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Safety Precautions

- Read the following warnings and cautions carefully before operating the system and use it correctly.
- This manual classifies the precautions to the user into two categories on the right.

 Be sure to follow all as they are all important to ensure safety.
- After reading this manual, keep it in a place easily accessible to the user for future reference.

⚠ WARNING

Failure to follow a warning is very likely to result in such grave consequences as death or serious injury.

⚠ CAUTION

Failure to follow a caution may result in serious injury or property damage, and in certain conditions, may result in a grave consequence.

WARNING

- Do not expose your body to the cool (heat) air for a long time, do not cool (heat) the room too much.
 It will affect your physical conditions and cause health problems.
- Do not put a finger, a rod or other objects into the air outlet or inlet.
 As the fan is rotating at a high speed, it will cause injury.
- Do not attempt to repair, relocate, modify or reinstall the air conditioner by yourself.
 Incorrect work will cause electric shocks, fire etc. For repairs and reinstallation, consult the shop where you bought the air conditioner.
- If anything abnormal such as a burning smell occurs, stop the operation immediately and turn the breaker OFF.

Continued abnormal operation will cause troubles, electric shocks, fire etc. If anything is abnormal, consult the shop where you bought the air conditioner.

• If the air conditioner is not cooling or heating properly, the refrigerant may be leaking, so see the dealer where the unit was purchased. Check with a qualified repairman before attempting any repairs, which might accompany addition of refrigerant. The refrigerant used in the air conditioner is safe. Although leaks should not occur, if for some reason any refrigerant happens to leak into the room, make sure it does not come in contact with any flame, such as fan heaters, kerosene heaters, or gas ranges, as this may result noxious substances being generated.

CAUTION

Do not use the air conditioner for preservation purposes.

Do not use it for preserving precision instruments, foods, plants, animals, works of fine arts etc. Performance or quality may deteriorate and animal or plant life may be shorter.

- Do not operate the air conditioner with a wet hand.
 It may cause an electric shock.
- Ventilate the room from time to time.

Be careful especially when using a burning appliance in the same room. Insufficient ventilation may cause shortage of oxygen.

- Before cleaning, be sure to stop the operation and turn the breaker OFF.
 As a fan is rotating at a high speed, cleaning during operation may cause injury.
- After a long use, check the unit stand and fittings for damage.
 The unit may drop and cause injury if damage is left unrepaired.

- Do not stand or sit on the outdoor unit. Do not place any object on the unit. The object or the person may fall down or drop, causing injury.
- Do not place under the indoor or outdoor unit anything which must be kept away from moisture.
 Indoor unit: moisture in the air may condense and drip in certain conditions.
 outdoor: during cooling operation, condensation may drip from the piping connections.
- Do not wash the unit with water. It may cause an electric shock.
- Do not place a burning appliance in places exposed to the air flow from the unit or under the indoor unit.
 It may cause incomplete combustion or deformation of the unit from heat.
- it may dadd intomplete dombadion of dolormation of the unit from float.
- Do not place a vessel containing water on the unit.
 Water may penetrate into the unit and degrade electrical insulations, resulting in an electric shock.
- Do not expose plants or animals directly to the air flow.
 It may cause adverse effects on the plant or the animal.
- Do not block air inlets nor outlets.
 Impaired air flow may result in insufficient performance or troubles.
- Do not allow children to mount on the outdoor unit or avoid placing any object on it.
 Falling or tumbling may result in injury.

Installation

WARNING

- Do not attempt to install the air conditioner by yourself. Consult the service shop or a qualified technician. Incorrect work will result in water leakage, electric shocks or fire. For installation, consult the service shop where you bought the unit or a qualified technician.
- The air conditioner must be earthed.
 Incomplete earthing may result in electric shocks. Do not connect the earth line to a gas pipe, water pipe, lightening rod, or a telephone earth line.

CAUTION

- Depending on the environment, an earth leakage breaker must be installed.
 Lack of an earth leakage breaker may result in electric shocks.
- Do not install the air conditioner in places where flammable gas may leak.
 If leaked gas should accumulate near the unit, fire may occur.
- Arrange the drain hose to ensure smooth drainage.
 Incomplete drainage may cause wetting of the building, furniture etc.
- Do not connect the air conditioner to a power supply different from the specification.
 It may cause trouble or fire.

Installation site

- To install the air conditioner in the following types of environments, consult the shop.
 - Places with an oily ambient or where steam or soot occurs.
 - Salty environment such as coastal areas.
 - Places where sulfide gas occurs such as hot springs.
 - Places where snow may block the outdoor unit.

The drain from the outdoor unit must be discharged to a place of good drainage.

Consider nuisance to your neighbours from noises

- For installation, choose a place as described below.
 - A place solid enough to bear the weight of the unit which does not amplify the operation noise or vibration.
 - A place from where the air discharged from the outdoor unit or the operation noise will not annoy your neighbours.

Electrical work

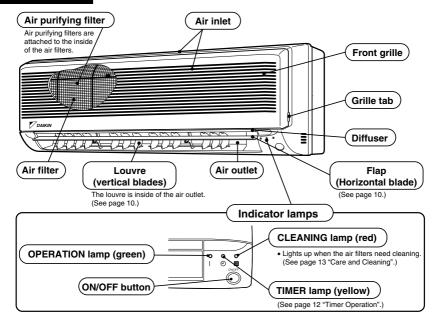
 For power supply, be sure to use a separate power circuit dedicated to the air conditioner.

System relocation

Relocating the air conditioner requires specialized knowledge and skills. Please
consult the shop where you bought the air conditioner if relocation is necessary for
moving or remodeling.

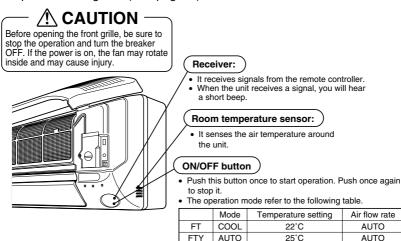
Names of Parts

Indoor unit



Opening the front grille

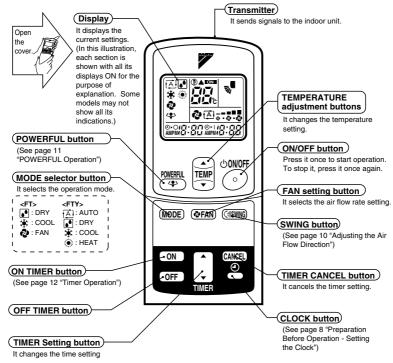
How to open the front grille: (See page 8.)



• This button is useful when the remote controller is missing.

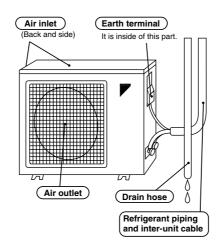
Names of Parts

Remote controller



<ARC423A17, ARC423A18>

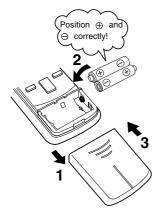
Outdoor unit



Preparation Before Operation

Remote controller

Setting the batteries



- 1 Press with a finger and slide the front cover to take it off.
- **2** Set two dry batteries (AAA).
- 3 Set the front cover as before.
 - This will cause the figures on the display to flash. Set the clock at this point.

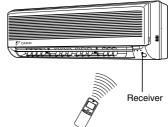
ATTENTION

About batteries

- When replacing the batteries, use batteries of the same type, and replace the two old batteries together.
- When the system is not used for a long time, take the batteries out.
- When the operation display screen of the remote controller is hard to see and the reception become hard, replace the batteries with new AAA batteries.
- The attached batteries are provided for the initial use of the system.
 - The usable period of the batteries may be short depending on the manufactured date of the air conditioner.

Operating the remote controller

- To use the remote controller, aim the transmitter at the indoor unit. If there is anything to block signals between the unit and the remote controller, such as a curtain, the unit will not operate.
- Do not drop the remote controller. Do not get it wet.
- The maximum distance for communication is about 7 m.



■ To fix the remote controller holder on the wall

- 1 Choose a place from where the signals reach the unit.
- **2** Fix the holder to a wall, a pillar, etc. with the screws supplied with the holder.
- 3 Place the remote control in the remote control holder.



• To remove, pull it upwards.

ATTENTION -

About the remote controller

- Never expose the remote controller to direct sunlight.
- Dust on the signal transmitter or receiver will reduce the sensitivity. Wipe off dust with soft cloth.
- Signal communication may be disabled if an electronic-starter-type fluorescent lamp (such as inverter-type lamps) is in the room. Consult the shop if that is the case.
- If the remote control signals happen to operate another appliance, move that appliance to somewhere else, or consult the shop.

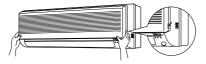
Preparation Before Operation

Indoor unit

■ Setting the air purifying filters

1 Open the front grille.

 Hold the grille by the tabs on the two sides and lift it until it stops with a click. (about 60°)



2 Pull out the air filters.

 Push upwards the tab at the center of each air filter, then pull it down.



3 Set the air purifying filters.

 Attach an air purifying filter to each air filter. (See page 13 "Care and cleaning")

4 Set the air filters in their original positions and close the front grille.

 Operation without air filters may result in troubles as dust will accumulate inside the indoor unit.

■ Setting the clock

1 Press 🐣 .



⊕ ∏∷∭ is displayed.

(J) blinks.

2 Press time. to set the clock to the present



Holding down () or () button
 rapidly increases or decreases the time display.

3 Press 🐣 .

: blinks.



(Now the clock is set.)

■ Turn the breaker ON

 Turning ON the breaker opens the flap, then closes it again. (This is a normal procedure.)

NOTE -

Tips for saving energy

 Be careful not to cool the room too much.
 Keeping the temperature setting at a moderate level helps save energy.

Recommended temperature setting

For cooling: 26°C – 28°C For heating: 20°C – 24°C

- Cover windows with a blind or a curtain.
 Blocking sunlight and air from outdoors increases the cooling effect.
- Clogged air filters cause inefficient operation and waste energy. Clean them once in about every two weeks.

Please note

- The air conditioner always consumes 7 watts of electricity even while it is not operating.
- If you are not going to use the air conditioner for a long period, for example in spring or autumn, turn the breaker OFF.
- Use the air conditioner in the following conditions.

Mode	Operating conditions		If operation is continued out of this range	
COOL	Outdoor temperature Indoor temperature Indoor humidity	: 19 to 46 °C : 18 to 32 °C : 80% max.	A safety device may work to stop the operation. (In multi system, it may work to stop the operation of the outdoor unit only.) Condensation may occur on the indoor unit and drip.	
HEAT	Outdoor temperature Indoor temperature	: -10 to 21 °C : 27 °C max.	A safety device may work to stop the operation.	
DRY	Outdoor temperature Indoor temperature Indoor humidity	: 19 to 46 °C : 18 to 32 °C : 80% max.	A safety device may work to stop the operation. Condensation may occur on the indoor unit and drip.	

AUTO • DRY • COOL • HEAT • FAN Operation

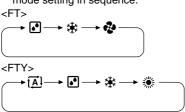
The air conditioner operates with the settings of vour choice.

From the next time on, the air conditioner will operate with the same settings.

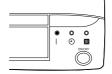
1 Press (MODE) and select a mode.



 Each pressing of the button advances the mode setting in sequence.



2 Press () .



Then OPERATION lamp lights up.

■ To stop:



Then OPERATION lamp goes off.

■ To change the temperature setting:

DRY or FAN mode	AUTO or HEAT or COOL mode
The temperature setting is not variable.	Press to raise the temperature and
	press to lower the temperature.
	Set to the temperature you like.

■ To change the air flow rate setting:

Press **FAN**.

DRY mode	AUTO or HEAT or COOL or FAN mode
The air flow rate setting is not variable.	Five levels of air flow rate setting from " a " to " a" plus " [A] " are available.

- At smaller air flow rates, the cooling effect is also smaller.
- To change the air flow direction: (See page 10.)

· NOTE -

<Note on HEAT mode operation>

- Since this air conditioner heats the room by taking heat from outdoor air to indoors, the heating capacity becomes smaller in lower outdoor temperatures. If the heating effect is insufficient, it is recommended to use another heating appliance in combination with the air conditioner.
- The heat pump system heats the room by circulating hot air around all parts of the room.
 After the start of heating operation, it takes some time before the room gets warmer.
- In heating operation, frost may occur on the outdoor unit and lower the heating capacity. In that case, the system switches into defrosting operation to take away the frost.
- During defrosting operation, hot air does not flow out of indoor unit.

<Note on AUTO operation>

- In AUTO operation, the system selects a temperature setting and an appropriate mode (COOL or HEAT) based on the room temperature at the start of the operation.
- The system automatically reselects setting at a regular interval to bring the room temperature to user-seetting level.
- If you do not like AUTO operation, you can select manually, you like the mode and setting.

Adjusting the Air Flow Direction

You can adjust the air flow direction to increase your comfort.

Adjusting the horizontal blade (flap)

Press (SWING).

Every time the button is pressed, " (§ " appears or disappears.

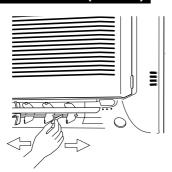


The flap automatically swings up and down.



To stop the flap at an angle you like, press (SWING).

Adjusting the vertical blade (louvre)



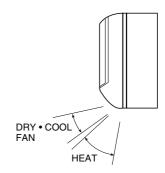
Hold the knob and move the louvre. (You will find a knob on the left-side and the right-side blades.)

ATTENTION

 Be careful when adjusting the louvre. Inside the air outlet, a fan is rotating at a high speed.

Notes on flap angles

- When sselected, the flap swinging range depends on the operation mode. (See the figure.)
- The real flap angles are differ from the display of remote controller.



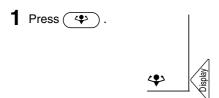
ATTENTION

 Always use a remote controller to adjust the flap angle. If you attempt to move it forcibly with hand when it is swinging, the mechanism may be broken.

POWERFUL Operation

POWERFUL operation quickly maximizes the cooling (heating) effect in any operation mode. You can get the maximum capacity with a touch of a button.

- Pressing the (POWERFUL) button during operation starts POWERFUL operation.
- POWERFUL operation ends in 20 minutes.
 Then the system automatically operates again with the settings which were used before POWERFUL operation.
- During you use "POWERFUL operation", the other functions will not go on.



■ To cancel POWERFUL operation:

Press ().

Notes on POWERFUL operation

■ In COOL and HEAT mode

To maximize the cooling and heating effect, the capacity of outdoor unit must be increased and the air flow rate be fixed to the maximum setting.

The temperature and air flow settings are not variable.

In DRY mode

The temperature setting is lowered by 3°C and the air flow rate is slightly increased.

● In FAN mode

The air flow rate is fixed to the maximum setting.

Timer Operation

Timer functions are useful for automatically switching the air conditioner on or off at night or in the morning. You can also use OFF TIMER and ON TIMER in combination.

OFF TIMER operation

- Check that the clock is correct.
 If not, set the clock to the present time. (See page 8.)
- Press OFF while the air conditioner is operating.



is displayed.

④⁻O blinks.

 Previous time setting appears on display.

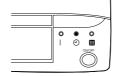
2 Press uni

until the time setting

reaches the point you like.

- Every pressing of either button increases or decreases the time setting by 10 minutes. Holding down either button changes the setting rapidly.
- **3** Press **OFF** once again.





Then the TIMER lamp lights up.

■ To cancel the timer:

Press (CANCEL) .

Then the TIMER lamp goes off.

Notes on OFF TIMER

• NIGHT SET MODE When the OFF TIMER is set, the air conditioner automatically adjusts the temperature setting (0.5°C up in COOL) to prevent excessive cooling for your pleasant sleep.

ON TIMER operation

- Check that the clock is correct. If not, set the clock to the present time (See page 8).
- 1 Press ON while the air conditioner is not operating.



AM DIVIT is displayed.

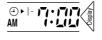
⊕ I blinks.

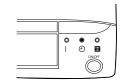
* Previous time setting appears on display.

2 Press until the time setting

reaches the point you like.

- Every pressing of either button increases or decreases the time setting by 10 minutes.
 Holding down either button changes the setting rapidly.
- **3** Press **ON** once again.





Then the TIMER lamp lights up.

Combining ON TIMER and OFF TIMER

• A sample setting for combining the two timers is shown below.

(Example)
Present time: 11:00 PM
(The unit operating)
OFF TIMER at 0:00 a.m.)
ON TIMER at 7:00 a.m.)
Combined



Notes on ON,OFF TIMER

- When TIMER is set, the present time is not displayed.
 Once you set ON,OFF TIMER, the time setting is
- Once you set ON,OFF TIMEH, the time setting is kept in the memory. (The memory is canceled when remote controller batteries are replaced.)
- When operating the unit via the ON/OFF Timer, the actual length of operation may vary from the time entered by the user. (Maximum approx. 10 minutes.)

ATTENTION

- In the following cases, set the timer again.
 - After a breaker has turned OFF.
 - After a power failure.
 - After replacing batteries in the remote controller.

Care and Cleaning



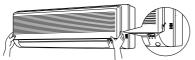
CAUTION -

Before cleaning, be sure to stop the operation and turn the breaker OFF.

Cleaning the air filters

(It is recommended to clean them every two weeks.)

- Open the front grille.
 - Hold the grille by the tabs on the two sides and lift it unitl it stops with a click. (about 60°)



- 2 Pull out the air filters.
 - Push a little upwards the tab at the center of each air filter, then pull it down.



- 3 Take off the air purifying filters and clean them.
 - Wash them with water, or clean them with a vacuum cleaner.
 - If the dust does not come off easily, wash them with neutral detergent thinned with lukewarm water. then dry them up in the shade.
- 4 Set the air purifying filters and the air filters as they were and close the front arille.



 Insert claws of the filters into slots of the front panel. The front grille should lock at both sides and at the point in the middle. Push the grille at the 4 points indicated by 1.

- In a dusty environment, clean the air filters at least once in every two weeks.
- Operation with dusty air filters lowers the cooling and heating capacity and wastes energy

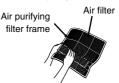
Cleaning the indoor and outdoor units and the remote controller

Wipe them with dry soft cloth. For cleaning, do not use water hotter than 40°C, benzine, gasoline, thinner, nor other volatile oils, polishing compound, scrubbing brushes nor other hard stuff.

Replacing air purifying filters

(It is recommended to replace them every three months.)

- Air purifying filters need to be replaced regularly.
- Open the front grille and pull out the air filters.
- Take off the air purifying filters.



· Hold the recessed

parts of the frame

and unhook the four

Detach the filter element and attach a new one.



Attach the air purifying filter.

claws



5 Set the air filters as they were and close the front grille.

> (Push the grille at the 4 points. two at both sides and in the middle.)

- To order air purifying filters, contact the service shop where you bought the air conditioner.
- Once the air purifying filter element gets dirty, it is not reusable but must be thrown awáv.
- Operation with dirty air purifying filters: cannot clean the air.
 - results in poor cooling.

 - mav cause odour.

Item	Part No.
Air purifying filter (with frame)	KAF918A41
Air purifying filter (without frame)	KAF918A42

Care and Cleaning

Cleaning the front grille

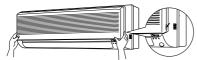
You may remove the front grille for cleaning.



- When removing or attaching the front grille, use a robust and stable stool and watch your steps carefully.
- When removing or attaching the front grille, support the grille securely with hand to prevent it from falling.
 For cleaning, do not use water hotter than 40°C, benzine,
- For cleaning, do not use water hotter than 40°C, benzing gasoline, thinner, nor other volatile oils, polishing compound, scrubbing brushes nor othe hard stuff.
- After cleaning, make sure that the front grille is securely fixed.

1 Open the front grille.

 Hold the grille by the tabs on the two sides and lift it until it stops with a click.



2 Remove the front grille.

- Supporting the front grille with one hand, release the lock by sliding down the knob with the other hand.
- To remove the front grille, pull it toward yourself with both hands.



3 Clean the front grille.

- You may wipe it with a soft cloth soaked in water.
- Only neutral detergent may be used.
- You may wash the grille with water. After washing, dry it with cloth, then dry it up in the shade.

4 Attach the front grille.

- Set the 3 keys of the front grille into the slots and push them in all the way.
- Supporting the front grille with one hand, fit the lock by sliding up the knob with the other hand.
- Close the front grille slowly in this state. (Push the grille at the 3 points, two at both sides and in the middle.)





Side up the knob

Check -

Check that the base, stand and other fittings of the outdoor unit are not decayed or corroded.

Check that nothing blocks the air inlets and the outlets of the indoor unit and the outdoor unit.

Check that the earth wire is not disconnected or broken.

Check that the drain comes smoothly out of the drain hose during COOL or DRY operation.

 If no drain water is seen, water may be leaking from the indoor unit. Stop operation and consult the service shop if this is the case.

Before a long idle period

 Operate the fan alone for several hours on a fine day to dry out the inside.

<FT>

1 Press (MODE) and select " ... ".

2 Press ONNOFF

<FTY>

1 Press (MODE) and select " * ".

2 Press and set the

temperature to 32°C

3 Press ONOF

- Perform this operation when the room temperature is under 28°C.
- 2 Clean the air filters and set them again.
- 3 Take out batteries from the remote controller.
- 4 Turn OFF the breaker for the room air conditioner.



These cases are not troubles.

The following cases are not air conditioner troubles but have some reasons. You may just continue using it.

Case	Explanation
Operation does not start soon. • When ON/OFF button was pressed soon after operation was stopped. • When the mode was reselected.	This is to protect the air conditioner. You should wait for about 3 minutes.
Hot air does not flow out soon after the start of heating operation.	The air conditioner is warming up. You should wait for 1 to 4 minutes. (The system is designed to start discharging air only after it has reached a certain temperature.)
The heating operation stops suddenly and a flowing sound is heard.	The system is taking away the frost on the outdoor unit. You should wait for about 3 to 10 minutes.
The outdoor unit emits water or steam.	 In HEAT mode The frost on the outdoor unit melts into water or steam when the air conditioner is in defrost operation. In COOL or DRY mode Moisture in the air condenses into water on the cool surface of outdoor unit piping and drips.
Mists come out of the indoor unit.	■ This happens when the air in the room is cooled into mist by the cold air flow during cooling operation.
The indoor unit gives out odour.	■ This happens when smells of the room, furniture, or cigarettes are absorbed into the unit and discharged with the air flow. (If this happens, we recommend you to have the indoor unit washed by a technician. Consult the service shop where you bought the air conditioner.)
The outdoor fan rotates while the air conditioner is not in operation.	 After operation is stopped: The outdoor fan continues rotating for another 60 seconds for system protection. While the air conditioner is not in operation: When the outdoor temperature is very high, the out door fan starts rotating for system protection.
The operation stopped suddenly. (OPERATION lamp is on)	For system protection, the air conditioner may stop operating on a sudden large voltage fluctuation. It automatically resumes operation in about 3 minutes.



Check again

Please check again before calling a repair person.

Case	Check		
The air conditioner does not operate. (OPERATION lamp is off)	 Hasn't a breaker turned OFF or a fuse blown? Isn't it a power failure? Are batteries set in the remote controller? Is the timer setting correct? 		
Cooling or Heating effect is poor.	 Are the air filters clean? Is there anything to block the air inlet or the outlet of the indoor and the outdoor units? Is the temperature setting appropriate? Are the windows and doors closed? Are the air flow rate and the air direction set appropriately? 		
Operation stops suddenly. (OPERATION lamp blinks.)	 Are the air filters clean? Is there anything to block the air inlet or the outlet of the indoor and the outdoor units? Clean the air filters or take all obstacles away and turn the breaker OFF. Then turn it ON again and try operating the air conditioner with the remote controller. If the lamp still blinks, call the service shop where you bought the air conditioner. 		
An abnormal functioning happens during operation.	The air conditioner may malfunction with lightening or radio waves. Turn the breaker OFF, turn it ON again and try operating the air conditioner with the remote controller.		

Trouble Shooting

Call the service shop immediately.

MARNING -

When an abnormality (such as a burning smell) occurs, stop operation and turn the breaker OFF.

Continued operation in an abnormal condition may result in troubles, electric shocks or fire.

Consult the service shop where you bought the air conditioner.

Do not attempt to repair or modify the air conditioner by yourself.

Incorrect work may result in electric shocks or fire.

Consult the service shop where you bought the air conditioner.

If one of the following symptoms takes place, call the service shop immediately.

- The power cord is abnormally hot or damaged.
- An abnormal sound is heard during operation.
- The safety breaker, a fuse, or the earth leakage breaker cuts off the operation frequently.
- A switch or a button often fails to work properly.
- There is a burning smell.
- Water leaks from the indoor unit.

Turn the breaker OFF and call the service shop.

■ After a power failure

The air conditioner automatically resumes operation in about three minutes. You should just wait for a while.

■ Lightening

If lightening may strike the neighbouring area, stop operation and turn the breaker OFF for system protection.

We recommend periodical maintenance

In certain operating conditions, the inside of the air conditioner may get foul after several seasons of use, resulting in poor performance. It is recommended to have periodical maintenance by a specialist aside from regular cleaning by the user. For specialist maintenance, contact the service shop where you bought the air conditioner.

The maintenance cost must be born by the user.