

HITACHI

SPLIT TYPE AIR CONDITIONER

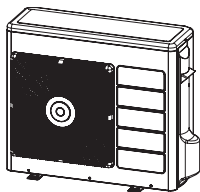
INDOOR UNIT/OUTDOOR UNIT



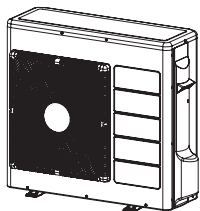
MODEL

RAD-50PPD/RAC-50NPD
RAD-60PPD/RAC-60NPD
RAD-70PPD/RAC-70NPD

OUTDOOR UNIT

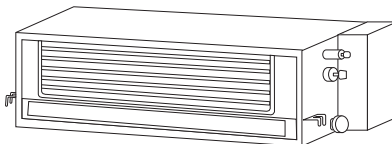


RAC-50NPD
RAC-60NPD



RAC-70NPD

INDOOR UNIT



RAD-50PPD
RAD-60PPD
RAD-70PPD

Instruction manual

Page 1~10

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

Bedienungsanleitung

Suite 11~20

Bitte lesen Sie diese Bedienungsanleitung aufmerksam durch, um durch richtige Bedienung jahrelangen und störungsfreien Betrieb zu gewährleisten.

Mode d'emploi

Page 21~30

Des performances optimales et un fonctionnement à long terme seront assurés en appliquant les présentes instructions après avoir entièrement lu ce mode d'emploi.

Manuale di istruzioni

Pag. 31~40

Per garantire la migliore prestazione e la più lunga durata leggere attentamente e al completo le seguenti istruzioni.

Manual de instrucciones

Página 41~50

Para obtener el mejor funcionamiento y asegurar años de uso libre de problemas, lea cuidadosamente este manual de instrucciones.

Manual de instruções

Página 51~60

A fim de obter um bom funcionamento e de garantir uma utilização sem falhas durante muitos anos, é favor ler este manual de instruções completamente.

Οδηγίες χρήσης

Σελίδα 61~70

Για να έχετε την καλύτερη δυνατή απόδοση και να διασφαλίσετε πολυετή χρήση χωρίς προβλήματα, διαβάστε ολόκληρο το παρόν εγχειρίδιο οδηγιών.

Instruktionshandbok

Sida 71~80

För att produkten ska fungera på bästa sätt och utan problem i många år är det viktigt att du läser igenom hela instruktionshandboken.

Instructiehandleiding

Pagina 81~90

Neem de instructies in deze handleiding helemaal door om te zorgen dat het apparaat de beste prestaties levert en jarenlang zonder problemen werkt.

Käyttöopas

Sivut 91~100

Jotta saat parhaan suorituskyvyn ja varmistat usean vuoden vaivattoman käytön, lue tämä ohjekirja kokonaan.



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 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.	

WARNING	This symbol shows that this equipment uses a flammable refrigerant. If the refrigerant is leaked, together with an external ignition source, there is a possibility of ignition.
CAUTION	This symbol shows that the Operation Instructions should be read carefully.
CAUTION	This symbol shows that a service personnel should be handling this equipment with reference to the Installation Manual.
CAUTION	This symbol shows that there is information included in the Operation Manual and/or Installation Manual

- Please keep this manual after reading.

PRECAUTIONS DURING INSTALLATION

WARNING	<ul style="list-style-type: none"> ● Do not reconstruct the unit. Water leakage, fault, short circuit or fire may occur if you reconstruct the unit by yourself. 	
	<ul style="list-style-type: none"> ● 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. 	
CAUTION	<ul style="list-style-type: none"> ● A circuit breaker should be installed depending on the mounting site of the unit. Without a circuit breaker, the danger of electric shock exists. 	
	<ul style="list-style-type: none"> ● Do not install near 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. 	

PRECAUTIONS DURING SHIFTING OR MAINTENANCE

WARNING	<ul style="list-style-type: none"> ● Should abnormal situation arises (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. 	
	<ul style="list-style-type: none"> ● Please contact your agent for maintenance. Improper self maintenance may cause electric shock and fire. 	
	<ul style="list-style-type: none"> ● 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. 	
	<ul style="list-style-type: none"> ● If the supply cord is damaged, it must be replaced by the special cord obtainable at authorized service/parts centers. 	

PRECAUTIONS DURING OPERATION

WARNING	<ul style="list-style-type: none"> ● Avoid an extended period of direct air flow for your health. 	
	<ul style="list-style-type: none"> ● Do not insert 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. Before cleaning, be sure to stop the operation and turn the breaker OFF. 	
	<ul style="list-style-type: none"> ● Do not use any conductor as fuse wire, this could cause fatal accident. 	
	<ul style="list-style-type: none"> ● During thunder storm, disconnect and turn off the circuit breaker. 	

PRECAUTIONS DURING OPERATION

- 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 splash or direct water to the body of the unit when cleaning it as this may cause short circuit.

- Do not use any aerosol or hair sprays near the indoor unit. This chemical can adhere on heat exchanger fin and blocked the evaporation water flow to drain pan. The water will drop on tangential fan and cause water splashing out from indoor unit.



C
A
U
T
I
O
N



- Please switch off the unit 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 to be operated for a long period.



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

- Do not put water container (like vase) on the indoor unit to avoid water dripping into the unit. Dripping water will damage the insulator inside the unit and causes short-circuit.



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

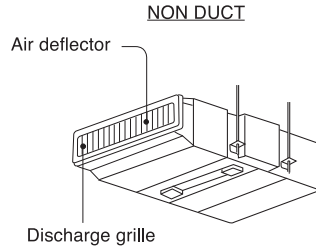
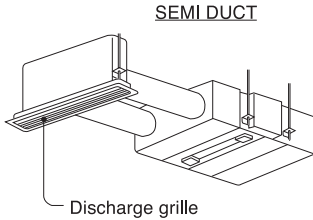
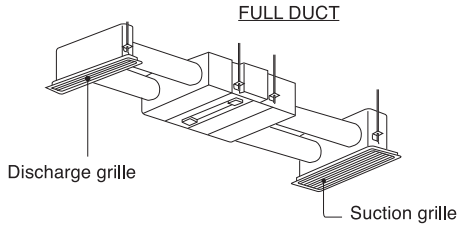
- When operating the unit with the door and windows opened, (the room humidity is always above 80%) and with the air deflector facing down or moving automatically for a long period of time, water will condense on the air deflector and drips down occasionally. This will wet your furniture. Therefore, 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.

- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

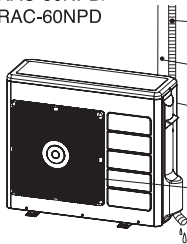
NAMES AND FUNCTIONS OF EACH PART

INDOOR UNIT



OUTDOOR UNIT

RAC-50NPD/
RAC-60NPD



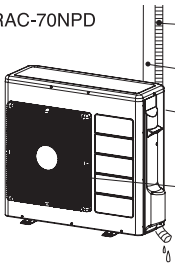
DRAIN PIPE
Condensed water drain to outside.

CONNECTING CORD

AIR INLET (BACK, LEFT SIDE)

AIR OUTLET

RAC-70NPD



DRAIN PIPE
Condensed water drain to outside.

CONNECTING CORD

AIR INLET (BACK, LEFT SIDE)

AIR OUTLET

MODEL NAME AND DIMENSIONS

MODEL	WIDTH (mm)	HEIGHT (mm)	DEPTH (mm)
RAD-50PPD / RAD-60PPD / RAD-70PPD	900	270	720
RAC-50NPD / RAC-60NPD	850	750	298
RAC-70NPD	850	800	298

Note

- The recommended temperature range for safety testing should be as below:

		Cooling		Heating	
		Minimum	Maximum	Minimum	Maximum
Indoor	Dry bulb °C	21	32	20	27
	Wet bulb °C	15	23	12	19
Outdoor	Dry bulb °C	21	43	2	21
	Wet bulb °C	15	26	1	15

CIRCUIT BREAKER

When you do not use the room air conditioner, set the circuit breaker to "OFF".

HOW TO USE THE AIR CONDITIONER EFFECTIVELY

1. An average room temperature setting is probably the best for you as well as being economical.

- Excessive cooling or heating is not recommended for health reasons. High electricity bills may also result.
- Close the curtains or blinds to prevent heat from flowing into or escaping the room as well as to make more effective use of electricity.



2. At intervals, the doors and windows should be opened to let fresh air in.

**CAUTION**

Make sure the room is ventilated when operating the air conditioner at the same time as other heating appliances.



3. Using the timer is recommended before going to sleep or going out.



4. The following must never be used for cleaning the indoor and outdoor units.

- Benzene, thinner and scrub can damage plastic surfaces or coating.
- Hot water above 40°C can shrink the filter and deform plastic parts.



5. Do not block the air intake and air outlet.

- Do not block the air outlets and intakes of the indoor and outdoor units with curtains or other obstacles which could degrade air conditioner performance and cause unit failure.

THE IDEAL WAYS OF OPERATION

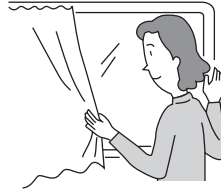
Suitable Room Temperature



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



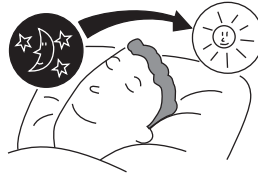
Caution

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



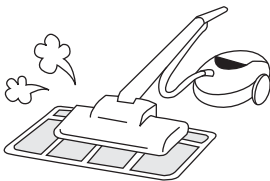
Effective Usage Of Timer

At night, please use the "OFF or ON 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.



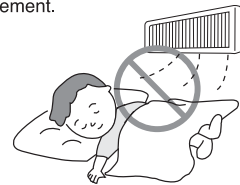
Do Not Forget To Clean The Pre-Filter

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.



Please Adjust Suitable Temperature For Baby And Children

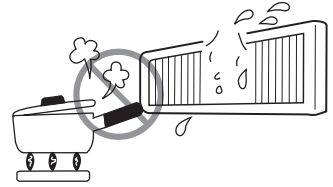
Please pay attention to the room temperature and air flow direction when operating the unit for baby, children and old folks who have difficulty in movement.



The Air Conditioner And The Heat Source In The Room

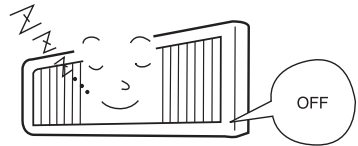
⚠ Caution

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

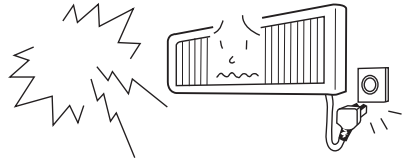
When the indoor unit is not to be used for a long period of time, please switch off the power from the mains. If the power from mains remains "ON", the indoor unit still consumes about 3W in the operation control circuit even if it is in "OFF" mode.



When Lightning Occurs

⚠ Warning

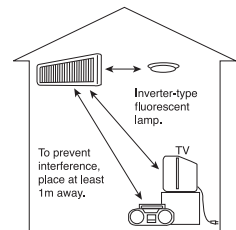
To protect the whole unit during lightning, please stop operating the unit and remove the plug from the socket.



Interference From Electrical Products

⚠ Caution

To avoid noise interference, please place the indoor unit and its remote controller at least 1m away from electrical products.



MAINTENANCE

⚠ WARNING

- Before cleaning, stop unit operation with the remote controller and turn off the circuit breaker.

⚠ CAUTION

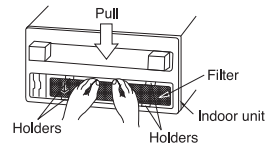
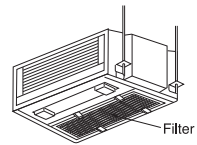
- Do not expose the unit to water as it may cause an electric shock.
- For cleaning inside the air conditioner, consult your sales agent.
- Avoid using detergent when cleaning the heat exchanger of the indoor unit. Unit failure may result.
- When cleaning the heat exchanger with a vacuum cleaner, make sure to wear gloves so as not to injure your hands on the heat exchanger fins.

1. PRE-FILTER

Clean the pre-filter, as it removes dust inside the room. Be sure to clean the filter once every two weeks so as not to consume electricity unnecessarily.

PROCEDURE

- 1** Pull the filter toward the center until it detached from the holders. Then take it out from holders (refer to diagram).
- 2** Remove dust from the filter using a vacuum cleaner. If there is too much dust, wipe the filter with wet cloth or sponge. Allow filter to dry in shade.
- 3** Install the filters.
Gently insert back the filter into the holders.

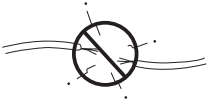




⚠ CAUTION

- Do not wash with hot water at more than 40°C. The filter may shrink.
- Do not operate the air conditioner with the filter removed. Dust may enter the air conditioner and cause trouble.

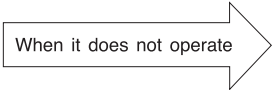
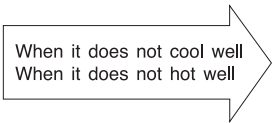
REGULAR INSPECTION

PLEASE CHECK THE FOLLOWING POINTS BY QUALIFIED SERVICE PERSONNEL EITHER EVERY HALF YEARLY OR YEARLY. CONTACT YOUR SALES AGENT OR SERVICE SHOP.

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

AFTER SALE SERVICE AND WARRANTY

WHEN ASKING FOR SERVICE, CHECK THE FOLLOWING POINTS.

CONDITION	CHECK THE FOLLOWING POINTS
	<ul style="list-style-type: none"> ● Is the fuse all right? ● Is the voltage extremely high or low? ● Is the circuit breaker "ON"?
	<ul style="list-style-type: none"> ● Was the air filter cleaned? ● 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 or stop operation, 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 the air filter and the evaporator regularly must be cleaned 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.

