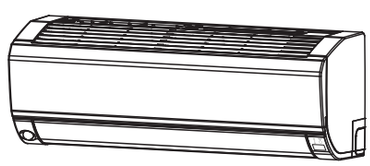
HITACHI

SPLIT TYPE AIR CONDITIONER

INDOOR UNIT

MODEL
RAK-15QPE
RAK-18RPE
RAK-25RPE
RAK-35RPE
RAK-42RPE
RAK-50RPE



RAK-15QPE
RAK-18RPE
RAK-25RPE
RAK-35RPE
RAK-42RPE
RAK-50RPE

RAR-6NE1



SUOMI NEDERLANDS SVENSKA Ελληνικά PORTUGUÊS ESPAÑOL ITALIANO FRANÇAIS DEUTSCH ENGLISH

Instruction manual Page 1~10

To obtain the best performance and ensure years of trouble free use, please read this instruction manual completely.

This room air conditioner is only for consumer usage.
Do not use for preservation of foods, animals, plants, precision machines, art, medicine or such.

<0018762B>

SAFETY PRECAUTION

- Please read the “Safety Precaution” carefully before operating the unit to ensure correct usage of the unit.
- Pay special attention to signs of “⚠ **Warning**” and “⚠ **Caution**”. The “Warning” section contains matters which, if not observed strictly, may cause death or serious injury. The “Caution” section contains matters which may result in serious consequences if not observed properly. Please observe all instructions strictly to ensure safety.
- The signs indicate the following meanings. (The following are examples of signs.)

Make sure to connect earth line.	This sign in the figure indicates prohibition.
Indicates the instructions that must be followed.	

- Please keep this manual after reading.

PRECAUTIONS DURING INSTALLATION

⚠ WARNING

- Do not reconstruct the unit.
  Water leakage, fault, short circuit or fire may occur if you reconstruct the unit by yourself.


PROHIBITION

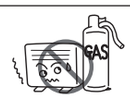
- Please ask your sales agent or qualified technician for the installation of your unit.
  Water leakage, short circuit or fire may occur if you install the unit by yourself.
- Please use earth line.
  Do not place the earth line near water or gas pipes, lightning-conductor, or the earth line of telephone. Improper installation of earth line may cause electric shock or fire.


CONNECT EARTH LINE

- Be sure to use the specified piping set for R410A,R32. Otherwise, this may result in broken copper pipes or faults.

⚠ CAUTION

- A circuit breaker should be installed depending on the mounting site of the unit.
  Without a circuit breaker, the danger of electric shock exists.



PROHIBITION

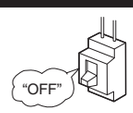
- Do not install the unit near a location where there is flammable gas.
  The outdoor unit may catch fire if flammable gas leaks around it.
- Please ensure smooth flow of water when installing the drain hose.
- Make sure that a single phase 220V-230V power source is used.
  The use of other power sources may cause electrical components to overheat and lead to fire.


PROHIBITION

PRECAUTIONS DURING SHIFTING OR MAINTENANCE

⚠ WARNING

- Should abnormal situation arise (like burning smell), please stop operating the unit and turn off the circuit breaker. Contact your agent. Fault, short circuit or fire may occur if you continue to operate the unit under abnormal situation.



- Please contact your agent for maintenance. Improper self maintenance may cause electric shock and fire.
- Please contact your agent if you need to remove and reinstall the unit. Electric shock or fire may occur if you remove and reinstall the unit yourself improperly.

PRECAUTIONS DURING OPERATION

⚠ WARNING

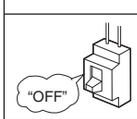
- Avoid an extended period of direct airflow for your health.


PROHIBITION


PROHIBITION

- Do not put objects like thin rods into the panel of blower and suction side because the high-speed fan inside may cause danger.
- Do not use any conductor as fuse wire, this could cause fatal accident.


PROHIBITION



- During thunder storm, disconnect the plug top and turn off the circuit breaker.
- Spray cans and other combustibles should not be located within a meter of the air outlets of both indoor and outdoor units.
  As a spray can’s internal pressure can be increased by hot air, a rupture may result.


PROHIBITION

PRECAUTIONS DURING OPERATION

⚠ CAUTION

- The product shall be operated under the manufacturer specification and not for any other intended use.





- Do not attempt to operate the unit with wet hands, this could cause fatal accident.

- When operating the unit with burning equipments, regularly ventilate the room to avoid oxygen insufficiency.





- Do not direct the cool air coming out from the air-conditioner panel to face household heating apparatus as this may affect the working of apparatus such as the electric kettle, oven etc.

- Please ensure that outdoor mounting frame is always stable, firm and without defect. If not, the outdoor unit may collapse and cause danger.

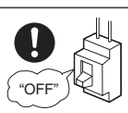




- Do not wash the unit with water or place a water container such as a vase on the indoor unit.
  Electrical leakage could be present and cause electric shock.

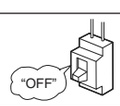
- Do not place plants directly under the airflow as it is bad for the plants.





- Be sure to stop the operation by using the remote controller and turn off the circuit breaker during cleaning, the high-speed fan inside the unit may cause danger.

- Turn off the circuit breaker if the unit is not be operated for a long period.





- Do not climb on the outdoor unit or put objects on it.

- When operating the unit with the door and windows opened, (the room humidity is always above 80%) and with the air deflector facing down or moving automatically for a long period of time, water will condense on the air deflector and drips down occasionally. This will wet your furniture. Therefore, do not operate under such condition for a long time.





- If the amount of heat in the room is above the cooling or heating capability of the unit (for example: more people entering the room, using heating equipments and etc.), the preset room temperature cannot be achieved.

- Indoor unit cleaning must be performed by authorized personnel only. Consult your sales agent.
  Using a commercially available detergent or similar can damage the plastic parts or clog the drain pipe, causing water to drip with potential electric shock hazard.





- Do not touch the air outlet, bottom surface and aluminium fin of the outdoor unit.
  You may get hurt.

- Do not touch the refrigerant pipe and connecting valve.
  Burns may result.



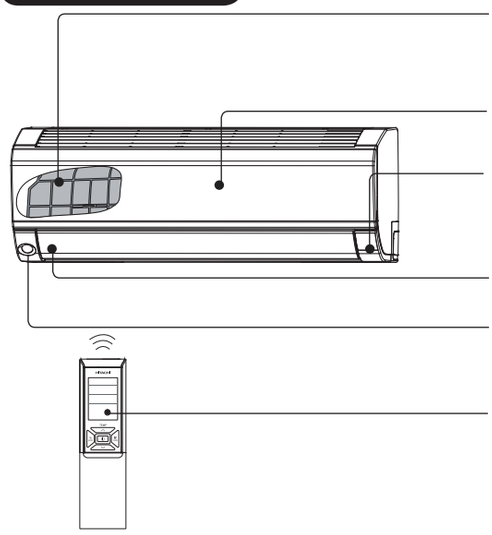
- This appliance is not to be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction. Children must be supervised not to play with the appliance.

OPERATING RANGE

Operation mode	Cooling / Dehumidifying	Heating
Outdoor temperature	-10 to 43°C	-15 to 21°C

NAMES AND FUNCTIONS OF EACH PART

INDOOR UNIT



Air filter
To prevent dust from coming into the indoor unit.
(Refer page 6)

Front panel
(Refer page 7)

Indoor unit indicators
Light indicator showing the operating condition.
(Refer page 5)

Horizontal deflector Vertical deflector (Air Outlet)

ECO Sensor

Remote controller
Send out operation signal to the indoor unit. So as to operate the whole unit.

MODEL NAME AND DIMENSIONS

MODEL	WIDTH (mm)	HEIGHT (mm)	DEPTH (mm)
RAK-15QPE , RAK-18RPE , RAK-25RPE RAK-35RPE , RAK-42RPE , RAK-50RPE	780	280	230

NOTE FOR MULTI SYSTEM

Several indoor units can be connected to one outdoor unit.
You can operate only one unit or several units according to your needs.

Combination of operations:

When operation mode is selected:

- You cannot operate the indoor units in the following combinations.

One unit	Other unit
Heating	Cooling
	Dehumidifying
	Fan

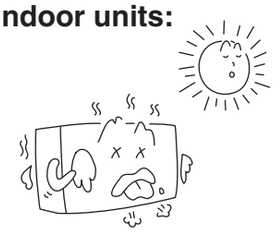
- The indoor unit which is turned on first continues to operate. Other indoor units which are turned on later go into standby mode and the operation lamp lights.
- To operate the indoor units turned on later, set the operation mode as same as the indoor unit turned on first.

During automatic operation

- When heating operation is automatically selected for the first indoor unit, the next indoor unit will then start to heat. Also, if cooling or dehumidifying is automatically selected for the first indoor unit, the next indoor unit will also start to cool or dehumidify.

Adjusting the number of indoor units:

Decrease the number of indoor units to be operated especially when it is very hot or very cold or when you want to reach the preset temperature quickly.

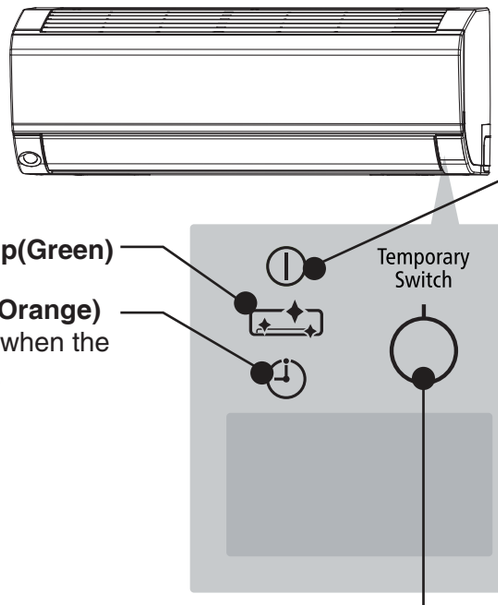


Stopped indoor units:

When an indoor unit is operated in the cooling, heating or dehumidifying mode in one room, the sound of refrigerant flow may be heard from a stopped indoor unit or a stopped indoor unit may become warm. This is because the indoor unit returns refrigerant to the outdoor unit to be ready for operation.

NAMES AND FUNCTIONS OF EACH PART

INDOOR UNIT INDICATIONS



Frost Wash Lamp(Green)

TIMER LAMP (Orange)
This lamp lights when the timer is working.

OPERATION LAMP (Yellow)
This lamp lights during operation. The OPERATION LAMP flashes in the following cases during heating.

(1) During preheating
For about 2-3 minutes after starting up.

(2) During defrosting
Defrosting will be performed about once an hour when frost forms on the heat exchanger of the outdoor unit, for 5-10 minutes each time.

TEMPORARY SWITCH

Use this switch to start and stop when the remote controller does not work.

- By pressing the temporary switch, the operation is done in automatic mode.
- When the operation is done using the temporary switch after the power source is turned off and turn on again, the operation is done in automatic mode.

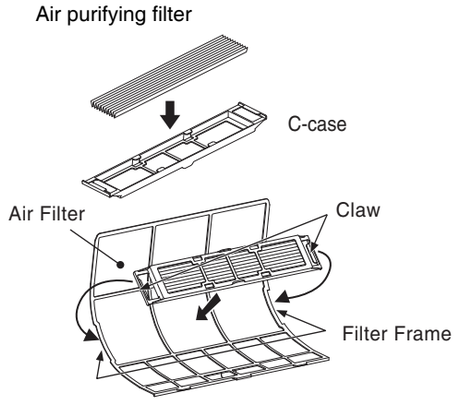
⚠ CAUTION

Turn off the circuit breaker if the unit is not be operated for a long period.

☆ If the power stays on and the unit is not operated, power is slightly consumed in the control circuit. The power is saved by turning off the power switch (or the circuit breaker when the power is supplied from the outdoor unit).

■ **Attaching the air purifying filters (Accessories) to the filter frame.**

- Attach the air purifying filters to the C-case by gently compress its both sides and release after insertion into filter frame.
- The cooling capacity is slightly weakened and the cooling speed becomes slower when the air purifying filters are used.
- The air purifying filters are not washable. It is recommended to use vacuum to clean. It can be used for 1 year. When you want to renew it, please ask your sales agent.



MAINTENANCE

⚠ CAUTION

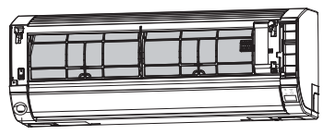
Cleaning and maintenance must be carried out only by qualified service personal. Before cleaning, stop operation and switch off the power supply.

1. AIR FILTER

Please clean the filter once about every two weeks. By doing so, the power rates are saved. In case the air filter is full of dust, the air flow will decrease and the cooling capacity will be reduced. Further, noise may occur. Be sure to clean the filter following the procedure below.

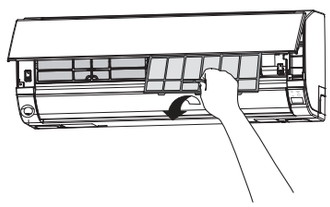
PROCEDURE

1 Open the front panel carefully and remove the filter.

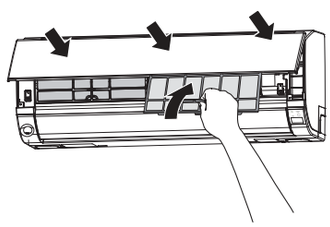


2 Vacuum dust from the air filter using vacuum cleaner. If there is too much dust, wash the filter with a detergent and rinse it thoroughly. After that, dry it in the shade.





3
- Set the filter with “FRONT” mark facing front, and slot them into the original state.
- After attaching the filters, push the front panel at three arrow portions as shown in figure and close it.



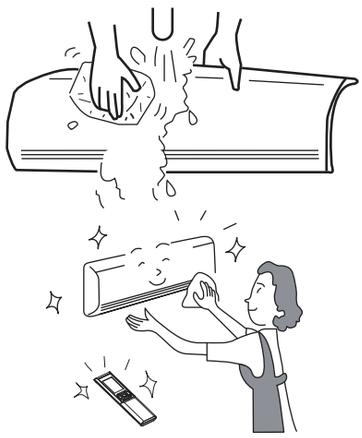
⚠ CAUTION

- Do not wash with hot water at more than 40°C. The filter may shrink.
- When washing it, shake off moisture completely and dry it in the shade; do not expose it directly to the sun. The filter may shrink.
- Don't operate the unit without filter. Fault may occur if you continue.

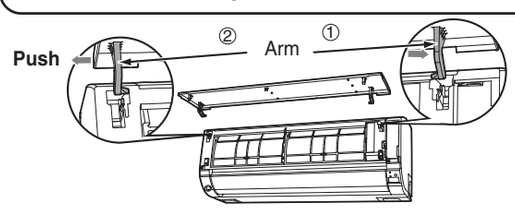
2. CLEANING OF FRONT PANEL

- Remove the front panel and wash with clean water. Wash it with a soft sponge. After using neutral detergent, wash thoroughly with clean water.
- When front panel is not removed, wipe it with a soft dry cloth. Wipe the remote controller thoroughly with a soft dry cloth.
- Wipe the water thoroughly. If water remains at indicators or signal receiver of indoor unit, it causes trouble.

Method of removing the front panel.
Be sure to hold the front panel with both hands to detach and attach it.

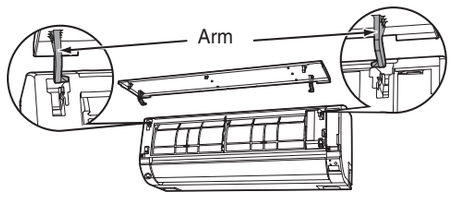


Removing the Front Panel



1. Push the end of the right-side arm outward to release the tab.
2. Move the left-side arm outward to release the left tab, and then pull the panel towards you.

Attaching the Front Panel



1. Insert the shaft of the left arm along the step on the unit into the hole.
2. Securely insert the shaft of the right arm along the step on the unit into the hole.
3. Make sure that the front panel is securely attached, and then close the front panel.

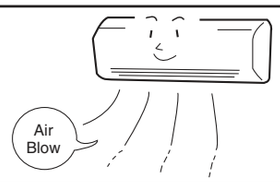
⚠ CAUTION

- Do not splash or direct water to the body of the unit when cleaning it as this may cause short circuit.
- Never use hot water (above 40°C), benzine, gasoline, acid, thinner or a brush, because they will damage the plastic surface and the coating.



3. MAINTENANCE AT BEGINNING OF LONG OFF PERIOD

- Run the unit by setting the operation mode to ✽ (FAN) and the fan speed to HI for about half a day on a fine day, and dry the whole of the unit.
- Switch off the power plug or turn off the circuit breaker.



INFORMATION

CAPABILITIES

Heating Capability

- This room air conditioner utilizes a heat pump system that absorbs exterior heat and brings it into a room to be heated. As the ambient temperature gets lower, heating capability will also lower. In such a situation, the inverter work to increase compressor rpm to keep the unit's heating capability from decreasing. If the unit's heating performance is still unsatisfactory, other heating appliances should be used to augment this unit's performance.

CAUTION

Do not use a stove or any other high temperature devices in proximity to the indoor unit.



PROHIBITION

- The air conditioner is designed to heat an entire room so that it may take some time before you feel warm. Timer operation is recommended for effective preheating ahead of the desired time.

Cooling and Dehumidifying Capabilities

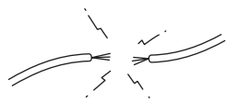
- If the heat present in a room exceeds the unit's cooling capacity (for example, if there are many people in the room or other heating appliances are used), the preset room temperature may not be reached.

REFRIGERANT INFORMATION

- **For the refrigerant charge information, please refer to the outdoor unit installation manual or specification label.**

REGULAR INSPECTION

PLEASE CHECK THE FOLLOWING POINTS EVERY EITHER HALF YEARLY OR YEARLY. CONTACT YOUR SALES AGENT SHOULD YOU NEED ANY HELP.

1		⚠ **WARNING**	**Check to see if the unit's earth line has been connected correctly.** If the earth line is disconnected or faulty, unit failure or electric shock hazard may result.
2		⚠ **WARNING**	**Check to see if the mounting frame has rusted excessively or if the outdoor unit has tilted or become unstable.** It could collapse or fall, causing injury.

AFTER SALES SERVICE AND WARRANTY

WHEN ASKING FOR SERVICE, CHECK THE FOLLOWING POINTS.

CONDITION	CHECK THE FOLLOWING POINTS
If the remote controller is not transmitting a signal. (Remote controller display is dim or blank.)	• Do the batteries need replacement? • Is the polarity of the inserted batteries correct?
When it does not operate.	• Is the fuse all right? • Is the voltage extremely high or low? • Is the circuit breaker "ON"? • Is the power plug inserted? • Do you have any power cut?
When it does not cool well. When it does not heat well.	• Is the air filter blocked with dust? • Is the set temperature suitable? • Have horizontal air deflectors been adjusted to their correct positions according to the operation mode selected? • Are the air inlets or air outlets of indoor and outdoor units blocked? • Is the fan speed "LOW"or "SILENT"?

■ The following phenomena do not indicate unit failure.

During heating, the operation indicator blinks and air blow stops	<Operation start> The unit is preparing to blow warm air. Please wait. <In operation> The outdoor unit is defrosting. Please wait.
Hissing or fizzy sounds	Refrigerant flow noise in the pipe or valve sound generated when flow rate is adjusted.
Squeaking noise	Noise generated when the unit expands or contracts due to temperature changes.
Rustling noise	Noise generated with the indoor unit fan's rpm changing such as operation start times.
Clicking noise	Noise of the motorized valve when the unit is switched on.

Perking noise	Noise of the ventilation fan sucking in air present in the drain hose and blowing out dehumidifying water that had accumulated in the condensed water collector. For details, consult your sales agent.
Changing operation noise	Operation noise changes due to power variations according to room temperature changes.
Mist emission	Mist is generated as the air within the room is suddenly cooled by conditioned air.
Steam emitted from the outdoor unit	Water generated during defrosting operation evaporates and steam is emitted.
Odors	Caused as the smells and particles of smoke, food, cosmetics, etc. present in room air become attached the unit and blown off into the room again.
The outdoor unit continues to operate even if operation is stopped.	Defrosting is underway (as the heating operation is stopped, the microcomputer checks frost accumulated in the outdoor unit and instructs the unit to perform automatic defrosting if necessary).
The OPERATION lamp is blinking.	Shows preheating or defrosting operation is underway. As the protective circuit or preheat sensor operates when unit operation is stopped during preheating and then restarted, or when operation mode is switched from cooling to heating, the lamp continues to blink.
Does not reach the temperature setting	Actual room temperature may deviate slightly from the remote controller's temperature setting depending on the number of people in the room, indoor or outdoor conditions.

- If the unit still fails to operate normally after performing the above inspections, turn the circuit breaker off and contact your sales agent immediately.

Contact your sales agent immediately if the following phenomena should occur



- The circuit breaker switches off or the fuse blows frequently.
- The switch operation is not stable.
- Foreign matter or water accidentally enters the unit interior.
- The power cord gets excessively hot or its insulation is torn or stripped.
- TIMER lamp on the indoor unit display blinks.

(As the nature of the failure can be identified by the blinking cycle, check the blinking cycle before turning off the circuit breaker.)



Notes

- In quiet operation or stopping the running, the following phenomena may occasionally occur, but they are not abnormal for the operation.
  (1) Slight flowing noise of refrigerant in the refrigerating cycle.
  (2) Slight rubbing noise from the fan casing which is cooled and then gradually warmed as operation stops.
- The odor will possibly be emitted from the room air conditioner because the various odor, emitted by smoke, foodstuffs, cosmetics and so on, sticks to it. So please clean the air filter and the evaporator regularly to reduce the odor.

- Please contact your sales agent immediately if the air conditioner still fails to operate normally after the above inspections. Inform your agent of the model of your unit, production number, date of installation. Please also inform him regarding the fault.

Please note:
On switching on the equipment, particularly when the room light is dimmed, a slight brightness fluctuation may occur. This is of no consequence.
The conditions of the local Power Supply Companies are to be observed.