

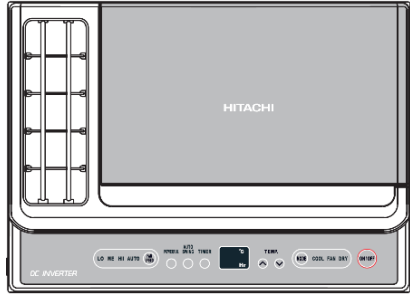
HITACHI

RA-08HVQC

RA-10HVQC



Operation manual Window Inverter Type Room Air Conditioner



Model	Power Supply	Function	Capacity	EER	Power Input (STD/MAX)	Running Current (STD/MAX)	Dimension (WxHxD)	Product Weight
			kj/h	kj/hW	W	A	mm	kg
RA-08HVQC	Single Phase 230V 60Hz	Cool Fan Dry	8500	10.7	793/933	3.9/4.52	470x340x600	29
RA-10HVQC			9550	10.9	876/1225	4.29/5.69	470x340x600	29

IMPORTANT:
READ AND UNDERSTAND THIS MANUAL BEFORE USING THIS AIR CONDITIONER.

KEEP THIS MANUAL FOR FUTURE REFERENCE.

Johnson Controls-Hitachi Air Conditioning Philippines, Inc.

1A Binicitan Drive, Subic Bay Industrial Park Phase II Subic Bay Freeport Zone, Philippines
TEL: (02)362-4847

TEL(SERVICE): (02)362-3842



SAFETY PRECAUTIONS

- Read this section of "Safety precaution" carefully to understand proper usage of this unit before use.
- Pay special attentions to "⚠Warning" and "⚠Caution" designations contained in this manual. The "⚠Warning" designation may cause death a serious of injury if not followed correctly. Failure to follow the instructions under the "⚠Caution" designation may also cause possible serious consequence depending on the situation. Therefore, be sure to observe these designations for your safety.
- In addition, this sign "⊘" shown in the diagram denotes prohibited items, whereas "❗" denotes mandatory items.
- Be sure to keep this manual after reading.
- The manufacturer is not liable for maintenance and repair of the air conditioner as stipulated in the warranty. The same condition applies to any damage to this unit body/nearby property if you fail to observe warning instructions in this manual/use of parts not supplied from us.
- This product uses non-flammable R410A refrigerant. While the product is under installation or transport, except R410A refrigerant, please do not charge other refrigerants, air, oxygen, propane, alcohol, or any flammable material to avoid machine damage, blaze, or explosion. Be sure to use the refrigerant specified by the manufacturer.

INSTALLATION PRECAUTIONS

⚠ W A R N I N G	<ul style="list-style-type: none">Air conditioner installation and its electrical wiring require a professional. Therefore, assign only an authorized dealer or a certified technician to install your air conditioner and perform its electrical wiring. Do not attempt to do it by yourself (charges are additional). If improperly performed by yourself, it may cause leakage, electric shock or fire.Do not use a metal wire or copper wire as a fuse to prevent from failure or fire.When installing, do not use an extended power cord or a power cord with excess bending (radius less than 20mm). Also, use the cable tie supplied with the base-pan to secure it. Do not place the cord inside the unit body or it may cause short circuit or abnormal heat leading to a fire due to insulation damage by an overly compressed cord.	
	<ul style="list-style-type: none">Use only on single outlet circuit exclusive for the air conditioner.Ensure the mounting support is firm and steady or there is a risk the unit may fall.	
⚠ C A U T I O N	<ul style="list-style-type: none">To avoid electric shock in case of current leakage, be sure to connect the air conditioner to the ground. The ground wire diameter should be 2.5 mm² to 6 mm². Also, the end of the ground wire must be crimped with a round terminal before securing it and must not be loose by accident. Do not connect the ground wire to the gas pipe, water pipe, lightning rod, and the telephone line. If the ground wire is not installed properly, there is a risk of electric shock. If the unit is not grounded, the protective circuit such as lightning striking protection will not work properly.To avoid carelessness from power companies or other accidents that cause over current to get into the unit via the ground wire resulting in damage to the unit, be sure to install an earth leakage circuit breaker. Consult the dealers (a registered water and electrical engineering dealer) for details. If no earth leakage circuit breaker is installed, there is a risk of accident such as electric shock to occur.When installing near places with high humidity such as bathing facilities, damp and humid places, basements, and places with frequent water accumulation, be sure to install an earth leakage circuit breaker to prevent current leakage. Consult the dealers (a registered water and electrical engineering dealer) for details.	
	<ul style="list-style-type: none">Do not install at places where flammable objects and flammable gases exist. If such objects and gases are around, a fire may occur.The outdoor side should be well ventilated. Do not place any obstacle near the air discharge outlet, otherwise, the unit performance may decrease and the noise increases.Do not place any object in front of the indoor side, otherwise, it may affect airflow and Impede operation of the unit.Do not place any foreign material around the unit body, otherwise, it may affect the performance of the unit.Do not allow ejected heated air to face your neighbors. Also, do not let water dripping, drainage, vibration, noise, etc. interfere your neighbors.	
	<ul style="list-style-type: none">This unit is intended to be used for general family room air conditioning purpose, do not use it for storing food, animals and plants, precision machinery, fine art works, medicine, etc.When installing the water drain hose, be sure water can flow out smoothly. If installation is not proper, it is possible that water may flow inside the room or get your furniture wet.Plug the power cord to the right source, and the voltage required by the air conditioner is 230V.If the power of the air conditioner is connected to an incorrect voltage, it will invariably burn out the electrical parts.Be sure to firmly plug the power supply cord or it may cause short circuit or heat resulting in danger of fire or electric shock.Periodically check the power cord plug and receptacle every year to ensure that they are clean.	
	<ul style="list-style-type: none">While indoor unit front cover is not installed, do not operate the unit. Moreover, be sure to take good measures against dust and dirt for unit body.Before the unit starts, be sure to check that the room has been cleaned up, airborne matters and odors have been cleared, the unit body is clean. This will prevent insufficient cooling or water leakage in later days.	

USAGE PRECAUTIONS

⚠ W A R N I N G	<ul style="list-style-type: none">Do not insert anything like slender stick into the discharge air plenum or return air grille as the fan is running at high speed, it is highly likely to cause danger.	<ul style="list-style-type: none">When thunder is likely to happen, for protecting the machine, stop operation and turn off the power switch to prevent from failure.	
	<ul style="list-style-type: none">When cleaning the unit body, never wash it with splashing water as there is a risk of current leakage.	<ul style="list-style-type: none">Do not operate the switch when your hand is wet to prevent electric shock.	
⚠ C A U T I O N	<ul style="list-style-type: none">Do not let the discharge air plenum directly face your body for a long period of time, or it may have adverse effect to health.Do not let the airflow directly face the gas stove, or it is likely to cause incomplete combustion.	<ul style="list-style-type: none">If a gas stove is used while the air conditioner is operating, be sure to open the window often, or it is possible to have insufficient oxygen inside.If the machine will not be used for a long period of time, turn off the power switch for safety.	
	<ul style="list-style-type: none">When cleaning the unit body, be sure to turn off the power switch, or it may cause injury as the fan is running at high speed inside.	<ul style="list-style-type: none">Do not place animals or plants at the place to where the airflow is blowing directly, or it will have adverse effect to them.	
	<ul style="list-style-type: none">When the window and the door are open (the humidity inside the room continuously exceeds 80%), the air vanes of the louver are facing down or in the auto-swing mode, do not operate the machine for too long as it is likely that humid air may condensate on the louver and may drip down water and wet the furniture.If there is a heat source (many people come in and out, a heating appliance is being used, etc.) that exceeds the capacity of cooling or heating, the room temperature may not reach the desired setting level.If there is any abnormal noise is heard during unit operation, refer to the service center or to the dealer from where the air conditioner was purchased.When installing at areas subjected to high salinity, sulfur, corrosive substance such as coastal areas and hot springs, the heat exchanger of the unit or the circulation piping must be treated with anti-corrosion coating. In addition, installation at places subjected to plenty of fumes, at hospitals where electromagnetic wave is available, at places subject to dust and dirt or special environmental situations around installation, consult the service center or the dealer from where the air conditioner was purchased first.		

PRECAUTIONS DURING SHIFTING OR MAINTENANCE

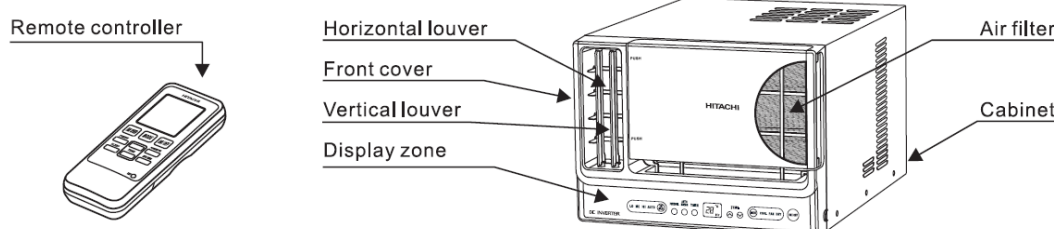
⚠ W A R N I N G	<ul style="list-style-type: none">If there is an error (burning odor, etc.), stop operation and turn off the power switch and then notify the service center or the dealer from where the air conditioner was purchased. If the air conditioner keeps on running with the error, it may lead to failure, electric shock, fire, etc.	
	<ul style="list-style-type: none">To service the air conditioner, directly contact the service center or the dealer from where the air conditioner was purchased. If it is improperly repaired by yourself, there is a risk of electric shock or fire.	
	<ul style="list-style-type: none">If the air conditioner is to be moved or relocated, directly contact the service center or the dealer from where the air conditioner was purchased. If it is moved or relocated improperly by yourself, there is a risk of electric shock or fire.	
	<ul style="list-style-type: none">If the power cord is damaged, it must be replaced by the manufacturer or by the service center or a technician to prevent danger	

BEST WAYS OF USING THE AIR CONDITIONER

SET A PROPER ROOM TEMPERATURE Adjust the "Temp. Setting" to a proper number to keep the room temperature at a most comfortable level. Too low or too high temperature will be uncomfortable to the human body. (It is proper to have a temperature difference at 5°C ~ 7°C between indoor and outdoor.) 	THE DOORS AND WINDOWS SHOULD CLOSE TIGHTLY TO PREVENT FROM COOLING LEAKAGE. Unless otherwise necessary, the doors and windows should be closed tightly. Also, minimize people coming in and out the room.
REGULARLY CLEAN THE AIR FILTER If the air filter accumulates dust, it will affect the air circulation, reducing the cooling efficiency. To save energy, be sure to wash the air filter once every two weeks. 	REDUCE OVERLOADED HEAT SOURCES If there is a heat source (many people coming in and out, or from a heating appliance) that exceeds the cooling capacity, the room temperature will not reach the desired setting level.
SET UP DRAPES OR BLINDS Drapes or blinds can keep away the heat coming into the windows. 	EVENLY DISTRIBUTE THE CONDITIONED AIR If the room temperature is not even, adjust the horizontal and vertical louvers to a proper position.
WHEN THE ELECTRICITY RESUMES AFTER OUTAGE When the electricity resumes after the outage, you need to press the ON/OFF button again due to the effect of the protective circuit. 	WHEN SUNNING IS LIKELY TO OCCUR When thundering is likely to occur, it is necessary to stop operation to protect the unit. Unplug the power cord of the unit.

FUNCTIONS LIST AND FEATURES

UNIT DISPLAY



INDICATION DISPLAY ON THE FRONT COVER



1 FAN SPEED indicator light

- When the unit is running, the light turns on.
- When you press this button, the intensity of circulation will change from (AUTO) to (HI) to (ME) to (LO) incycle.

2 POWERFUL indicator light

- Use these buttons to start powerful operation. When the unit is performing a powerful operation, this light turns on.

3 AUTO SWING indicator light

- When you press the button, the vertical louver will automatically be swinging.

4 TIMER indicator light

- When the unit is preset with a timer, this light turns on.

5 Infrared light receiving window

- A "beep" sound will be generated when it receives the signal from the remote controller.

6 Room temperature display

- When the unit is powered up, the computer will automatically detect the room temperature and display the current temperature. (Indicates the error code when an error occurs)

7 Temperature button

- Press this button to raise or lower the temperature.

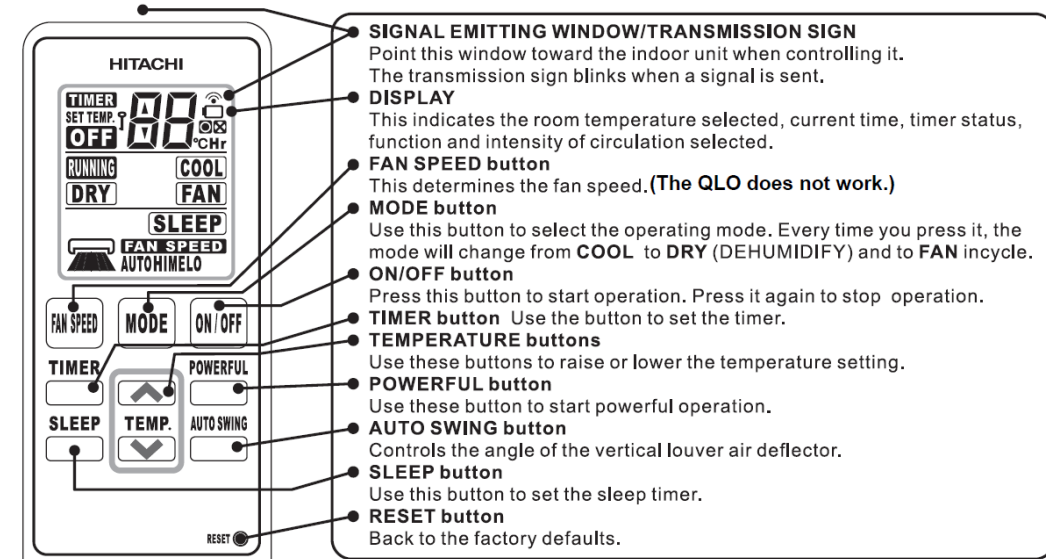
8 MODE indicator light

- When the unit is running, the light turns on. When you press this button, the mode will change from (COOL) to (FAN) to (DRY) incycle.

9 ON/OFF button

- Press this button to start operation, press it again to stop operation.

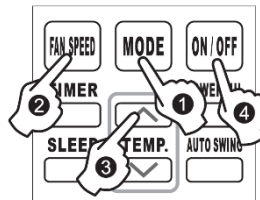
REMOTE CONTROLLER



COOLING OPERATION

- Use the device for cooling when the outdoor temperature is above 10°C. If humidity is very high (over 80%) indoors, some dew may form on the air outlet grille of the indoor unit.

※ Operating range of cooling: Indoor 21°C~32°C, Outdoor 10°C~42°C



- Press the **MODE** button so that the display indicates "COOL".

- Set the desired FAN SPEED with the **FAN SPEED** button (the display indicates the setting).

AUTO: The FAN SPEED is HI at first and varies to ME automatically when the preset temperature has been reached.

- Set the desired room temperature with the **TEMP.** buttons. The temperature setting and the actual room temperature may vary somewhat depending on conditions.

- Press the **ON/OFF** button. Cooling operation starts with a beep. Press the button again to stop operation. The cooling function does not start if the temperature setting is higher than the current room temperature (even though the "RUNNING" (OPERATION) lamp lights). The cooling function will start as soon as you set the temperature below the current room temperature.

DEHUMIDIFYING OPERATION

- Use the device for dehumidifying when the room temperature is above 16°C.

When it is under 15°C, the dehumidifying function will not work.

- Press the **MODE** button so that the display indicates "DRY" (DEHUMIDIFY).

The FAN SPEED is set at "LO" automatically.

- Press the **ON/OFF** button.

● LOCK SETTING

After the lock setting is done, you can only use the **ON/OFF** button and the **TEMP.** (TEMP.) button to change mode, the others are invalid.

① Choose the operating mode, fan speed and setting temperature you want.

② In the power off state, press and hold the **POWERFUL** button first and press the lower location of **TEMP.** (TEMP.) button later.

(Meanwhile, the **LOCK** mark will be displayed on the remote controller.)

CANCEL: Repeat the ② procedure above to cancel the lock setting.

● POWERFUL OPERATION

During the operation (DEHUMIDIFYING, COOLING), you should press the **POWERFUL** button to start the powerful operation

① Press the **POWERFUL** button to start the powerful operation.

- Every time you press the **POWERFUL** button, it will increase the fan speed. If the original fan speed is "Hi", the fan speed will not change.

CANCEL: Press the **POWERFUL** button again

● CONTENT OF THE POWERFUL OPERATION

Operating mode	Setting occasion	Operation description
Manual operation	Dehumidifying	want more drying quickly
	Cooling	want more cooling quickly

● HOW TO SET THE TIMER

The timer may be used in two ways: (OFF-TIMER), (ON-TIMER). You can set only one kind of timer. You can set the time in 1 to 24 hours for timer mode.

① When the machine runs-off, press the **TIMER** button.

- You can set the time of running.
- Press continuously to get rapid adjustment.
- If you want to start the machine right away, you can press **ON/OFF** button to cancel all reservation of time setting.

② When the machine runs-on, press **TIMER** button.

- You can set the time to stop.
- Press continuously to get rapid adjustment.
- If you want to stop the machine right away, you can press **ON/OFF** button to cancel all reservation of time setting.

● HOW TO SET THE SLEEP TIMER

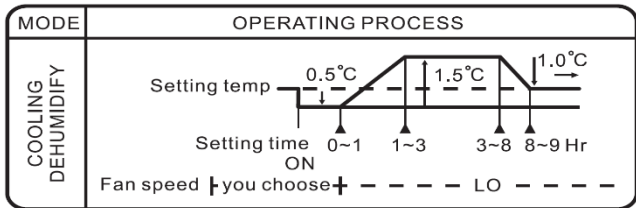
This function will change the fan speed and the room temperature setting automatically during sleep and you also can use the OFF-TIMER function together too.

- You can set the time in 1 to 24 hours for sleep mode.

① Press **SLEEP** button. Display indicates

- Press continuously to get rapid adjustment.
- The SLEEP operation starts at beep sound, then the remote controller display will show the reservation time and turn-off time.

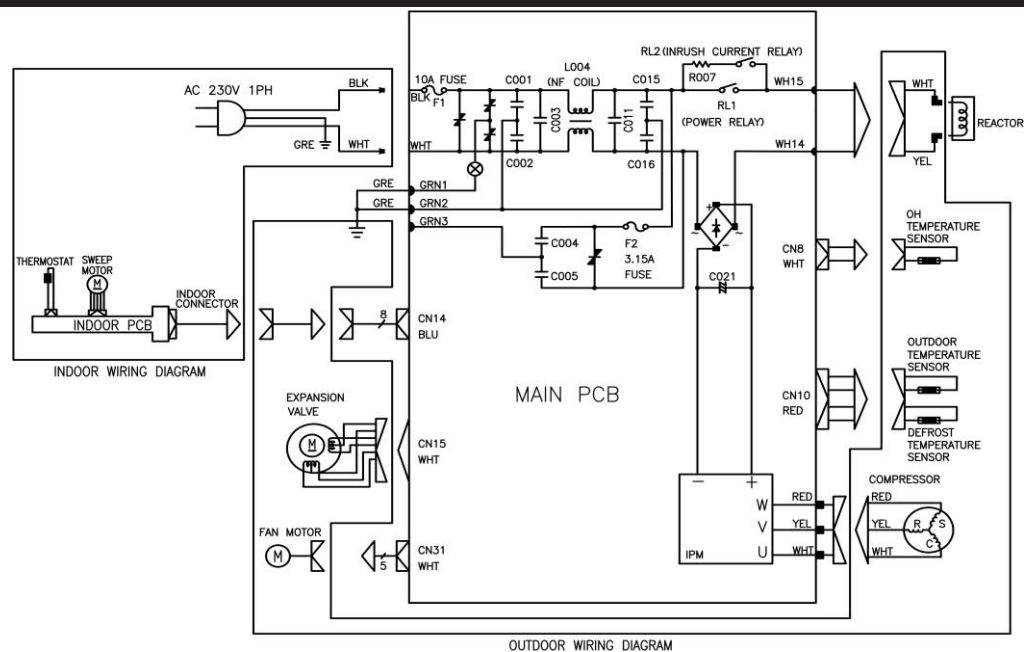
CANCEL: Press the **SLEEP** button to cancel.



NOTICE

SLEEP as the top priority to turn-on, The other timer setting are all invalid.

WIRING DIAGRAM



HOW TO ASSEMBLE THE INSTALLATION BRACKET AND THE WATER DRAINAGE

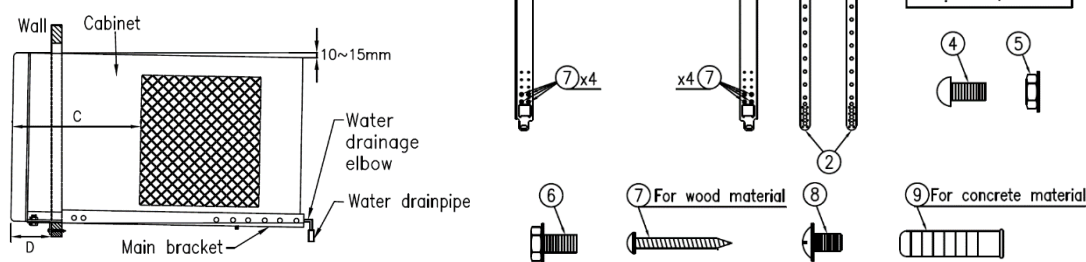
● HOW TO ASSEMBLE THE INSTALLATION BRACKET

Diagram showing the assembly of the installation bracket and the water drainage. The diagram includes a main bracket, a water drainage elbow, and a water drainpipe. The diagram shows the dimensions of the main bracket and the water drainage elbow.

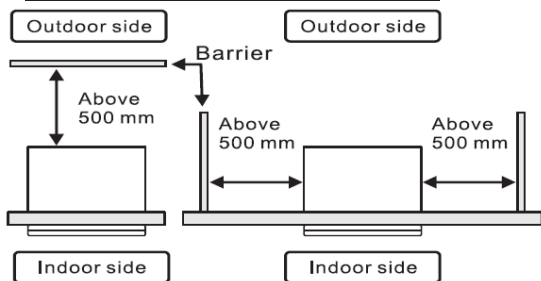
NOTICE

For safety purposes, especially on high-rise buildings, bracket installation can be done inside the room.

● INSTALLATION DIMENSIONS



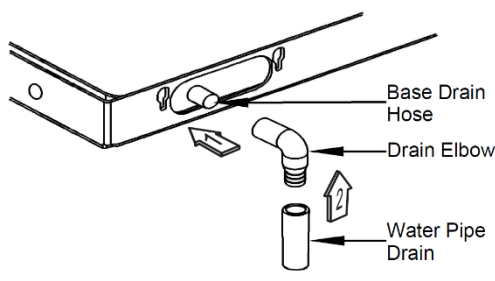
● OUTDOOR SIDE INSTALLATION DISTANCE



● ACCESSORY NAMES AND QUANTITIES

- Main bracket X1
- Fix plate X2
- Caulking Foam X1
- Water drainage elbow X1
- Battery X2
- Remote Controller X1
- Parts bag X1

● HOW TO ASSEMBLE THE WATER DRAINAGE



- ① Insert the Drain Elbow into the Base Drain Hose.
- ② Connect the Water Pipe Drain to the other end of the Drain Elbow

SERVICE GUIDELINES

Before cleaning, turn off the air conditioner first and unplug the power cord. (Never unplug the cord with a wet hand to prevent electric shock.)

1.CLEANING THE AIR FILTER

- The air filter is intended to be used to clear dust and impurities in the air. It has the functions of anti-bacteria, deodorizing and clarifying.
- If the air filter is dirty, clean it using the vacuum cleaner or wash it with neutral detergent and then flush it with water. Dry it by placing it at a cool and shady location. When washing the air filter, do not press it with your hands to prevent it from deforming.
- Do not operate the air conditioner until the air filter is replaced after it is cleaned. Otherwise, the unit will lose anti-dust and anti-bacteria features. Also, the unit body will get dirty more easily.
- Do not wash the air filter with water of more than 40°C to prevent it from deforming.

HOW TO REMOVE THE AIR FILTER

① Press the area with designations of "PUSH" on the lower left and right sides.

② Remove it by lifting up and pulling it towards you.

2. CLEANING THE FRONT COVER AND THE CABINET

- It is easy for the front cover and the cabinet to get dirty. Wipe it regularly with dry cloth. If it is dirty, use a wet and soft cloth to wipe.
- When the air conditioner starts to operate, it may possibly blow out dusts. This is because there are dusts accumulating on the discharge air plenum.
- NOTICE**
- Do not wash the front cover with water over 50°C to prevent it deformation.
- To prevent the front cover from damage, never wash it with volatile oil, gasoline, thinner, grinding powder or a chemical abrasive cloth.
- To avoid poor insulation and current leakage, never wash the air conditioner directly with water.

3. HOW TO HANDLE THE AIR CONDITIONER AFTER THE USAGE SEASON IS OVER

- When the air conditioner will not be used for a long period of time, turn on the "Strong fan speed" on a clear day and run the unit for half a day so that the inside of the unit can be dried.
- After the inside of the air conditioner is dried, unplug the power cord or disengage the knife switch or the circuit breaker exclusively set up for the air conditioner for safety.

INSTALLATION PRECAUTIONS

- Use the screws supplied together with the unit to secure the front cover.
- Before pulling out the unit body, first remove the screws and the parts for fixation.

AFTER-SALE SERVICE AND WARRANTY

Symptom	Check the following items
The unit does not operate	<ul style="list-style-type: none">Is there a power outage?Has the switch been disengaged or the fuse been burned out?Has the air conditioner power cord plug been firmly attached to the receptacle?Is the power supply voltage too low?
Cooling is not at a desired setting level	<ul style="list-style-type: none">Is the air filter too dirty and clogged?Has the temperature been set properly?Is there any obstacle in front of the air conditioner?Have the door and windows of the room been closed tightly?Has the remote controller been set at the LO(Cooling)position?Is there any heating source such as heating appliance or gas appliances been used in the room?Are there many people staying in the room?Is there strong sunlight projecting in the room?

2. These are all normal indications:

Water flowing sound or water boiling sound ("loulou" sound) is heard.	This is the sound coming from piping when refrigerant is flowing inside. Particularly, the refrigerant flowing sound will be heard for a short period of time when the air conditioner starts or stops.
"Siu-siu" or "pai-pai" sound is heard.	This is the sound coming from the air conditioner itself when it expands or contracts suddenly due to temperature change or when the air conditioner starts, or the motor is changing its speed.
There is mist blowing out when starting in the cooling mode or the dehumidifying mode.	This usually can be seen when the room temperature is low and the humidity is high. The air inside the room is cooled by the cool air blowing out from the air conditioner.
An unpleasant odor blowing out from the air conditioner.	This is a mixture of various odors (smoking, cosmetics, foods) attached inside the air conditioner that has been blown out.
Outdoor running sound changes.	This is coming from the compressor when it changes speed depending on the room temperature.
When running in the defrost mode, vapor is found from the outdoor unit.	This is vapor from the frost attached in the heat exchanger when it dissolves and evaporates.

- If the air conditioner does not resume standard operation after checking any of the above items, please notify the service center or the dealer where the air conditioner is purchased of the malfunction together with the air conditioner model, manufacture number, and installation date recorded on the warranty.
- If the power cord/cord plug gets abnormally hot or the insulation sheath is stripped/melted, unplug the power cord and immediately contact the service center and the dealer where the air conditioner is purchased. Do not replace the power cord by yourself to prevent danger!
- The timer indicator light on the display flashes and the display screen shows a number.
- (The cause of the error can be determined by the number of flashes, and thus the problem can soon be corrected. Therefore, before turning off the power switch, confirm the number of flashes and the displayed number and then notify the service personnel.)