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ROOM AIR CONDITIONER OWNER'S MANUAL

Please read the operating instructions and safety precautions carefully and thoroughly before installing and operating your room air conditioner.

MANUEL D'UTILISATION CLIMATISEUR DE FENÊTRE

Veuillez lire attentivement et en entier ce guide d'utilisation et les mesures de sécurité ci-incluses avant de procéder à l'installation et au fonctionnement de votre climatiseur.

AIRE ACONDICIONADOR MANUAL DEL PROPIETARIO

Por favor lea las instrucciones de operación y las precauciones de seguridad cuidadosa y totalmente antes de instalar y operar su acondicionador de aire de ventana.

MODELS, MODELES, MODELO:

R1402, R1802, R2102, R2402, R1803, R2103, R2403

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FOR YOUR RECORDS

Staple your receipt to this page in case you need it later. Write down the model and serial numbers here:

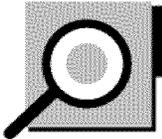
Model #

Serial #

You can find them on a label on the side of each unit.

Dealer's Name

Date Purchased



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.



CAUTION

- Contact the authorized Service technician for repair or maintenance of this unit.
- The air conditioner is not intended for use by young children or infirm persons without supervision.
- Young children should be supervised to ensure that they do not play with the air conditioner.



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 instruction will 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 properties only.

■ Meanings of symbols used in this manual are as shown below.



Be sure not to do.

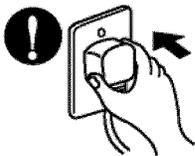


Be sure to follow the instruction.

WARNING

Plug in the power plug properly.

- Otherwise, it will cause electric shock or fire due to heat generation.



Do not operate or stop the unit by inserting or pulling out the power plug.

- It will cause electric shock or fire due to heat generation.



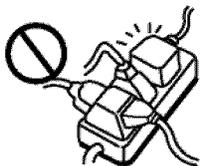
Do not damage or use an unspecified power cord.

- It will cause electric shock or fire.
- If the power cord is damaged, it must be replaced by the manufacturer or an authorized service center 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 will cause electric shock or fire due to heat generation.



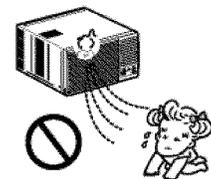
Do not operate with wet hand or in damp environment.

- It will cause electric shock.



Do not direct airflow at room occupants only.

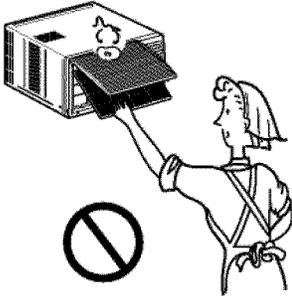
- This could damage your health.



⚠ CAUTION

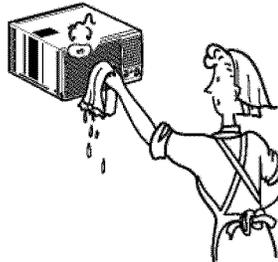
When the air filter is to be removed, do not touch the metal parts of the unit.

- It may cause an injury.



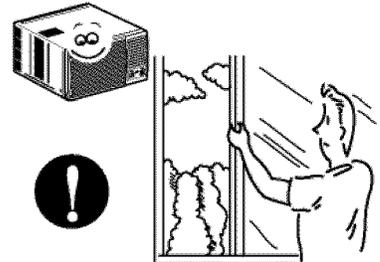
Do not clean the air conditioner with water.

- Water may enter the unit and degrade the insulation. It may cause an electric shock.



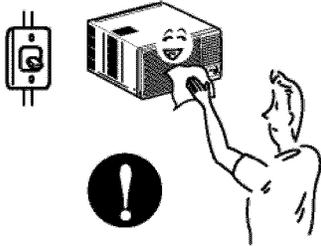
Ventilate well when used together with a stove, etc.

- An oxygen shortage may occur.



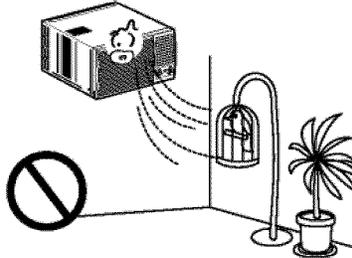
When the unit is to be cleaned, switch off, and turn off the breaker.

- Since the fan rotates at high speed during operation, it may cause an injury.



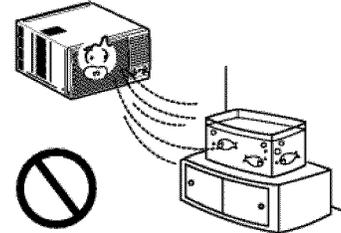
Do not put a pet or house plant where it will be exposed to direct air flow.

- This could injure the pets or plants.



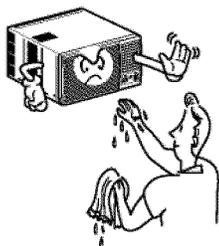
Do not use for special purposes.

- Do not use this air conditioner to preserve precision devices, food, pets, plants, and art objects. It may cause deterioration of quality, etc.



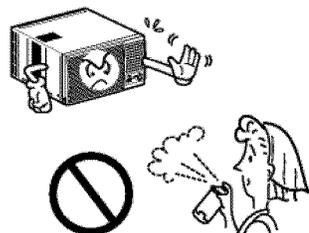
Do not operate switches with wet hands.

- It may cause an electric shock.



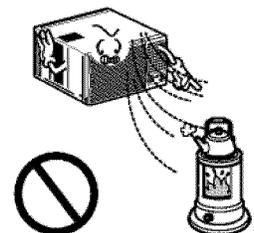
Do not apply an insecticide or flammable spray.

- It may cause a fire or deformation of the cabinet.



Do not put a heater, etc. where it is exposed to direct air flow.

- It may cause imperfect combustion.



About the Controls on the Air Conditioner

The controls will look like one of the following.



Controls

<p>Operation</p>	<p>Off - Turns air conditioner off. Med Fan - Med speed fan operation without cooling. Low Fan - Low speed fan operation without cooling. High Cool - Cooling with high speed fan operation. Med Cool - Cooling with med speed fan operation. Low Cool - Cooling with low speed fan operation.</p>
<p>Thermostat</p>	<p>This automatically controls the temperature of the indoor air. Turn the knob so that arrow points to the larger marks for greater cooling. Point the arrow to the smaller marks for more moderate cooling. (i.e. the higher number the greater cooling)</p>

About Controls on Air Conditioner

• FOR NORMAL COOLING

1. Turn the Operation Knob to the High Cool from the Low Cool setting.
2. Set the Thermostat control to the desired temperature mark 5 (the mid-point is a good starting position). If the room temperature is not satisfactory after a reasonable time, adjust the control to a cooler or warmer setting, as appropriate.

• FOR MAXIMUM COOLING

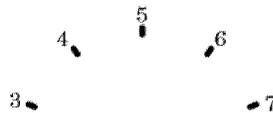
1. Turn the Operation Knob to the High Cool setting.
2. Set the Thermostat control to the largest 9 temperature mark.

• FOR QUIETER OPERATION

1. Turn the Operation Knob to the Low Cool setting.
2. Set the Thermostat control as needed.

• Auto Swing

- On : Air swing is operated while Operation knob is set to the Cool position.
 Off : Stops the operation of air swing.



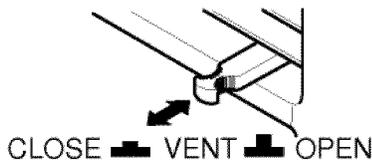
CAUTION

When the air conditioner has been performed its cooling operation and is turned off or set to the fan position, wait at least 3 minutes before resetting to the cooling operation again.

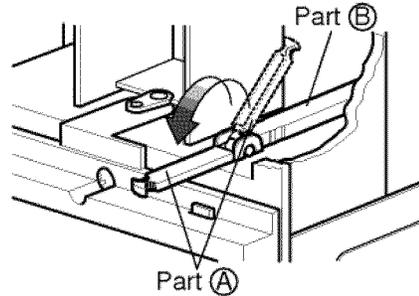
Additional controls and important information.

Ventilation

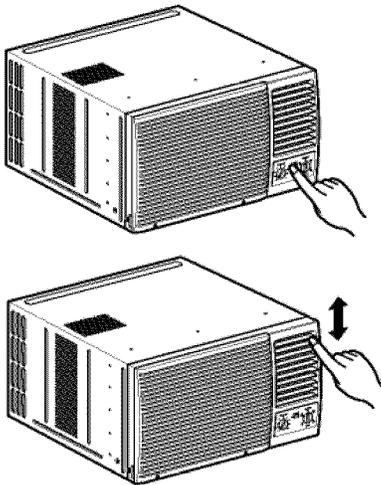
The ventilation lever must be in the CLOSE position in order to maintain the best cooling conditions. When fresh air is necessary in the room, set the ventilation lever to the OPEN position. The damper is opened and room air is drawn out.



NOTE: Before using the ventilation feature, position the lever, as shown. First, pull down part (A) to horizontal line with part (B).



Air Direction



The direction of air can be controlled wherever you want to cool by adjusting the horizontal louver and the vertical louver.

• HORIZONTAL AIR-DIRECTION CONTROL

To control horizontal direction of air flow, set to the ON position the air-swing switch and the air flow will be swept horizontally by the automatic air-swing system.

If you want to stop the air flow from moving, switch off the air swing switch at the desired position of the vane.

• VERTICAL AIR-DIRECTION CONTROL

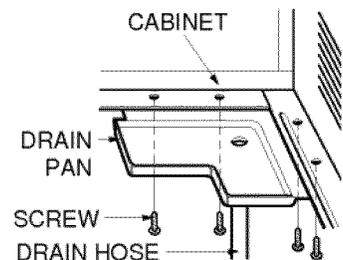
The vertical air direction is adjusted by moving the horizontal louver.

How to Attach Drain Pan

The air conditioner employs a proper drain method whereby the condensed water (moisture removed from the air) is drained to the outside.

In very humid weather, (and for reverse cycle models in the reverse mode) excessive condensate water removed from the air may cause some water to collect. To remove this excess water you can install the drain pan as detailed below.

1. Take the drain pan which is located in the air discharge.
2. Remove the hole rubber from the base-pan (for some models).
3. Install the drain pan to the right corner of the cabinet with 4 (or 2) screws.
4. Connect the drain hose of 3/8" inside diameter to the outlet located at the bottom of the drain pan. You can purchase the drain hose or tubing locally to satisfy your particular needs. (Drain hose is not supplied).



How to Connect a Drain Hose

A drain hole is provided at the rear of the air conditioner unit. Select a drain method according to the following.

1. Remove the hole rubber from the base-pan. (for some models)
2. Connect a drain hose of $\frac{9}{16}$ " inside diameter to the drain pipe as shown in Fig. 1.
3. Or connect a pipe elbow of $\frac{9}{16}$ " inside diameter to the drain pipe, then connect a drain hose of $\frac{9}{16}$ " inside diameter to the pipe elbow as shown in Fig. 2.

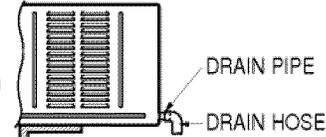


Fig. 1

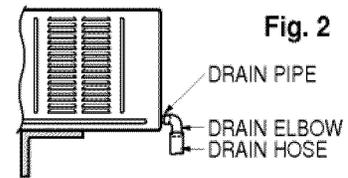


Fig. 2

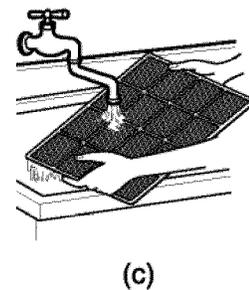
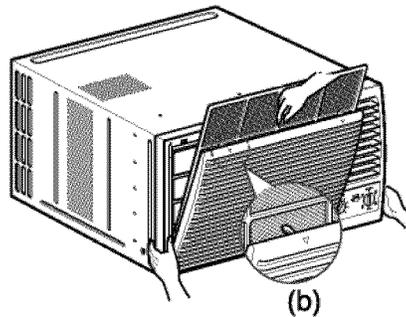
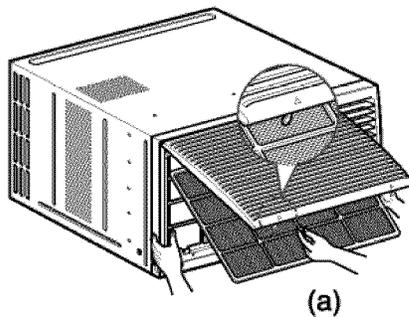
Care and Maintenance

TURN THE AIR CONDITIONER OFF AND REMOVE THE PLUG FROM THE POWER OUTLET.

Air Filter Cleaning

The air filter should be checked at least twice a month to see if cleaning is necessary. Trapped particles in the filter will build up and block the airflow. This reduces the cooling capacity and also causes an accumulation of frost on the cooling coils.

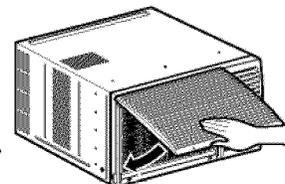
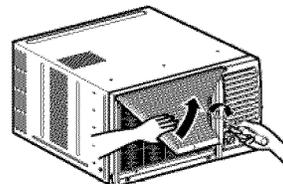
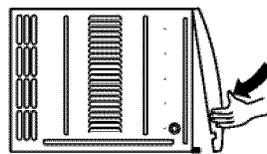
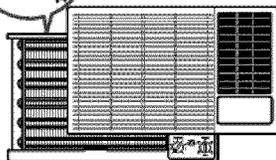
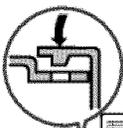
1. Open the inlet grille upward by pulling out the bottom of the inlet grille.(a)
In another case, you can open the inlet grille downward by pulling out the top of the inlet grille.(b)
2. Remove the air filter from the front grille assembly by pulling the air filter up or down slightly.
3. Wash the filter using lukewarm water below 40 °C (104 °F).(c)
4. Gently shake the excess water from the filter completely. Replace the filter.



NOTE: Mark Δ of inlet grille means opening direction.

How to Attach Front Grille to Cabinet

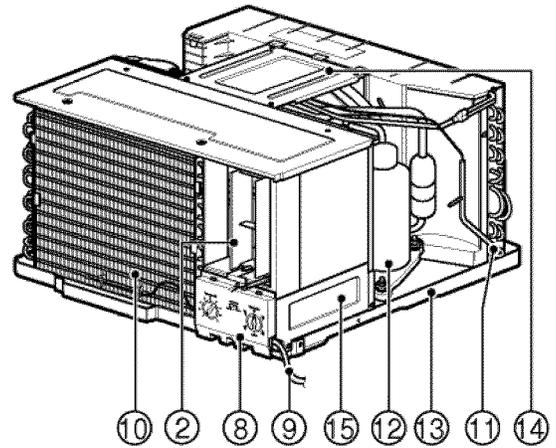
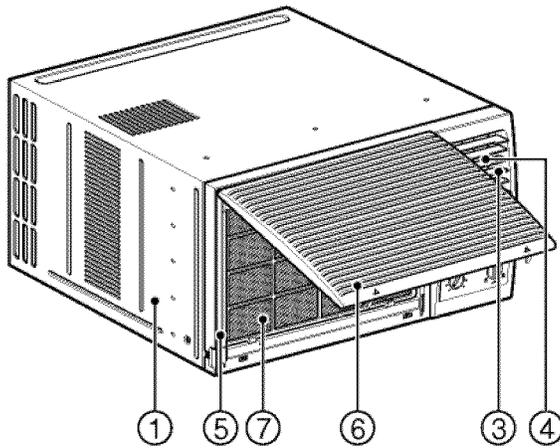
1. Pull down front grille from the cabinet top.
2. Push front grille's tips toward the cabinet in order to insert front grille's tabs into the cabinet.
3. Open the inlet grille.
4. Tighten the screw through the front grille into the plate of the evaporator.
5. Close inlet grille.



Features and Installation

Learning parts name prior to installation will help you understand the installation procedure.

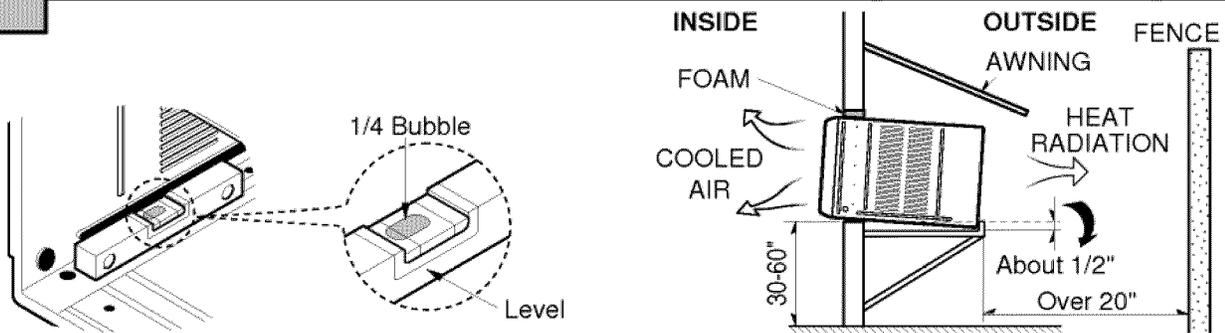
Features



- | | |
|--|-------------------|
| 1. CABINET | 7. AIR FILTER |
| 2. HORIZONTAL AIR DEFLECTOR
(VERTICAL LOUVER) | 8. CONTROL BOARD |
| 3. VERTICAL AIR DEFLECTOR
(HORIZONTAL LOUVER) | 9. POWER CORD |
| 4. AIR DISCHARGE | 10. EVAPORATOR |
| 5. FRONT GRILLE | 11. CONDENSER |
| 6. INLET GRILLE (AIR INTAKE) | 12. COMPRESSOR |
| | 13. BASE PAN |
| | 14. BRACE |
| | 15. COVER CONTROL |

INSTALLATION

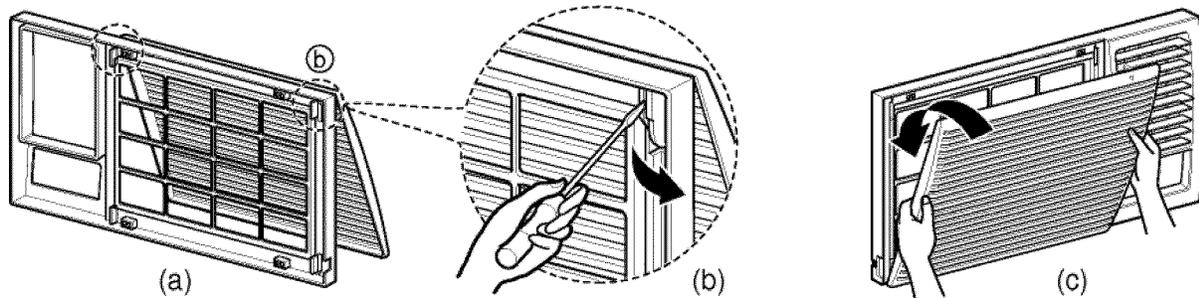
How to Install the Unit



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, like a fence, within 20" which might restrict heat radiation from the condenser.
4. To prevent reducing performance, install the unit so that louvers of the cabinet are not blocked.
5. Install the unit a little obliquely outward not to avoid leaking the condensed water into the room (about 1/2" or 1/4 bubble with level).
6. Install the unit with its bottom portion 30~60" above the floor level.
7. Stuff the foam between the top of the unit and the wall to prevent air and insects from getting into the room.
8. The power cord must be connected to an independent circuit. The green wire must be grounded.
9. Connect the drain tube to the base pan hole in the rear side if you need to drain (consult a dealer.)
Plastic hose or equivalent may be connected to the drain tube.

How to Use the Reversible Inlet Grille

The grille is designed to clean the filter both upward and downward.



A. Before attaching the front grille to the cabinet, if you want to pull out the filter upward;

1. Open the inlet grille slightly (a).
2. Turn inside out the front grille (a).
3. Disassemble the inlet grille from the front grille with separating the hinged part by inserting a straight type screw-driver tip (b).
4. Then, rotate the inlet grille 180 degrees and insert the hooks into bottom holes of the front grille.
5. Insert the filter and attach the front grille to the cabinet. (Refer to page 7)

B. If you want to pull out the filter downward;

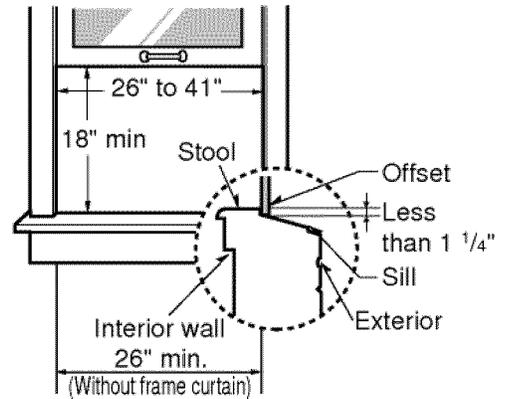
The grille is already designed that way.

Window Requirements

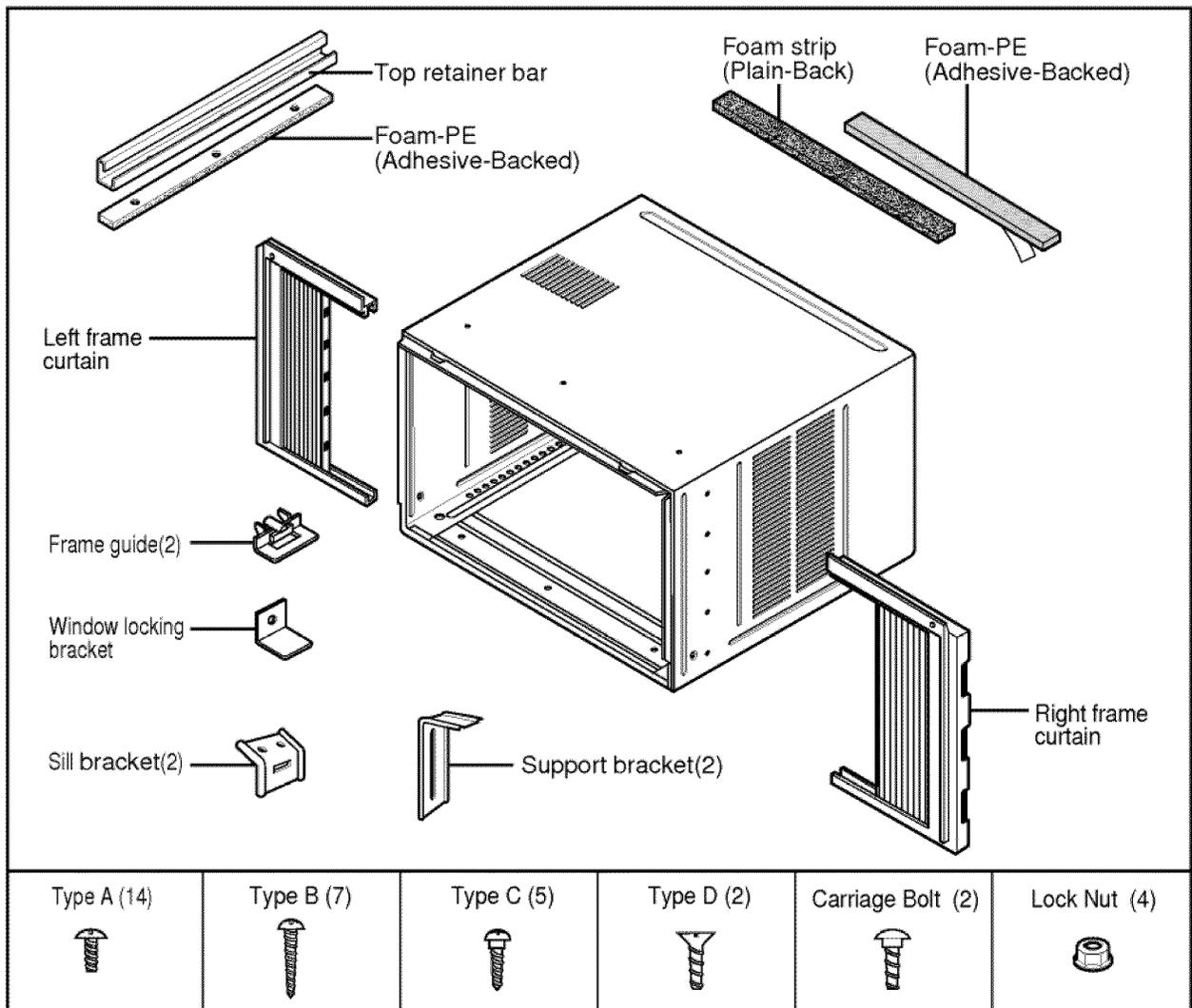
NOTE: All supporting parts should be secured to firm wood, masonry, or metal.

WINDOW REQUIREMENTS

1. This unit is designed for installation in standard double hung windows with actual opening widths from 26" to 41".
The top and bottom window sashes must open sufficiently to allow a clear vertical opening of 18" from the bottom of the upper sash to the window stool.
2. The stool offset (height between the stool and sill) must be less than 1 1/4".



Installation Kits Contents

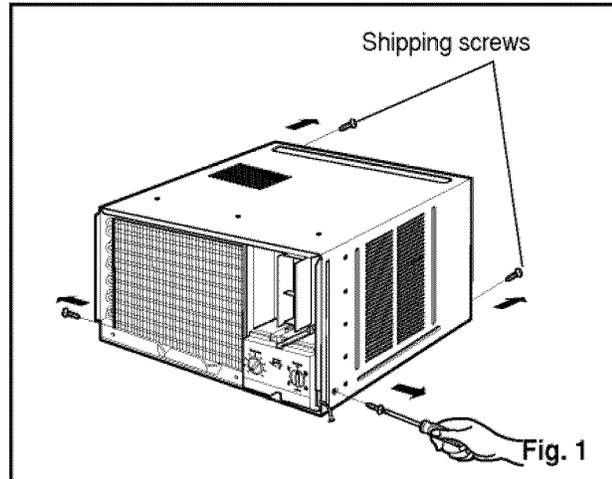


Suggested Tool Requirements

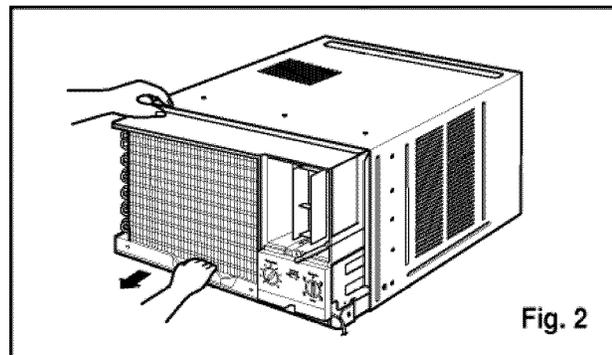
SCREWDRIVER(+, -), RULER, KNIFE, HAMMER, PENCIL, LEVEL

PREPARATION OF CHASSIS

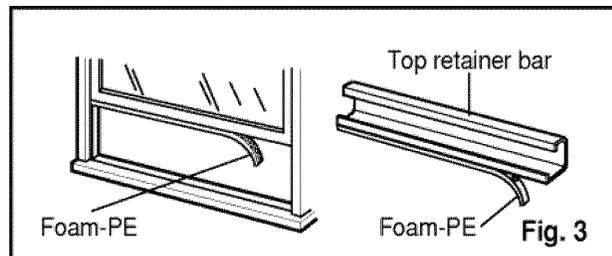
1. Remove the screws which fasten the cabinet at both sides and at the back.
2. Slide the unit out from the cabinet by gripping the base pan handle and pulling forward while bracing the cabinet.
3. Cut the window sash seal to the proper length. Peel off the backing and attach the Foam-PE to the underside of the window sash.



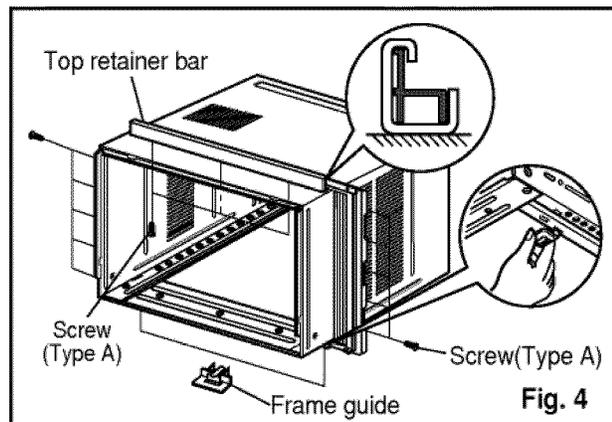
4. Remove the backing from Foam-PE with 3 holes and attach it to the bottom of the Top retainer bar.
5. Attach the Top retainer bar on the top of the cabinet with 3 screws (Type A).



6. Insert the Frame guides into the bottom of the cabinet.



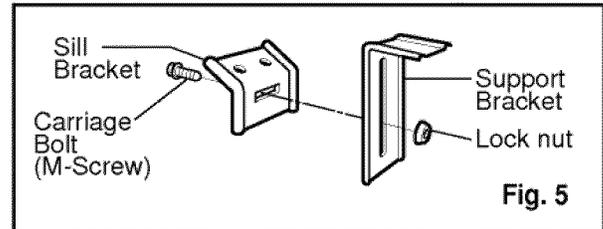
7. Insert the Frame Curtain into the Top retainer bar and Frame guides.



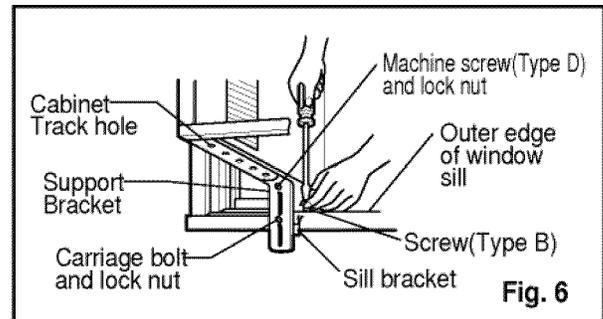
8. Fasten the curtains to the unit with 10 screws (Type A) at both sides.

Cabinet Installation

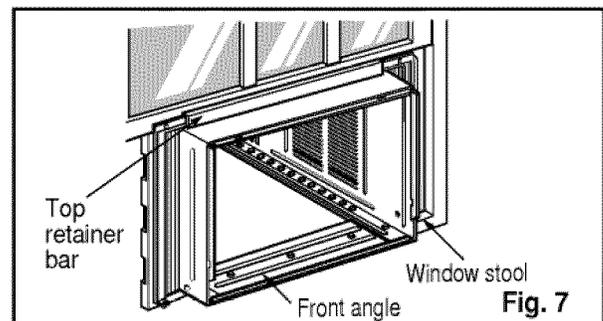
1. Open the window. Mark a line on the center of the window stool between the side window stop moldings. Loosely attach the sill bracket to the support bracket using the carriage bolt and the lock nut.



2. Attach the sill bracket to the window sill using the screws (Type B). Carefully place the cabinet on the window stool and align the center mark on the bottom front with the center line marked window stool.

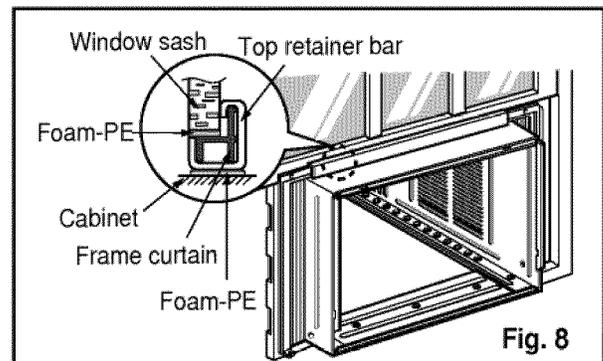


3. Using the M-screw and the lock nut, attach the support bracket to the cabinet track hole. Use the first track hole after the sill bracket on the outer edge of the window sill. Tighten the carriage bolt and the lock nut. Be sure the cabinet slants outward.

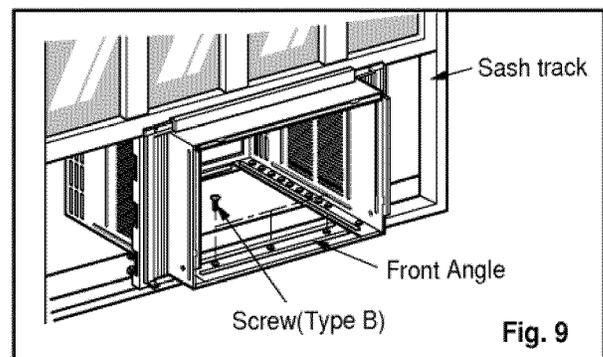


CAUTION: DO NOT DRILL A HOLE IN THE BOTTOM PAN.
The unit is designed to operate with approximately 1/2" of water in bottom pan.

4. Pull the bottom window sash down behind the Top retainer bar until they meet.



- NOTE:**
1. Do not pull the window sash down so tightly that the movement of Frame curtain is restricted. Attach the cabinet to the window stool by driving the screws (Type B) through the cabinet into window stool.
 2. The cabinet should be installed with a very slight tilt downward toward the outside.



5. Pull each Frame curtain fully to each window sash track, and pull the bottom window sash down behind the Top retainer bar until it meets.

6. Attach each Frame curtain the window sash by using screws (Type C.) (See Fig. 10)

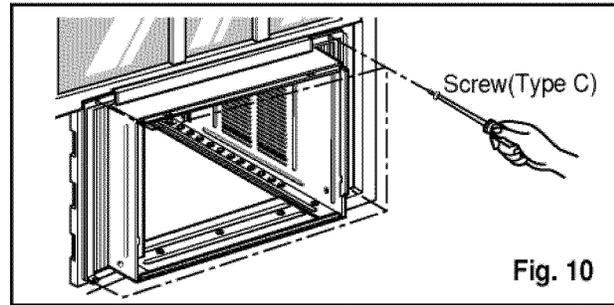


Fig. 10

7. Slide the unit into the cabinet.(See Fig. 11)

CAUTION: For security purpose, reinstall screws (Type A) at cabinet's sides.

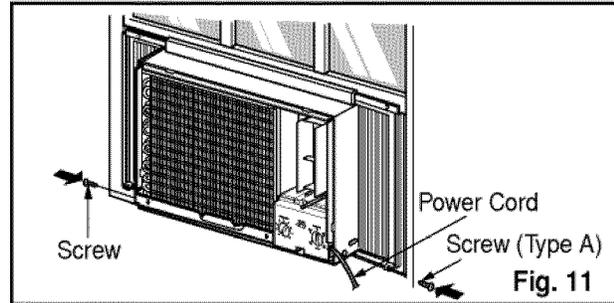


Fig. 11

8. Cut the Foam-strip to the proper length and insert between the upper window sash and the lower window sash.(See Fig. 12)

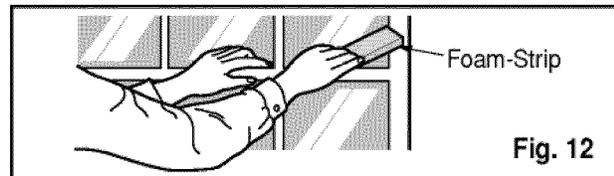


Fig. 12

9. Attach the Window locking bracket with a screw (Type C.) (See Fig. 13)

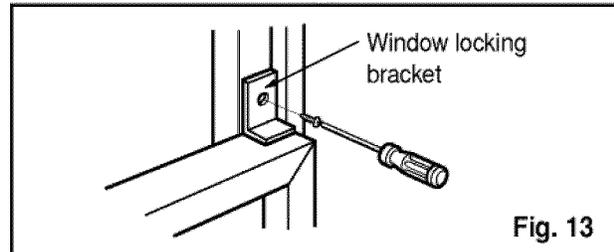


Fig. 13

10. Attach the front grille to the cabinet by inserting the tabs on the grille into the tabs on the front of the cabinet. Push the grille in until it snaps into place.(See Fig.14)

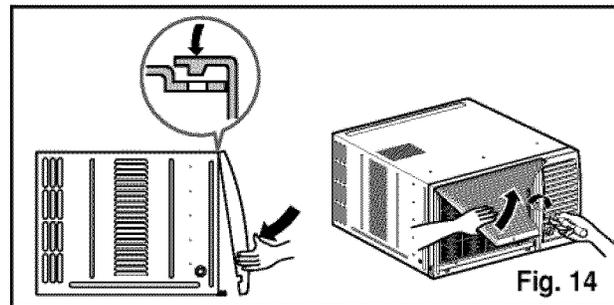


Fig. 14

11. Lift the inlet grille and secure it with a screw (Type A) through the front grille.(See Fig. 14)

12. **Window installation of room air conditioner is now completed. See ELECTRICAL DATA for attaching power cord to electrical outlet.**

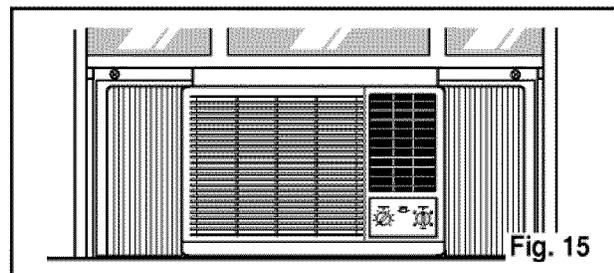


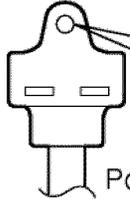
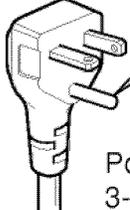
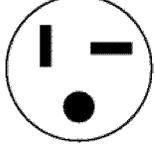
Fig. 15

Features and Installation

Electrical Data(For 115V model only)

Line Cord Plug	Use Wall Receptacle	Power Supply
 <p>Power supply cord with 3-prong grounding plug</p>	 <p>Standard 125V, 3-wire grounding receptacle rated 15A, 125V AC</p>	<p>Use 15 AMP. time delay fuse or 15 AMP. circuit breaker.</p>
<p>USE OF EXTENSION CORDS Because of potential safety hazards, we strongly discourage the use of an extension cord. However, if you wish to use an extension cord, use a CSA certified/UL-listed 3-wire (grounding) extension cord, rated 15A, 125V.</p>		

Electrical Data(For 230/208V model only)

Line Cord Plug	Use Wall Receptacle	Power Supply
 <p>Power supply cord with 3-prong grounding plug</p>	 <p>Standard 250V, 3-wire grounding receptacle rated 15A, 250V AC</p>	<p>Use 15 AMP. time delay fuse or 15 AMP. circuit breaker.</p>
 <p>Power supply cord with 3-prong grounding plug</p>	 <p>Standard 250V, 3-wire grounding receptacle rated 20A, 250V AC</p>	<p>Use 20 AMP. time delay fuse or 20 AMP. circuit breaker.</p>

All wiring should be made in accordance with local electrical codes and regulations.

NOTE : Aluminum house wiring may pose special problems. Consult a qualified electrician.

■ ELECTRICAL SAFETY

IMPORTANT GROUNDING INSTRUCTIONS

Air conditioner has a three-prong grounding plug on its power supply cord, which must be plugged into properly grounded three-prong wall receptacle for your protection against possible shock hazard.

230, 208, and 230/208 VOLT UNITS

These units are equipped with a three-prong grounding plug on the power supply cord, which must be plugged into a matching properly grounded three-prong wall receptacle for your protection against possible shock hazard. If such an outlet is not present, one must be installed by a qualified electrician in accordance with the National Electrical Code and local codes and ordinances.

NOTE: DO NOT USE AN EXTENSION CORD ON 230, 208, AND 230/208 VOLT UNITS.

Before you call for service...

Troubleshooting Tips
 Save time and money! Review the chart below first and you may not need to call for service.

Normal Operating

- You may hear a pinging noise caused by water being picked up and thrown against the condenser on rainy days or when the humidity is high. This design feature helps remove moisture and improve efficiency.
- You may hear the thermostat click when the compressor cycles on and off.
- Water will collect in the base pan during high humidity or on rainy days. The water may overflow and drip from the outdoor side of the unit.
- The fan may run even when the compressor does not.

Abnormal Operation

Problem	Possible Causes	What To Do
Air conditioner does not start	■ The air conditioner is unplugged.	• Make sure the air conditioner plug is pushed completely into the outlet.
	■ The fuse is blown/circuit breaker is tripped.	• Check the house fuse/circuit breaker box and replace the fuse or reset the breaker.
	■ Power failure.	• If power failure occurs, turn the mode control to OFF . When power is restored, wait 3 minutes to restart the air conditioner to prevent tripping of the compressor overload.
Air conditioner does not cool as it should	■ Airflow is restricted.	• Make sure there are no curtains, blinds, or furniture blocking the front of the air conditioner.
	■ The THERMOSTAT may not be set high enough.	• Turn the knob to a higher number. The highest setting provides maximum cooling.
	■ The air filter is dirty.	• Clean the filter at least every 2 weeks. See the operating instructions section.
	■ The room may have been hot.	• When the air conditioner is first turned on you need to allow time for the room to cool down.
	■ Cold air is escaping.	• Check for open furnace floor registers and cold air returns. • Set the air conditioner's vent to the closed position.
Air conditioner freezing up	■ Cooling coils have iced up.	• See Air Conditioner Freezing Up below.
	■ Ice blocks the air flow and stops the air conditioner from cooling the room.	• Set the mode control at Med Fan or High Cool with the thermostat at 1 or 2 .

Before you call for service...