

9 Operating Instructions

SAFETY PRECAUTIONS

Before operating, please read the following "Safety Precautions" carefully.


- To prevent personal injury, injury to others and property damage, the following instructions must be followed.
- Incorrect operation due to failure to follow instructions will cause harm or damage, the seriousness of which is classified as follow.

Warning
This sign warns of death or serious injury.

Caution
This sign warns of damage to property.

- The instructions to be followed are classified by the following symbols:


This symbol (with a white background) denotes an action that is PROHIBITED.


These symbols (with a black background) denote actions that are COMPULSORY.

Installation Precautions

Warning

- Do not install, remove and reinstall the unit by yourself.**
Improper installation will cause leakage, electric shock or fire. Please engage an authorized dealer or specialist for the installation work.

Caution

- This room air conditioner must be earthed.**
Improper grounding could cause electric shock.
- Ensure that the drainage piping is connected properly.**
Otherwise, water will leak out.
- Do not install the unit in a potentially explosive atmosphere.**
Gas leak near the unit could cause fire.

Operation Precautions

Warning
This sign warns of death or serious injury.

- Do not share outlet.
- Do not insert plug to operate the unit. Do not pull out plug to stop the unit.
- Do not operate with wet hands.
- Do not damage or modify the power cord.
- Do not insert finger or other objects into the indoor or outdoor units.
- Do not expose directly to cold air for a long period.

- Plug in properly.
- Use specified power cord.

- If abnormal condition (burnt smell, etc.) occurs, switch off and unplug the power supply.

Caution
This sign warns of injury.

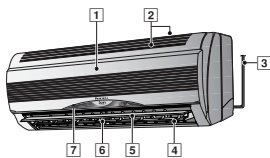
- Do not pull the cord to disconnect the plug.
- Do not wash the unit with water.
- Do not use for other purposes such as preservation.
- Do not use any combustible equipment at airflow direction.
- Do not sit or place anything on the outdoor unit.

- Switch off the power supply before cleaning.
- Ventilate the room regularly.
- Pay attention as to whether the installation rack is damaged after long period of usage.

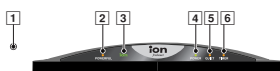
- Switch off the power supply if the unit is not used for a long period.

NAME OF EACH PART

Indoor Unit

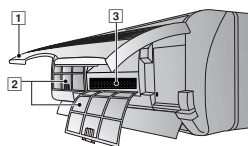


- 1 Front Panel
- 2 Air Intake Vent
- 3 Power Supply Cord
- 4 Air Outlet Vent
- 5 Vertical Airflow Direction Louver
- 6 Horizontal Airflow Direction Louver (manually adjusted)
- 7 Indicator Panel



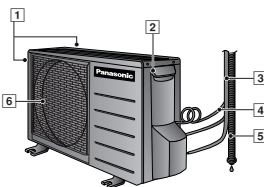
- 1 Auto Operation Button (when the front panel is opened)
- 2 Powerful Mode Indicator - ORANGE
- 3 Ionizer Mode Indicator - GREEN
- 4 Power Indicator - GREEN
- 5 Quiet Mode Indicator - ORANGE
- 6 Timer Mode Indicator - ORANGE

Indoor Unit (when the front panel is opened)



- 1 Front Panel
- 2 Air Filters
- 3 Air Purifying Filter

Outdoor Unit



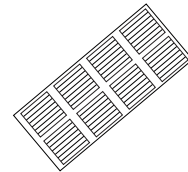
- 1 Air Intake Vents
- 2 Ground Terminal (inside cover)
- 3 Piping
- 4 Connecting Cable
- 5 Drain Hose
- 6 Air Outlet Vents

Accessories

Remote Control



Remote Control Indication Sticker



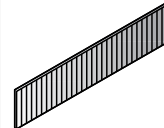
Remote Control Holder



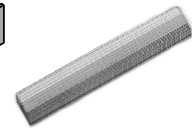
Two RO3 (AAA) dry-cell batteries or equivalent



Air Purifying Filter



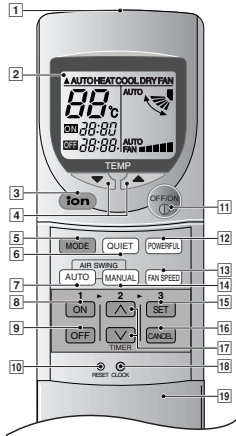
(Catechin Air Purifying Filter)



(Triple Deodorizing Filter)

NAME OF EACH PART

■ Remote Control



- 1 Signal Transmitter
- 2 Operation Display
- 3 Ionizer Mode Operation Button
- 4 Room Temperature Setting Button (illuminating button)
- 5 Operation Mode Selection Button
- 6 Quiet Mode Operation Button
- 7 Auto Airflow Direction Button
- 8 ON-Timer Button
- 9 OFF-Timer Button
- 10 Reset Point (Press with fine-tipped object to clear the memory)
- 11 OFF/ON Button (illuminating button)
- 12 Powerful Mode Operation Button
- 13 Fan Speed Selection Button
- 14 Manual Airflow Direction Selection Button
- 15 Timer Set Button
- 16 Timer Cancellation Button
- 17 Time-Setting Button
- 18 Clock Button
- 19 Remote Control Cover

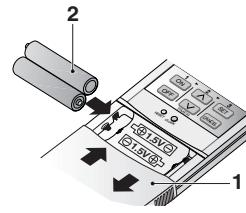
● Remote Control Signal.

- Make sure it is not obstructed.
- Maximum distance : 10 m.
- Signal received sound.
- One short beep or one long beep.

● Notes for Remote Control.

- Do not throw or drop.
- Do not get it wet.
- Certain type of fluorescent lamps may affect signal reception. Consult your dealer.

● How to Insert the Batteries



1 Slide down the remote control cover completely

2 Insert the batteries

- Be sure the direction is correct
- 12.00 at display - flashing
- Set the current time (CLOCK) immediately to prevent battery exhaustion.

● About the batteries

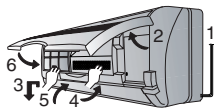
- Can be used for approximately one year.

● Observe the following when replacing the batteries

- Replace with new batteries of the same type.
- Do not use rechargeable batteries (Ni-Cd).
- Remove the batteries if the unit is not going to be used for a long period.

PREPARATION BEFORE OPERATION

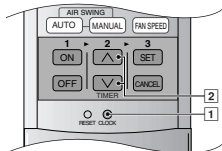
■ Indoor Unit



- 1 Connect the power supply cord to an independent power supply
- 2 Open the front panel
- 3 Remove the air filters
- 4 Fit the air purifying filters in place
- 5 Insert the air filters
- 6 Close the front panel

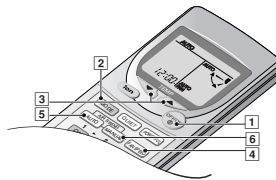
■ Remote Control

- To set the current time



- 1 Press [1].
- 2 Then press [2] to increase or decrease the time.
- 3 Press [1] again.
Set time at display will light up.

HOW TO OPERATE

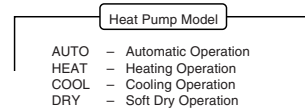
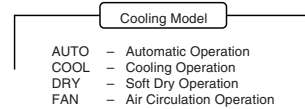


■ To start the operation

- Press [1].
- POWER indicator (green) on the indoor unit will light up.
- To stop, press once more.

■ Setting Mode

- Press [2] to select:-



■ Setting Temperature

- Press [3] to increase or decrease the temperature.
- The temperature can be set between 16°C ~ 30°C.
- Recommended temperature:

Cooling Model		Heat Pump Model	
COOL	-> 26°C ~ 28°C	COOL	-> 26°C ~ 28°C
DRY	-> 1°C ~ 2°C lower than the room temperature	DRY	-> 1°C ~ 2°C lower than the room temperature
		HEAT	-> 20°C ~ 24°C

• During AUTO Operation, press [3] to select:-

- Operation with 2°C higher than the standard temperature.
- Operation with the standard temperature.
- Operation with 2°C lower than the standard temperature.

● Standard Temperature

Cooling Model		
Indoor temperature	Operation	Standard temperature
23°C	Cooling	25°C
	Soft Dry	22°C

- Once the Automatic Operation is selected, the indoor temperature sensor operates automatically to select the desired operation mode with Cooling or Soft Dry.
- After the operation mode has been selected, the mode does not change.

Heat Pump Model		
Indoor temperature	Operation	Standard temperature
23°C 20°C	Cooling	25°C
	Soft Dry	22°C
	Heating	21°C

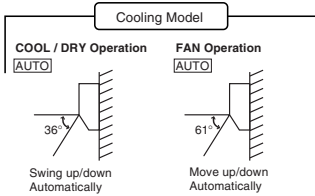
- At the beginning of the automatic operation, Heating, Cooling or Soft Dry is automatically selected according to the indoor temperature.
- The operation mode changes every hour, when necessary.

Setting the Fan Speed

- Press [4] to select:-
 - FAN ■■■ - Low Fan Speed
 - FAN ■■■■ - Medium Fan Speed
 - FAN ■■■■■ - High Fan Speed
 - AUTO - Automatic Fan Speed
- The speed of the indoor fan is adjusted automatically according to the operation. The indoor fan stops occasionally during cooling operation.

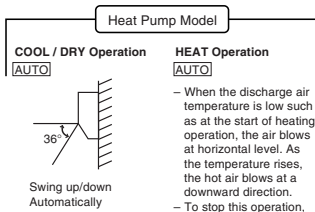
Setting the Vertical Airflow Direction

- Press [5] or [6] to select:-



[MANUAL] Five stages of adjustment can be made between 14° ~ 36°.

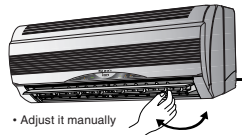
[MANUAL] Five stages of adjustment can be made between 0° ~ 61°.



[MANUAL] Five stages of adjustment can be made between 14° ~ 36°.

[MANUAL] Five stages of adjustment can be made between 0° ~ 61°.

Setting the Horizontal Airflow Direction



- Use this air conditioner under the following conditions:

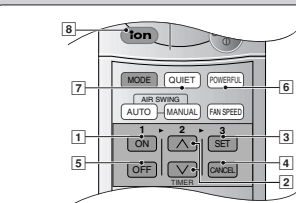
Cooling Model				
Unit in °C				
DBT: Dry Bulb Temp	Indoor		Outdoor	
WBT: Wet Bulb Temp	DBT	WBT	DBT	WBT
Maximum Temperature	32	23	43	26
Minimum Temperature	16	11	16	11

Heat Pump Model				
Unit in °C				
DBT: Dry Bulb Temp	Indoor		Outdoor	
WBT: Wet Bulb Temp	DBT	WBT	DBT	WBT
Maximum Temperature-Cooling (Maximum Temperature-Heating)	32 (30)	23 (-)	43 (24)	26 (18)
Minimum Temperature-Cooling (Minimum Temperature-Heating)	16 (16)	11 (-)	16 (-5)	11 (-6)

- Notes**
 - If the unit is not going to be used for an extended period of time, turn off the main power supply. If it is left at the ON position, approximately 2.5 W of electricity will be used even if the indoor unit has been turned off with the remote control.
 - If operation is stopped, then restart immediately, the unit will resume operation only after 3 minutes.

Operation Details

- COOL – Cooling Operation**
 - To set the room temperature at your preference cooling comfort.
- AUTO – Automatic Operation**
 - Sense indoor temperature to select the optimum mode.
 - Temperature is not displayed on the remote control during AUTO operation.
- DRY – Soft Dry Operation**
 - A very gentle Cooling Operation, prior to dehumidification. It does not lower the room temperature.
 - During Soft Dry operation, the indoor fan operates at Low fan speed.
- HEAT – Heating Operation** (for Heat Pump Model only)
 - Heat is obtained from outdoor air to warm up the room. When the outdoor ambient air temperature falls, the heating capacity of the unit might be reduced.
 - Defrosting Operation
 - Depend on the outdoor temperature, the operation occasionally stops to melt the frost on the outdoor unit.
- FAN – Air Circulation Operation** (for Cooling Model only)
 - When the room temperature reaches the set temperature, operation commences at Low airflow volume. It stops when the room temperature drops to 2°C below the set temperature. (It is useful when using a heater).

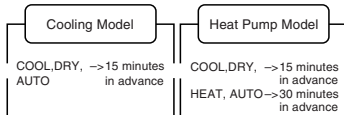


SETTING THE TIMER

Ensure that the current time is correct before setting the timer. The timer cannot be set if the time display is flashing.

- ON-TIMER Operation**
 - To start the air conditioner operation automatically.
 - Press [1] to set the operation.
 - Press [2] to increase or decrease the time.
 - Then press [3].
 - To cancel this operation, press [4].
- OFF-TIMER Operation**
 - To stop the air conditioner operation automatically.
 - Press [5] to set the operation.
 - Press [2] to increase or decrease the time.
 - Then press [3].
 - To cancel this operation, press [4].

- Timer Mode Operation Details**
 - When the ON-Timer is set, operation will start before the actual set time. This is to enable the room temperature reaches the set temperature at the set time.



- Once the ON/OFF Timer is set, operation will start/stop at the set time everyday.
- The current time is not displayed when the timers are set.
- When both timers are used together, the TIMER mode indicator on the indoor unit remains lit even when the operation is stopped by the OFF-TIMER.

CONVENIENCE OPERATION

- Powerful Mode Operation**
 - To obtain the set temperature quickly.
 - Press [6].
 - Powerful mode indicator (orange) on the indoor unit will light up.
 - Powerful mode will operate for 15 minutes only.
 - To cancel this operation, press once more.
- Powerful Mode Operation Details**
 - The changes of the temperature and airflow volume are automatic.
 - The remote control display remains unchanged.
 - If operation mode button is pressed, powerful operation will be cancelled.
 - During FAN – Air circulation operation, the powerful operation are not available. (cooling model only)

Powerful Mode Operation	Temperature	Airflow volume
COOL / DRY	3°C lower than set temp.	Super High
HEAT (for Heat Pump model only)	3°C higher than set temp.	Automatic

- Quiet Mode Operation**
 - To provide quiet operation.
 - Press [7].
 - Quiet mode indicator on the indoor unit will light up.
 - To cancel this operation, press once more.
- Operation Details**
 - Air flow sound will reduce during operation.
- Ionizer Mode Operation**
 - Produce negative ion for fresh air.
 - Press [8].
 - Ion mode indicator on the indoor unit will light up.
 - To cancel this operation, press once more.
- Operation Details**
 - Air conditioner ON:
 - Provide negative ion during operation.
 - Air conditioner OFF:
 - Provide negative ion with FAN operation.
 - If blinking, press [8] twice. If still blinking, please call service.



CARE AND MAINTENANCE

■ Cleaning the Indoor Unit and Remote Control

- Wipe gently with a soft, dry cloth.
- Do not use water hotter than 40°C or polishing fluid to clean the unit.

■ Cleaning the Air Filter

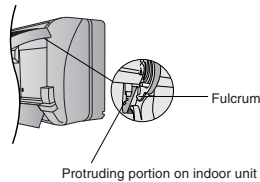
(Recommendation:- If the unit is operated in a dusty environment, clean the filters every two weeks, continuous use of this dirty filters will reduce cooling or heating efficiency)

- 1 Remove dirt using a vacuum cleaner.
 - 2 Wash back of the air filter with water.
 - 3 If badly soiled, wash it with soap or a mild household detergent.
 - 4 Let it dry and reinstall it.
Be sure the "FRONT" mark is facing you.
⊗ Damaged air filter.
Consult the nearest authorized dealer.
Part No.: QWD001047.
- Do not use benzene, thinner, scouring powder or clothes soaked in caustic chemical to clean the unit.

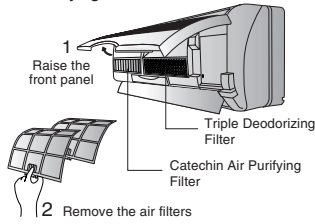
■ Cleaning the Front Panel

(Must be removed before washing)

- 1 Raise the front panel higher than the horizontal and pull to remove it.
- 2 Gently wash with water and a sponge.
• Do not press the front panel too hard when washing.
• When use kitchen cleaning fluid (neutral detergent), rinse thoroughly.
• Do not dry the front panel under direct sunlight.
- 3 To fix the front panel, raise the front panel horizontally, match the protruding portion on the indoor unit to the fulcrum and push into place.



■ Air Purifying Filters



● Triple Deodorizing Filter

- Absorb odours produced by wall paper, construction material and living environment.
- Reusable.
- Vacuum, place under direct sunlight for 6 hours and fit it back in place.
(Recommended: every 6 months)

● Catechin Air Purifying Filter

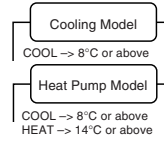
- The filter is coated with catechin to prevent growth of bacteria and viruses.
- Reusable.
- Vacuum and fit it back in place
(Recommended: every 6 months)

- Recommended to change these filters every 3 years. Do not reuse damaged filters. Consult the nearest authorized dealer to purchase a new filter.
Catechin Air Purifying Filter No.: CZ-SF70P
Triple Deodorizing Filter No.: CZ-SFD72P

- If you operate the air conditioner with dirty filters:-
- Air is not purified
- Cooling or heating capacity decreases
- Foul odour is emitted

■ Pre-season Inspection

- **Is the discharged air cold/warm?**
Operation is normal if 15 minutes after the start of operation, the difference between the air intake and outlet vents temperature is:-

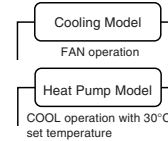


- **Are the air intake or outlet vents of the indoor or outdoor units obstructed?**

- **Are the remote control batteries weak?**
If the remote control display appears weak, replace the batteries.

■ When the Air Conditioner is Not Used for an Extended Period of Time

- 1 To dry the internal parts of the indoor unit, operate the unit for 2 - 3 hours using:-



- 2 Turn off the power supply and unplug.

Note: If the unit is not switched off by the remote control, it will start operating when you plug in (because the unit is equipped with Auto Restart Control).

- 3 Remove the remote control batteries.

■ Recommended Inspection

- After used over several seasons, the unit will become dirty and thus decreases the unit's performance. Depending on the operation conditions, a dirty unit may produce odour and dust may pollute dehumidification system. Therefore, a seasonal inspection is recommended in addition to regular cleaning. (Consult an authorized dealer).

HELPFUL INFORMATION

■ Auto Operation Button



● Automatic Operation

- If the remote control fails to function or has been misplaced, press the Auto Operation button to start the Automatic operation.
- The Automatic operation will be activated immediately once the Auto operation button is pressed. However, temperature cannot be adjusted in this operation.
- The power indicator on the indoor unit will blink until the operation mode is selected automatically.
- To cancel this operation, press once more.

● Remote Control Signal Receiving Sound

- To switch off the beep (Signal Receiving Sound), press the Auto Operation button for 10 seconds continuously or longer.
"Beep", "beep" sound will be heard at the tenth seconds.
Note: "Beep" sound will be heard at the fifth seconds;
However please press continuously until you heard "beep", "beep" sound.
- Repeat the above steps if you want to switch on the Signal Receiving Sound.

● (This is for Servicing purposes only)

- Note: If you press this button continuously for 5 to 10 seconds, Test Run operation will be performed. A "beep" sound will be heard at the fifth seconds indicating the Test Run starts to operate.

■ Auto Restart Control

- If power is resumed after a power failure, the operation will restart automatically after 3 - 4 minutes.
- Operation will be restarted automatically under the previous operation mode and airflow direction when power is resumed as the operation is not stopped by the remote control.

■ Timer Setting

- When power failure occurs, the timer setting will be cancelled. Once power is resumed, reset the timer.

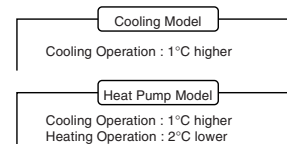
■ Thunder and Lightning

- This air conditioner is equipped with a built-in surge protective device. However, in order to further protect your air conditioner from being damaged by abnormally strong lightning activity, you may switch off the main power supply and unplug from power socket.

ENERGY SAVING AND OPERATION HINTS

■ Setting the Temperature

- Approximately 10% of electricity can be saved.
- Set the temperature higher or lower than the desired temperature.



■ Air Filters and Air Purifying Filters

- Clean the air filters every 2 weeks and the Air Purifying Filters every 6 months.
- Dirty filters may reduce cooling or heating efficiency.

■ Keep All Doors and Windows Closed

- Otherwise, cooling or heating performance will be reduced and electricity cost is wasted.

■ Outdoor Unit

- Do not block the air outlet vents. Otherwise, it will lower the cooling or heating performance.

■ Timer Mode

- To prevent wastage of electricity, use Timer when going out.

■ Avoid Direct Sunlight

- Keep curtains or drapes closed to avoid direct sunlight during cooling or heating operation.

TROUBLESHOOTING

■ Normal Operation

Is it okay?	This is the answer
• Air conditioner has been restarted, but does not operate for 3 minutes.	• This is to protect the air conditioner. Wait until the air conditioner begins to operate.
• A sound like water flowing can be heard.	• This is the sound of refrigerant flowing inside the air conditioner.
• It seems that fog is coming out from the air conditioner.	• Condensation occurs when the airflow from the air conditioner cools the room.
• The room has a peculiar odour.	• This may be a damp smell emitted by the wall, carpet, furniture or clothing in the room.
• During Automatic Vertical Airflow setting, indoor fan stops occasionally.	• This is to remove smell emitted by the surroundings.
• The outdoor unit emits water or steam.	• In COOL/DRY operation, moisture in the air condenses into water on the cool surface of outdoor unit piping that causes dripping.
• (For Heat Pump Model only) Operation stops for about 12 minutes during heating (The power indicator blinks).	• This is to melt the frost which has accumulated on the outdoor unit (defrosting operating). This will take no longer than about 12 minutes. Water drips from the outdoor unit. Wait until this operation ends. (the power indicator will light up). (Frost will accumulate on the outdoor unit when the outdoor temperature is low and humidity is high.)
• (For Heat Pump Model only) During heating operation, indoor fan may run at on and off conditions.	• This is to prevent undesired cooling effect during heating operation.

■ Abnormal Operation

Is it okay?	Please check
• The air conditioner does not operate.	<ul style="list-style-type: none"> • Has the circuit breaker been tripped? • Has the power plug been removed from the wall outlet? • Is the timer being used correctly?
• Air conditioner produces loud noise during operation.	<ul style="list-style-type: none"> • Is the installation work slanted? • Is the front grille closed properly?
• The air conditioner does not cool or warm effectively.	<ul style="list-style-type: none"> • Has the temperature been set incorrectly? • Are the filters dirty? • Are the intake or outlet vents of the outdoor unit obstructed? • Are all windows and doors closed?
• Remote control / display doesn't work	<ul style="list-style-type: none"> • Batteries empty? • Batteries correctly inserted (+) and (-)?

■ Call the Dealer Immediately

If the following conditions occur, turn off and unplug the main power supply, and then call the dealer immediately.

- **Abnormal noise is heard during operation.**
- **Water or foreign material gets into the remote control by mistake.**
- **Water leak from the indoor unit.**
- **Switches or buttons do not operate properly.**
- **The circuit breaker switches off frequently.**
- **Power supply cord and plug become unusually warm.**





10 Installation Instructions

Required tools for Installation Works			
1. Philips screw driver	5. Spanner	9. Gas leak detector	13. Multimeter
2. Level gauge	6. Pipe cutter	10. Measuring tape	14. Torque wrench 18 N.m (1.8 kgf.m) 42 N.m (4.2 kgf.m) 55 N.m (5.5 kgf.m)
3. Electric drill, hole core drill ($\phi 70$ mm)	7. Reamer	11. Thermometer	15. Vacuum pump
4. Hexagonal wrench (4 mm)	8. Knife	12. Megameter	16. Gauge manifold


10.1. Safety Precautions

- Read the following “SAFETY PRECAUTIONS” carefully before installation.
- Electrical work must be installed by a licensed electrician. Be sure to use the correct rating of the power plug and main circuit for the model to be installed.
- The caution items stated here must be followed because these important contents are related to safety. The meaning of each indication used is as below. Incorrect installation due to ignoring of the instruction will cause harm or damage, and the seriousness is classified by the following indications.




 WARNING	This indication shows the possibility of causing death or serious injury.
---	---

 CAUTION	This indication shows the possibility of causing injury or damage to properties only.
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The items to be followed are classified by the symbols:

	Symbol with background white denotes item that is PROHIBITED from doing.
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- Carry out test running to confirm that no abnormality occurs after the installation. Then, explain to user the operation, care and maintenance as stated in instructions. Please remind the customer to keep the operating instructions for future reference.

 WARNING	
1. Engage dealer or specialist for installation. If installation done by the user is defective, it will cause water leakage, electrical shock or fire.	
2. Install according to this installation instruction strictly. If installation is defective, it will cause water leakage, electrical shock or fire.	
3. Use the attached accessories parts and specified parts for installation. Otherwise, it will cause the set to fall, water leakage, fire or electrical shock.	
4. Install at a strong and firm location which is able to withstand the set's weight. If the strength is not enough or installation is not properly done, the set will drop and cause injury.	
5. For electrical work, follow the local national wiring standard, regulation and this installation instruction. An independent circuit and single outlet must be used. If electrical circuit capacity is not enough or defect found in electrical work, it will cause electrical shock or fire.	
6. Use the specified cable (1.5 mm ²) and connect tightly for indoor/outdoor connection. Connect tightly and clamp the cable so that no external force will be acted on the terminal. If connection or fixing is not perfect, it will cause heat-up or fire at the connection.	
7. Wire routing must be properly arranged so that control board cover is fixed properly. If control board cover is not fixed perfectly, it will cause heat-up at connection point of terminal, fire or electrical shock.	
8. When carrying out piping connection, take care not to let air substances other than the specified refrigerant go into refrigeration cycle. Otherwise, it will cause lower capacity, abnormal high pressure in the refrigeration cycle, explosion and injury.	
9. When connecting the piping, do not allow air or any substances other than the specified refrigerant (R410A) to enter the refrigeration cycle. Otherwise, this may lower the capacity, cause abnormally high pressure in the refrigeration cycle, and possibly result in explosion and injury. (Only for models: CS/CU-V7CK, V9CK, V12CK, W7CK, W9CK, W12CK)	
10. <ul style="list-style-type: none"> • When connecting the piping, do not use any existing (R22) pipes and flare nuts. Using such same may cause abnormally high pressure in the refrigeration cycle (piping), and possibly result in explosion and injury. Use only R410A materials. • Thickness of copper pipes used with R410A must be more than 0.8 mm. Never use copper pipes thinner than 0.8 mm. • It is desirable that the amount of residual oil is less than 40 mg/10 m (Only for models: CS/CU-V7CK, V9CK, V12CK, W7CK, W9CK, W12CK). 	
11. Do not modify the length of the power supply cord or use of the extension cord, and do not share the single outlet with other electrical appliances. Otherwise, it will cause fire or electrical shock.	