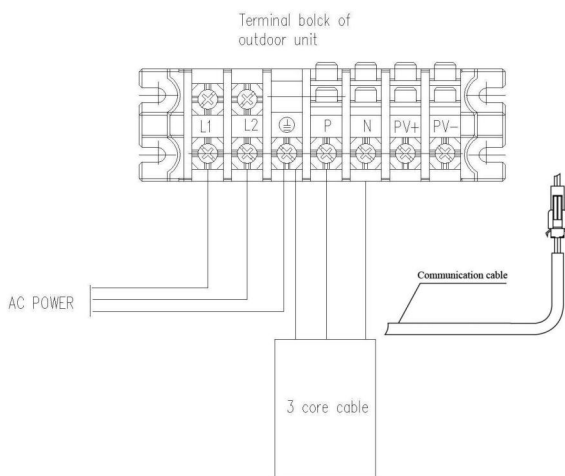
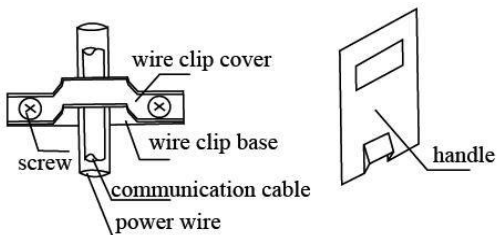
Figure for the leakage checking point



INSTALLATION

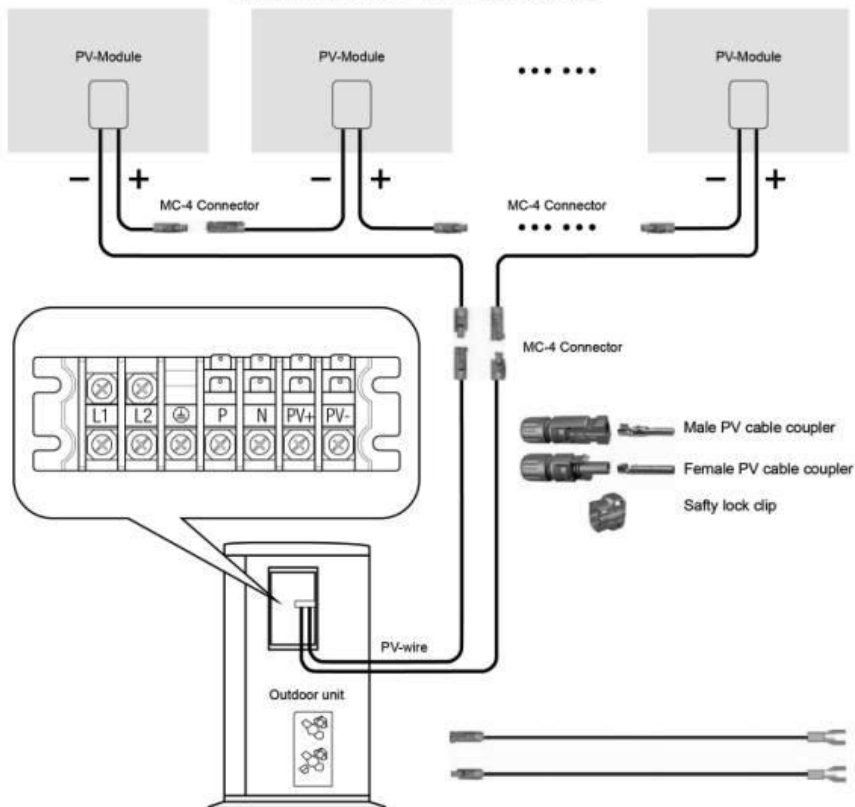
(9) Connect the power wire between the units

1. Please remove the handle before connecting the wires, and install them after connection.
2. When connect the wires, the color of wires should be corresponding to the color of the terminal board.
3. When connecting, the earth wire (YL/GRN) should be connected first then the current-carrying wires (BRN....). When disconnecting, the current-carrying wires should be disconnected first, then the earth wires.
4. The ends of wires must be inserted firmly into the terminal board and tightened with screws, otherwise the air conditioner cannot operate normally and some accident may occur even. Connect the communication cable connector reliably.
5. Remove the screw of wire clip cover, and locate the power wire between the cover and base.





Maximum number of PV -modules in one system: 5



ASSEMBLY OF PV-WIRE

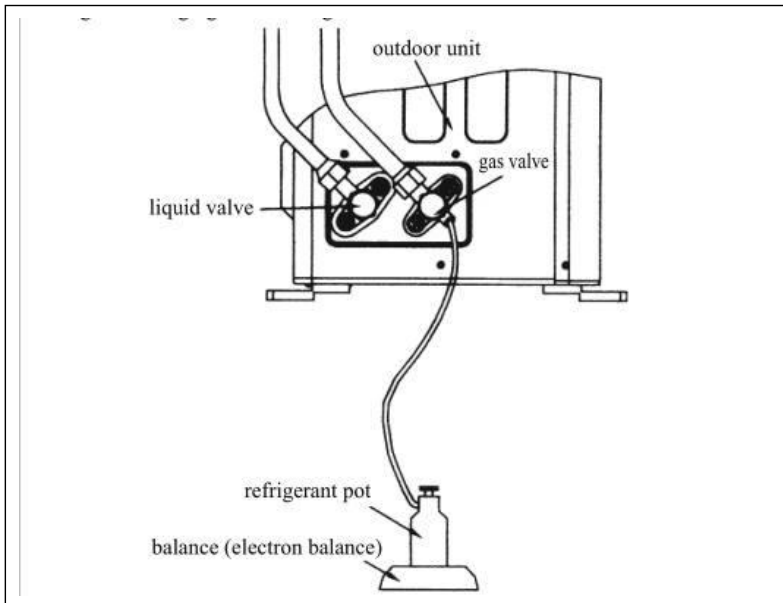
1. The PV-wire should be single-pole, double insulated solar cable, the length of which is due to the distance from PV-modules to outdoor unit of AC, the recommended conductor cross section is AWG 12, and it should accord with UL4703
2. The MC-4 connectors should be assembled to the PV-wires, and the other side of the PV-wires should be assembled with spade terminals.

INSTALLATION

(10) Adding refrigerant

The method of adding refrigerant

1. Let the unit run in cooling mode.
2. Unscrew the nut of the gas valve.
3. Clamp the power wire of the unit with a pincers ammeter or balance the refrigerant pot with a balance (or an electron balance).
4. Screw the tie-in nut of the refrigerant charging pipe to the charging hole of the unit just a little.
5. Open (just half) the knob valve of the refrigerant pot.
6. After 3 seconds, screw the tie-in nut of the refrigerant charging pipe.
7. Read the number of the pincers ammeter or electron balance. Refrigerant charging finished.
8. Close the knob valve of the refrigerant pot, remove the pot, seal and screw the nub of the gas valve.



- | | |
|----|---|
| 1. | If adding refrigerant, it must be charged from the charging hole of the gas |
|----|---|

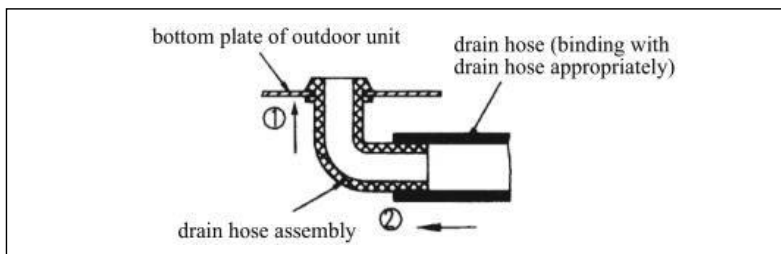
	valve.
	2. The supplementary of refrigerant must be performed during cooling operation.
	3. Do not charge the liquid refrigerant directly.

INSTALLATION

(11) Installation of drain hose assembly

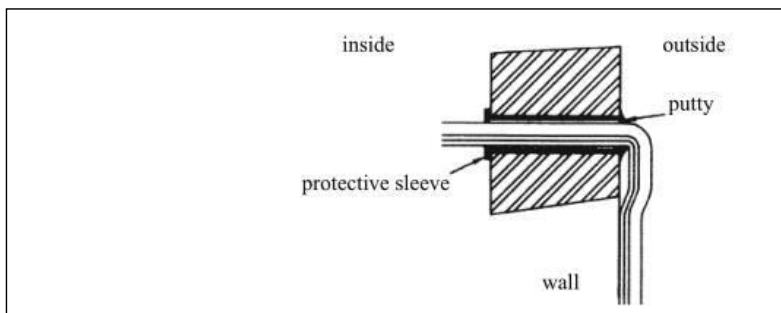
Note:

1. If you want the drain of outdoor unit to be distributed in certain direction, then before installing the outdoor unit to the bracket:
 - (1) Install drain hose fitting into the drain hole of the outdoor unit bottom plate;
 - (2) Install drain hole (prepare it yourself).
2. If the drain hose fitting is used, the outdoor unit should be installed in a bracket more than 3 cm.



(12) Finishing

1. Pack up the connecting wires and pipes.
2. Sealing the gap of the wall hose with putty to prevent rain water and wind from going into the room.
3. Fix the drain hose to the outside wall.
4. Cover the hole in the indoor wall with the protective sleeve.
5. Operate the air conditioner and check if it can run normally.



Technical Data of Full DC Inverter Air Conditioner

Model			RT-26GW/OG	RT-35GW/OG	RT-52GW/OG	RT-72GW/OG
Cooling capacity	W		2500W (780W-2800W)	3500W (960W-3900W)	5000W (1200W-5500W)	7000W (1800W-7500W)
Heating capacity	W		2500W (760W-2800W)	3500W (950W-3900W)	5000W (1350-5500W)	7000W (1500-7500W)
Air flow	m³/h		590	700	900	1200
Power supply	V, Hz		80~380VDC/208-240VAC,50/60Hz 1PH			
Rated input current for cooling	A		2.1A DC	2.5A DC	4.3A DC	5.6A DC
			2.9A AC	3.6A DC	6.2A AC	8.1A AC
Rated input current for heating	A		2.1A DC	2.5A DC	4.3A DC	5.6A DC
			2.9A AC	3.5A DC	6.1A AC	8.0A AC
Rated input power for cooling	W		630 (140W-750W)	770 (190W-950W)	1320 (220W-1450W)	1720 (570W-1950W)
Rated input power for heating	W		620 (130W-750W)	750 (170W-950W)	1300 (250W-1450W)	1700 (590W-1950W)
SEER	W/W		4.96	5.97	4.39	4.1
SCOP	W/W		3.27	3.41	3.69	3.9
Noise level	Indoor unit	dB(A)	22-37	24-40	29-43	29-45
	Outdoor unit	dB(A)	≤50	≤51	≤54	≤56
Net Weight	Indoor unit	KG	10.2	12	12	18
	Outdoor unit	KG	32	34	42	52
Net Dimensions D×B×H	Indoor unit	mm	820*190*274	820*190*274	900*202*280	900*202*280
	Outdoor unit	mm	760*259*537	760*259*663	823*276*649	900*440*853
Refrigerant	Type		R410A/R32	R410A/R32	R410A/R32	R410A/R32
	Charge	Kg	0.7	1.0	1.2	1.5
Pipe Size	Liquid Pipe	inch	Ø 1/4"	Ø 1/4"	Ø 1/4"	Ø 1/4"
	Gas Pipe	inch	Ø 3/8"	Ø 3/8"	Ø 1/2"	Ø 5/8"

Note:

1. Rated conditions

- (1) Cooling: inside: 27℃ DB outside: 35℃DB
 10℃ DB outside: 24℃DB
 Heating: inside: 20℃ DB outside: 7℃DB
 15℃ DB outside: 6℃DB

(2) Horizontal louver is set in initial position, indoor fan speed is max.

2. Max. conditions:

- Cooling: inside: 32℃ DB outside: 35℃DB
 23℃ DB outside: 24℃DB
 Heating: inside: 27℃ DB outside: 24℃DB
 ? ℃ DB outside: 18℃DB

No notification of any update of the products. Details are subject to the label stuck on relative models.

