

OWNER'S MANUAL

INSTALLATION AND OPERATION
INSTRUCTION MANUAL



Ksib

DC INVERTER
TECHNOLOGY

ULTIMATE COOLING & HEATING SOLUTION

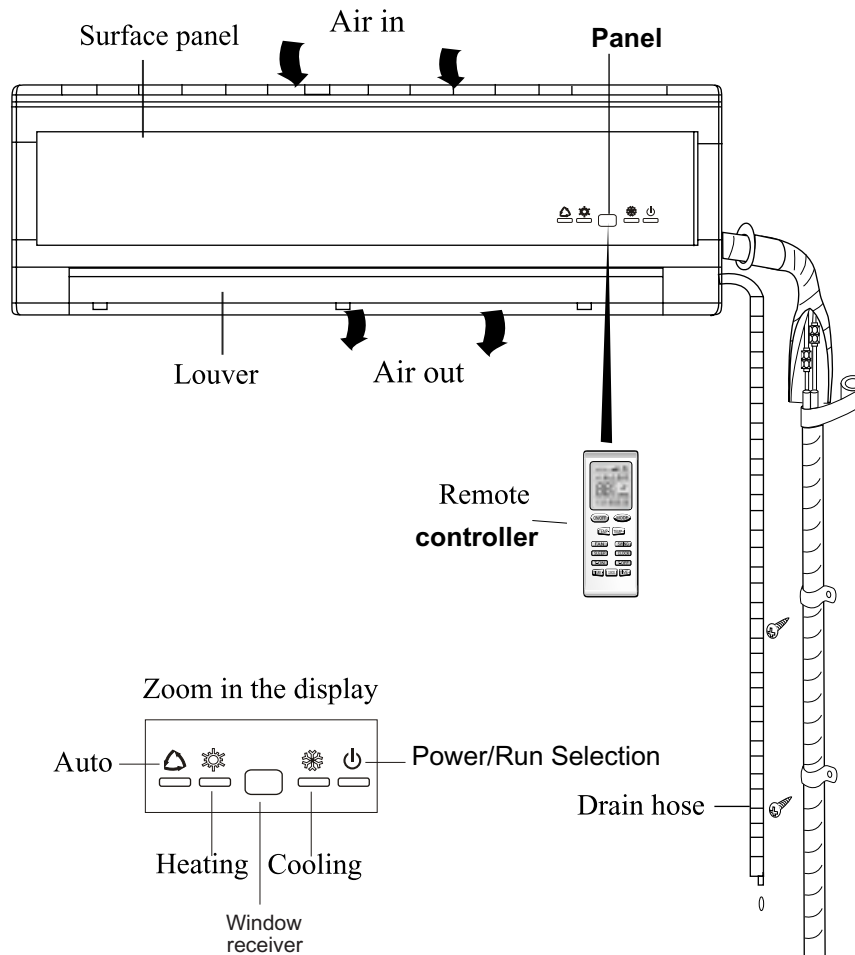
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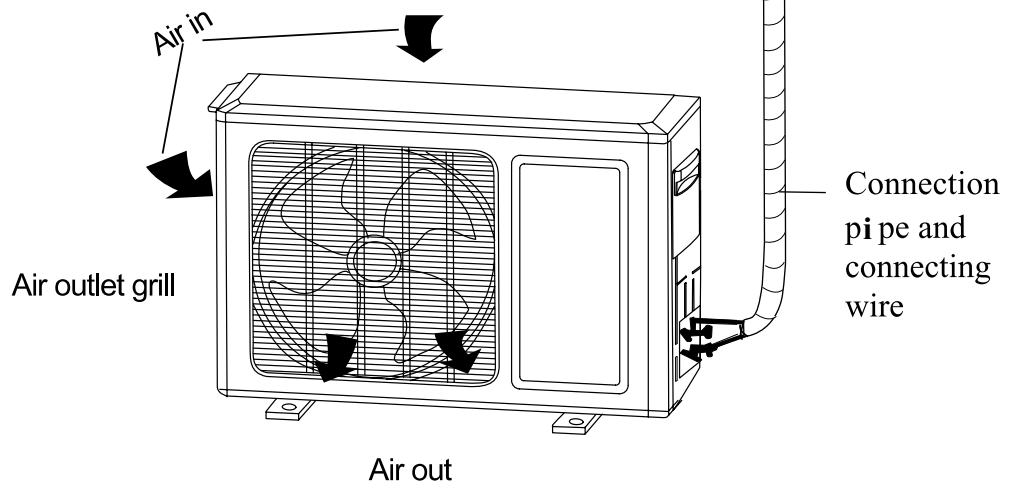
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◆ Name and function of parts

● Indoor Unit



● Outdoor Unit



◆ Instructions to end users

WARNING



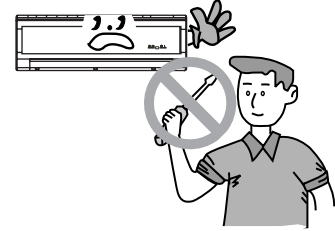
★ **Grounding:**The grounding must be connected!The grounding wire should be connected to the special device.

If not ,please ask the qualified personnel to install.Furthermore,don't connect grounding wire to the gas pipe,water pipe, drainage pipe or any other improper places.

★ **Be sure to cut off the power supply when the Air conditioner is not being used for a long time.**

★ **Don't attempt to repair the air conditioner by yourself.**

The wrong repair will lead to an electric shock or fire,so you should contact our company dealer or an authorized technician for any repairs.



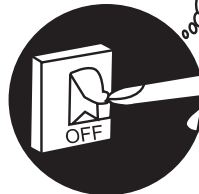
★ **Don't expose the body to cold air for a long time.**

It can cause the health problems.



★ **If you find any abnormal conditions (such as a burning smell or smoke), please turn off the power supply and contact the service center**

If it continues, it can cause a damage, electric shock or fire.



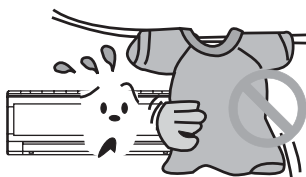
★ **Don't place a space heater near the air conditioner.**

Air flow from the air conditioner can cause incomplete combustion to the space heater.



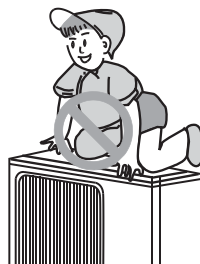
★ **Don't block the air intake or outlet vents of both the outdoor and indoor units.**

It can decrease the air conditioning capacity or cause a malfunction.



★ **Don't step on the top of the outdoor unit or place something on it.**

As falling off the outdoor unit can be dangerous.

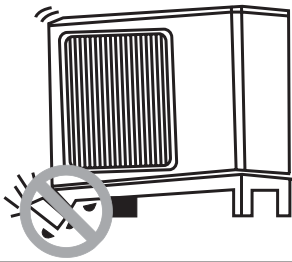


★ **Keep combustible or flammable sprays away from the units more than 3 feet.**

It can cause a fire or explosion.



★ Please note whether or not the condensing unit stand is firmed enough. If it's damaged, it may lead to the collapse of the unit and cause serious injury or harm.



Select the most appropriate temperature.

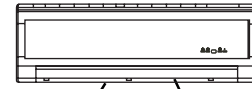
It can prevent wasting excess electricity.

Keep room cooler than outside about 5°C.



The airflow direction can be adjusted appropriately.

At operating, adjust the vertical airflow direction by adjusting the louvers to an upward/downward direction. And then, hold two ends of left and right louver to adjust the horizontal airflow.

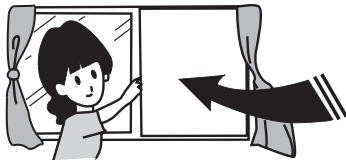


Louver of left/right direction

Louver of upward/downward direction

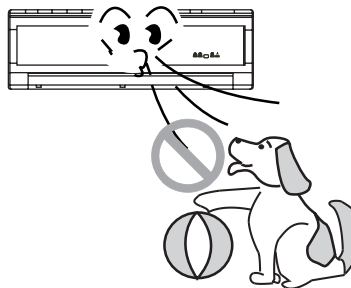
Don't leave windows and doors open for a long time while operating the air conditioner.

It can decrease the air conditioning capacity.



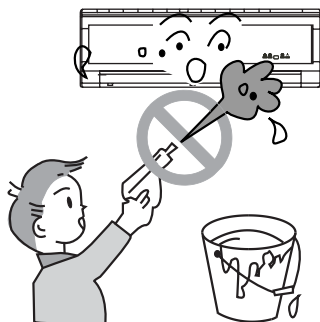
Don't blow the wind to animals and plants directly.

It can cause a bad influence to them.



The power cord of this air conditioner adopt Y-type connection, please don't cut off or damage the power cords and control. If the supply cord is its service agent or similarly qualified persons in order to avoid a hazard.

Splashing water onto the air conditioner can cause an electric shock and malfunction.



Air conditioner should be operated at a continuous voltage range of 208-230V 1PH. Otherwise, compressor will vibrate terribly and damage the refrigeration system.

Don't use the air conditioner for other purposes, such as drying clothes, refrigerating foods, etc.



● Name and Function-Remote controller operation procedure

Note:

- Be sure that there is no obstruction.
- Don't drop or throw the remote control.
- Don't place the remote control in a location exposed to direct sunlight.
- When the unit is restarted after stopped, it can automatically resume its most latest running mode, and the outdoor unit will Re-start subsequently

TEMP Setting Button:
Under the COOL, DRY, FAN or HEAT mode, press these two buttons could set the temperature, the temp. setting range is 16°C-30°C, the temp. can be memorized under each modes.

FAN SPEED Buttonn
When the unit turned on, under the AUTO, COOL, FAN, HEAT mode, press this button, to select Auto fan, Low fan, Middle fan, High fan, at DRY mode, the fan speed is Low fan speed. The FAN SPEED can be memorized under various modes

SLEEP Button
Under COOL, DRY, HEAT mode, press the button once to start the SLEEP function, when pressing once more, to switch off the function.

Operation MODE Button
Press this button, the AUTO, COOL, DRY, FAN or HEAT mode could be selected.

- ❄️ COOL mode
- 💧 DRY mode
- 🌀 FAN mode
- ☀️ HEAT mode

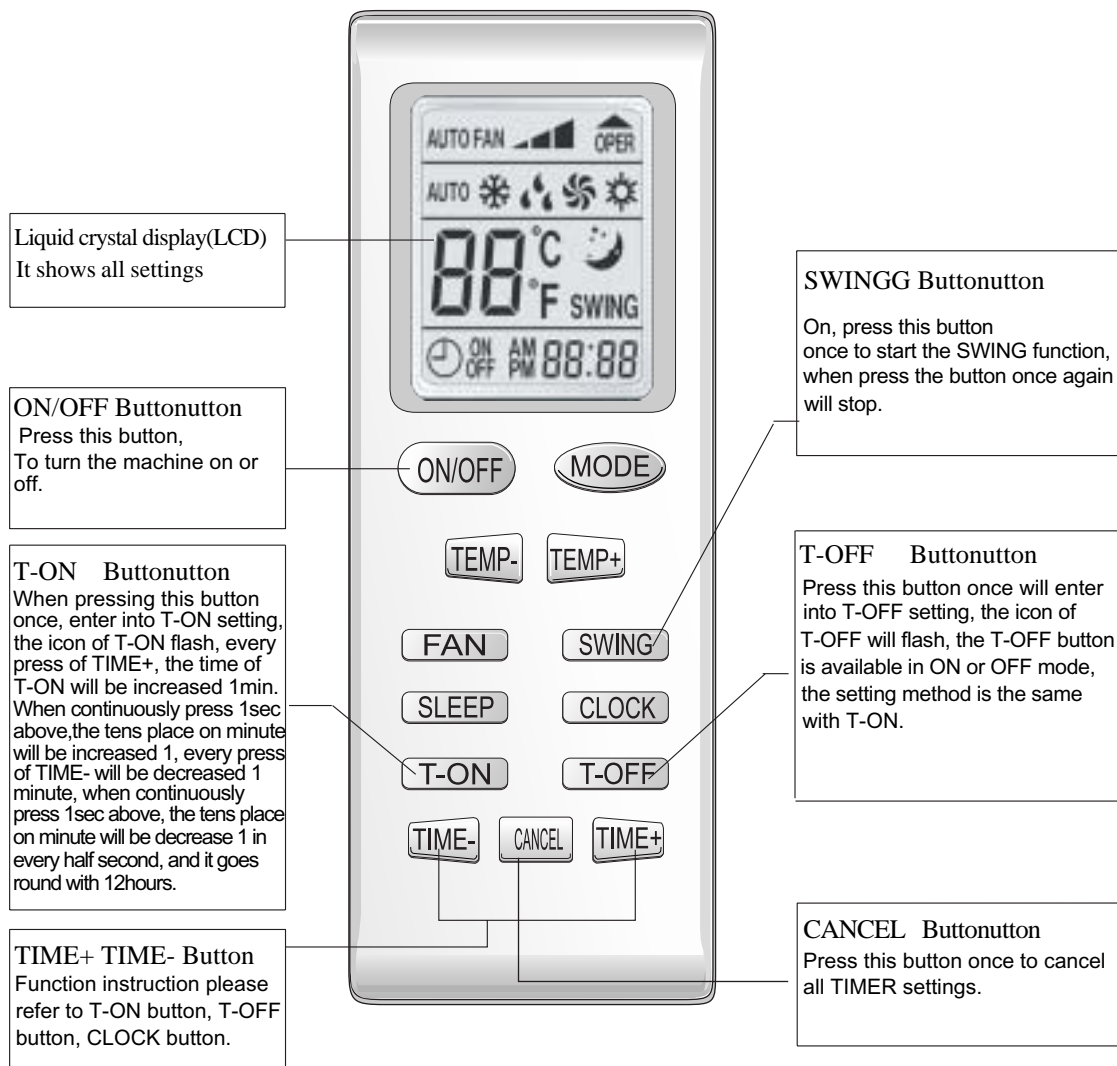
Clock Button
When pressing this button once, the CLOCK icon will flash, then the time could be adjusted. At CLOCK adjustment, press the TIME+ once, the ones place on the minute will be increased 1, and continuously press 1sec above, the tens place on the minute will be increased 1 in every half second. When pressing the TIME-, the ones place on the minute will be decreased 1, and continuously press 1sec above, the tens place will be decreased 1 in every half second. After adjusted please press the CLOCK button again for confirming.

Remote Control Buttons: ON/OFF, MODE, TEMP-, TEMP+, FAN, SWING, SLEEP, CLOCK, T-ON, T-OFF, TIME-, CANCEL, TIME+

● Name and Function-Remote controller operation procedure

Note:

- This type of remote controller is our latest model. Some buttons of the controller which have extra function will be described below.

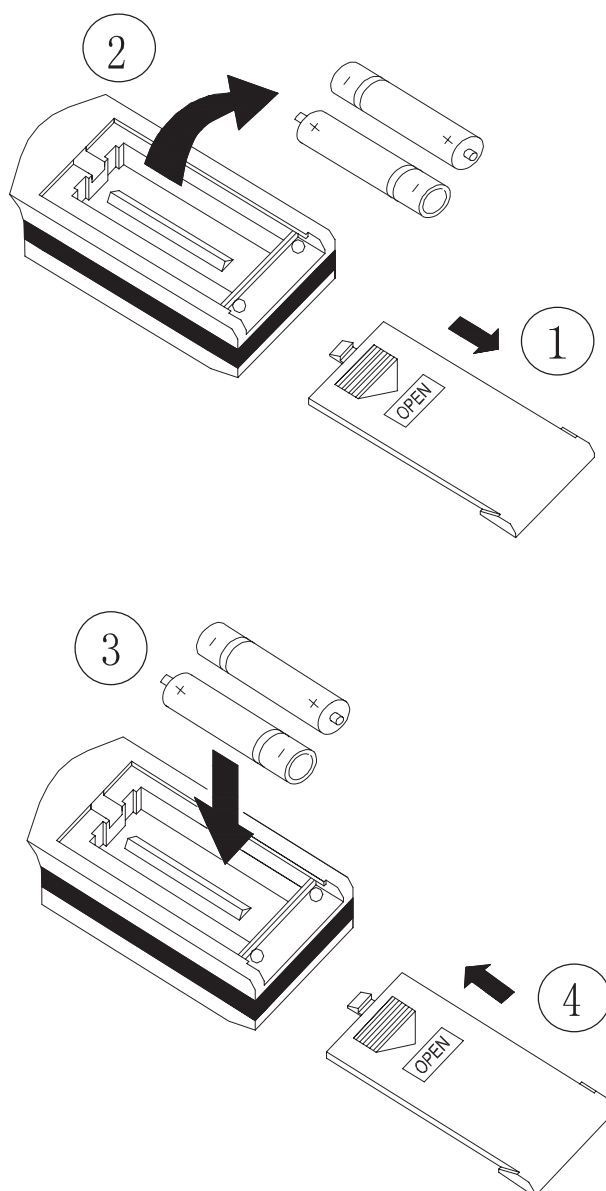


● How to insert batteries

- 1.Remove the cover from the back of the remote control.
- 2.Insert the two batteries(Two AAA dry-cell batteries).
- 3.Re-attach the cover.

NOTE:

- Don't confuse the new and worn out or different batteries.
- Remove batteries when not in use for a longtime.
- The batteries can be used for about one year.
- The remote control should be placed away from television or audio device.



◆ Operation instructions guide

● The general procedure:

1. Plug to power supply and the buzzer will send out the desirable sound, In the meantime, Power/Run indication is red and the air conditioner is waiting to run.
(Note: Once the air conditioner plugs to power supply or receives the signal of remote control, the buzzer will send out the desirable sound.)
2. Press ON/OFF button, Power/Run indication is green and shows the running mode (Cooling, Heating, Auto), then the air conditioner starts running.
3. Press MODE button to select desired running mode.
4. Press SWING button to automatically swing and stop when **repressing it**.
5. Press FAN button to set **the** desired fan speed.
6. Press TEMP. button to set **the** desired temperature.

● The selected Procedure:

7. Press SLEEP button to set the sleep **mode**.
8. Press TIMER button to set the preset TIME ON or TIME OFF.

Note:

In AUTO mode, the unit will automatically adjust its running modes according to the room temperature changes.

Installation procedures

◆ Installation location

● Indoor Unit

1. The inlet and outlet should not be **obstructed** so that the **airflow** can reach all **areas** of the room.
2. Install in a location from which the condensate can **be drained** out conveniently and that is permitting easy connection with the outdoor unit.
3. Avoid a location where there is heat source, steam or inflammable gas.
4. Install in a location where is strong enough to withstand the full weight and vibration of the unit.
5. Be sure to leave enough space to allow access for routine maintenance. The height of the installation should be 2.3m or more away from the floor.
6. Install in a location where is 1m or more away from other electric appliances such as television, audio devices, etc.
7. Select a location where is easy to remove and clean the filter.
8. Be sure that the installation conforms to the installation dimension diagram.
9. **Do not use the unit in the immediate surroundings of a laundry ,a bath ,a shower or a swimming pool.**
10. **The plug should be accessible after the appliance is positioned.**

● Outdoor unit

1. Select a location from which noise and outflow air emitted by unit will not inconvenience neighbors.
2. Select a location where there should be sufficient ventilation.
3. The inlet and outlet should not be covered.
4. The location should be able to withstand the full weight and vibration of the outdoor unit and permit safe installation.
5. There should be no danger of flammable gas or corrosive gas leaks.
6. Be sure that the installation conforms to the installation dimension diagram.

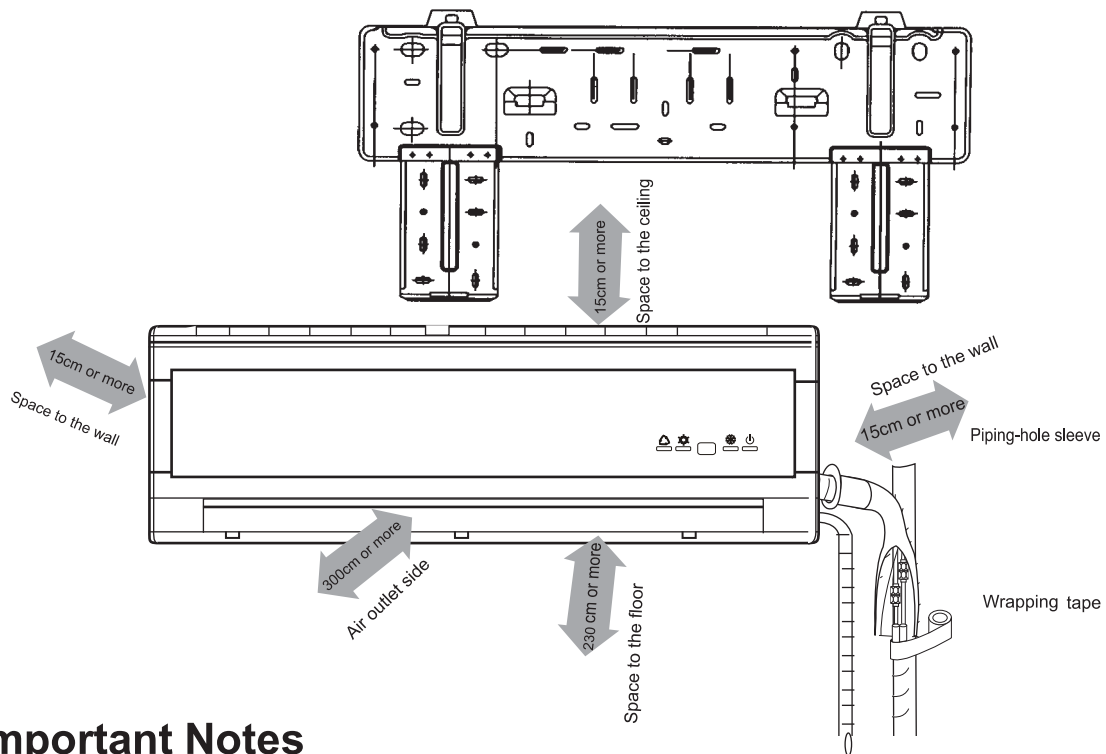
◆ Electric wiring

1. All the electric work must be done according to relative wiring regulation.
2. The rated voltage and exclusive circuit must be used. The radius of the power cord should be bigger enough.
3. Don't pull the power cord strongly.
4. The air conditioner must be safely earthed! Earth wire must be connected to the special device of the building and done by the qualified personnel. In fixed circuit, there must be electricity leakage protection switch of enough power capacity and air switch with enough space. Air switch (thermal-magnetic breaker) can protect the short circuit and over load.

◆ Grounding requirement

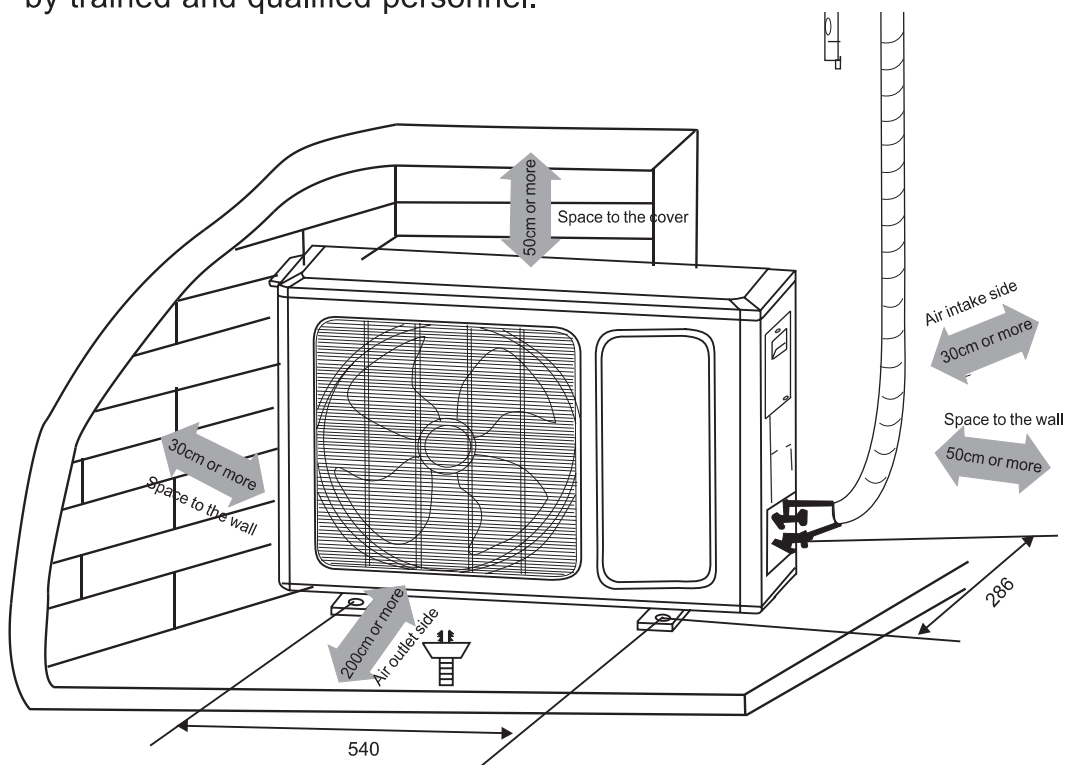
1. The air conditioner is class 1 appliance, so it must connect with ground reliably.
2. The yellow-green wires in the air conditioner are earth wires and can't be used for other purposes. They cannot be cut off and fixed by the tapping screw otherwise it can cause an electric shock.
3. The earth-resistance should conform to the requirement of IEC Standard.
4. The user's power supply must have the earth end. Additionally, the earth wire can't be connected to the following places

◆ Installation clearance requirements



Important Notes

- ★ The installation must be done by trained and qualified service personnel with reliability according to this manual.
- ★ Contact service center before installation to avoid the malfunction due to unprofessional installation.
- ★ When picking up and moving the units, you must be guided by trained and qualified personnel.



◆ Install of the indoor unit

● Install the rear panel

1. Always mount the rear panel horizontally. Because the mouth of drainage pipe is at the left side and the left side of the rear panel is better to adjust slightly lower.
2. Fix the rear panel on the selected location with screws supplied with the unit.
3. Be sure that the rear panel has been fixed firmly enough to withstand the weight of an adult of 60kg, furthermore, the weight should be evenly shared by each screw.

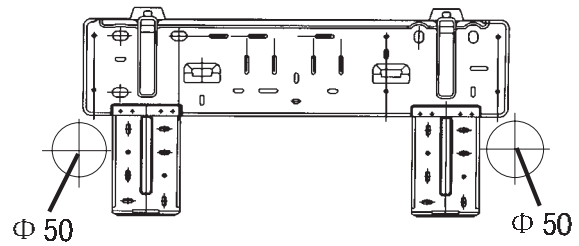


Fig. 1

● Install the piping hole

1. Make the piping hole (Ø50) in the wall at a slight downward slant to the out door side. (Shown in Fig. 1)
2. Insert the piping-hole sleeve into the hole to prevent the connection piping and wiring from being damaged when passing through the hole.

● Install the drainage hose

1. For well draining, the drain hose should be placed at a downward slant.
2. Do not wrench or bend the drain hose or flood its end by water.
3. The extended drainage pipe in the room should be wrapped with the insulating materials.

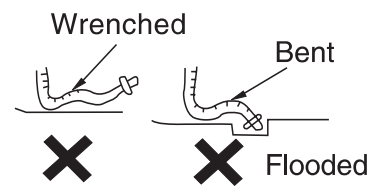


Fig. 2

● Install the connection pipes

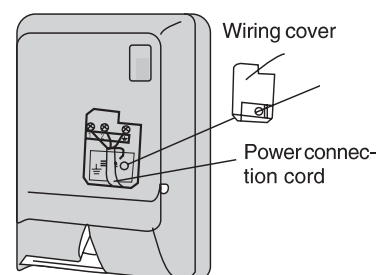
Connect the connection pipes with the relevant union pipes of the indoor unit and tighten the flare nut of the connection pipes (Shown in P16 “Install the connection pipes”).

NOTE:

- Connect the connection pipes with the indoor unit firstly and the outdoor unit secondly.
- Be careful in bending the connection pipes, or you will damage the pipes.
- If the tightening torque is too great in tightening the flare nuts, leakage will happen.

● Electric wiring

1. Open the surface panel.
2. Remove the fixed screw from the wiring cover as shown at the right side.
3. Route the power connection cord from the back of the indoor unit and pull it toward the front through the wiring hole for connection.



4. **Connect the Neutral wire of the power connection cables to the “N (1)” terminal of the terminal board, connect the Signal wire to the “2”terminal, and connect the live wire to the“3”terminal and connect the earthing wire to the “⊕” terminal.**
5. Reassemble the wiring cover and tighten the screw.
6. **Close** the surface panel.

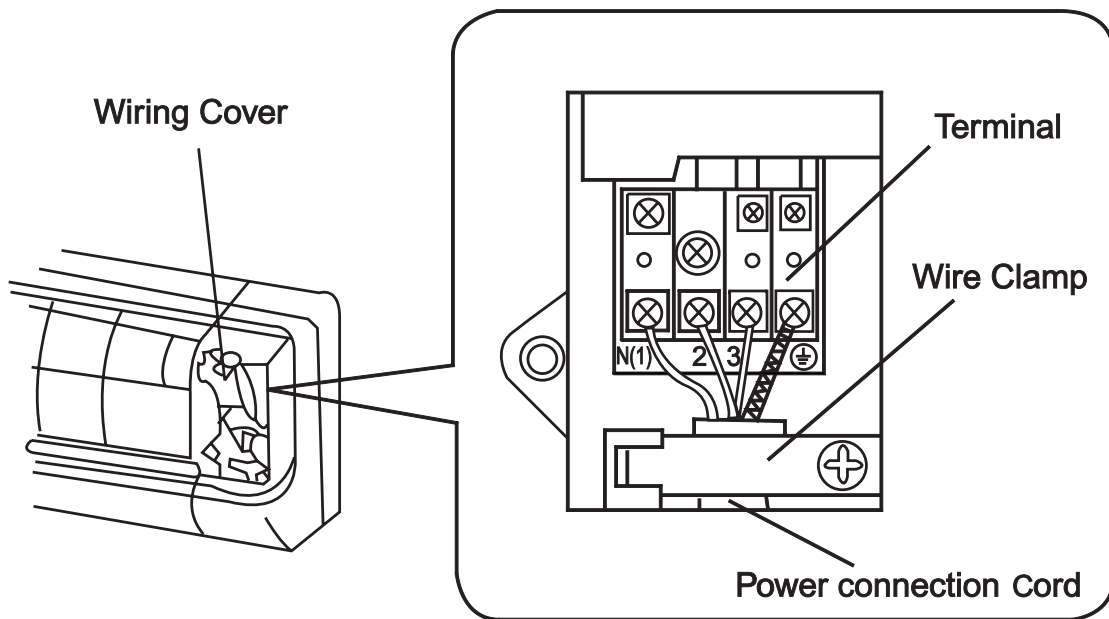


Fig.3

● Install of the indoor unit

1. When routing the piping and wiring from the left or right side of the indoor unit, cut off the tailings from the chassis in necessary (shown in Fig.4, (a), (b) and (c)).
 - (1) Cut off the tailings 1 when routing the wiring only.
 - (2) Cut off the tailings 1 and tailings 2 (or tailings 1, tailings 2 and tailings 3) when routing both the wiring and piping.

①, ② and ③ in Fig. 4 are the recommended piping.
2. Wrap the piping and wiring and pull them through the cut-off-tailings hole (Shown in Fig.5).
3. Hang the mounting slots of the indoor unit on the upper tabs of the rear panel and check if it is firm enough.
4. The height of the installed location should be 2m or more from the floor.

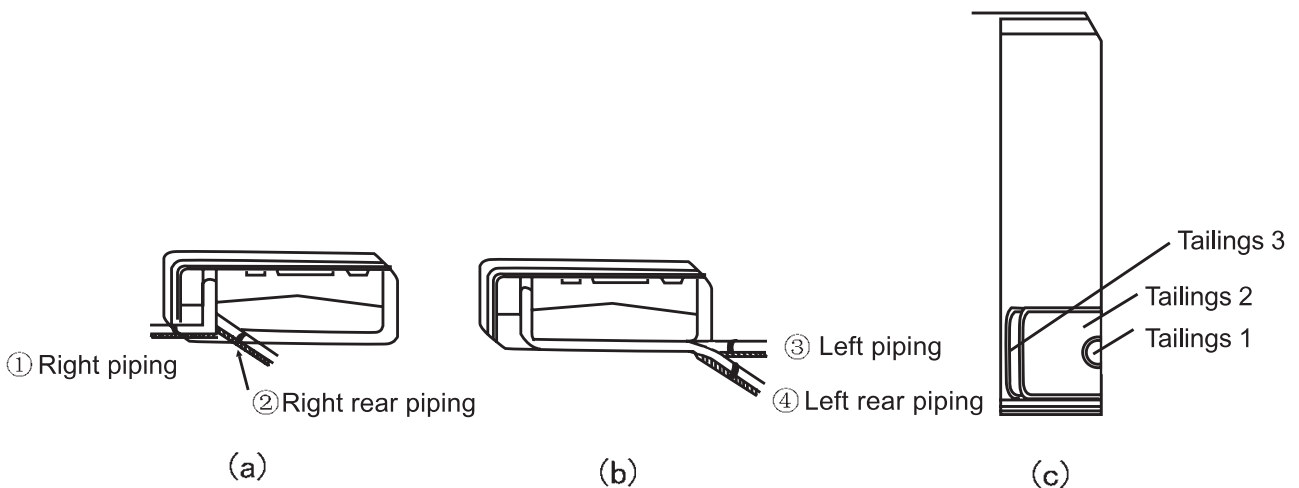


Fig. 4

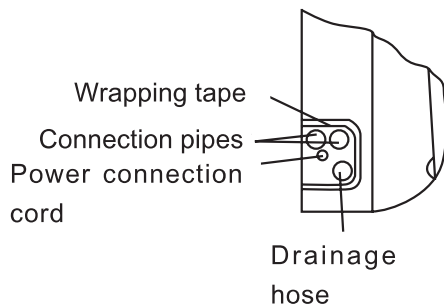


Fig. 5

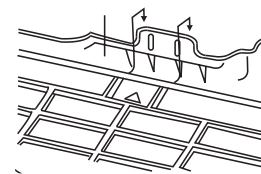
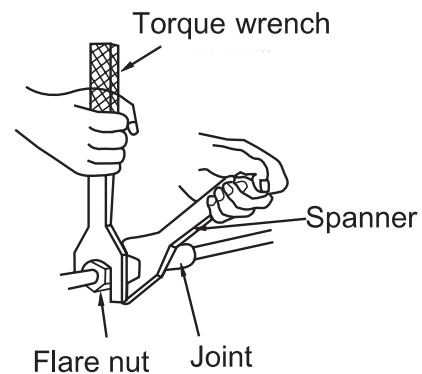


Fig. 6

◆ Install the outdoor unit

● Install the connection pipe

1. Align the center of the piping flare with the relevant valve.
2. Screw in the flare nut by hand and then tighten the nut with spanner and torque wrench refer to right figure



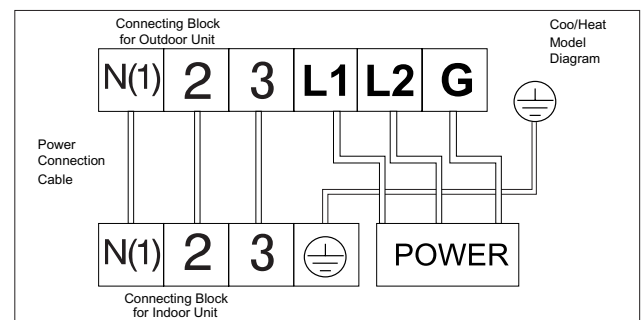
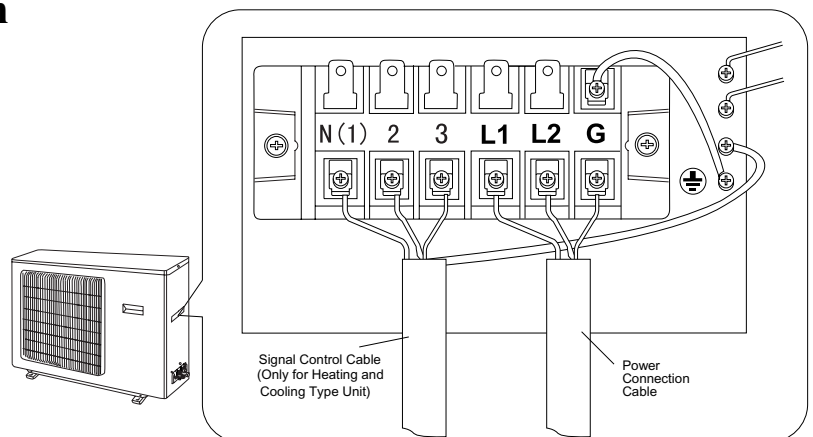
Note: Exceeding tightening torque will damage the flare nut.

Tightening torque table

Hex nut diameter (mm)	Tightening torque (N·m)
Ø 6	15~20
Ø 12	50~55

● Electric wiring connection

1. Disassemble the big handle.
2. Remove the wire clamp and connect the end of the power connection cord with screws to the wiring terminal board. Be sure that the wiring connection is in accordance with the indoor unit's.
3. Fix the wiring with wire clamp. For the heat pump type, joint the relevant interfaces of two control cords.
4. Make sure that the wiring has been **securely tightened**.
5. Reassemble the big handle.



NOTE:

1. Wrong wiring connection will cause electrical malfunction.
2. Do not pull the wire when fixing it with wire clamp.

● Air purging and leakage test

1. Remove the flare nuts of charging end from gas valve.
2. Connect the charging hose in the middle to the vacuum pump, then Low-pressure (Lo) end should be connected to charging end of gas valve. (Shown in Fig. 9)
3. Open the vacuum pump to evacuate. When multi-meter indicates 1 bar, fully tighten Lo handle of manifold valve and stop evacuation. Keep it for over 15 minutes to ensure the pressure is constant.
4. Remove bonnets of gas and liquid valve.
5. Slightly loosen core of liquid valve with hexagon wrench until the pressure exceeds 0 bar.
6. Remove charging hose from charging end of gas valve and screw the flare nuts of charging end.
7. Open cores of gas and liquid valve entirely by hexagon wrench.
8. Tighten the bonnets of gas and liquid valve, and then test whether there is any leakage or not.

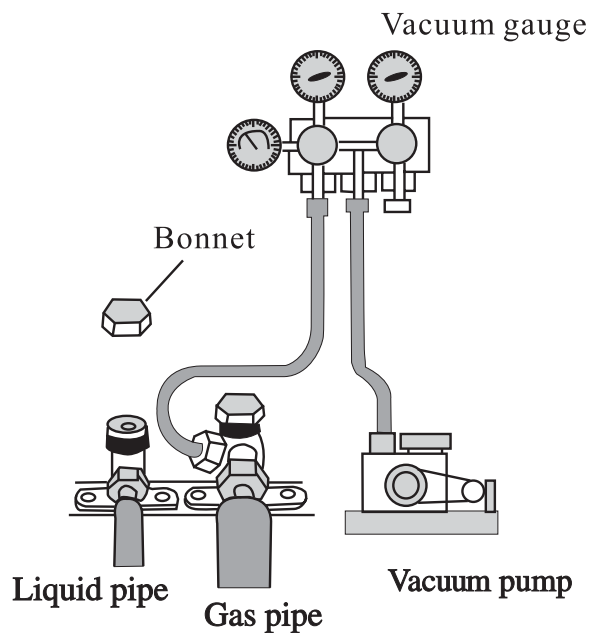


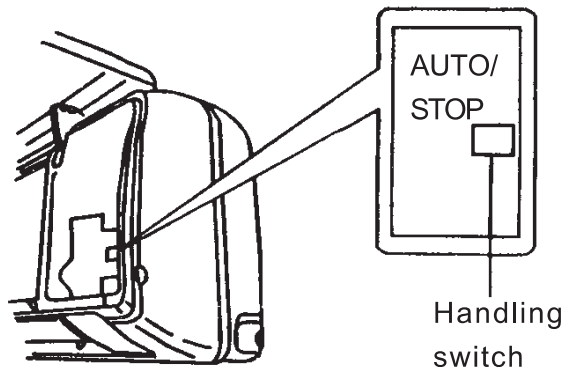
Fig.9

◆ Test operation and check after installation

● Test operation

1. Before test operation

- (1) Do not switch on power before installation is finished completely.
- (2) Electric wiring must be connected correctly and securely.
- (3) Cut-off valves of the connection pipes should be opened.
- (4) All the impurities such as scraps and thrums must be cleared from the unit.



2. Test operation method

- (1) Switch on power and press “ON/OFF” button on the remote control to run the air conditioner.
- (2) Press “MODE” button and check the operation condition of COOL, HEAT, SWING mode and so on.
- (3) When the remote control is lost, emergency run operation can be done as following by the ball pen or similar things:
 - (a) At stopping, set the handling switch to “AUTO” mode, then the unit will automatically run in the mode selected by the microcomputer system according to the surrounded temperature. If you want to stop running, you should repress the handling switch.
 - (b) At operation, set the handling switch to “STOP” mode to turn off the unit.

● Check after installation

Items to be checked	Possible malfunction
Has it been secured firmly ?	The unit may drop, shake or emit noise.
Have you done the refrigerant leakage test?	It may cause insufficient cooling (heating) capacity.
Is the unit piping properly insulated?	It may cause condensation and dripping.
Does the unit drain well?	It may cause condensation and dripping.
Is the voltage in accordance with the rated voltage marked on the nameplate?	It may cause electric malfunction or Damage the machine .
Is the electric wiring and piping connection installed correctly and securely?	It may cause electric malfunction or Damage the machine .
Has the unit been connected to a secure grounding connection?	It may cause electrical short circuiting .
Is the power cord specified?	It may cause electric malfunction or damage the part.
Has the inlet and outlet been covered?	It may cause insufficient cooling (heating) decrease in capacity.
Has the length of connection pipes and refrigerant capacity been recorded?	The refrigerant capacity is not accurate.

Maintenance and service procedures

CAUTION

- ▲ Turn power off and pull out the power plug before cleaning air conditioner.
- ▲ Never sprinkle water on the indoor unit and the outdoor unit for cleaning because it can cause an electric shock.
- ▲ Volatile liquid (e.g. thinner or gasoline) will damage the air conditioner. (So wipe the units with a dry soft cloth, or a cloth slightly moistened with water or cleanser.)

Clean the front panel (When cleaning the front panel do not take it off)

When the indoor unit front panel is dirty, please use the cloth which is soaked in the warm water under 40°C , then dry it and wipe the dirty places.

NOTE:

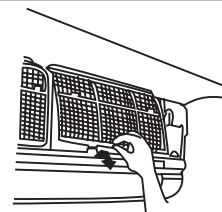
There are microcomputer components and circuit board on the display of the indoor unit front panel, never let it dip in the water.

Cleaning the Air Filters (Recommended once every three months)

If dust is ~~accumulates excessively~~ near the air conditioner, the air filters should be cleaned more frequently.

1. Take down the air filter

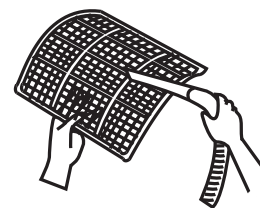
Open the surface panel, hold the tab of air filter and raise it slightly, and then take it out along the direction of arrows (See the right figure).



2. Cleaning

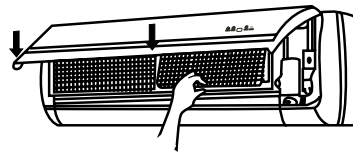
To clear the dust adhering to the filters, you can either use a vacuum cleaner, or wash them with water and dry it in the shade (See the right figure).

NOTE: Never use water above 45°C to wash the filters, or it could cause deformation or discoloration. Never parch it by fire, or it could cause a fire or deformation.



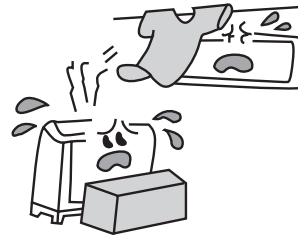
3. Reinsert the filters

Reinsert the filters along the direction of arrow, then cover the surface panel and clasp it.



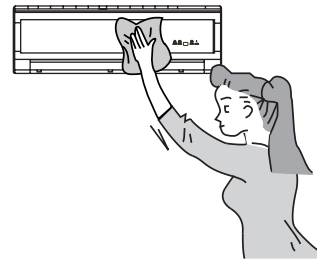
Check before use

1. Be sure that objects do not obstruct the air outlet and intake vents.
2. Check that whether grounding wire is properly connected or not.
3. Check that whether the batteries of air conditioner are changed or not.
4. Check that whether the installation stand of the outdoor unit is damaged or not. If damaged, please contact the service center



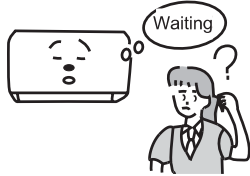
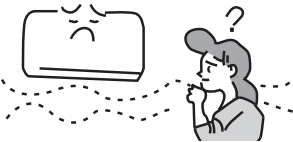
Maintain after use




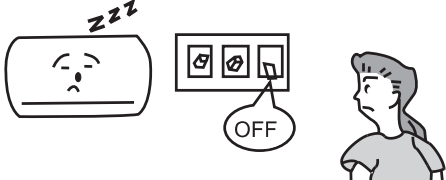

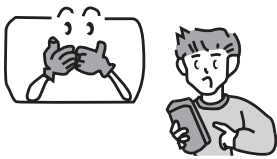
1. Clean filters and other parts.
2. Turn main power off.
3. Clear dust from the outdoor unit.
4. Repaint the rusted areas on the outdoor unit location to prevent it from spreading.



◆ Trouble shooting

Warning: Don't attempt to repair the air conditioner by yourself, it can cause an electric shock or fire. Please check the following items before asking for repair, it can save your time and money.

Phenomenon	Trouble Shooting
 <p>Indoor unit does not operate immediately when the air conditioner is restarted.</p>	<p>Once the air conditioner has stopped, it will not operate for approximately 3 minutes to as a safety feature.</p>
 <p>There's unusual smell blowing from the outlet after operation is started.</p>	<p>This is caused by the odors in the room which have been breathed into the air conditioner.</p>

Phenomenon	Trouble Shooting
<p>Sound of water flow can be heard during operation.</p> 	<p>This is caused by the refrigerant flowing inside the unit.</p>
<p>Mist is emitted during cooling operation.</p> 	<p>Because the air of the room is cooled down rapidly by the cold wind and it looks like the fog.</p>
<p>Creaking noise can be heard when start or stop the unit.</p> 	<p>This is caused by the expansion / contraction of plastic due to the change of temperature.</p>
<p>Air conditioner does not operate at all.</p> 	<ul style="list-style-type: none"> • Has the power been shut down? • Is the wiring loose? • Is the leak protection switch in operation? • Is voltage higher or lower? • Is TIMER ON in operation?
<p>Cooling (Heating) efficiency is not good.</p> 	<ul style="list-style-type: none"> • Is SET TEMP. suitable? • Is air inlet or outlet obstructed? • Are air filters dirty? • Are the windows and door closed? • Is indoor fan speed set at low speed? • Is there any other heat source in your room?
<p>Remote control is not available.</p> 	<ul style="list-style-type: none"> • Remote control can't be used occasionally when the air conditioner is disturbed or changing its functions frequently. At that time, pull out the power plug and insert it again to recover the operation. • Is the remote control out of effective distance to the indoor unit? Are there any obstruction between the remote control and the signal receptor? • Replace the worn batteries of remote control if the voltage of the batteries is not sufficient.

If any of the following conditions occur, immediately stop all operations and unplug unit. Then contact the service center.

- ▲ Unusual noise can be heard during operation.
- ▲ Air switch or leak protection switch breaks.
- ▲ Carelessly splash water or something into air conditioner.
- ▲ Water is leaked in the room.
- ▲ Electrical **wires** and power plug are very hot.
- ▲ Wind blowing from the outlet smells terrible during operation.



If you have any question, please inform the service center .