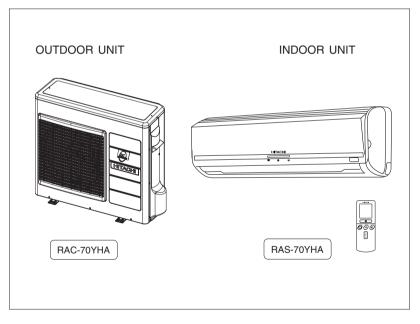
HITACHI **Inspire the Next**

SPLIT TYPE

INDOOR UNIT/OUTDOOR UNIT

MODEL

RAS-70YHA / RAC-70YHA



Instruction manual

1

Page 1~23 To obtain the best performance and ensure years of trouble free use, please read this instruction manual completely.



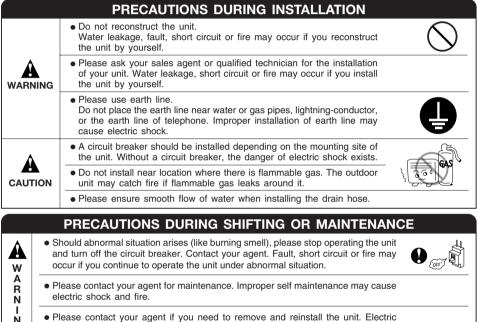
SAFETY PRECAUTION

- · Please read the "Safety Precaution" carefully before operating the unit to ensure correct usage of the unit.
- Pay special attention to signs of "A Warning" and "A 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 sign indicate the following meanings.

Make sure to connect earth line.	♦ The sign in the figure indicates prohibition.
-	

Indicates the instructions that must be followed.

• Please keep this manual after reading.



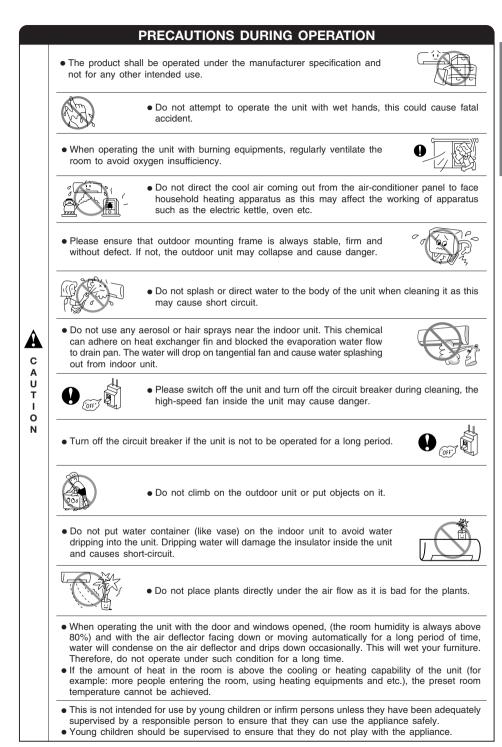
shock or fire may occur if you remove and reinstall the unit yourself improperly.

PRECAUTIONS DURING OPERATION

Δ	• Avoid an ex	stended period of direct air flow for your health.	
W		• Do not put objects like thin rods into the panel of blower and because the high-speed fan inside may cause danger.	d suction side
A R N	• Do not use	any conductor as fuse wire, this could cause fatal accident.	
I N G		• During thunder storm, disconnect and turn off the circuit brea	ker.
3		is UV LED which emits ultra violet light. CT EYE EXPOSURE.	Â

- 2 -

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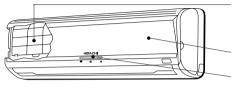
3

ENGLISH



NAMES AND FUNCTIONS OF EACH PART

INDOOR UNIT



AIR FILTER

To prevent dust from coming into the indoor unit. (Refer page 19)

FRONT PANEL (AIR INLET).

INDOOR UNIT INDICATORS

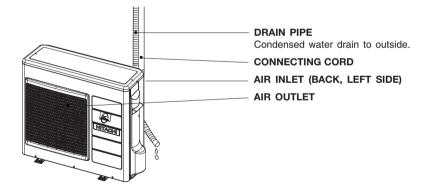
Light indicator showing the operating condition. (Refer page 5)



REMOTE CONTROL

Send out operation signal to the indoor unit. So as to operate the whole unit. (Refer page 6)

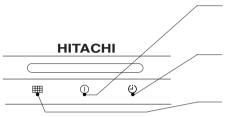




MODEL NAME AND DIMENSIONS

MODEL	WIDTH (mm)	HEIGHT (mm)	DEPTH (mm)
RAS-70YHA	1030	295	191
RAC-70YHA	850	800	298

INDOOR UNIT INDICATORS



OPERATION LAMP

This lamp lights during operation.

TIMER LAMP

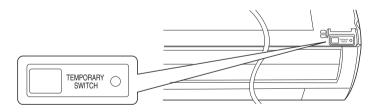
This lamp lights when the timer is working.

FILTER LAMP

When the device is operated for a total of about 200 hours, the FILTER lamp lights to indicate that it is time to clean the filter. The lamp goes out when the POWER SWITCH set to OFF and ON again.

OPERATION INDICATOR

• This figure shows the opening condition of front panel. Refer to page 20 in relation to how to open or close the front panel.



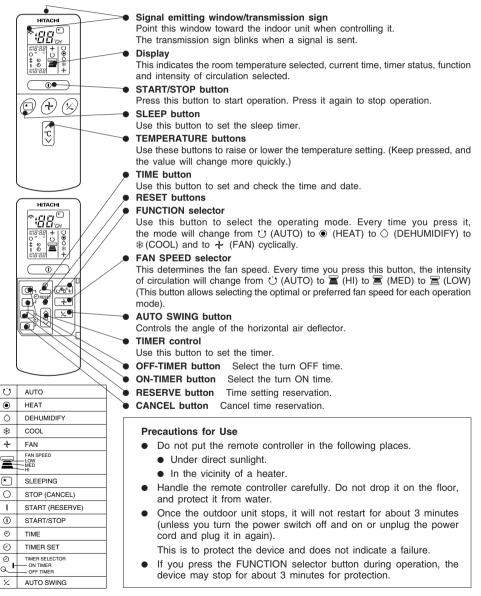
TEMPORARY SWITCH

- 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.

NAMES AND FUNCTIONS OF REMOTE CONTROL UNIT

REMOTE CONTROLLER

- This controls the operation of the indoor unit. The range of control is about 7 meters. If indoor lighting is controlled electronically, the range of control may be shorter. This unit can be fixed on a wall using the fixture provided. Before fixing it, make sure the indoor unit can be controlled
- Handle the remote controller.
 Handle the remote controller with care. Dropping it or getting it wet may compromise its signal transmission capability.
- After new batteries are inserted into the remote controller, the unit will initially require approximately 10 seconds to respond to commands and operate.



VARIOUS FUNCTIONS

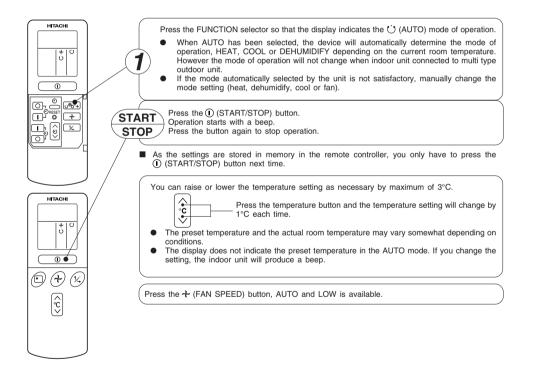
Auto Restart Control

- If there is a power failure, operation will be automatically restarted when the power is resumed with previous operation mode and airflow direction.
- (As the operation is not stopped by remote controller.)
- If you intend not to continue the operation when the power is resumed, switch off the power supply.
- When you switch on the circuit breaker, the operation will be automatically restarted with previous operation mode and airflow direction.

Note: 1. If you do not require Auto Restart Control, please consult your sales agent or OFF by remote control. 2. Auto Restart Control is not available when Timer or Sleep Timer mode is set.

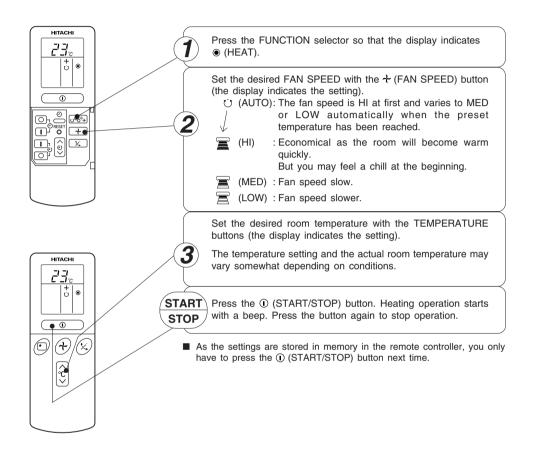
AUTOMATIC OPERATION

The device will automatically determine the mode of operation, HEAT, COOL or DEHUMIDIFY depending on the current room temperature. The selected mode of operation will change when the room temperature varies. However the mode of operation will not change when indoor unit connected to multi type outdoor unit.



HEATING OPERATION

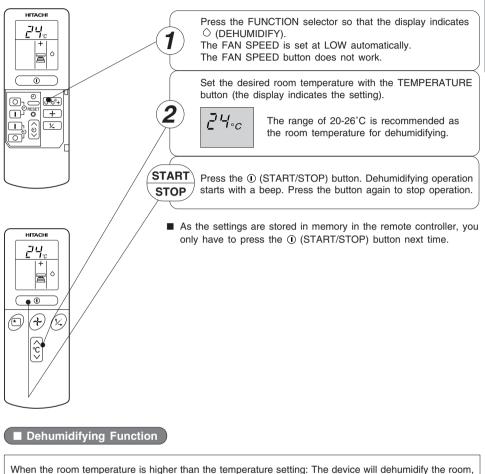
- Use the device for heating when the outdoor temperature is under 21°C.
- When it is too warm (over 21°C), the heating function may not work in order to protect the device.
- In order to keep reliability of the device, please use this device above -15°C of the outdoor temperature.



- 8 -

DEHUMIDIFYING OPERATION

Use the device for dehumidifying when the room temperature is over 16°C. When it is under 15°C, the dehumidifying function will not work.



When the room temperature is higher than the temperature setting: The device will dehumidify the room reducing the room temperature to the preset level.

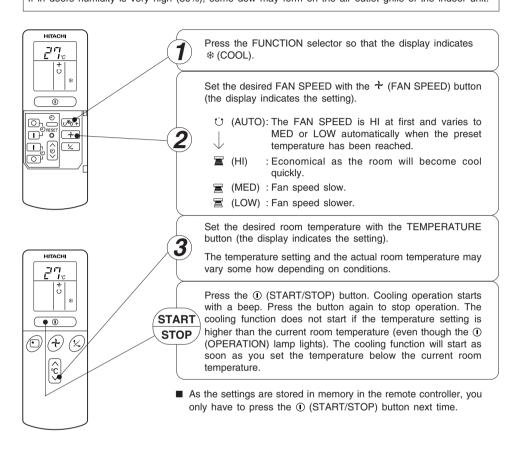
When the room temperature is lower than the temperature setting: Dehumidifying will be performed at the temperature setting slightly lower than the current room temperature, regardless of the temperature setting. The function will stop (the indoor unit will stop emitting air) as soon as the room temperature becomes lower than the setting temperature.

-9-

ENGLISH

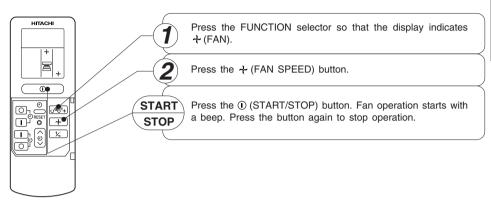
COOLING OPERATION

Use the device for cooling when the outdoor temperature is 22-42°C. If in doors humidity is very high (80%), some dew may form on the air outlet grille of the indoor unit.



FAN OPERATION

You can use the device simply as an air circulator. Use this function to dry the interior of the indoor unit at the end of summer.



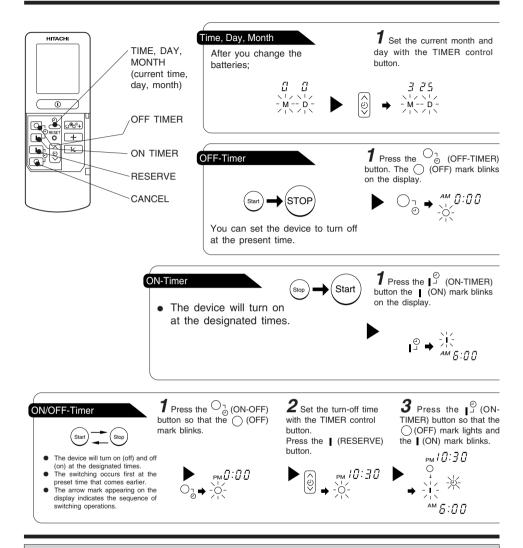
FAN SPEED (AUTO) When the AUTO fan speed mode is set in the cooling/heating operation:			
For the heating operation	 The fan speed will automatically change according to the temperature of discharged air. When the difference of room temperature and setting temperature is large, fan starts to run at HI speed. When the room temperature reaches setting temperature, fan speed changes to LOW automatically. 		
For the cooling operation	 When the difference of room temperature and setting temperature is large, fan starts to run at HI speed. After room temperature reaches the preset temperature, the cooling operation, which changes the fan speed and room temperature to obtain optimum conditions for natural healthful cooling will be performed. 		

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ENGLISH

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HOW TO SET THE TIMER



How to Cancel Reservation

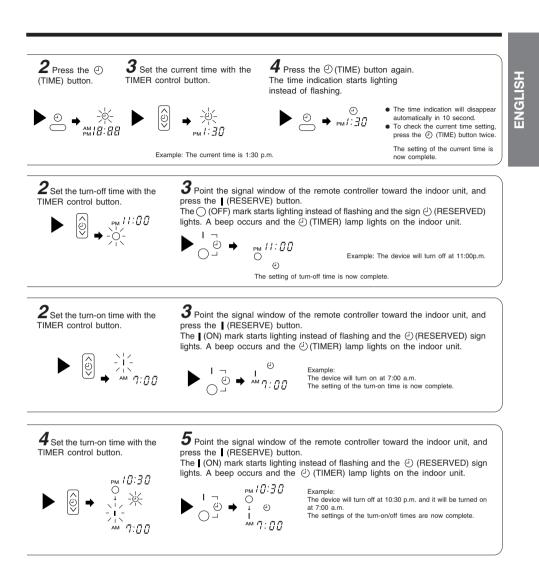
Point the signal window of the remote controller toward the indoor unit, and press the \bigcirc (CANCEL) button.

The \bigcirc (RESERVED) sign goes out with a beep and the \bigcirc (TIMER) lamp turns off on the indoor unit.

NOTE

You can set only one of the OFF-timer, ON-timer and ON/OFF-timer.

- 12 -

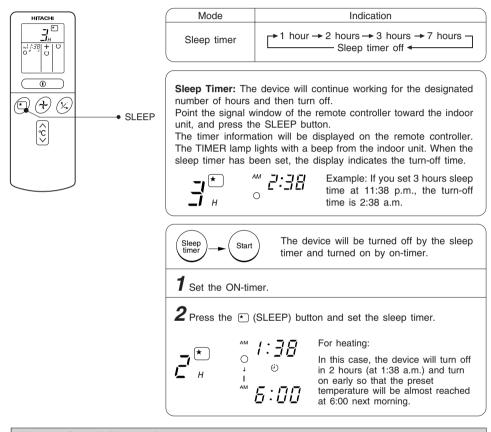


- The timer may be used in three ways: off-timer, on-timer, and ON/OFF (OFF/ON)-timer. Set the current time at first because it serves as a reference.
- As the time settings are stored in memory in the remote controller, you only have to press the I (RESERVE) button in order to use the same settings next time.

- 13 -

HOW TO SET THE SLEEP TIMER

Set the current time at first if it is not set before (see the pages for setting the current time). Press the \therefore (SLEEP) button, and the display changes as shown below.



How to Cancel Reservation

Point the signal window of the remote controller toward the indoor unit, and press the O (CANCEL) button.

The 🕘 (RESERVED) sign goes out with a beep and the 🕘 (TIMER) lamp turns off on the indoor unit.

- 14 -

ENGLISH

Explanation of the sleep timer

The device will control the FAN SPEED and room temperature automatically so as to be quiet and good for people's health. You can set the sleep timer to turn off after 1, 2, 3 or 7 hours.

NOTE

- If date or current time is not set, sleep timer can not be set.
- If you set the sleep timer after the off-, on/off- or off/on-timer has been set, the sleep timer becomes effective instead of the off-, on/off- or off/ on-timer set.
- You can not set other timer during sleep timer operation.

THE IDEAL WAYS OF OPERATION

Suitable Room Temperature



A Warning

Freezing temperature is bad for health and a waste of electric power.

Install curtain or blinds



It is possible to reduce heat entering the room through windows.

Ventilation

A Caution

Do not close the room for a long period of time. Occasionally open the door and windows to allow the

entrance of fresh air.

Do Not Forget To Clean The Air Filter

Dusty air filter will reduce the air volume and the cooling efficiency. To prevent from wasting electric energy, please clean the filter every 2 weeks.



Effective Usage Of Timer

At night, please use the "sleep timer operation mode", together with your wake up time in the morning. This will enable you to enjoy a comfortable room temperature. Please use the timer effectively.



Please Adjust Suitable Temperature For Baby And Children

Please pay attention to the room temperature and air flow direction when operating the unit for baby, children and old folks who have difficulty in movement. (The ideal temperature difference between outdoor and indoor

is about ±5°C).

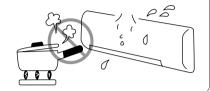


FOR USER'S INFORMATION

The Air Conditioner And The Heat Source In The Room

A Caution

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



Not Operating For A Long Time

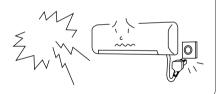
When the indoor unit is not to be used for a long period of time, please switch off the power from the mains. If the power from mains remains "ON", the indoor unit still consumes about 8W in the operation control circuit even if it is in "OFF" mode.



When Lightning Occurs

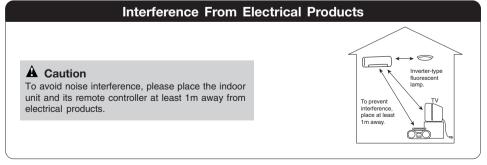
A Warning

To protect the whole unit during lightning, please stop operating the unit and remove the plug from the socket.



UV-LED

UV-LED will be "ON" when the START/STOP button is pressed except for FAN only operation. During selected operation, this UV-LED will be "ON" and "OFF". Light UV glare is visible when the UV-LED is "ON" and this is normal (not malfunction).



- 17 -

ATTACHING THE AIR CLEANSING AND DEODORIZING FILTERS

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



Open the front panel.

Remove the filter.

filter

• Pull up the front panel by holding it at both sides with both hands.

Push upward to release the claws and pull out the

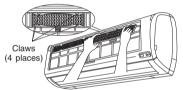
Attaching the Nano Titanium filters to the filter.

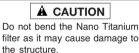
Attach the Nano Titanium filters to the frame by

gently compress its both sides and release after









insertion into filter frame.



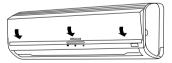




3

Attach the filters.

- Attach the filters by ensuring that the surface written "FRONT" is facing front.
- After attaching the filters, push the front panel at three arrow portion as shown in figure and close it.



NOTE

- In case of removing the Nano Titanium filters, please follow the above procedures.
- The cooling capacity is slightly weakened and the cooling speed becomes slower when the Nano Titanium filters are used. So, set the fan speed to "HIGH" when using it in this condition.
- Nano Titanium filters are not washable and can be use in 1 year time. Type number for this air cleansing filter is <SPX-CFH14>. Please use this number for ordering when you want to renew it.
- Do not operate the air conditioner without filter. Dust may enter the air conditioner and fault may occur.



MAINTENANCE

A 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 🎹

Clean the air filter, as it removes dust inside the room. 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

- Open the front panel and remove the filter
 Gently lift and remove the air cleansing and deodorizing filter from the air filter frame.
- Vacuum dust from the air filter and Nano Titanium filter using vacuum cleaner. If there is too much dust, air filter only rinse under running tap water and gently brush it with soft bristle brush. Allow filters to dry in shade.



- Re-insert the air cleansing and deodorizing filter to the filter frame. 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.



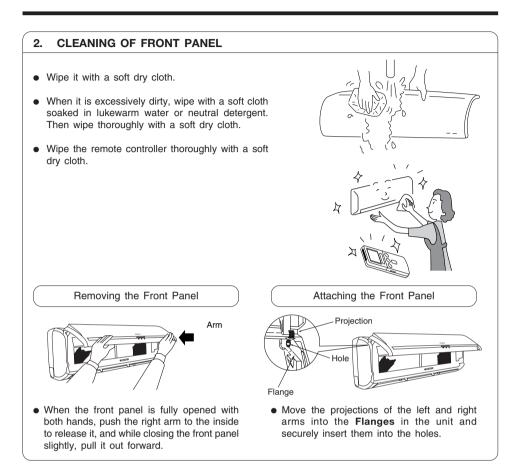




NOTE:

• Nano Titanium filter should be cleaned every month or sooner if noticeable loading occurs. When used overtime, it may loose its deodorizing function. For maximum performance, it is recommended to replace it every 1 year depending on application requirements.

- 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.
- Do not use detergent on the air cleansing and deodorizing filter as some detergent may deteriorate the filter electrostatic performance.



• 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 Running the unit 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. Disconnect the power plug.

- 20 -

• 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.

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

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Green-and-yellow	: Earth
Blue	: Neutral
Brown	: Live

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked with the letter E or by the earth symbol \bigoplus or coloured green or green-and-yellow.

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

NOTE

If the supply cord is damaged, it must be replaced by the special cord obtainable at authorized service/ parts centers.



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

REGULAR INSPECTION

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

1	Confirm	Is the plug of power line firmly plugged into the socket? (Please ensure no loose contact between them).
2		Is the earth line disconnected or broken?
3		Is the mounting frame seriously affected by rust and is the outdoor unit tilted or unstable?

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³AFTER SALE SERVICE AND WARRANTY

WHEN ASKING FOR SERVICE, CHECK THE FOLLOWING POINTS.

CONDITION	CHECK THE FOLLOWING POINTS
When it does not operate	Is the fuse all right?Is the voltage extremely high or low?Is the circuit breaker "ON"?
When it does not cool well	 Is the air filter blocked with dust? Does sunlight fall directly on the outdoor unit? Is the air flow of the outdoor unit obstructed? Are the doors or windows opened, or is there any source of heat in the room? Is the set temperature suitable?



Notes

- In quiet operation or stopping the operation, the following phenomena may occassionally 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.
- Power supply shall be connected at the rated voltage, otherwise the unit will be broken or could not reach the specified capacity.

NOTE:

If the supply cord is damaged, it must be replaced by the special cord obtainable at authorized service parts centers.

This product conforms with the protection requirements of council directives 89/336/EEC relating to electromagnetic compatibility and 73/23/EEC relating to electrical equipment designed for use within certain voltage limits.

ENGLISH

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.

Note

 Avoid to use the room air conditioner for cooling operation when the outside temperature is below 21°C (70°F).

The recommended maximum and minimum operating temperatures of the hot and cold sides should be as below:

		Minimum	Maximum
Indoor	Dry bulb °C	21	32
	Wet bulb °C	15	23
Outdoor	Dry bulb °C	21	43
	Wet bulb °C	15	26

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