

HITACHI

Before using your air conditioner, please read this manual carefully and keep it for future reference.

WINDOW - TYPE ROOM AIR CONDITIONER

MODEL
RA-23MS

USER'S MANUAL



CONTENTS



1. SAFETY PRECAUTIONS.....	2
2. UNIT PARTS IDENTIFICATION.....	8
3. OPERATING INSTRUCTIONS	9
4. INSTALLATION INSTRUCTIONS.....	13
5. TROUBLESHOOTING	17
6. SPECIFICATIONS	18

Read This Manual

Inside you will find many helpful hints on how to use and maintain your air conditioner properly. Just a little preventive care on your part can save you a great deal of time and money over the life of your air conditioner. You'll find many answers to common problems in the chart of troubleshooting tips. If you review our chart of Troubleshooting Tips first, you may not need to call for service at all.

SAFETY PRECAUTIONS

To prevent injury to the user or other people and property damage, the following instructions must be followed. Incorrect operation due to ignoring of instructions may cause harm or damage. The seriousness is classified by the following indications.

 WARNING	This symbol indicates the possibility of death or serious injury.
 CAUTION	This symbol indicates the possibility of injury or damage to property.

WARNING

- Do not damage or use an unspecified power cord. It may cause electric shock or fire. If the power cord is damaged, it must be replaced by the manufacturer or an authorised service centre or a similarly qualified person in order to avoid a hazard.
- Do not modify power cord length or share the outlet with other appliances. It may cause electric shock or fire due to heat generation.
- Do not operate with wet hands or in damp environment.
It may cause electric shock.
- Do not direct airflow at room occupants only. This could damage your health.
- Always ensure effective earthing. Incorrect earthing may cause electric shock.
- Do not allow water to run into electric parts.
It may cause failure of machine or electric shock.
- Always install circuit breaker and a dedicated power circuit.
Incorrect installation may cause fire and electric shock.
- Should abnormal situation arises (like burning smell), please stop operating the unit and turn off the circuit breaker. Contact your agent. Fault and short circuit may occur if you continue to operate the unit under abnormal situation.
- Do not use the socket if it is loose or damaged.
It may cause fire and electric shock.
- 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.
- Do not open the unit during operation. It may cause electric shock.
- Leave the door closed while the air conditioner is running.
It is not designed to cool the entire house.

- Do not use the power cord close to heating appliances.
It may cause fire and electric shock.
- Do not use the power cord near flammable gas or combustibles, such as gasoline, benzene, thinner, etc. It may cause an explosion or fire.
- Ventilate room before operating air conditioner if there is a gas leakage from another appliance.
It may cause explosion, fire and burns.
- Do not disassemble or modify unit. It may cause failure and electric shock.
- 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.
- Do not put objects like thin rods into the panel of blower and suction side because the high-speed fan inside may cause danger

CAUTION

- Please ensure smooth flow of water when installing the drain hose
- Make sure that a single phase 220V power source is used .
The use of other power sources may cause electrical components to overheat and lead to fire.
- When the air filter is to be removed, do not touch the metal parts of the unit.
It may cause an injury.
- Do not clean the air conditioner with water.
Water may enter the unit and degrade the insulation. It may cause an electric shock.
- Ventilate the room well when used together with a stove, etc.
An oxygen shortage may occur.
- When the unit is to be cleaned, switch off, and turn off the circuit breaker.
Do not clean unit when power is on as it may cause fire and electric shock, it may cause an injury.
- Do not put a pet or house plant where it will be exposed to direct air flow.
This could injure the pet or plant.
- Do not use for special purposes. Do not use this air conditioner to preserve precision devices, food, pets, plants, and art objects.
It may cause deterioration of quality, etc.
- Stop operation and close the window in storm or hurricane.
Operation with windows opened may cause wetting of indoor and soaking of household furniture.
- Turn off the main power switch when not using the unit for a long time.
It may cause failure of product or fire.
- Do not place obstacles around air-inlets or inside of air-outlet.
It may cause failure of appliance or accident.
- Always insert the filters securely. Clean filter once every two weeks.
Operation without filters may cause failure.

- Ensure that the installation bracket of the outdoor appliance is not damaged due to prolonged exposure. If bracket is damaged, there is concern of damage due to falling of unit.
- Do not use strong detergent such as wax or thinner but use a soft cloth. Appearance may be deteriorated due to change of product color or scratching of its surface.
- Do not place heavy object on the power cord and ensure that the cord is not compressed. There is danger of fire or electric shock.
- Do not drink water drained from air conditioner. It contains contaminants and could make you sick.
- Use caution when unpacking and installing. Sharp edges could cause injury.
- If water enters the unit, turn the unit off at switching off the circuit breaker. Isolate supply by switching off the circuit breaker and contact a qualified service technician.
- This appliance can be used by children aged from 8 years or 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. (be applicable for the European Countries)
- 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. (be applicable for other countries except the European Countries)
- Children should be supervised to ensure that they do not play with the appliance.
- 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.
- The appliance shall be installed in accordance with national wiring regulations.

- Do not operate your air conditioner in a wet room such as a bathroom or laundry room.
- The appliance with electric heater shall have at least 1 meter space to the combustible materials.
- Contact the authorised service technician for repair or maintenance of this unit.
- Contact the authorised installer for installation of this unit.
- When there are wide differences between “USER’S MANUAL” and “Remote controller Illustration” on function description, the description on “USER’S MANUAL” shall prevail.
- If the air conditioner is knocked over during use, turn off the unit and switching off the curcuite breaker immediately. Visually inspect the unit to ensure there is no damage.
- If you suspect the unit has been damaged, contact a technician or customer service for assistance.
- In a thunderstorm, the power must be cut off to avoid damage to the machine due to lightning.
- To reduce the risk of fire or electric shock, do not use this fan with any solid-state speed control device.
- Do not run cord under carpeting. Do not cover cord with throw rugs, runners, or similar coverings. Do not route cord under furniture or appliances. Arrange cord away from traffic area and where it will not be tripped over.
- If connecting power to fixed wiring, an all-pole disconnection device which has at least 3mm clearances in all poles, and have a leakage current that may exceed 10mA, the residual current device(RCD) having a rated residual operating current not exceeding 30mA, and disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.
- How to fix the appliance to its support, please read the “installation instructons” section in this manual.
- All wiring must be performed strictly in accordance with the wiring diagram located inside of the unit.

SAFETY PRECAUTIONS(prior to operation)

Preparing for operation

1. Contact an installation specialist for installation.
2. Do not use a damaged or non-standard power cord.
3. Do not share the same outlet with other appliances.
4. Do not use an extension cord.

Usage

1. Exposure to direct airflow for an extended period of time could be hazardous to your health. Do not expose occupants, pets, or plants to direct airflow for extended periods of time.
2. Due to the possibility of oxygen deficiency, ventilate the room when used together with stoves or other heating devices.
3. Do not use this air conditioner for non-specified special purposes (e.g. Preserving precision devices, food, pets, plants, and art objects). Usage in such a manner could harm such property.

Cleaning and maintenance

1. Do not touch the metal parts of the unit when removing the filter. Injuries can occur when handling sharp metal edges.
2. Do not use water to clean inside the air conditioner. Exposure to water can destroy the insulation, leading to possible electric shock.
3. When cleaning and maintenance the unit, first make sure that the power and circuit breaker are turned off.

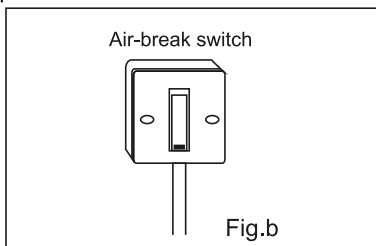
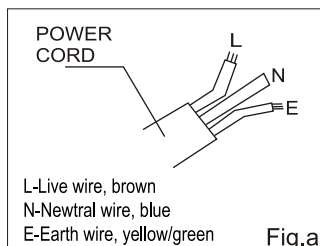
Operating Temperature

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. This product is supplied without plug as 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 being correctly grounded. The wall outlet (Air-break 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 :

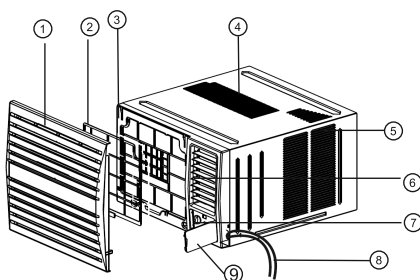
As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your connection units - Proceed as follows :

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 .

UNIT PARTS IDENTIFICATION



1. Front panel
2. Air filter
3. Frame
4. Cabinet
5. Air inlet grille (outdoor side)
6. Air outlet grille
7. Operation knob
8. Power supply cord
9. Control panel cover

Accessories

Seal
(Used on
drain joint)



1pc

Drain Joint



1pc

Drain Tray



1pc

Rubber Plug



1pc

Screw



2pcs (Used to fasten the
front panel)

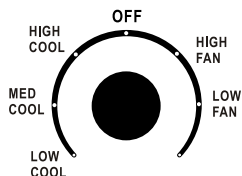
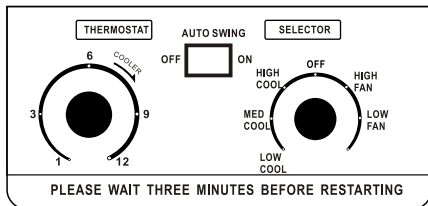
4pcs (Used to install the
drain tray)

NOTE: All the illustrations in the manual are for explanation purpose only. Your air conditioner may be slightly different. The actual shape shall prevail.

OPERATING INSTRUCTIONS

OPERATION PANEL(Cooling only models)

The control panel of the unit you purchased will look like the following:



The desired cool setting is selected by rotating the knob to the right to the appropriate location.

“HIGH COOL” has maximum cooling effect and airflow.

“MED COOL” has the intermediate cooling effect and airflow.

“LOW COOL” has minimum cooling effect and airflow.

“OFF” will completely shut off the unit.

“HIGH FAN” permits high fan speed operation without cooling effect.

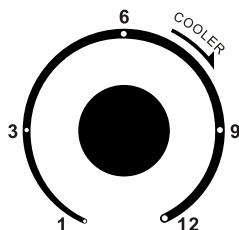
“LOW FAN” permits low fan speed operation without cooling effect.

Note: When selecting a fan speed, the compressor will not run.

Note

When turning the SELECTOR knob from "LOW COOL" to "HIGH COOL", keep your speed slow as far as possible. Do not change the operation mode between "LOW COOL" and "HIGH COOL" too often.

THERMOSTAT



Thermostat

The thermostat is used to set the desired room temperature when the unit is being operated in the COOL MODE.

To set the desired room temperature, rotate the thermostat switch to the desired setting. After the set temperature is achieved the thermostat will automatically start and stop the compressor in order to maintain the desired set temperature. Rotate the thermostat selector clockwise for higher cool settings. Higher cool settings will provide lower room temperature. Rotate the thermostat selector counter clockwise for lower cool settings. Lower cool settings will provide higher room temperature.

NOTE: During the cooling operation of the unit, when the thermostat knob is rotated clockwise, allow at least three minutes before turning back the knob to the “1” direction. Otherwise the fuse may blow due to an overload of the unit. **DO NOT** rotate the THERMOSTAT knob beyond the range from “1” to “12” .

ADJUST AIR FLOW DIRECTION

AUTO SWING

Horizontal airflow adjustment

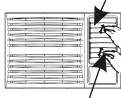
For the units with AUTO SWING feature(automatically):



When the AUTO SWING switch is turned to “ON” position, the vertical louvers automatically oscillate right and left sweeping the cold air alternately to obtain comfortable cooling. The vertical louvers may be stopped at any position when the AUTO SWING switch is turned “OFF” .

Vertical air flow adjustment (manually)

Up horizontal louver



Low horizontal louver

Airflow in vertical direction can be changed by adjusting horizontal louver manually when the unit is running.

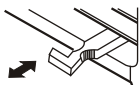
To avoid generating condensing water on the surface of horizontal louver, horizontal louver should not be at the maximum upwards or downwards angle position for a long time in cooling mode.

Vent Control

The vent control is located above the control knobs. (see the following figures).

For maximum cooling efficiency, CLOSE the vent. It will allow internal air circulation.

OPEN the vent to discharge stale air.



CLOSE  VENT  OPEN

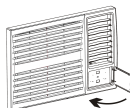
To open the vent, pull the lever toward you

To close it, push it in.

Control Panel Cover



Grasp the right of the control panel cover and pull it upwards to open it .



Close the control panel cover and press the right of the cover again until it snaps into the locked position.

OPERATING INSTRUCTIONS(continued)

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, and 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, soapy water. The water should be below 40°C to prevent distortion of the filter.
4. Rinse off and gently shake off excess water from the filter. Allow the filter to dry before replacing it. To prevent distortion of the filter, do not dry in 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 excess water from the cloth before wiping around the controls.
- Excess water in or around the controls may cause damage to the air conditioner.
- Plug in air conditioner.

NOTE: Never use water over 50°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 return it to the original carton.



CAUTION



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

INSTALLATION INSTRUCTIONS

Drainage

To treat condensed water will be as follows:

1. Bottom drainage. Connect drain hose to the bottom drain tray.
2. Back drainage. Connect drain hose to the back drainage hole.
3. Non-drainage. Block the drain hole(s) by rubber plug(s).

Installation procedures of bottom drainage:

- Take out the drain tray and screws from accessory.
- Fix the drain tray onto the bottom of cabinet by screws.
- Connect an extension drain hose (locally purchased) to the outlet of drain tray

Suggestion : To ensure the condensed water drain off smoothly, always keep the drain outlet of the drain tray downward when install the drain tray.

NOTE: When you choice bottom drainage the airconditioner will slightly affect cooling performance, but will reduce the noise caused by spraying the condensed water.

Installation procedures of back drainage:

- Fit the seal (provided as accessory) onto the drain joint.
- Remove the rubber plug from the back of cabinet
- Insert the drain joint to the back drainage hole, and rotate it by 90 to be well fitted.
- Connect an extension drain hose (locally purchased) to the drain joint.

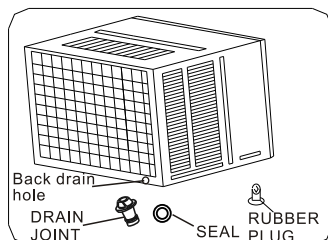
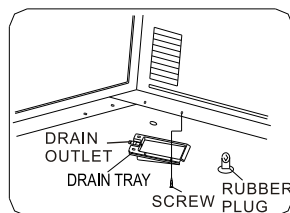
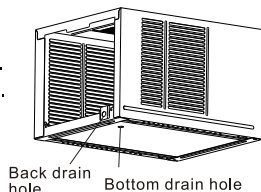
- Make sure block the bottom drain hole by rubble plug.

NOTE: When you choice back drainage the airconditioner will slightly affect cooling performance, but will reduce the noise caused by spraying the condensed water.

NOTE: Drain hose is locally purchased according to installation length request.

NOTE: If you choose non-drainage when cooling, both the bottom and the back drain holes of the unit should be inserted with rubber plugs. When you choose non-drainage the air conditioner will be to get the maxi cooling efficiency, but big noise may be caused by spraying the condensed water. If the splashing sound annoys you, recommend to use other drainage.

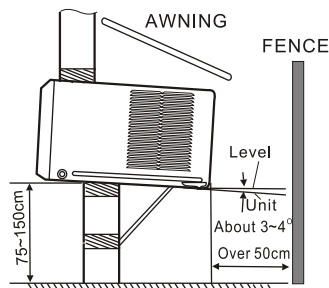
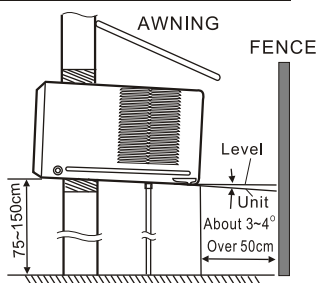
NOTE: Make sure that water will not leak from the surrounding area when rubber plug and joint were used. Please seal it in case leakage is found.



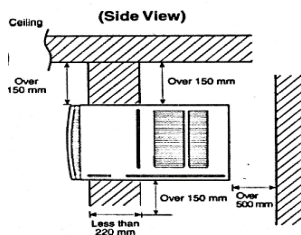
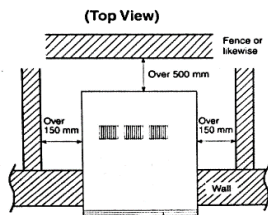
INSTALLATION INSTRUCTIONS

NOTE: Before installing, remove all packaging from inside the carton, along with any inserts placed into the side louvers.

Select the best location



1. To avoid vibration and noise, make sure the unit is installed securely and firmly.
2. Install the unit where the sunlight does not shine directly on the unit.
If the unit receives direct sunlight, build an awning to shade the cabinet.
3. There should be no obstacle, such as a fence or wall, within 50cm from the back of the cabinet because it will prevent heat radiation of the condenser. Restriction of outside air will greatly reduce the cooling efficiency of the air conditioner.
4. Install the unit a little obliquely downward to outside not to leak the condensed water into the room (about 3~4° with level).
5. Install the unit with its bottom portion 75~150cm above the floor level.
6. The power cord must be connected to an independent circuit. The yellow/green wire must be grounded.
7. Choose a location where there are no any obstacle surrounding the unit.
8. Choose the installation space according to the following diagram



CAUTION

All side louvers of the cabinet must remain exposed to the outside of the structure.

Installation of the Housing

Step 1

Remove the air conditioner from it's packaging, remove fixing screws and slide the air conditioner out of it's housing (Refer to Installation Steps).

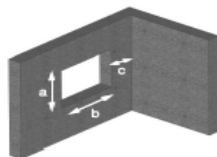
Step 2

Prepare the hole in the wall so that the bottom of the housing is well supported, the top has minimum clearance and the air inlet louvers have clearance as shown below in options A and B. Holes from the outside through to the cavity should be sealed. The housing should slope down towards the rear by about 5mm to allow water formed during operation to drain. Please refer to the figure on the right for the installation hole size.

Step 3

Install the housing into the wall and secure. Ensure the foam seals are not damaged. Flash, seal or fill gaps around the inside and outside to provide satisfactory appearance and protection against the weather, insects and rodents.

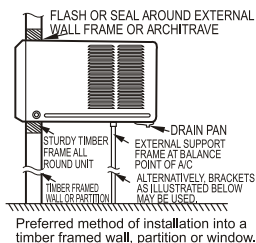
NOTE: UNIT MAY BE SUPPORTED BY A SOLID FRAME FROM BELOW OR BY A HANGER FROM A SOLID OVERHEAD SUPPORT.



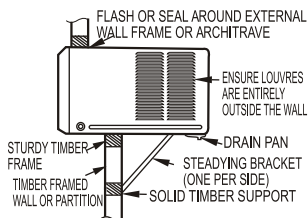
a: $\geq 428 + 20\text{mm}$

b: $\geq 660 + 20\text{mm}$

c: $\geq 400\text{mm}$



Preferred method of installation into a timber framed wall, partition or window.

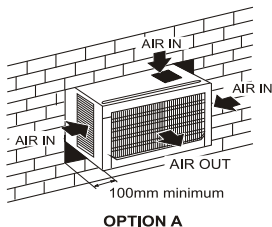


Alternative method of installation if external support cannot be provided.

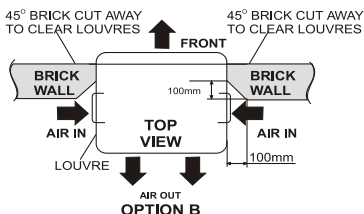
Installation of the unit into the Housing

1. Slide the unit into the housing until it is firmly against the rear of the housing. Care is required to ensure the foam sealing strips on the housing remain in position.
2. Connect the air conditioner to the power and position excess cord length beneath the air conditioner base.
3. Engage the chassis fixing brackets into the bottom housing rail and secure to the base with the screw provided.
4. Remove the front panel from it's carton and plastic bag and fit as per the Installation Instruction.
5. Switch unit on. Check for operation of the unit and check for vibration in the installation.
6. Fit the drain pan to the housing and run a drain line to a suitable location if required.

Installations of the unit into the wall



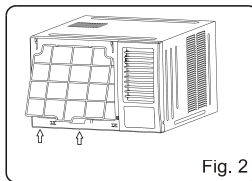
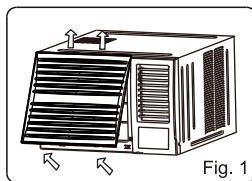
OPTION A



Installation Steps

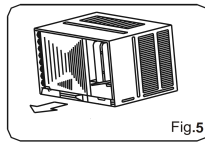
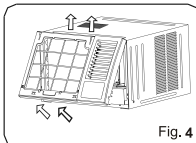
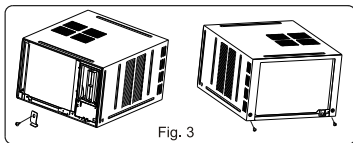
Step 1. Remove the front panel and the air filter

1. Hold the slot under the front panel, then uplift it 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).



Step 2. Remove the frame.

1. Remove one screw on the chassis fixing bracket, then remove the chassis fixing bracket. Remove the two screws located on the back of the cabinet as shown in Fig.3.
2. Grasp the left corner of the frame's underside, then loosen the frame (See Fig.4).
3. Grasp the handle on the chassis and carefully slide the air conditioner out of the cabinet (See Fig.5).

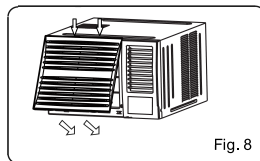
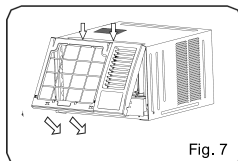
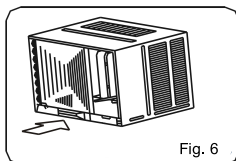


Step 3. Install the frame.

1. Push the unit chassis into the cabinet (See Fig.6).
2. Install the frame (See Fig.7) and fix the screws on the frame (See Fig.3).

Step 4. Install the air filter and front panel.

1. Install the air filter into the frame's slot from upside to underside (See Fig.2).
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.8).



TROUBLESHOOTING

Before calling for service, review this list. It may save you time and expense. This list includes common occurrences that are not the result of defective workman-ship or materials in this appliance.

Problem	Solution
Air conditioner does not start	<p>House fuse blown or circuit breaker tripped. Replace fuse with time delay type or reset circuit breaker.</p> <p>Selector Control in OFF position. Turn selector to the desired FAN or COOL setting.</p> <p>Unit turned off by moving thermostat to a higher number and then immediately turning back to a colder number. Wait approximately 3 minutes. Listen for compressor to start.</p> <p>Unit turned off and then on too quickly. Turn unit off and wait 3 minutes before restarting.</p> <p>Thermostat set too low. Adjust thermostat to higher number for cooling.</p>
Air from unit does not feel cold enough	<p>Turn selector to a higher COOL position.</p> <p>Thermostat set too warm. Set thermostat to colder temperature.</p> <p>Room temperature below 18°C(64°F). Cooling may not occur until room temperature rises above 18°C(64°F).</p> <p>Temperature sensing tube touching cold coil, located behind air filter. Straighten tube away from coil.</p>
Air conditioner cooling, but room is too warm- ice forming on cooling coil behind decorative front.	<p>Outdoor temperature below 18 C(64 F). To defrost the coil, set selector to FAN position. Then, set thermostat to warmer position.</p> <p>Air filter may be dirty. Clean filter. Refer to Care and Cleaning section. To defrost, set selector to FAN.</p> <p>Thermostat set too cold for night-time cooling. To defrost the coil, set selector to a FAN position. Then, set thermostat to a warmer position.</p>
Air conditioner cooling, but room is too warm- NO ice forming on cooling coil behind decorative front.	<p>Dirty air filter- air restricted. Clean air filter. Refer to Care and Cleaning section.</p> <p>Thermostat set too warm. Turn thermostat clockwise to a colder setting.</p> <p>Air directional louvers positioned improperly. Position louvers for better air distribution.</p> <p>Front of units is blocked by drapes, blinds, furniture, etc. - restricts air distribution.</p> <p>Clear blockage in front of unit.</p> <p>Doors, windows, registers, etc. Open- cold air escapes. Close doors, windows, registers.</p> <p>Unit recently turned on in hot room. Allow additional time to remove Stored heat from walls, ceiling, floor and furniture.</p>
Air conditioner turns on and off rapidly	<p>Dirty air filter- air restricted. Clean air filter.</p> <p>Outside temperature extremely hot. Set to high cool to bring air past cooling coils more frequently.</p>
Noise when unit is cooling	<p>Air movement sound. This is normal . If too loud, turn selector to lower FAN setting.</p> <p>Sound of fan hitting water-moisture removal system. This is normal when humidity is high. Close doors, windows and registers.</p> <p>Window vibration - poor installation. Refer to installation instructions or check with installer.</p>
Water dripping INSIDE when unit is cooling.	<p>Improper installation. Tilt air conditioner slightly to the outside to allow water drainage. Refer to installation instructions - check with installer.</p>
Water dripping OUTSIDE when unit is cooling.	<p>Unit removing large quantity of moisture from humid room. This is normal during excessively humid days.</p>

SPECIFICATIONS

Unit dimensions:

MODEL	BODY DIMENSION(mm) (W X H X D)
RA-23MS	660X428X780

NOTE: Value of D is for reference only.

Minimum nominal cross-sectional area of conductors:

Rated current of appliance(A)	Nominal cross-sectional area(mm ²)
>3 and ≤ 6	0.75
>6 and ≤ 10	1
>10 and ≤ 16	1.5
>16 and ≤ 25	2.5

HITACHI

在您開始使用冷氣機之前，務請仔細閱讀本說明書，仔細閱讀後應將本說明書妥善保管好，以備日後參考。

小涼伴窗口式

家用冷氣機

型號

RA-23MS

使用說明書



目錄



目錄.....	1
安全注意事項.....	2
各單元部件名稱及其功能.....	8
安裝說明.....	13
故障排除.....	18
產品規格.....	20

閱讀本說明書

在本說明書內，您會發現許多有關如何正確使用和維護您的冷氣機的有用提示。對您來說，只需瞭解或掌握一點點防禦措施就可以為您冷氣機的壽命，節省大量的時間和金錢。您可以在故障排除提示圖表中找到許多常見問題的答案。如果您事先查閱我們的故障排除提示圖表，您可能根本不需要打電話等不必要的求助服務。

安全注意事項

為防止對用戶或其他人造成傷害和財產損失，必須遵循以下指示。由於忽視指令而導致的不正確操作可能會造成傷害或損壞。嚴重程度請按以下跡象分類。

 警告	此符號表示導致死亡或嚴重傷害的可能性。
 注意	此符號表示可能造成人身傷害或財產損失。

警告

- 請勿損壞或使用非標準的電源線。這可能會導致觸電或火災。如果電源線損壞，必須由製造商或授權服務中心或類似的合格設備進行更換，以避免造成危險。
- 請勿修改電源線長度或與其他電器設備共用插座。它可能會因發熱而導致觸電或火災。
- 請勿用濕手或在潮濕的環境中操作。可能會導致觸電。
- 請勿只對房間裡的居住者出風。這可能會損害您的健康。
- 確保有效接地操作。不正確的接地操作可能會導致觸電。
- 請勿讓水流入電氣部件，否則可能導致機器故障或觸電。
- 正確安裝斷路開關和專用電源電路，不正確的安裝可能會導致火災和觸電。
- 如果出現異常情況（如聞到燃燒的氣味），請停止操作本冷氣機，並關閉斷路開關。聯絡您的代理商。
如果在異常情況下繼續操作本冷氣機，可能會發生故障、短路或再故障。
- 如果插座鬆動或損壞，請勿使用。
它可能會導致火災和觸電。
- 如果需要卸下並重新安裝該設備，請與您的代理商去的聯繫。如果您不正確地拆卸並重新安裝此設備，可能會發生觸電或火災。
- 操作期間請勿拆開冷氣機。這可能會導致觸電。
- 在冷氣機運行時，請把門關上。
它不是為整個房子降溫而設計的，只能冷卻指定區域。

- 請勿將電源線靠近加熱的設備。
它可能會導致火災和觸電。
- 請勿在易燃氣體或可燃物（例如汽油、苯、稀釋劑等）附近使用電源線。否則可能引起爆炸或火災。
- 如果其他設備有氣體洩漏的情況，請在操作使用冷氣機前對房間進行通風。
否則它可能會導致爆炸、火災和燒傷。
- 請勿拆卸或改裝設備。它可能會導致故障和觸電。
- 如果需要卸下並重新安裝設備，請與您的代理商取得聯繫。如果您不正確地移除並重新安裝設備，可能會發生觸電或火災。
- 請勿將細桿或細棒等物體放入出風口和吸氣側面板，因為內部的高速風扇可能會造成危險。



注意

- 安裝排水軟管時，請確保水流暢通。
- 確保使用 **220 伏** 單相電源。
使用其他電源可能會導致電子部件過熱並導致火災。
- 當要卸下空氣過濾網時，請勿觸摸本冷氣機的金屬部件。因為它可能會造成傷害。
- 請勿用水清潔冷氣機。
水可能會進入該設備並降低其絕緣性能。它可能會導致觸電。
- 當與火爐等物件一起使用時，要保證房間有良好的通風。
否則可能發生氧氣短缺情況。
- 清潔設備時，請關閉電源並關閉斷路開關。當電源接通時請勿清潔設備，否則可能會引起火災和觸電。
嚴重時還可能會造成人身傷害。
- 請勿將寵物或室內植物放置在冷氣機出風口的地方。這可能會傷害寵物或植物。
- 請勿用於特殊用途。請勿使用此冷氣機來保存精密設備、食物、寵物、植物和藝術品。
它可能會導致其質量下降等。
- 在狂風暴雨或颶風天氣中停止操作並關閉窗戶。
打開窗戶的操作可能會導致室內潮濕和家具被浸泡。
- 長時間不使用本冷氣機時，請關閉主電源開關。
否則它可能導致產品失效或火災。
- 請勿在進氣口或出氣口內放置障礙物。
它可能導致設備故障或發生事故。
- 務必牢固地插好空氣過濾網。請每兩周清潔一次空氣過濾網。沒有空氣過濾網的操作可能導致機器失去效用。

- 確保戶外設備的安裝支架不會因長時間暴露而損壞。如果支架損壞，可能會因裝置掉落而造成的損壞。
- 請勿使用強力清潔劑（如蠟或稀釋劑），而應使用軟布拭擦。由於產品顏色的變化或其表面的刮擦，外觀可能會惡化。
- 請勿在電源線上放置重物，並確保電源線未被壓縮。否則存在著火或觸電的危險。
- 不要飲用從冷氣機中排出的水。
因為它含有污染物，可能會讓您生病。
- 打開包裝和安裝冷氣機時要小心。鋒利的邊緣可能會讓您造成傷害。
- 如果水進入冷氣機設備，請在關閉斷路開關時關閉該設備。通過關閉斷路開關來隔離電源供應，並聯絡合格的維修技術人員來取得協助。
- 本產品不適合身體、感官或精神能力下降或缺乏經驗和知識的人（包括兒童）使用，除非他們受到負責其安全的人員使用本產品的監督或指導。（適用於除歐洲國家以外的其他國家）
- 應對兒童進行監督，以確保他們不會使用本產品。
- 如果電源線損壞，必須由製造商、其服務代理商或類似的合格人員更換，以避免發生危險。
- 該冷氣機設備應按照國家佈線規定安裝。

- 請勿在浴室或洗衣房等潮濕的房間內操作冷氣機。
- 帶電加熱器的設備應與擺放可燃材料的空間至少有一米的安全距離。
- 請聯繫授權的維修技術人員進行本冷氣機的維修或維護。
- 請聯繫授權安裝人員以安裝本冷氣機。
- 當功能說明中「使用說明書」和「遙控器插圖」之間存在很大差異時，應以「使用說明書」的說明為準。
- 如果冷氣機在使用過程中被翻倒，請立即關閉設備並立即關閉電閘開關。目視檢查設備，以確保沒有損壞。
- 如果您懷疑該設備已損壞，請聯繫技術人員或客戶服務中心以尋求幫助。
- 在雷雨天氣時，必須切斷電源，以免因雷擊而對機器造成損壞。
- 為降低火災或觸電的危險，請勿將此風扇與任何固態速度控制設備一起使用。
- 不要在地毯下鋪電線。不要用毛毯或類似的覆蓋物覆蓋繩子。不要將電線鋪設在家具或電器下面。將電線遠離經常走動區域，需將其放置在其他地方以免自己或他人被絆倒。
- 如果將電源連結到固定線路，一個全極斷開裝置，其所有極間間隙至少為 3 毫米，漏電流可能超過 10 毫安培，剩餘電流裝置（RCD）的額定剩餘工作電流不超過 30 毫安培並且必須根據佈線規則將其斷開連結到固定佈線中。
- 如何將設備固定到其支持，請閱讀本使用說明書中的「安裝說明」部分。
- 所有接線及佈線必須嚴格按照內部接線圖進行。

安全注意事項（操作前）

操作前的準備

1. 聯繫合資格技術人員進行安裝。
2. 請勿使用損壞或非標準的電源線。
3. 請勿與其他設備共用同一插座。
4. 請勿使用延長線。

使用

1. 長時間暴露在直接氣流下可能對您的健康有害。不要讓居住者、寵物或植物長時間直接通接觸直接氣流。
2. 由於缺氧的可能性，當與火爐或其他加熱設備一起使用時，請將確保房間通風良好。
3. 請勿將此冷氣機用於非指定的特殊用途（例如保存精密設備、食品、寵物、植物和藝術品）。以這種方式使用會損害這些財產。

清潔和維護

1. 拆卸空氣過濾網時，請勿觸摸本冷氣機的金屬部件。當處理鋒利的金屬邊緣時，有可能會發生傷害。
2. 請勿用水清洗冷氣機內部。暴露在水中會破壞絕緣性能，導致可能性的觸電。
3. 清潔和維護設備時，首先確保電源和斷路開關已關閉。

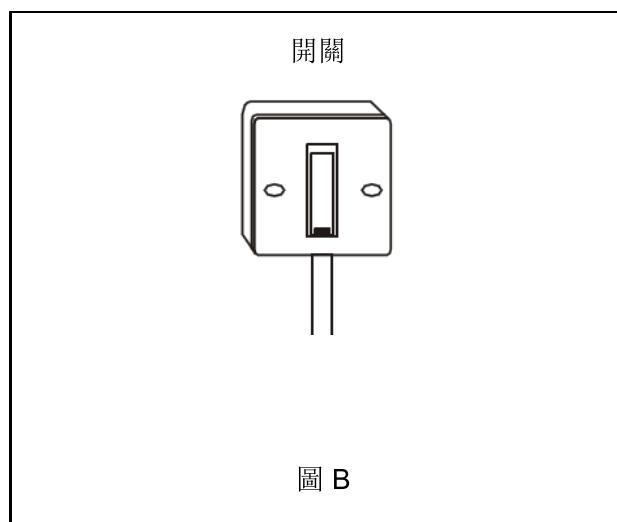
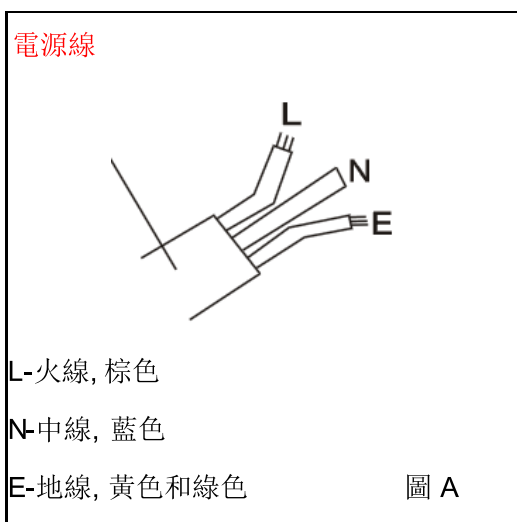
運行溫度

冷卻操作	室外側溫度	攝氏 18 度至 43 度/華氏 64 度至 109 度
	室內側溫度	攝氏 17 度至 32 度 / 華氏 62 度至 90 度

注意：在這些運行溫度之外，冷氣機性能可能會降低。

電源線

- 1.本產品不帶插頭，為安全起見，本機必須由合資格技術人員安裝，方可使用。
- 2.電源位的規格：連接裝置 最低電量 220 伏 30 安
- 3.電源線導體根據顏色區分如下（見圖 A）
- 4.為了您的安全和保護，本冷氣機通過電源線接地操作的（參見圖 B），如果您想要更換，請聯繫製造商或其服務代理商或類似的合格人員取得幫忙。
- 5.為確保設備能正確地接地。牆壁の出風口（開關）應配備可靠的接地線。
- 6.該設備應配備一個單獨的電路，斷路開關/保險絲額定值應與電源線相同。




注意：

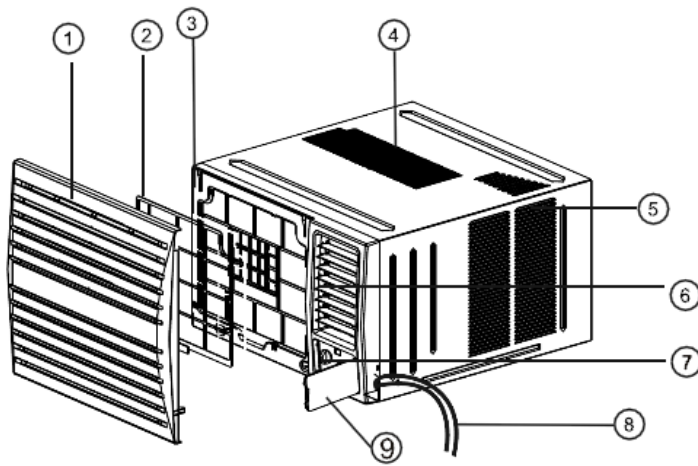
由於本產品電源線中導線的顏色可能與您識別連結單元中端口的彩色標記不一致 - 請按以下步驟操作：

帶有棕色的火線電源線必須接駁到標有 L 的接頭上。

藍色的中線電源線必須接駁到標有 N 的接頭上。

黃/綠色的接地線電源線必須連結到標有  的接頭上。

各單元部件名稱及其功能



1. 前置面板
2. 空氣過濾網
3. 機架
4. 機箱
5. 進氣口格柵（室外側）
6. 出風口格柵
7. 操作旋鈕
8. 電源線
9. 操作蓋（內藏控制面板）

配件

密封圓套
（用於排水接頭）



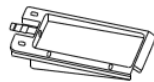
1 個

排水接頭



1 個

排水盤



1 個

橡膠塞



1 個

螺絲釘



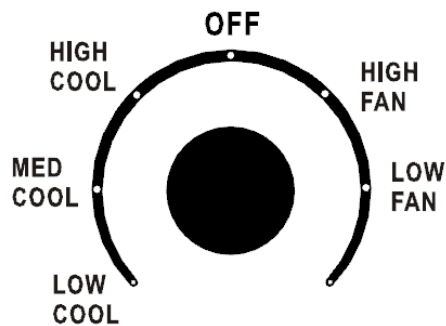
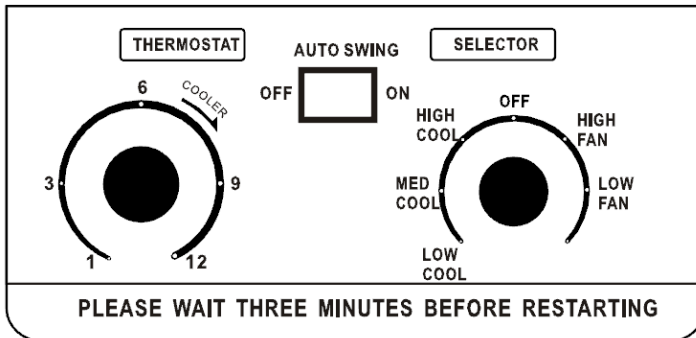
2 個 (用於固定前置面板)
4 個 (用於安裝排水盤)

注意： 本使用說明書中的所有插圖僅供參考。您的冷氣機可能略有不同。請以實際形狀為準。

操作說明

操作面板（僅限冷卻功能的型號）

您購買的冷氣機設備的控制面板如下所示：



通過將旋鈕向右旋轉到適當的位置來選擇所需的冷卻設定。

「HIGH COOL」 具有最大的冷卻效果和氣流。

「MID COOL」 具有中等的冷卻效果和氣流。

「LOW COOL」 具有最小的冷卻效果和氣流。

「OFF」 將完全關閉裝置。

「HIGH FAN」 允許在沒有冷卻效果的情況下，高速運行。

「LOW FAN」 允許在沒有冷卻效果的情況下，低速運行。

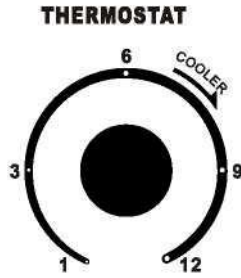
注意：選擇風扇速度時，壓縮機將無法運行。

請等待三分鐘，才能重新啟動。

注意：

慢慢地將選擇器旋鈕從「低冷」轉到「高冷」時，

請勿經常更改「低冷」和「高冷」之間的運行模式。



恆溫調節器

當在製冷模式中操作本冷氣機時，恆溫調節器用於設定所需的室溫。

要設定所需的室溫，請將恆溫調節器開關旋轉到所需的設定。達到設定溫度後，恆溫調節器將自動啟動和停止壓縮機，以保持所需的設定溫度。順時針旋轉溫控調節器的選擇器，以獲得更高的冷卻設定。較高的冷卻設定將提供較低的室溫。逆時針旋轉溫控調節器的選擇器，以進行較低的冷卻設定。較低的冷卻設定將提供較高的室溫。

注意：在本冷氣機冷卻操作期間，當順時針旋轉恆溫調節旋鈕時，至少需要三分鐘才能將旋鈕返向「1」方向旋轉。否則，由於設備過載負荷，保險絲將可能會熔斷。

請勿將恆溫調節器旋鈕旋轉超出「1」至「12」的範圍。

調整氣流擺動方向

自動搖擺送風

水平氣流調整

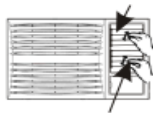
對於具自動搖擺送風功能的設備（自動）：



當「AUTO SWING」（自動搖擺）送風開關轉到「ON」（開啟）位置時，垂直百葉窗葉片會自動左右擺動，交替吹掃冷空氣，以獲得舒適的冷卻效果。當「AUTO SWING」（自動擺動）開關轉到「OFF」（關閉）位置時，垂直百葉窗葉片可以停在任何位置。

垂直氣流調整（手動）

向上水準百葉窗葉片



向下水準百葉窗葉片

通過在設備運行時手動調節水平百葉窗葉片，可以改變垂直方向的氣流。

為避免在水平百葉窗葉片表面產生冷凝水，水平百葉窗葉片在冷卻模式下不應長時間處於最大向上或向下角度位置。

通風/排氣控制

通風/排氣控制器位於控制旋鈕上方（參見下圖）。

為了獲得最大的冷卻效率，請關閉通風口（「CLOSE」）。它將允許內部空氣循環流通。打開通風口（「OPEN」），則可排出陳舊的空氣。



要打開通風口，請將拉桿拉向您。

若要關閉它，請將其推進去。

操作蓋（控制面板）



抓住控制表板的操作蓋的右側並向上拉以將其打開。



關閉控制表板的操作蓋，然後再次按下操作蓋的右側，直至其卡入鎖定位置。

操作說明(後續)

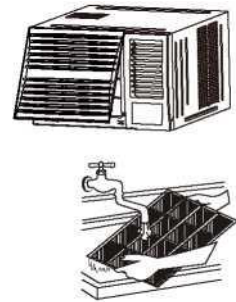
空氣過濾網

進氣格柵後面的空氣過濾網應至少每兩週（或必要時）檢查和清潔一次，以保持冷氣機的最佳性能，空氣對量不受影響。

如何拆卸空氣過濾網

關閉設備，關閉電路斷路開關。

1. 抓住前置面板下方的卡位，然後向外提起，然後卸下前置面板。
2. 將手柄夾在空氣過濾網下方，使空氣過濾網拱起，將其從下側向上側從槽中取出。
3. 用溫熱的肥皂水清洗空氣過濾網。不可使用超過攝氏 40 度以上的熱水，以防止空氣過濾網變形。
4. 沖洗乾淨後，並輕輕搖晃過空氣濾網中多餘的水分，裝回原處。在更換之前讓空氣過濾網晾至乾燥。為防止空氣過濾網變形，請勿在陽光直射下晾乾。



機箱清潔

- 務必拔下冷氣機的插頭，以防止觸電或火災。機箱和前置面板可以用無油的布撒粉或用蘸有溫水和溫和液體餐具洗滌劑溶液的抹布來進行清洗。徹底沖洗並擦乾。
- 切勿在機箱正面使用刺激性清潔劑、蠟或拋光劑。
- 在擦拭控制面板之前，務必擰乾抹布上多餘的水。
- 控制器內部或周圍若存在過量的水可能會損壞冷氣機。
- 插入冷氣機。

注意：切勿使用超過攝氏 50 度的水、酒精、汽油、酸性液體、溶劑或刷子清潔前置面板，否則會損壞其零部件的表面。

冬季存放

如果您計劃在冬季存放冷氣機，請根據安裝說明，小心翼翼地將其從窗戶中拆卸取出。用塑料蓋住或將其放回原裝的紙箱裡。

▲ 注意 ▲

切勿在沒有空氣過濾網的情況下操作冷氣機，因為灰塵/污垢顆粒會導致設備產生故障。

安裝說明

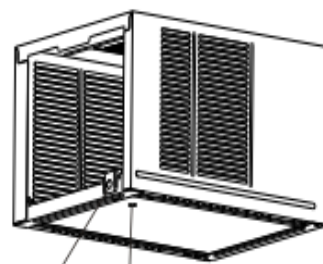
排水

處理冷凝水的方法如下：

- 1.底部排水。將排水軟管連結到底部排水盤上。
- 2.背部排水。將排水軟管連結到後排水孔。
- 3.不排水。用橡膠塞堵住排水孔。

底部排水安裝程式：

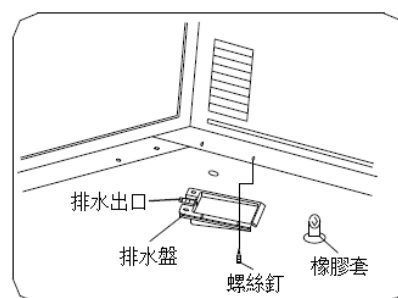
- 從配件中取出排水盤和螺絲。
- 用螺絲將排水盤固定在機箱底部。
- 將延長排水軟管（當地購買的）連結到排水盤的出口處。



背部排水孔 底部排水孔

建議：為了確保冷凝水順利排出，在排水盤安裝時，務必將排水盤的排水管口的方向向下。

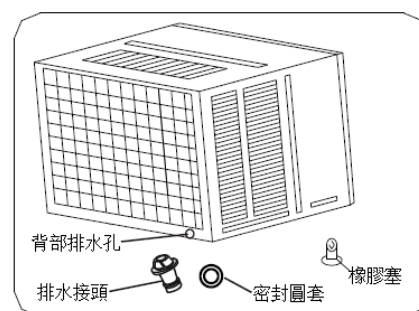
注意：當您選擇底部排水時，冷氣機會略微影響冷卻性能，但會降低噴灑冷凝水所產生的噪音。



背部排水裝置的安裝程式：

- 將密封圓套（作為配件提供）放在排水接頭上。
- 從機箱背面取下橡膠塞 - 將排水接頭插入背部排水孔，並將其旋轉 90 度以便安裝好。
- 將延長排水軟管（當地購買的）連結到排水接頭。
- 確保用碎石塞堵住底部排水孔。

注意：當您選擇背部排水時，冷氣機會略微影響冷卻性能，但會降低噴灑冷凝水所產生的噪音。



注意：根據安裝長度要求在當地購買排水軟管。

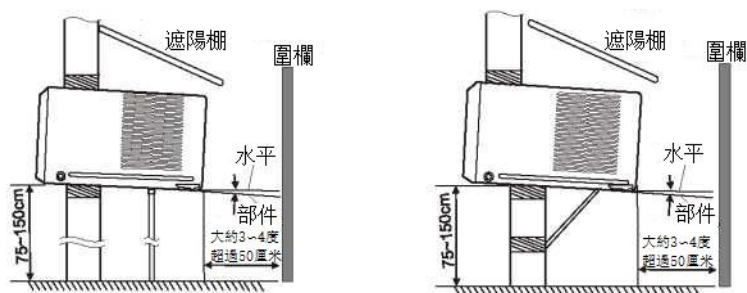
注意：如果在冷卻時選擇不排水，則設備的底部和背部排水孔應插入橡膠塞。當您選擇無排水時，冷氣機將獲得最大的冷卻效率，但噴灑冷凝水可能會產生很大的噪音。如果濺起的聲音讓您煩惱，建議使用其他排水系統。

注意：使用橡膠塞和排水接頭時，確保水不會從周圍區域洩漏。如果發現洩漏，請密封好。

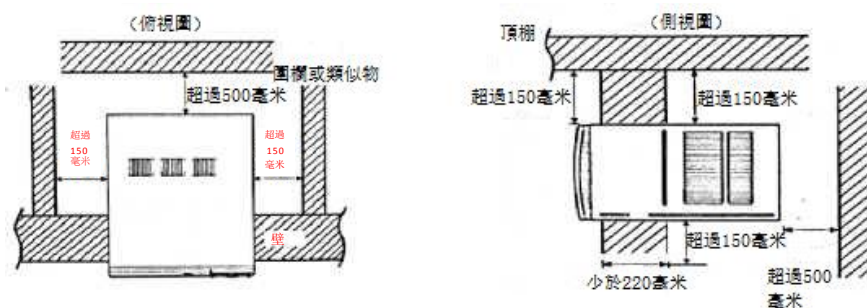
安裝說明

注意：在安裝之前，請從紙箱內取出所有包裝，以及放入側面百葉窗葉片的任何插件也需取出。

選擇最佳的安裝位置



1. 為避免振動和噪音，請確保安全並牢固地安裝。
2. 將設備安裝在陽光不直接照射在設備上的地方。如果裝置受到陽光直射，建造遮陽篷遮擋機箱。
3. 在距離機箱背部 50 厘米範圍內不應有任何障礙物，如圍欄或牆壁，因為它會阻止冷凝器的熱輻射。外部空氣的限制將大大降低冷氣機的冷卻效率。
4. 將裝置稍微向下傾斜安裝到外面，不要將冷凝水洩漏到室內（水平角度大約 3~4 度）。
5. 安裝設備時，其底部高出地面 75~150 厘米。
6. 電源線必須連結到一個獨立的電路。黃色/綠色電線必須接地。
7. 最好選擇一個沒有任何障礙物包圍該設備的位置。
8. 根據下圖示選擇安裝的空間。



注意

機箱的所有側面百葉窗葉片必須保持暴露在結構的外部。

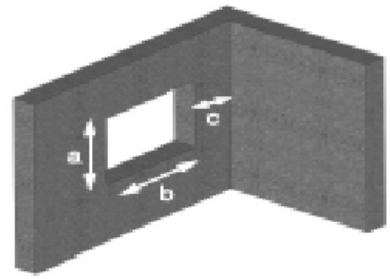
安裝在房屋內

第一步

從包裝中取出冷氣機，取下固定螺絲，將冷氣機從外殼中滑出（參見安裝步驟）。

第二步

準備好牆壁上的孔，使殼體底部得到良好支撐，頂部具有最小間隙，進氣口百葉窗葉片具有對應的間隙，如下面選項 A 和 B 所示。從外部到內壁的孔應密封。機箱應向後傾斜約 5 毫米，以使操作過程中形成的水排出。安裝孔尺寸請參考右圖。



a: $\geq 428 + 20$ 毫米

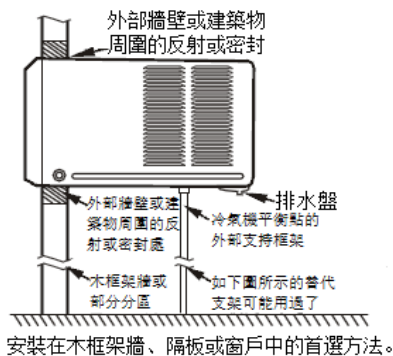
b: $\geq 660 + 20$ 毫米

c: ≥ 400 毫米

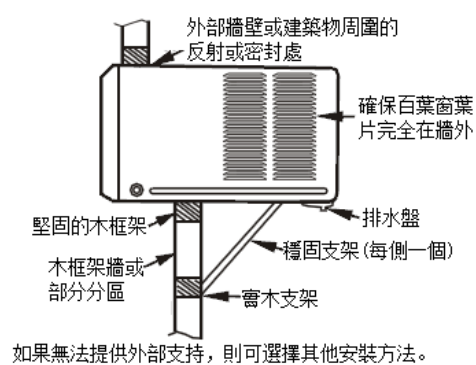
第三步

將外殼安裝到牆壁中並固定。確保泡沫密封沒有損壞。在內部和外部閃光、密封或填充間隙，以提供令人滿意的外觀和防止天氣、昆蟲和嚙齒動物入侵。

注意：冷氣機可以由實心框架垂直支撐，或從下面立一個懸置支撐架固定在實心框架支撐上。



安裝在木框架牆、隔板或窗戶中的首選方法。

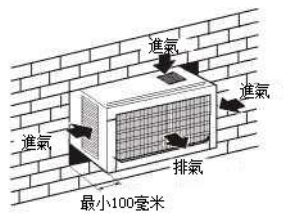


如果無法提供外部支持，則可選擇其他安裝方法。

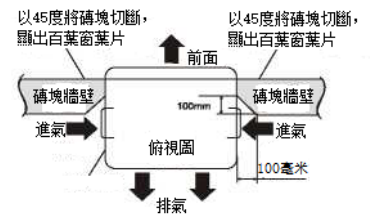
將冷氣機裝置安裝到外殼中

1. 將設備滑入外殼，直至其緊貼外殼後部。需要注意確保外殼上的泡沫密封條保持在適當位置。
2. 將冷氣機連結到電源並將多餘長度的電線放在冷氣機底座下方。
3. 將機箱固定支架連結到底部外殼導軌中，並使用提供的螺釘固定到底座上。
4. 從紙盒和塑料袋中取出前置面板，然後按照安裝說明進行安裝。
5. 開啟設備。檢查設備的運行情況並檢查安裝中的振動。
6. 如果需要的話，將排水盤安裝到外殼上並將排水管線安裝到合適的位置。

將冷氣機裝置安裝到牆壁上



選擇一

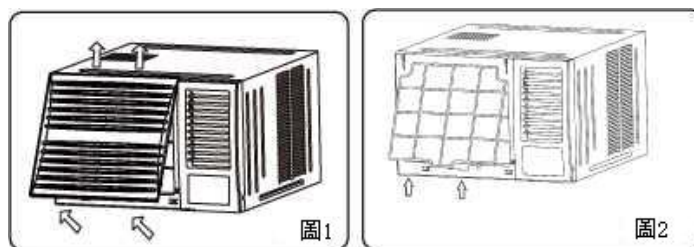


選擇二

裝卸步驟

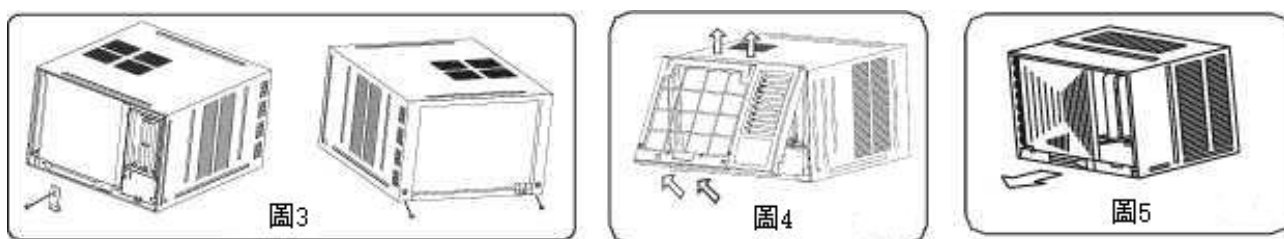
第一步.卸下前置面板和空氣過濾網

1. 抓住前置面板下方的插槽，然後向外提升，然後卸下前置面板（參見圖 1）。
2. 將手柄夾在空氣過濾網下方，使空氣過濾網拱起，從下側向上側將其從槽中取出（見圖 2）。



第二步.取下機架。

1. 卸下機箱固定支架上的一顆螺釘，然後卸下機箱固定支架。拆下機箱背面的兩顆螺釘，如圖 3 所示。
2. 抓住框架的左下角，然後鬆開框架（參見圖 4）。
3. 抓住機箱上的手柄，小心地將冷氣機滑出機箱（參見圖 5）。

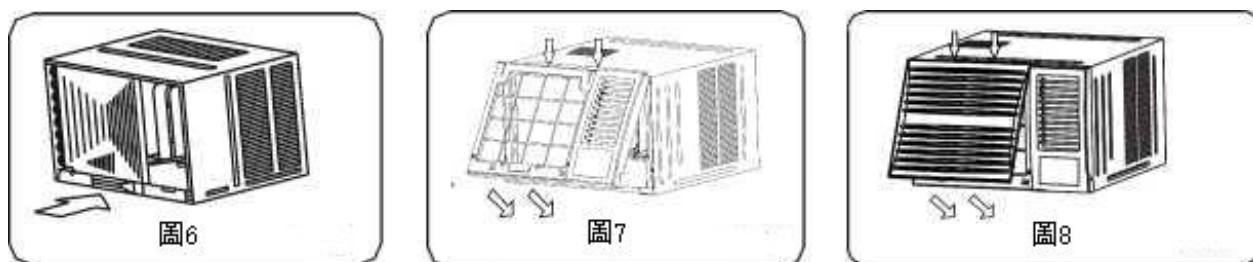


第三步.安裝機架。

1. 將設備底盤推入機箱（參見圖 6）。
2. 安裝機架（見圖 7）並固定機架上的螺釘（見圖 3）。

第四步.安裝空氣過濾網和前置面板。

1. 將空氣過濾網從上側到下側安裝到框架的槽中（參見圖 2）。
2. 將前置面板掛在框架的帶扣上，然後將前置面板按入框架的插槽中，只要聽到啞聲按一下（見圖 8）



故障排除

在致電服務之前，請查看此列表。這樣可以節省您的時間和費用。此列表包括常見事件，這些事件均不是由於處理不當的工作人員或本設備中材料有缺陷所造成的。

問題	解決方法
冷氣機無法啟動	<p>房屋保險絲熔斷或斷路開關跳開。 您可：用延時或複位斷路開關更換保險絲。</p> <p>選擇器控制在關閉的位置。 您可：將選擇器轉到所需的風扇或冷卻設定。</p> <p>通過將恆溫調節器移動到更該的溫度數值然後立即轉回更低的溫度數值來關閉裝置。 您可：等待大約 3 分鐘。 聽壓縮機啟動。</p> <p>設備關閉然後開得太快。 您可：關閉設備後並等待 3 分鐘後再重新啟動。</p> <p>恆溫調節器設定得太低。您可：將恆溫器調節到更高的數值以進行冷卻。</p>
來自設備的空氣感覺不夠冷	<p>您可：將選擇器轉到更高的冷卻位置。</p> <p>恆溫調節器太熱了。 您可：將恆溫調節器設定為較冷的溫度。</p> <p>室溫低於攝氏 18 度（華氏 64 度）。直到室溫升至攝氏 18 度（華氏 64 度）以上才可能進行冷卻，不然無法產生效用。</p> <p>溫度傳感管接觸冷線圈，位於空氣過濾網後面。您可：將管子拉直線圈。</p>
冷氣機冷卻，但房間太熱 - 在裝飾板前後的冷卻盤管上形成冰凝效果	<p>室外溫度低於攝氏 18 度（華氏 64 度）。您可：要對線圈進行除霜，請將選擇器設定到風扇的位置。 然後，將恆溫調節器設定到較暖的位置。</p> <p>空氣過濾網可能很髒。 您可：清潔空氣過濾網。 請參閱保養和清潔部分。若要解凍，請將選擇器設定為風扇。</p> <p>恆溫調節器設定得太冷，無法進行夜間冷卻。 您可：要對線圈進行除霜，請將選擇器設定到風扇位置。 然後，將恆溫調節器設定到較暖的位置。</p>
冷氣機冷卻，但房間太暖 - 裝飾板的前後的冷卻盤管上沒有結冰	<p>太髒的空氣過濾網導致空氣受限。 您可：清潔空氣過濾網。 請參閱保養和清潔部分。</p> <p>恆溫調節器設定得太熱了。 順時針旋轉恆溫調節器到較冷的設定。</p> <p>空氣定向百葉窗葉片定位不正確。 放置百葉窗葉片以獲得更好的空氣分佈。</p> <p>冷氣機設備前面被窗簾、百葉窗葉片、傢俱等擋住了，導致限制了空氣分佈。在裝置前面清除堵塞物。</p> <p>若門、窗和寄存器等讓冷空氣洩漏。您可：關閉門門、窗和寄存器。</p> <p>設備最近在炎熱的房間打開。 允許在額外的時間來遠程存儲從牆壁、頂棚、地板和家私的熱量。</p>

冷氣機快速開啟和關閉 太臟的空氣過濾網導致 空氣受限。 您可：清潔空氣過濾網。

室外溫度極熱。 您可：設定為高冷卻，使空氣更頻繁地通過冷卻盤管。

設備冷卻時所帶來 氣流運作的聲音。這個是正常的。如果聲音太大，您可：請轉動選擇器以降低 FAN 的噪音 風扇的設定。

風扇撞擊除濕系統的聲音。 濕度高時這是正常的。您可： 關閉門，窗和寄存器。

窗戶振動來源於安裝不良。 您可：請參閱安裝說明或與安裝人員取得聯繫。

當設備冷卻時，會在 安裝不當。 您可：將冷氣機輕微向外傾斜，以便排水。請參閱安裝說明，並且與機器內部滴水。 安裝人員取得聯繫。

當設備冷卻時，水會 設備從潮濕的房間中去除大量水分。 這在過度潮濕的日子裡是正常的。滴導機器外部。

產品規格

單位尺寸：

型號	機身尺寸（單位：毫米） (闊 x 高 x 深)
RA-23MS	660x428x780

注意：D 的值僅供參考。

導體的最小正常橫截面面積：

電器額定電流（單位：安）	標準截面面積（單位：平方毫米）
> 3 及 ≤ 6	0.75
> 6 及 ≤ 10	1
> 10 及 ≤ 16	1.5
> 16 及 ≤ 25	2.5

