

HITACHI

INSTALLATION & OPERATION MANUAL

Window Type Air Conditioner R32 Inverter Cooling only Series

Model

RAW-XH07CA

RAW-XH10CA

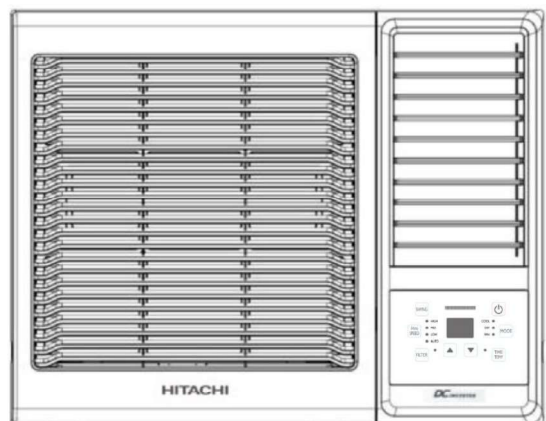
RAW-XH13CA

RAW-XH18CA

RAW-XH24CA



R32



This appliance is using R32 mildly flammable refrigerant.

air

HO2022477HA

R32 SAFETY PRECAUTIONS

Installation

- Must ensure the installation performed by an authorized dealer or professionally trained technician
- Must ensure the installation of pipe-work shall be kept to a minimum. Avoid to use dented pipe and do not allow acute bending.
- Must ensure that pipe-work shall be protected from physical damage.
- Must comply with national gas regulations, state municipal rules and legislation. Notify relevant authorities in accordance with all applicable regulations.
- Must ensure mechanical connections be accessible for maintenance purposes.

Unventilated areas

- Warning: The appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified.
- Warning: The appliance shall be stored in a room without continuously operating open flames (e.g. an operating gas appliance) and ignition sources (e.g. an operating electric heater).

Qualification of workers

- When conducting any repair/servicing works, please ensure it is carried out by competent person only.
- Warning: Every working procedure that affects safety means shall only be carried out by competent persons.

Examples for these working procedures are:

- breaking into the refrigerating circuit.
- opening of sealed components
- opening of ventilated enclosures.

Information on servicing

- Prior to beginning work on systems, safety checks are necessary to ensure that the risk of ignition is minimized.
- Work shall be undertaken under a controlled procedure so as to minimize the risk of flammable gas or vapor being present while the work is being performed.
- Work in confined spaces shall be avoided. The area around the workspace shall be sectioned off. Ensure that the conditions within the area have been made safe by control of flammable material.

Checking for presence of refrigerant

- The area shall be checked with an appropriate refrigerant detector prior to and during work. The leak detection equipment should be suitable for use with all applicable refrigerants, i.e. non-sparking, adequately sealed or intrinsically safe.

Presence of fire extinguisher

- If any hot work is to be conducted, appropriate fire extinguishing equipment shall be available on hand. Have a dry powder or CO2 fire extinguisher adjacent to the charging area.

R32 SAFETY PRECAUTIONS

No ignition sources

- All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal. Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks. "No Smoking" signs shall be displayed.

Ventilated area

- Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work. A degree of ventilation shall continue during the period that the work is carried out. The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.

Checks to the refrigeration equipment

- When electrical components are being changed, they shall be fit for the purpose and to the correct specification. At all times the manufacturer's maintenance and service guidelines shall be followed. If in doubt, consult the manufacturer's technical department for assistance.

The following checks shall be applied to installations.

- The charge size is in accordance with the room size within which the refrigerant containing parts are installed;
- The ventilation machinery and outlets are operating adequately and are not obstructed;
- If an indirect refrigerating circuit is being used, the secondary circuit shall be checked for the presence of refrigerant;
- Markings on the equipment continues to be visible and legible. Markings and signs that are illegible shall be corrected;
- Refrigeration pipe or components are installed in a position where they are unlikely to be exposed to any substance which may corrode refrigerant containing components, unless the components are constructed or materials which are inherently resistant to being corroded or are suitably protected against being so corroded.

Checks to electrical devices

- Repair and maintenance to electrical components shall include initial safety checks and component inspection procedures. If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with. If the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution shall be used. This shall be reported to the owner of the equipment so all parties are advised.

- Initial safety checks shall include:

- that capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking;
- that no live electrical components and wiring are exposed while charging, recovering or purging the system,
- that there is continuity of earth bonding.

R32 SAFETY PRECAUTIONS

Repairs to sealed components

- During repairs to sealed components, all electrical supplies shall be disconnected prior to any removal of sealed covers, etc. If it is absolutely necessary to have an electrical supply to equipment during servicing, then a permanently operating form of leak detection shall be located at the most critical point to warn of a potentially hazardous situation.
- Ensure that by working on electrical components, the casing is not altered in such a way that the level of protection is affected, including damage to cables, excessive number of connections, terminals not made to original specification, damage to seals, incorrect fitting of glands, etc.
- Ensure that the apparatus is mounted securely.
- Ensure that seals or sealing materials have not degraded to the point that they no longer serve the purpose of preventing the ingress of flammable atmospheres. Replacement parts shall be in accordance with the manufacturer's specifications

Repair to intrinsically safe components

- Do not apply any permanent inductive or capacitance loads to the circuit without ensuring that this will not exceed the permissible voltage and current permitted for the equipment in use.
- Intrinsically safe components are the only types that can be worked on while live in the presence of a flammable atmosphere.
- Replace components only with parts specified by the manufacturer. Other parts may result in the ignition of refrigerant in the atmosphere from a leak.

Cabling

- Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration, sharp edges or any other adverse environmental effects. The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.

Detection of flammable refrigerants

Under no circumstances shall potential sources of ignition be used in the searching for or detection of refrigerant leaks. A halide torch (or any other detector using a naked flame) shall not be used.

The following leak detection methods are deemed acceptable for all refrigerant systems.

Electronic leak detectors may be used to detect refrigerant leaks but, in the case of flammable refrigerants, the sensitivity may not be adequate, or may need re-calibration. (Detection equipment shall be calibrated in a refrigerant-free area.) Ensure that detector is not a potential source of ignition and is suitable for the refrigerant used. Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed, and the appropriate percentage of gas (25% maximum) is confirmed.

Leak detection fluids are also suitable for use with most refrigerants but the use of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipe-work.

NOTE: Example of leak detection fluids are

- bubble method,
- fluorescent method agents.

R32 SAFETY PRECAUTIONS

Max. Refrigerant charge

Model number	R32 Max. Refrigerant charge (kg)	Minimum installation height
RAW-XH07CA	0.43	750mm
RAW-XH10CA	0.43	750mm
RAW-XH13CA	0.435	750mm
RAW-XH18CA	0.63	750mm
RAW-XH24CA	0.71	750mm

- Based on IEC 60335-2-40, there is no restriction for the minimum installation floor area since the refrigerant charges is less than 1.842kg.

Removal and evacuation

- The refrigerant charge shall be recovered into the correct recovery cylinders and the system shall be "flushed" with oxygen free nitrogen (OFN) to render the unit safe. This process may need to be repeated several times.
- Compressed air or oxygen shall not be used for purging refrigerant systems.
- Flushing shall be achieved by breaking the vacuum in the system with OFN and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum. This process shall be repeated until no refrigerant is within the system. When the final OFN charge is used, the system shall be vented down to atmospheric pressure to enable work to take place.
- The vacuum pump should not near to any ignition sources and ensure that ventilation is available at all times

Charging procedures

- Ensure that contamination of different refrigerants does not occur when using charging equipment. Hoses or lines shall be as short as possible to minimise the amount of refrigerant contained in them.
- Cylinders shall be kept upright.
- Ensure that the refrigeration system is earthed prior to charging the system with refrigerant.
- Label the system when charging is complete (if not labelled).
- Extreme care shall be taken not to overfill the refrigeration system.
- Prior to recharging the system, it shall be pressure-tested with the appropriate purging gas. The system shall be leak-tested on completion of charging but prior to commissioning. A follow up leak test shall be carried out prior to leaving the site.

Decommissioning

- Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all its detail.
- Prior to the task being carried out, an oil and refrigerant sample shall be taken in case analysis is required prior to re-use of reclaimed refrigerant.
- Electrical power must be available before the task is commenced.

R32 SAFETY PRECAUTIONS

- Become familiar with the equipment and its operation.
- Isolate system electrically.
- Before attempting the procedure, ensure that:
 - mechanical handling equipment is available for handling refrigerant cylinders; (if required)
 - all personal protective equipment is available and being used correctly;
 - the recovery process is supervised at all times by a competent person;
 - recovery equipment and cylinders conform to the appropriate standards.
- Pump down refrigerant system, if possible.
- If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system
- Make sure that cylinder is situated on the scales before recovery takes place
- Start the recovery machine and operate in accordance with manufacturer's instructions.
- Do not overfill cylinders. (No more than 80 % volume liquid charge).
- Do not exceed the maximum working pressure of the cylinder, even temporarily.
- When the cylinders have been filled correctly and the process completed, make sure that the cylinders and the equipment are removed from site promptly and all isolation valves on the equipment are closed off.
- Recovered refrigerant shall not be charged into another refrigeration system unless it has been cleaned and checked.

Labelling

- Equipment shall be labelled stating that it has been decommissioned and emptied of refrigerant. The label shall be dated and signed.
- Ensure that there are labels on the equipment stating the equipment contains flammable refrigerant.

Recovery

When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed.

- Ensure that the correct number of cylinders for holding the total system charge are available. All cylinders to be used are designated for the recovered refrigerant and labelled for that refrigerant (i.e. special cylinders for the recovery of refrigerant).
- Cylinders shall be complete with pressure-relief valve and associated shut-off valves in good working order. Empty recovery cylinders are evacuated and, if possible, cooled before recovery occurs.
- The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of all appropriate refrigerants.
- A set of calibrated weighing scales shall be available and in good working order. Hoses shall be complete with leak-free disconnect couplings and in good condition. Before using the recovery machine, check that it is in satisfactory working order, has been properly maintained and that any associated electrical components are sealed to prevent ignition in the event of a refrigerant release.

R32 SAFETY PRECAUTIONS

- The recovered refrigerant shall be returned to the refrigerant supplier in the correct recovery cylinder, and the relevant waste transfer note arranged.
- Do not mix refrigerants in recovery units and especially not in cylinders.
- If compressors or compressor oils are to be removed, ensure that they have been evacuated to an acceptable level to make certain that flammable refrigerant does not remain within the lubricant.
- The evacuation process shall be carried out prior to returning the compressor to the suppliers
- Only electric heating to the compressor body shall be employed to accelerate this process.

CONTENTS

Thank you for choosing Hitachi air conditioner. Please read this operating manual carefully before operating the unit and keep it for consultation.



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NOTICE :

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

The appliance shall be installed in accordance with national wiring regulations. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

Please read this operating manual carefully before operating the unit.

The figures in this manual may be different with the material objects, please refer to the material objects for reference.

Structure mechanism and Installation

• Explanation of Symbol



WARNING: Appliance filled with mildly flammable gas R32.



CAUTION: Before using the appliance, read the installation & operation manual first.



CAUTION: Information is available such as the installation & operation manual.



CAUTION: Before repairing the appliance, read the service manual first.



Indicates a hazardous situation that, if not avoided, will result in death or serious injury.



Indicates a hazardous situation that, if not avoided, could result in death or serious injury.



Indicates a hazardous situation that, if not avoided, may result in minor or moderate injury.



Indicates important but not hazard-related information, used to indicate risk of property damage.



Indicates a hazard that would be assigned a signal word WARNING or CAUTION.

• Installation Requirement

The minimum installation height is 750mm.

Based on IEC-60335-2-40, there is no restriction for the minimum installation floor area since the refrigerant charges is less than 1.842kg.

Installation must be performed by an authorized dealer or professionally trained technician.

Structure mechanism and Installation

• Exception Clauses

Manufacturer will bear no responsibilities when personal injury or property loss is caused by the following reasons.

1. Damage the product due to improper use or misuse of the product;
2. Alter, change, maintain or use the product with other equipment without abiding by the instruction manual of manufacturer;
3. After verification, the defect of the product is directly caused by corrosive gas;
4. After verification, the defects are due to improper operation during transportation of product;
5. Operate, repair, maintain the unit without abiding by instruction manual or related regulations;
6. After verification, the problem or dispute is caused by the quality specification or performance of parts and components that produced by other manufacturers;
7. The damage is caused by natural calamities, bad using environment or force majeure.

If it needs to install, move or maintain the air conditioner, please contact dealer or local service center to conduct it at first. Air conditioner must be installed, moved or maintained by appointed unit. Otherwise, it may cause serious damage or personal injury or death.

When refrigerant leaks or requires discharge during installation, maintenance, or disassembly, it should be handled by certified professionals or otherwise in compliance with local laws and regulations.


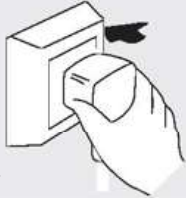



Structure mechanism and Installation

• Operating condition

Please operate air conditioner in the correct conditions as follows.

COOL mode operation	DRY mode operation
<p>Outdoor temperature should be in range of 18°C to 43°C. Otherwise it is possible for air conditioner to breakdown.</p> <p>Room humidity should be lower than 90%. Otherwise, it is possible for air conditioner to dew at the surface and even drop water after running for a long period of time, but this is normal. Please refer to P.4 for indoor temperature range.</p>	<p>Outdoor temperature should be in range of 18°C to 43 °C. Otherwise it is possible for air conditioner to breakdown.</p>

• Power requirement

	<p>Rated Voltage: 220V +/- 10% The electric components will be damaged when the voltage is too high. If the voltage is too low, the compressor will vibrate violently to damage the refrigerant system and easily cause the compressor and electric components not working.</p>	
	<p>The ground must be connected. Special socket must be used. Furthermore, the socket and wiring must conform to the wiring regulations. And the earthing method must be reliable. In fixed circuit, there must be electricity leakage protection switch of enough power capacity and air switch with enough space.</p>	
<p>Earth wire To ensure the reliable earthing, please do not connect earth wire to the following places:</p>		
<p>Water pipe</p>		

Structure mechanism and Installation

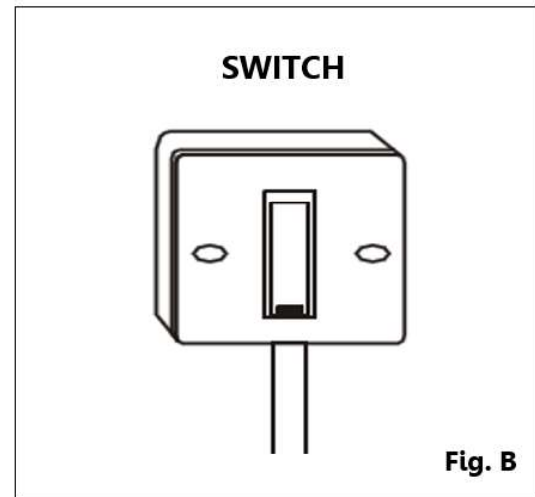
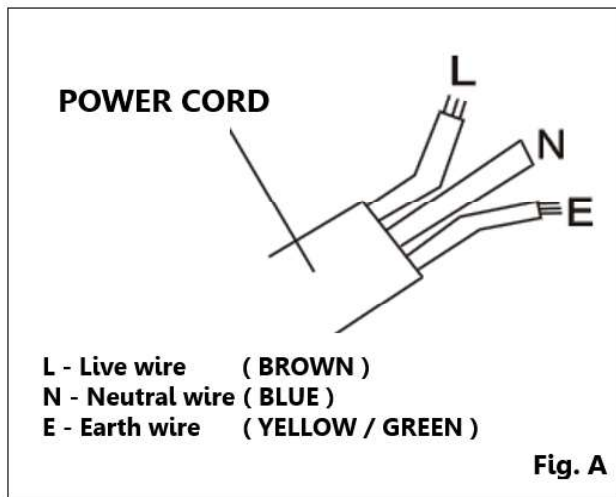
Operation Temperature :

Cooling operation	Outdoor temp:	18-43 °C / 64-109°F
	Indoor temp:	17-32°C / 62-90°F

Note: Performance may be reduced outside of these operating temperatures.

Power cord

1. Model : RAW-XH24CA is supplied without plug. It needs to be installed by a qualified technician for safety purpose.
2. Power point requirement: CONNECTION / SPUR UNITS
MINIMUM POWER 220V 30A
3. Power cord conductors are distinguished according to color as follows (see Fig.A)
4. For your safety and protection, this unit is earthed through the power cord (see Fig.B)
Please contact the manufacturer or its service agent or a similar qualified person if you want to replace it.
5. Be sure that the unit is being correctly grounded. The wall outlet (Switch) should be provided with reliable earth wire.
6. The unit should be provided with an individual circuit and the circuit breaker/ fuse rating should be the same as that of the power cord.



NOTE :

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 connection units – Proceed as follows :

The wire which is coloured BROWN must be connected to the terminal which is marked L.

The wire which is coloured BLUE must be connected to the terminal which is marked N.

The wire which is coloured YELLOW / GREEN must be connected to the terminal which is marked \perp .

Structure mechanism and Installation

• Installation

Installation precaution:

Please contact the professional technician to install the unit and don't install it by yourself. Otherwise, we are not responsible for the damage of unit.

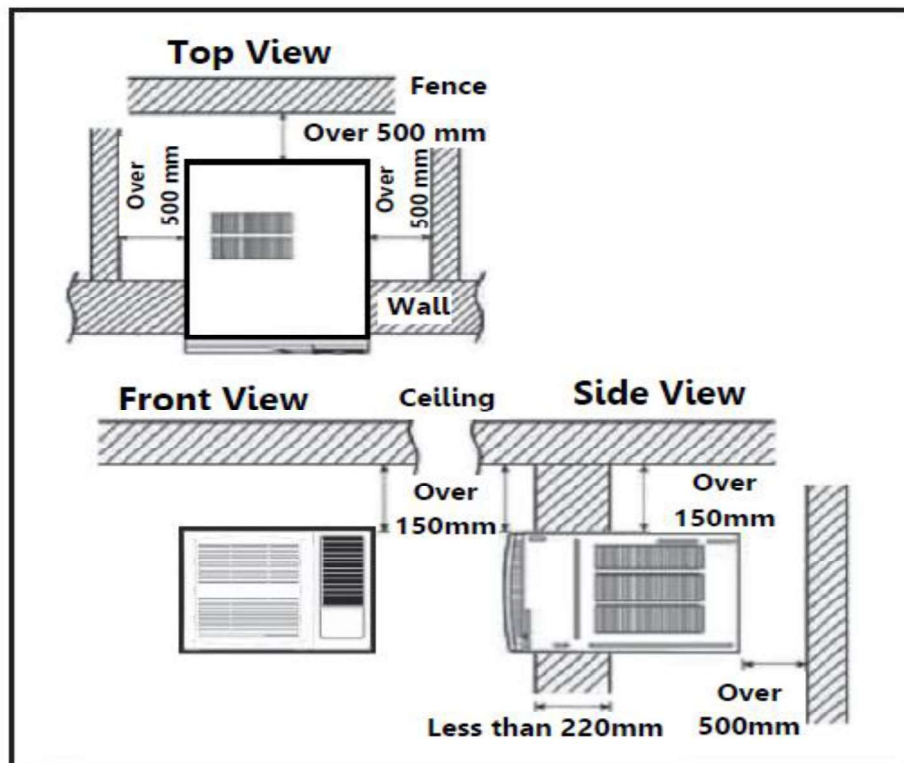


Location:

- R32 Window unit's minimum installation height must be above 750mm.
- The condensation water must be drained away easily.
- Install air conditioner unit far away from TV set or radio etc. to avoid disturbing video or voice.
- Avoid a place where is possible for inflammable gas to leak out.
- Avoid other heat sources or direct sunlight.
- Avoid a place where is easy for children to touch.

How to install

- Choose a location where there are no any obstacle surrounding the unit, and the plug is accessible.
- Prepare the installation hole slightly bigger than unit size.
- Choose the installation space according to the following diagram.

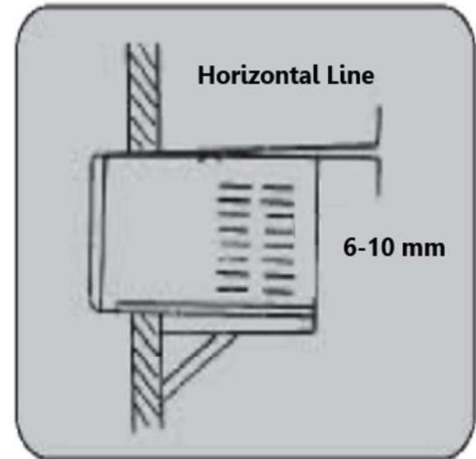


Structure mechanism and Installation

• Installation

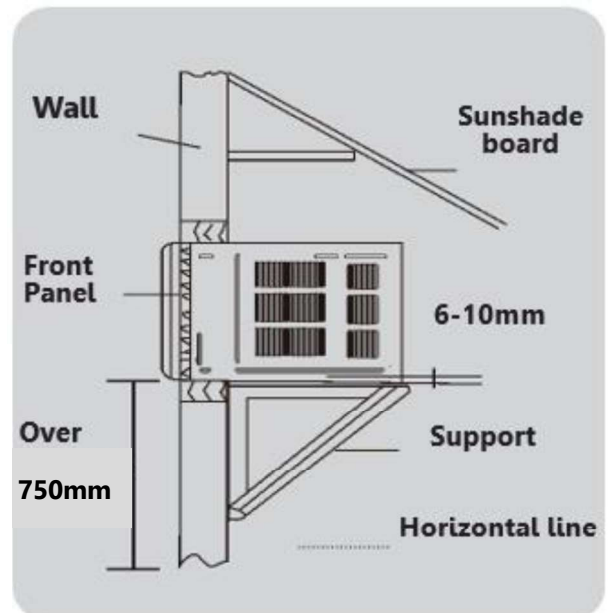
Installation procedure :

1. Remove the sticker from the front panel.
2. Put the unit into the installation hole.
When installing the unit, it should slant down to the back to make sure the condensation water can be drained away easily. (Slant about 6-10mm) (Shown at right figure.)
3. The installation place should be strong enough to avoid the enlargement of noise or vibration.
4. Fill up sews in the cabinet with sealant.



Installation assistance :

- Use iron support
The installation hole should be strong enough to support the air conditioner. If it cannot, iron support has to be used outdoors. Iron support should be fixed on the building (Shown at right figure.)
- Use sunshade board
Air conditioner should avoid anything to be dropped onto it and avoid direct sunlight. If there is no cover on it, you should contact the seller for installing the sunshade board. When installing the sunshade board, don't let it block the air inlet at the side grille.



Structure mechanism and Installation

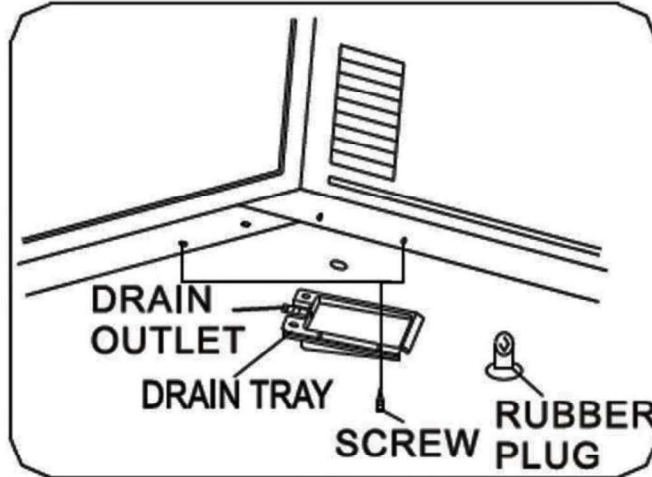
• Installation

Drain water for another style :

To get the maximum cooling efficiency, the air conditioner is designed to splash the condensate on the condenser coil. Please install the drainage tray when installing the air conditioner if necessary.

To the cooling only unit, if the splashing sound annoys you, you can use an outside drain as shown in the following procedure. However, it may reduce the performance.

1. Slide out the chassis from the cabinet.
2. Remove the rubber plug from the body base plate.
3. Install the drain tray to the corner of the cabinet with 2 screws.
4. Connect the drain hose to the outlet on the drain pan bottom.
5. Slide the chassis into its original place in the cabinet.



* For RAW-XH18CA and RAW-XH24CA, there will be 2 drain trays provided.

* Select the appropriate drain tray according to actual condition

Note:

Due to different installation environments and humidity, it is recommended that customers consider installing an external large drain pan and connect to drain hose.

All costs and whether the location of the external large drain pan and drain hose are suitable for installation, please consult with qualified installers.

Structure mechanism and Installation

- **Notes for installation**

Removal

Before removing air conditioner to the other place, you should contact the seller firstly. Then it must be done under the direction of the professional technician.



Noise

- Install in a location where is firm enough to avoid the enlargement of noise and vibration.
- Don't put anything in front of the outlet of the unit to avoid enlarging noise.
- Be sure that hot air or noise will not cause inconvenience to neighbors.
- Please contact the seller as soon as there is strange noise during operation. Please use the safety support.



Electric Wiring

- Must connect with ground reliably.
- The exclusive circuit must be used. Removable socket can't be used because of poor contact. It can cause overheat or fire.
- Don't pull the power cord strongly.
- In fixed circuit, there must be electricity leakage protection switch and leakage current is less than 30 mA.
- Switch (circuit breaker) should be installed in the circuit and its capacity are 15A (RAW-XH07CA , RAW-XH10CA and RAW-XH13CA) , and 30 A (RAW-XH18CA and RAW-XH24CA)

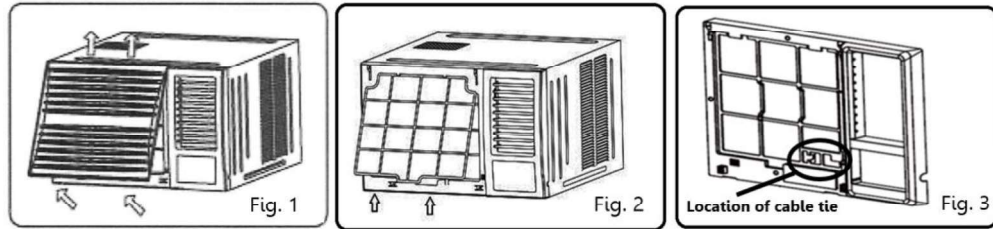


Structure mechanism and Installation

• Installation Steps

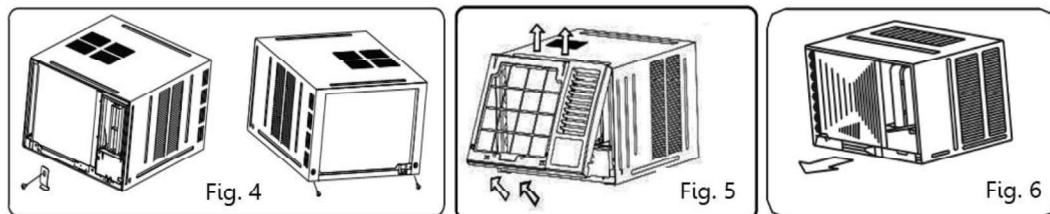
Step 1. Remove the front panel and the air filter

1. Hold the slot under the front panel, then uplift outwards, and remove the front panel (See Fig. 1).
2. Pinch the handle under the air filter and make the air filter arched, remove it from the slot from underside to upside (See Fig. 2).
3. Cut and remove the cable tie (See Fig. 3) fixing between the panel and the temperature sensor behind the air filter. (Only applicable for RAW-XH18CA and RAW-XH24CA).



Step 2. Remove the frame.

1. Remove screw on the chassis fixing bracket and front cover screw, then remove the chassis fixing bracket.
2. Remove the two screws located on the back of the cabinet as shown in Fig. 4 if necessary.
3. Grasp the left corner of the frame's underside, then loosen the frame. (See Fig. 5).
4. After that use a flathead screwdriver to press the clip connecting between the control panel and the frame, finally remove the frame.
5. Grasp the handle on the chassis and carefully slide the air conditioner out of the cabinet (See Fig. 6). Rubber Plug is fixed in the drain hole. Please use the spare part given into the package if necessary.

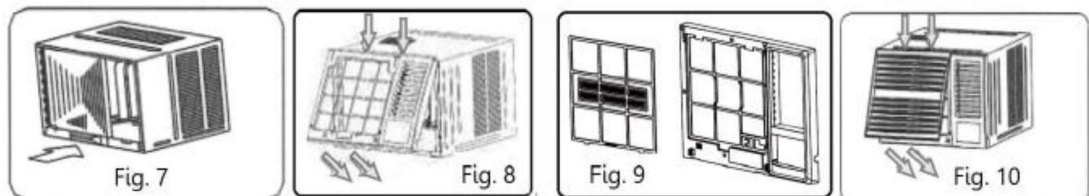


Step 3. Install the frame.

1. Push the unit chassis into the cabinet (See Fig. 7).
2. Install the frame (See Fig. 8) and fix the screws on the frame (See Fig. 4)

Step 4. Install the air filter and front panel.

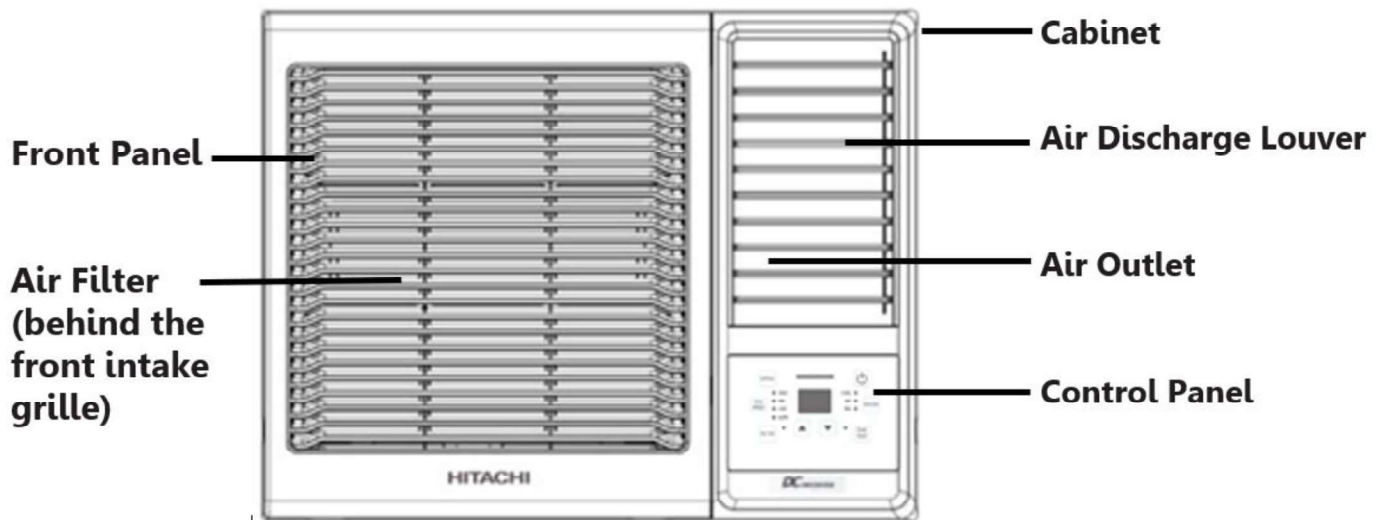
1. Install the Silver Ion air filter into the frame's slot from upside to underside. (See Fig. 9).
2. Hang the front panel on the frame's buckle, then press the front panel into the frame's slot until you hear a click (See Fig. 10)



Operation procedure

- **Part identification**

Panel outlook picture is just for reference, please take the real unit as standard outlook.

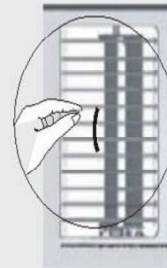


- **Airflow direction Adjustment**

Horizontal airflow direction vane

(Airflow direction adjustment up and down)

The horizontal airflow direction vane is controlled by positioning the vane to discharge the air upwards, downwards or straight out.



Operation procedure

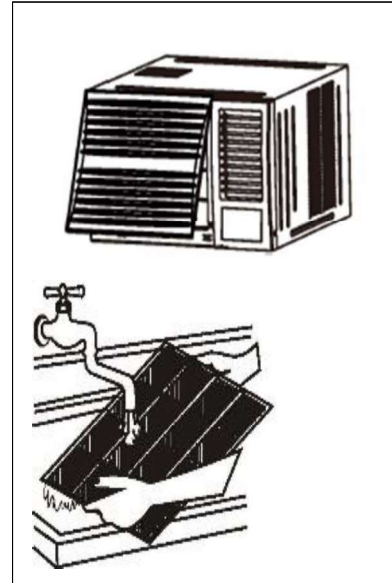
• **Air Filter**

The air filter behind the inlet grille should be checked and cleaned at least once every 2 weeks (or as necessary) to maintain optimal performance of the air conditioner.

How to remove the air filter

Turn off the unit, turn off the circuit breaker

1. Hold the tabs under the front panel, then uplift it outwards over the protection tab or remove the front panel.
2. Pinch the handle under the air filter and make the air filter arched, remove it from the slot from underside to upside.
3. Clean the filter with warm soap water. The water should be below 40°C to prevent distortion of the filter.
4. Rinse off and gently shake off excessive water from the filter. Allow the filter to dry before placing back. To prevent distortion of the filter, do not dry under direct sunlight.



• **Cabinet Cleaning**

- Be sure to unplug the air conditioner to prevent shock or fire hazard. The cabinet and front may be dusted with an oil-free cloth or washed with a cloth dampened in a solution of warm water and mild liquid dishwashing detergent. Rinse thoroughly and wipe dry.
- Never use harsh cleaners, wax or polish on the cabinet front.
- Be sure to wring excessive water from the cloth before wiping around the controls.
- Excessive water in or around the controls may cause damage to the air conditioner.
- Plug in air conditioner.

NOTE:

Never use water over 40° C , alcohol, gasoline, acid, solvent or brush to clean the front panel as this will damage the surface of the part.

Winter Storage

If you plan to store the air conditioner during the winter, remove it carefully from the window according to the installation instructions. Cover it with plastic or place it to the original carton.

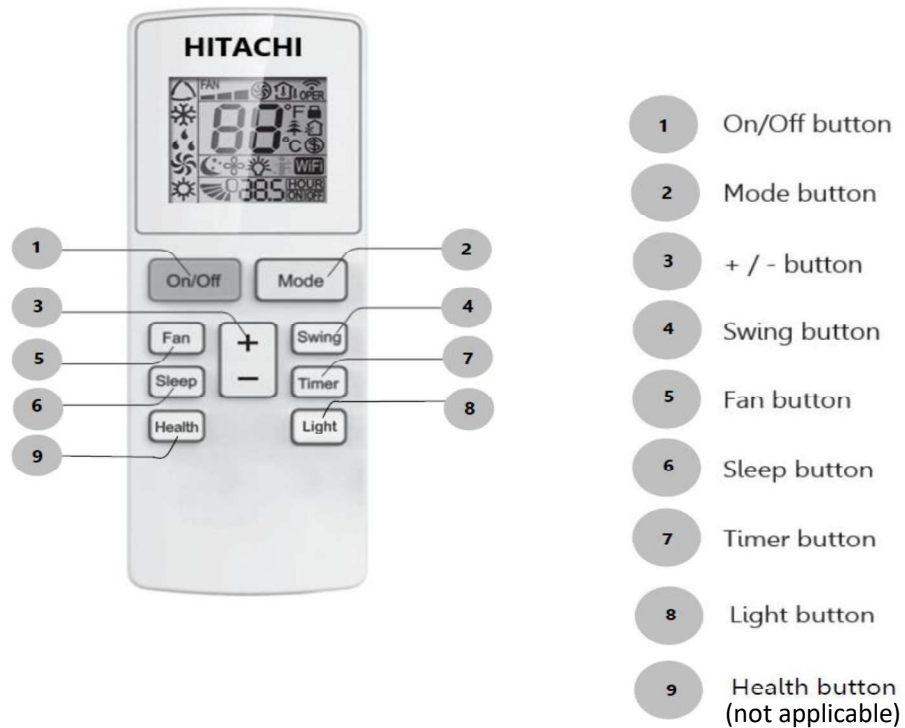
CAUTION

NEVER operate the air conditioner without the air filter, as dust/dirt particles can contribute to equipment failure.

Operation procedure

• Remote control operation procedure

Note: This is a general use remote control, it could be used for the air conditioners with multifunction. For some functions which the model doesn't have, the unit will keep the original running status if pressing the corresponding button on the remote control.

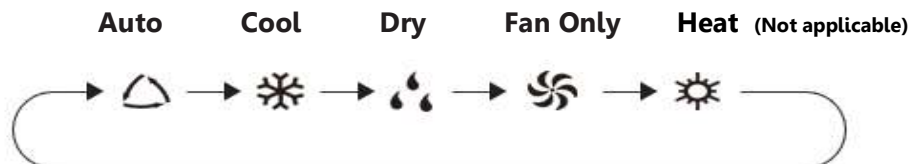


1 On / Off button

Press this button to turn on the unit. Press this button again to turn off the unit.

2 Mode button

Press this button to select your required operation mode. Corresponding indicator will be on.



- **Auto:** Under this mode, the unit will operate automatically according to default setting. In this case, set temperature cannot be adjusted.
- **Cool:** Under this mode, air conditioner operates under cooling mode. Cooling indicator will be on. Press "Fan" button to adjust the fan speed.

Operation procedure

• Remote control operation procedure

- **Dry:** Under this mode, the unit runs in low fan speed for dehumidifying and the corresponding indicator is on; under dry mode, the fan speed cannot be adjusted.
- **Fan Only:** Under this mode, air conditioner will not operate in COOL mode but only blow wind. Fan indicator will be on. Press "Fan" button to adjust the fan speed.

3 + / - button

- Pressing "+" or "-" button once will increase or decrease set temperature by 1°F(°C). Hold "+" or "-" button for 2 seconds, set temperature on remote control will change quickly. Release the button after your required set temperature is reached.
- Under timer setting status, after each pressing of "+" or "-" button, time will increase or decrease 0.5 hours. Hold "+" or "-" button, 2 seconds later, time displayed on dual-8 nixie tube will change quickly. Release the button until the time is reached to your set time.

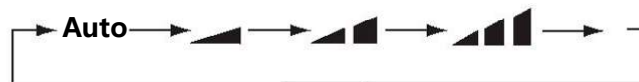
4 Swing button

Press this button to turn "ON" & "OFF" swing.

5 Fan button

This button is used for setting fan speed in the sequence that goes from AUTO,

 ,  , to  then back to Auto.



 LOW  MID  HIGH

NOTE: There are 3 fan speeds of this model.

6 Sleep button

Press this button to go into the Sleep operation mode. Press it again to cancel this function. This function is available in COOL mode to maintain the most comfortable temperature for you.

Operation procedure

- **Remote control operation procedure**

7 Timer button

Under ON status, press this button to set timer OFF; Under OFF status, press this button to set timer ON.

Press this button once and the characters of HOUR ON (OFF) will flash to be displayed. Meanwhile, press "+" button or "-" button to adjust timer setting (time will change quickly if holding "+" or "-" button). Time setting range is 0.5~24hours. Press this button again to confirm timer setting and the characters of HOUR ON (OFF) will stop flashing.

If the characters are flashing but you haven't pressed timer button, timer setting status will be quitted after 5 seconds. If timer is confirmed, press this button again to cancel timer.

8 Light button

Press the button to activate or deactivate the LED (Light) on control panel.

9 Health button (Not Applicable)


Function introduction for combination buttons

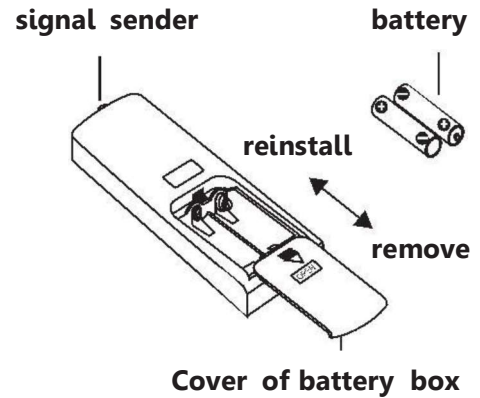
Temperature display switchover function

Under OFF status, press "-" and "Mode" buttons simultaneously to switch temperature display between °C and °F

Operation procedure

Replacement of batteries in remote controller

1. Press the back side of remote control marked with "  ", as shown in the Fig. , and then push out the cover of battery box along the arrow direction.
2. Replace two (AAA 1.5V) dry batteries, and make sure the position of "+" polar and "-" polar are correctly placed.
3. Reinstall the cover of battery box.



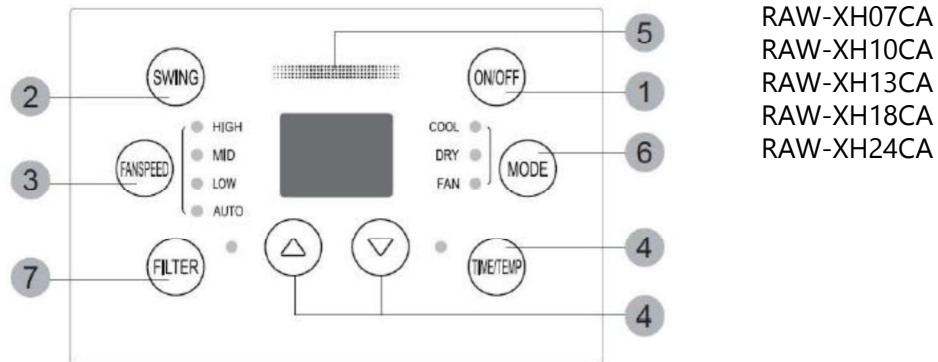
NOTICE :

- The distance between signal sender and receiving window should not be more than 8 meters, and there should be no obstacles between them.
- As the signal will be interfered in the room with electronic fluorescent lamp, conversion fluorescent lamp or wireless phone, please get closer to the air conditioner when using the remote control.
- Replace new batteries of the same model when replacement is required.
- When you don't use remote control for a long period of time, please take out the batteries.

Operation procedure

• Remote control panel

Note: If wireless remote control is lost, you can use the remote control panel and operate manually.



1 ON/OFF BUTTON

Operation starts when pressing this button. Pressing this button again to stop the operation.

2 SWING BUTTON

Activate the automatic air swing function.

3 FAN SPEED BUTTON

Select the fan speed LOW, MID, HIGH and AUTO in sequence.

4 TIME/TEMP BUTTON

Press the \triangle keypad to increase the set (operating) temperature of the unit.

Press the ∇ keypad to decrease the set (operating) temperature of the unit.

The temperature setting range is from 16~30°C.

For the time setting range from 0~10 hours, press the \triangle keypad to increase the selected time on 0.5 hour increment, and press the ∇ keypad to decrease the selected time in 0.5 hour decrement.

For the time setting range from 10~24 hours, press the \triangle keypad to increase the selected time on 1 hour increment, and press the ∇ keypad to decrease the selected time in 1 hour decrement.

5 SIGNAL RECEIVER

6 MODE BUTTON

Select the operation mode COOL, DRY, FAN (for cooling only model).

7 FILTER BUTTON

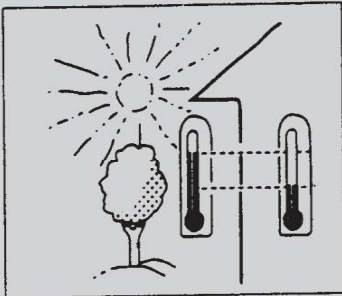
This feature is a reminder to clean the Air Filter (See Care and Cleaning) for more efficient operation and cooling. The LED (Light) will illuminate after 250 hours of operation. To reset after cleaning the filter, press the "Filter" button and the light will go off. Before the LED (Light) illuminate, press the "Filter" button for 3 seconds to clear the accumulated time of operation.

Operation procedure

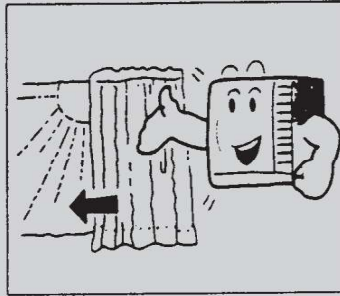
- **Operation Tips**

Operation for comfort and economy

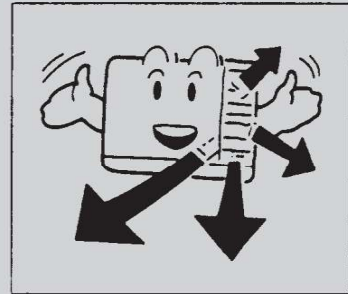
Do not overcool the room temperature. This is not good for health and causes wasting of electricity.



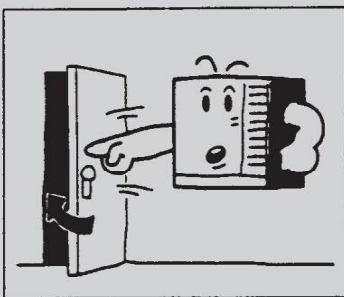
Keep the blind or curtains closed. Do not let sunshine entering the room directly when the air conditioner is in operation.



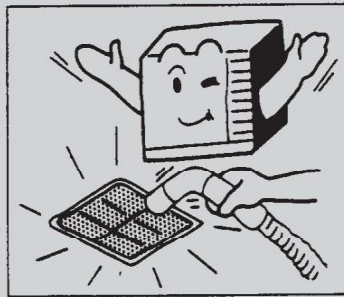
Keep the room temperature consistent. Adjust the vertical and horizontal airflow direction to ensure consistent temperature in the room. Air can't be discharged to the direction of air-in.



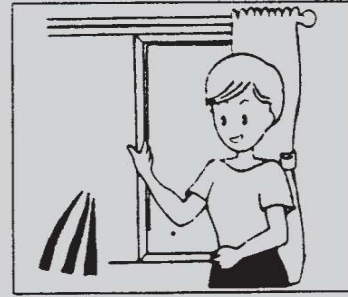
Make sure that the doors and windows are tightly closed. Avoid opening doors and windows frequently in order to keep air conditioning in the room.



Clean the air filter regularly. Blockages of the air filter reduce dehumidifying effects. Clean the air filter at least once every two weeks.



Ventilate the room occasionally. Since windows are kept closed, it is a good idea to open them and ventilate the room. When starting the unit, curtains or windows should be closed to prevent the cool air leakage.



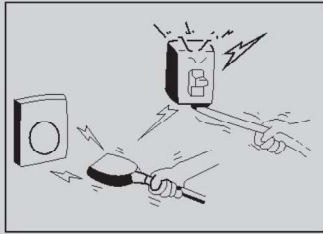
Care and maintenance

• Caution

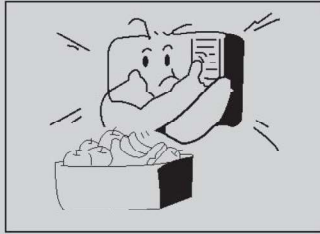
Operations for safety and health

1. The plug must be accessible after the appliance is positioned.
2. Do not use this appliance in the laundry room.
3. If the power cord is damaged, it must be replaced by the manufacturer or its service agent in avoid of hazard.

- Do not pull out the power cord.
- Damage to the cord may result in serious electric shocks.



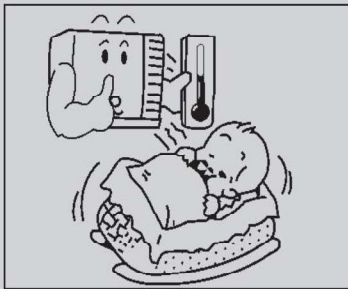
- Do not use the air conditioner for other purposes except for cooling the room.
- Do not use the air conditioner for other purposes such as drying clothes, preserving foods, or cultivating vegetables.



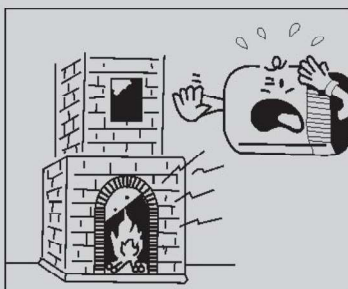
- Do not block the air intake and outlet vents. This causes reduced performance and irregular operation.
- Do not insert sticks or other objects into these vents as it is dangerous to touch the electric components and the fan.



Select the optimal temperature. Pay attention to adjust the temperature to suit the conditions. Rooms occupied by infants, the elderly, or the sick should be kept at an appropriate temperature.



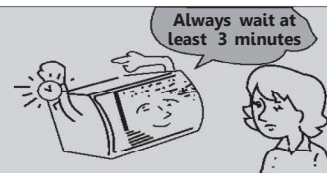
Do not use heating apparatuses in the vicinity. The air conditioner's plastic parts will melt if exposed to excessive heat.



Avoid exposing the body directly to air flow for long periods. This is not recommended for health reason.



Always wait at least 3 minutes before switching the air conditioner on again after you have switched it off during cooling.



Care and maintenance

• Cleaning and maintenance

1. Cut power off before cleaning.

Plug out only after air conditioner stops at all.



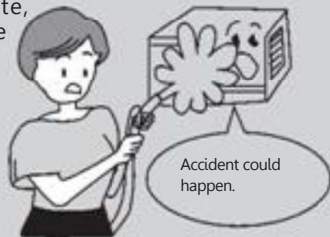
2. Use soft cloth when cleaning cabinet. If the cabinet is very dirty, dip cloth into warm water below 40°C, dry the cloth and then rub off the dirt.



3. Don't use gas, benzene, solvent wash, chemical solvent, etc. for cleaning.

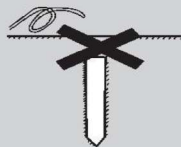


4. Do not splash water directly into the unit, in which there are micro-computer and circuit plate, they must not be drenched with water.



* Check earth wire

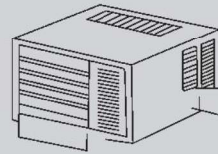
Is it broken or loose?



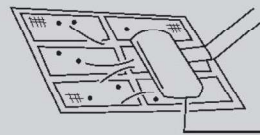
Air filter

The air filter behind the intake grille should be washed at least once every two weeks or as often as it needs cleaning. How to clean the air filter:

1. To remove the air intake grille, grasp the tab on the filter and pull to take out.

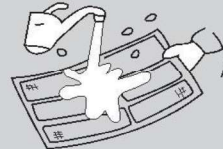


2. Vacuum the filter on the dusty side to remove light dust.



Vacuum cleaner

3. Wash the filter, cleaner side up under gently flowing water to wash out accumulated dust and lint.



4. If the filter is very dirty, clean with mild household detergent in water.



Let the filter dry thoroughly before reinstalling it. If necessary, please ask the professional personnel to clean it.

* Check if air inlet and outlet of the unit are blocked or not.

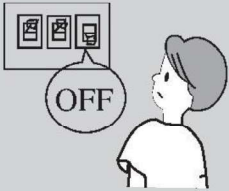
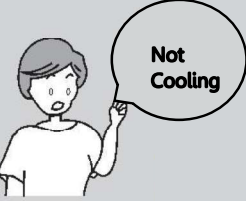
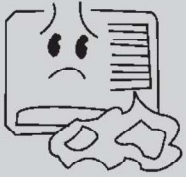
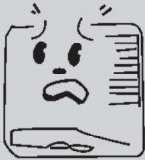
Air lock could result in bad efficiency.



Care and maintenance

• Troubleshooting guide

Please check the following items before asking for repair, it saves your time and money.

Fault phenomenon	Trouble - shooting
<p>Air conditioner does not operate at all.</p> 	<ul style="list-style-type: none"> * Is there a power failure? * Is the plug out? * Is power fuse or switch off? * Whether the voltage is too high or too low?
<p>Cooling efficiency is not good.</p> 	<ul style="list-style-type: none"> * Is air inlet or outlet blocked? * Is there any other heat source in room? * Are air filters dirty? * Is the indoor fan speed set at LOW? * Maybe the room is too hot when the unit starts.
<p>Foggy air flows out.</p> 	<ul style="list-style-type: none"> * At COOL mode operation, sometimes there is foggy air flowing out from the unit, this is because the room humid air has been cooling rapidly. * The unit is normal while the indoor outlet is sending out some odors, because the inlet air may be mixed with the smell of furniture and smoke.
<p>The air conditioner operation is noisy.</p> 	<ul style="list-style-type: none"> * For a noise that sounds like water flowing: This is the sound of freon flowing inside the air conditioner unit. * For a noise that sounds like a shower: This is the sound of the dehumidifying water being processed inside the air conditioner unit.
<p>It seems that condensate is leaking from air conditioner.</p>	<ul style="list-style-type: none"> * Condensate occurs when the airflow from the air conditioner cools the warm room air.
<p>Air conditioner does not operate for about 3 minutes when restart.</p>	<ul style="list-style-type: none"> * This is to protect the mechanism. * Wait about 3 minutes and operation will begin.

Care and maintenance

Immediately stop all operations and plug out or isolate power supply, please contact your dealer in the following situations.

- * Operation starts or stops abnormally;
- * Power fuse or switch often breaks;
- * Carelessly splash water or something into air conditioner;
- * Electrical lines are much hot or lines cover breaks;
- * Burning smell or smoke formed.
- * Other strange situations.



Others

Model and rated value of fuse shall be subject to screen print on corresponding controller or protective bushing.

- **After sales service**

If your air conditioner has the questions of quality or malfunctioned , please contact the service center.

Arçelik Hitachi Home Appliances Sales Hong Kong Limited

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28 On Muk Street, Shatin, N.T.
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Hong Kong Repair Service

Tel No. : +852 2753 5386
Email address : service2.AHHK@arcelik-hitachi.com



Correct Disposal of this product

This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

Specifications in this document are subject to change without notice, in order that Hitachi-Johnson Controls Air Conditioning, Inc. may bring the latest innovations to their customers

Hitachi-Johnson Controls Air Conditioning, Inc.