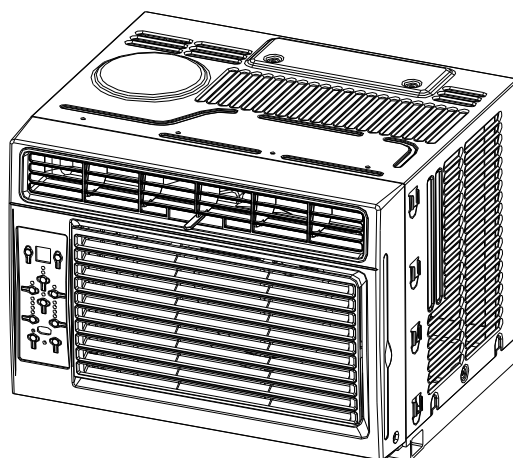


HEAT CONTROLLER, INC.

OWNER'S MANUAL



Room Air Conditioner with R-410A: RADS-51J RADS-61J

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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 an authorized service technician for repair or maintenance of this unit.
- Contact an authorized installer for installation of this unit.
- If the power cord needs to be replaced, replacement work shall be performed by authorized service personnel only.
- Installation work must be performed in accordance with the national and local electric codes and must be performed by authorized personnel only.



NOTE: All the illustrations in this manual are for explanation purposes only. Your air conditioner may be slightly different.

Safety Precautions

To prevent injury to the user and proper damage, the following instructions must be followed. Incorrect operation due to ignoring 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.

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

	Never do this.
	Always do this.

WARNING



Plug in power cord plug properly

- Otherwise, it may cause electric shock or fire due to excess heat generation



Do not open the unit during operation

- It may cause electric shock



Always ensure effective grounding

- Incorrect grounding may cause electric shock



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 or stop the unit by inserting or pulling out the power plug

- It may cause electric shock or fire due to heat generation



Unplug the unit if strange sounds, odors or smoke comes from it.

- It may cause fire and electric shock



Do not operate with wet hands or in a damp environment

- It may cause electric shock



Do not use the power cord close to heating appliances

- It may cause fire and electric shock



Do not allow water to run in to electric parts

- It may cause failure of machine or electric shock



Unplug the unit if strange sounds, odors or smoke comes from it.

- It may cause fire and electric shock



Always install circuit breaker and a dedicated power circuit

- Incorrect installation may cause fire and electric shock



Do not use the socket if it is loose or damaged

- It may cause fire and electric shock



Do not use a damaged or 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 authorized service center or a qualified person in order to avoid a hazard



Do not disassemble or modify unit.

- It may cause failure 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

**CAUTION**

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

- It may cause an injury due to sharp edges of components.

⊘ Do not allow water to enter inside the unit during cleaning

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

⊘ Ventilate the room well when used together with a gas stove or if there is a gas leak

- An oxygen shortage may occur
- May cause explosion, fire and/or burns

⊘ 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

⊘ Hold the plug by the head of the power plug when taking it out

- It may cause electric shock and damage

⊘ Turn off the main power switch when not using the unit for a long time

- It may cause failure of product or fire

⊘ Stop operation and close the window in storm or hurricane

- Operation with windows opened may allow rain to enter inside and damage property

⊘ Ensure that the installation bracket of the outdoor appliance is not damaged

- If bracket is damaged, there is concern of damage due to falling of unit.

⊘ Always insert the filters securely. Clean filter once every two weeks

- Operation without filters may cause failure
- Operation with dirty/clogged filters may cause failure

⊘ Do not place obstacles around air-inlets or inside of air-outlet

- It may cause failure of appliance or accident

⊘ 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

⊘ Do not use strong detergents such as wax or thinner; use a damp, soft cloth

- Appearance may be deteriorated due to change of product color or scratching of its surface

⊘ Use caution when unpacking and installing

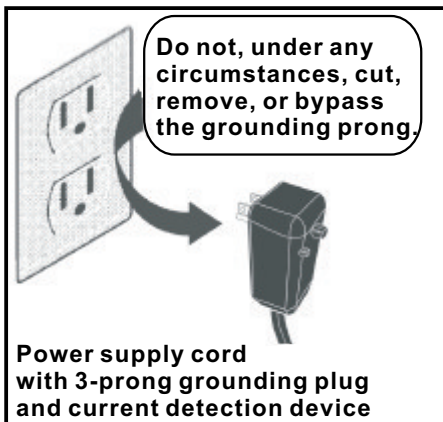
- Sharp edges could cause injury

⊘ If water enters the unit, turn the unit off at the power outlet and switch off the circuit breaker. Isolate supply by taking power-plug out and contact a qualified service technician

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

IMPORTANT SAFETY INSTRUCTIONS

NOTE For some models, the power supply cord with this air conditioner contains a current detection device designed to reduce the risk of fire. Please refer to the section "Operation of Current Device" for details. In the event that the power supply cord is damaged, it cannot be repaired—it must be replaced with a cord from the Product Manufacturer.



⚠ WARNING For your safety

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- Avoid fire hazard or electric shock. Do not use an extension cord or an adaptor plug. Do not remove any prong from the power cord.

⚠ WARNING Electrical Information

- Be sure the electrical service is adequate for the model you have chosen. This information can be found on the serial plate, which is located on the side of the cabinet and behind the grille.
- Be sure the air conditioner is properly grounded. To minimize shock and fire hazards, proper grounding is important. The power cord is equipped with a three-prong grounding plug for protection against shock hazards.
- Your air conditioner must be used in a properly grounded wall receptacle. If the wall receptacle you intend to use is not adequately grounded or protected by a time delay fuse or circuit breaker, have a qualified electrician install the proper receptacle.
- Ensure the receptacle is accessible after the unit installation.
- Do not run air conditioner without side protective cover in place. This could result in mechanical damage within the air conditioner.
- **Do not use an extension cord or an adaptor plug.**

Operation of Current Device

(Applicable to the unit adopts current detection device only)

The power supply cord contains a current device that senses damage to the power cord. To test your power supply cord do the following:

1. Plug in the Air Conditioner.
2. The power supply cord will have TWO buttons on the plug head. Press the TEST button, you will notice a click as the RESET button pops out.
3. Press the RESET button, again you will notice a click as the button engages.
4. The power supply cord is now supplying electricity to the unit. (On some products this is also indicated by a light on the plug head.)

NOTES:

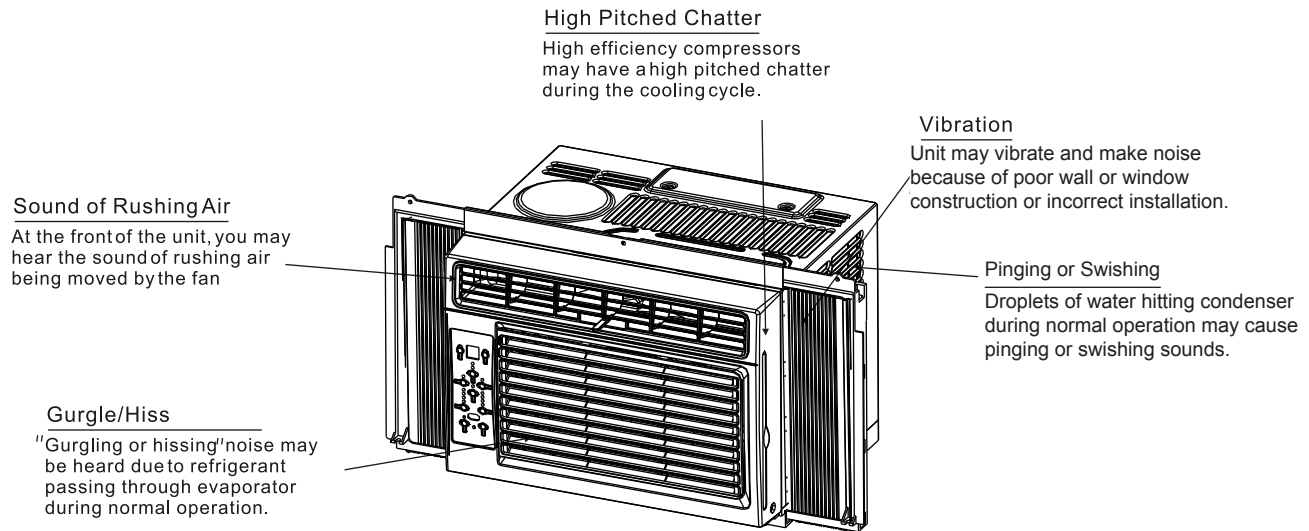
- Do not use this device to turn the unit on or off.
- Always make sure the RESET button is pushed in for correct operation.
- The power supply must be replaced if it fails reset when either the TEST button is pushed, or it cannot be reset. A new one can be obtained from the product manufacturer.
- If power supply cord is damaged, it cannot be repaired. It MUST be replaced by one obtained from the product manufacturer.

NOTE: This air conditioner is designed to be operated under condition as follows:

Cooling operation	Outdoor Temp:	64.4-109.4°F (18-43°C) (T ₁ Environment)	69.8-125.6°F (21-52°C) (T ₃ Environment)
	Indoor Temp:	62.6-89.6°F (17-32°C) (T ₁ Environment)	62.6-89.6°F (17-32°C) (T ₃ Environment)
Heat operation	Outdoor Temp:	23.0-75.2°F (-5-24°C) (T ₁ Environment)	19.4-75.2°F (-7-24°C) (T ₃ Environment)
	Indoor Temp:	32.0-80.6°F (0-27°C) (T ₁ Environment)	32.0-86.0°F (0-30°C) (T ₃ Environment)

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

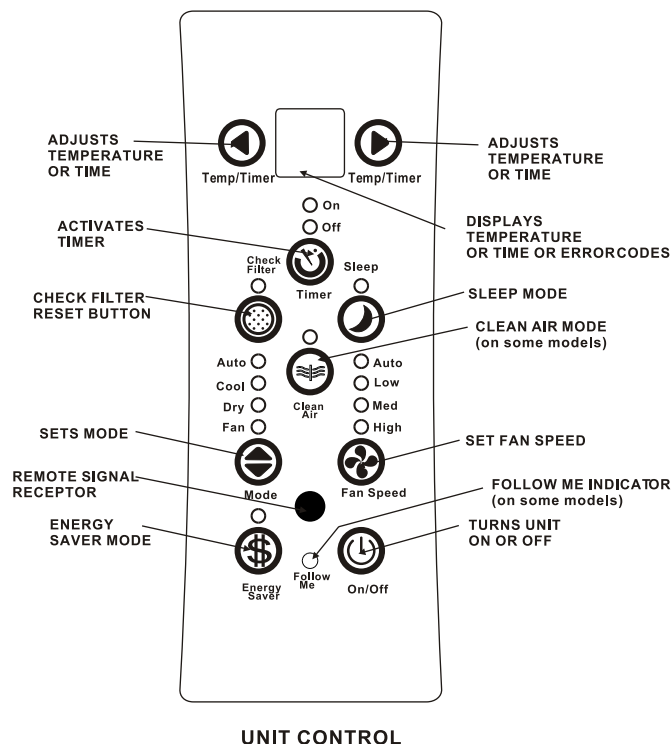
NORMAL SOUNDS



AIR CONDITIONER FEATURES

ELECTRONIC CONTROL OPERATING INSTRUCTIONS

Before you begin, thoroughly familiarize yourself with the control panels as shown below and all its functions, then follow the symbol for the functions you desire. **The unit can be controlled by the unit control alone or with the remote. The control panel of the unit you bought may be look like one of the following:**

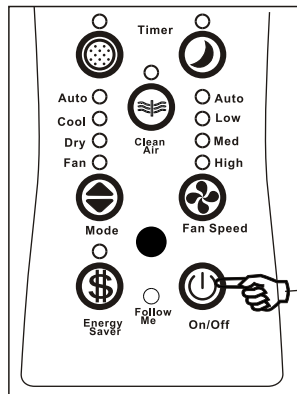


NOTE: Clear Air and/or Follow Me features only apply to certain models. Your control panel may or may not have these features and display lights. Check the actual unit you purchased to determine if these options apply.

AIR CONDITIONER FEATURES(CONTINUED)

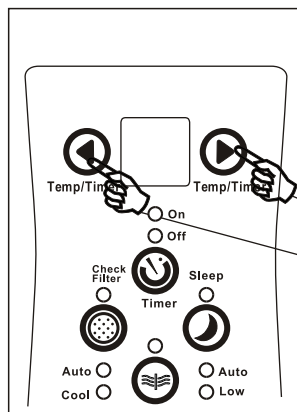
NOTE: The following instructions represent the Unit Controls, the same instructions can be used for the Remote Control.

TO TURN UNIT ON:



DO THIS:
Press the On/Off button.

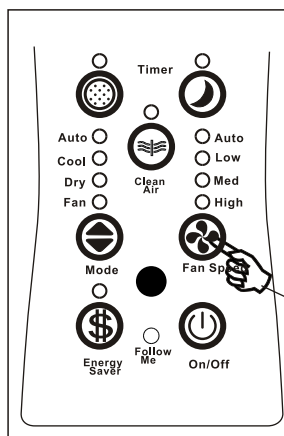
TO CHANGE TEMPERATURE SETTING:



DO THIS:
Press to raise
Press to lower

Press or hold either Left (<) or Right (>) Temp/Timer button until the desired temperature is seen on the display. This temperature will be automatically maintained anywhere between 62°F (17°C) and 86°F (30°C). If you want the display to read the actual room temperature, see "To Operate on Fan Only" section.

TO ADJUST FAN SPEEDS:

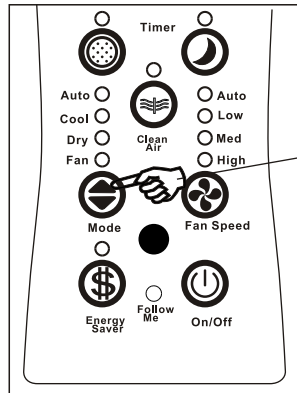


DO THIS:
Press to select appropriate fan speed

Used to select the Fan Speed in four steps- Auto, Low, Med or High. Each time the button is pressed, the fan speed mode is shifted. For some models, the fan speed can not be adjusted under HEAT mode. On Dry mode, the fan speed is controlled at Low automatically.

AIR CONDITIONER FEATURES(CONTINUED)

TO SELECT THE OPERATING MODE:



DO THIS:
Press the Mode button.

- To choose operating mode, press the Mode button. Each time you press the button, a mode is selected in a sequence that goes from Auto, Cool, Dry and Fan. The indicator light beside will illuminate and remain on once the mode is selected.

To operate on Auto feature:

- When you set the air conditioner in AUTO mode, it will automatically select cooling or fan only operation depending on what temperature you have selected and the room temperature.
- The air conditioner will control room temperature automatically round the temperature point set by you.
- In this mode, the fan speed cannot be adjusted, it starts automatically at a speed according to the room temperature.

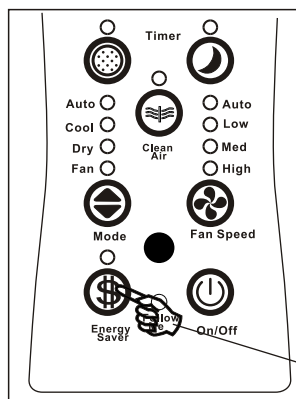
To operate on Fan Only:

- Use this function only when cooling is not desired, such as for room air circulation or to exhaust stale air (on some models). Remember to open the vent during this function, but keep it closed during cooling for maximum cooling efficiency. You can choose any fan speed you prefer when Fan Only mode is selected.
- During this function, the display will show the actual room temperature, not the set temperature as in the cooling mode.
- In Fan only mode, the temperature is not adjusted.

To operate on Dry mode:

- In this mode, the air conditioner will generally operate in the form of a dehumidifier. However, some degree of cooling will continue.

TO USE THE ENERGY SAVER FEATURE

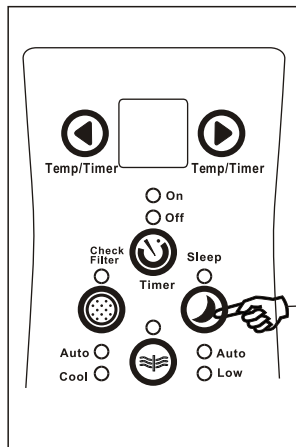


DO THIS:
Press the button

This function is available on COOL mode. The fan will continue to run for 3 minutes after the compressor shuts off. The fan then cycles on for 2 minutes at 10 minute intervals until the room temperature is above the set temperature, at which time the compressor turns back on and Cooling Starts.

AIR CONDITIONER FEATURES (CONTINUED)

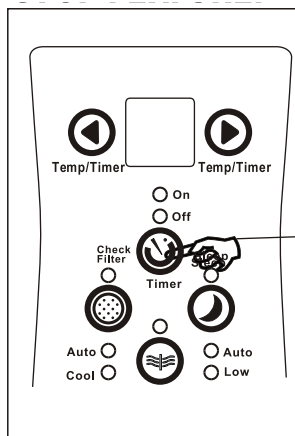
SLEEP FEATURE:



DO THIS:
Press Sleep
button

- In this mode the selected temperature will increase by 2°F/1(or 2)°C 30 minutes after the mode is selected. The temperature will then increase by another 2°F/1(or 2)°C after an additional 30 minutes. This new temperature will be maintained for 6 hours before it returns to the originally selected temperature. This ends the Sleep mode and the unit will continue to operate as originally programmed. The Sleep mode program can be cancelled at any time during operation by again pressing the Sleep button.

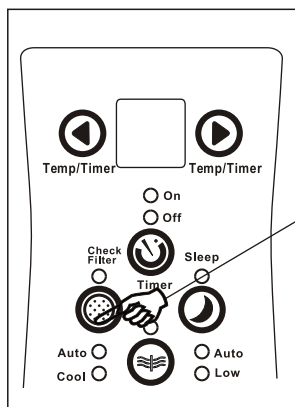
TIMER: AUTO START/STOP FEATURE



DO THIS:
Press Timer
button

- When the unit is on or off, first press the Timer button, the TIMER ON indicator light illuminates. It indicates the Auto Start program is initiated.
- When the time of TIMER ON is displayed, press the Timer button again, the TIMER OFF indicator light illuminates. It indicates the Auto Stop program is initiated.
- Press or hold the Temp/Timer UP or DOWN button to change the Auto time by 0.5 hour increments, up to 10 hours, then at 1 hour increments up to 24 hours. The control will count down the time remaining until start.
- The selected time will register in 5 seconds, and the system will automatically revert back to display the previous temperature setting or room temperature when the unit is on.
- Turning the unit ON or OFF at any time or adjusting the timer setting to 0.0 will cancel the Auto Start/Stop timed program.

CHECK FILTER FEATURE:

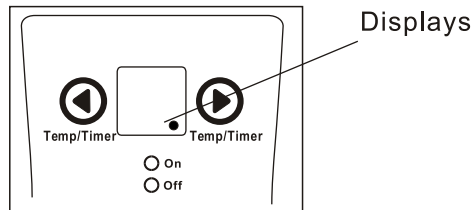


DO THIS:
Press Check
Filter button

- The check filter feature is a reminder to clean the Air Filter for more efficient operation. The LED will illuminate after 250 hours of operation. To reset after cleaning the filter, press the Check Filter button and the light will go off.

AIR CONDITIONER FEATURES (CONTINUED)

DISPLAYS:



THE DISPLAYS

* The control is capable of displaying temperature in degree Fahrenheit or degrees Celsius. To convert from one to the other, press and hold the Left and Right Temp/Timer buttons at the same time, for 3 seconds.

Shows the set temperature in " °C" or " °F" and the Auto-timer settings. While on Fan only mode, it shows the room temperature.

Error codes:

AS-Room temperature sensor error-Unplug the unit and plug it back in. If error repeats, call for service.
NOTE: In Fan only mode, it will display "LO" or "HI".

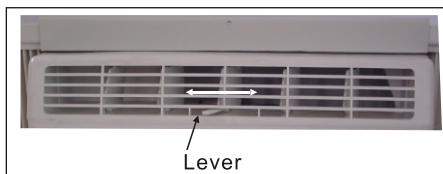
- -Evaporator temperature sensor error-Unplug the unit and plug it back in. If error repeats, call for service.
NOTE: "•" is displayed as shown in the left picture.

ADDITIONAL THINGS YOU SHOULD KNOW

Now that you have mastered the operating procedure, here are more features in your control that you should become familiar with.

- The Cool circuit has an automatic 3 minute time delayed start if the unit is turned off and on quickly. This prevents overheating of the compressor and possible circuit breaker tripping. The fan will continue to run during this time.

Air Directional Louvers



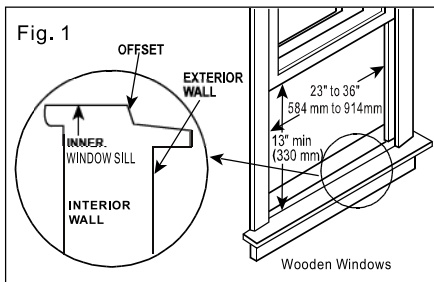
Air Direction

The louvers will allow you to direct the air flow Left or Right throughout the room as needed.

Move the Levers from side to side until the desired Left/Right direction is obtained.

INSTALLATION INSTRUCTIONS

Your air conditioner is designed to install in standard double hung windows with opening widths of 23 to 36 inches (584mm to 914mm) (See Fig.1).



Lower sash must open sufficiently to allow a clear vertical opening of 13 inches (330mm). Side louvers and the rear of the AC must have clear air space to allow enough airflow through the condenser, for heat removal. The rear of the unit must be outdoors, not inside a building or garage.

NOTE: Save **Carton** and these **Installation Instructions** for future reference. The carton is the best way to store unit during winter, or when not in use.

Mounting Hardware



3/4 (or 1/2") Lock Frame Screws (7)
Sash Lock Screws (2)
Sash Lock Screw (1)

TOOLS NEEDED:

Phillips Screw Driver

Drill (If pilot holes are needed)

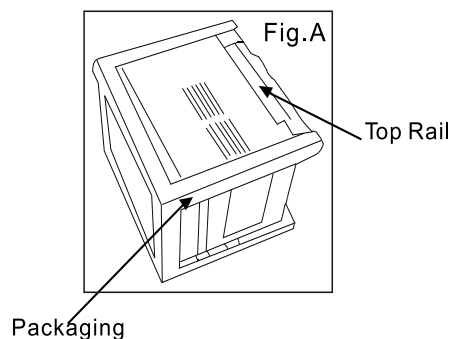
CAUTION: When handling unit, be careful to avoid cuts from sharp metal edges and aluminum fins on front and rear coils.

Top Rail Hardware



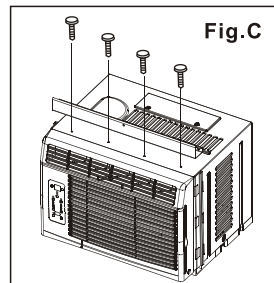
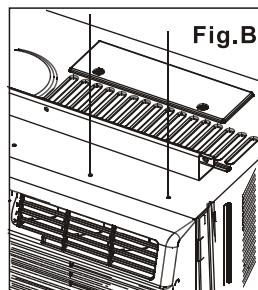
3/8" Screws (4)
Top Rail (1)

Before installing unit, the top rail must be assembled on the unit.



A: Remove the air conditioner from the carton and place on a flat surface.

B: Remove top rail from the rear of the packaging material as shown in Fig. A.



C: Align the hole in the top rail with those in the top of the unit as shown in Fig.B

D: Secure the top rail to the unit with the 3/8" Screws as shown in Fig.C.

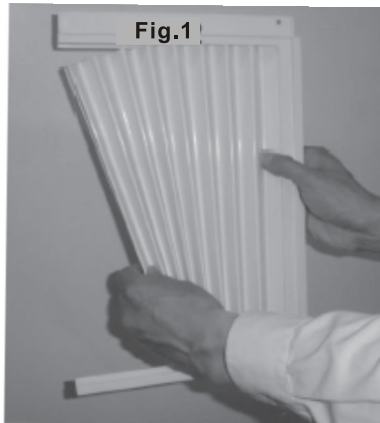
NOTE: For safety reasons, all four(4) screws **MUST** be securely fastened.

NOTE: Some models are not provided these accessories for installation.

HOW TO INSTALL

NOTE: Top rail and Sliding Panels at each side are offset to provide the proper pitch to the rear of (5/16"). This is necessary for proper condensed water utilization and drainage. If you are not using the Side Panels for any reason, this pitch to the rear must be maintained.

1 Place unit on floor, a bench or a table. There is a Left and Right Window Filler Panel- be sure to use the proper panel for each side. When installed the flange for securing the panel in place to the window sill will be facing into the room.



A. Hold the Accordion Panel in one hand and gently pull back the center to free the open end. See Fig.1.



- B. Slide the free and "I" section of the panel into the cabinet as shown in Fig. 2A, 2B & 3. Slide the panel down. Be sure to leave enough space to slip the top and bottom of the frame into the rails on the cabinet.
- C. Once the panel has been installed on the side of the cabinet, make sure it sits securely inside the frame channel by making slight adjustments. Slide the top and bottom ends of the frame into the top and bottom rails of the cabinet. Fig.4.
- D. Slide the panel all the way in and repeat on the other side.

NOTE: If storm window blocks AC, see Fig. 11.



Fig.5

2 Keep a firm grip on the air conditioner, carefully place the unit into the window opening so the bottom of the air conditioner frame is against the window sill (Fig.5). Carefully close the window behind the top rail of the unit.



Fig.6

3 Extend the side panels out against the window frame (Fig.6).



Fig.7



Fig.8

4 Place the frame lock between the frame extensions and the window sill as shown (Fig.7). Drive 3/4" (19mm) or 1/2" (13mm) locking screws through the frame lock and into the sill (Fig.8).
NOTE: To prevent window sill from splitting, drill 1/8" (3mm) pilot holes before driving screws.

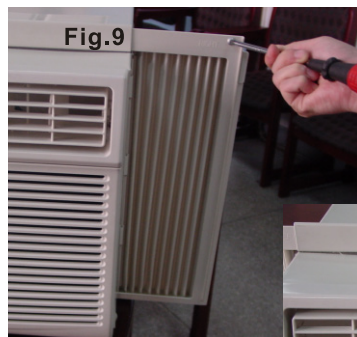


Fig.9

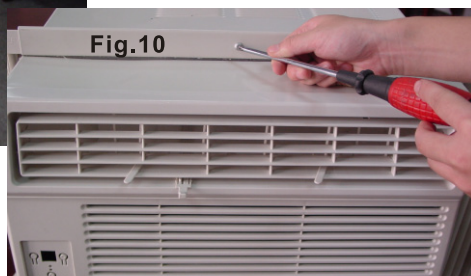
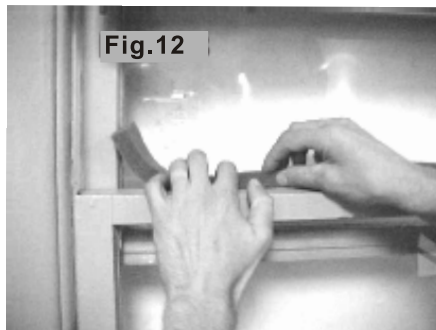


Fig.10

5 Drive 1/2" (13mm) locking screws through frame holes into window sash (Fig.9/10)



6 To secure lower sash in place, attach right angle sash lock with 3 / 4 (19mm) or 1 / 2"(13mm) screw as shown(Fig.11).

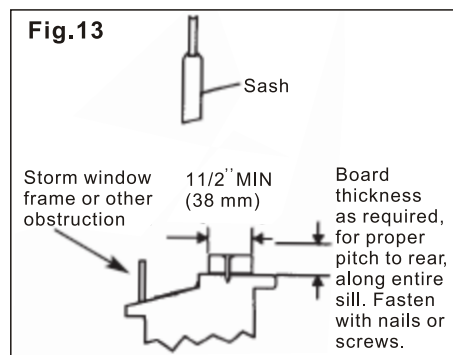


7 Cut foam seal and insert in the space between the upper and lower sashes (Fig.12).

If AC is Blocked by Storm Window

Add wood as shown in Fig.13, or remove storm window before air conditioner is installed.

If Storm Window Frame must remain, be sure the drain holes or slots are not caulked or painted shut. Accumulated Rain Water or Condensation must be allowed to drain out.

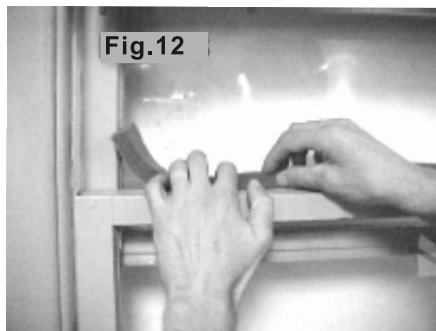


Removing AC From Window

- ◆ Turn AC off, and disconnect power cord.
- ◆ Remove sash seal from between windows, and unscrew safety lock.
- ◆ Remove screws installed through frame and frame lock.
- ◆ Close (slide) side panels into frame.
- ◆ Keeping a firm grip on air conditioner, raise sash and carefully "rock" air conditioner backward to drain any condensate water in base of unit. Be carefully not to spill any remaining water while lifting unit from window. Store parts WITH air conditioner.



6 To secure lower sash in place, attach right angle sash lock with 3 / 4 (19mm) or 1 / 2"(13mm) screw as shown(Fig.11).

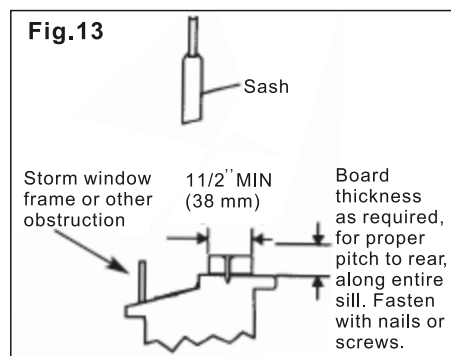


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CARE AND CLEANING

CAUTION

Clean your air conditioner occasionally to keep it looking new. **Be sure to unplug the unit before cleaning to prevent shock or fire hazards.**

Air Filter Cleaning



The air filter should be checked at least once a month to see if cleaning is necessary. Trapped particles in the filter can build up and cause an accumulation of frost on the cooling coils.

- Remove the filter by sliding out from the right-hand side.
- Wash the filter using liquid dishwashing detergent and warm water. Rinse filter thoroughly. Gently shake excess water from the filter. Be sure the filter is thoroughly dry before replacing.
- Or, instead of washing you may vacuum the filter clean.

Note: Never use hot water over 104°F (40°C) to clean the air filter. Never attempt to operate the unit without the air filter.

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.

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.

TROUBLESHOOTING TIPS

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>Wall plug disconnected. Push plug firmly into wall outlet.</p> <p>House fuse blown or circuit breaker tripped. Replace fuse with time delay type or reset circuit breaker.</p> <p>Plug Current Device Tripped. Press the RESET button.</p> <p>Control is OFF. Turn Control ON and set to desired setting.</p>
Air from unit does not feel cold enough	<p>Room temperature below 62°F (17°C). Cooling may not occur until room temperature rises above 62°F (17°C).</p> <p>Temperature sensing element touching cold coil, located behind air filter. Straighten tube away from coil.</p> <p>Reset to a Lower temperature.</p> <p>Compressor shut-off by changing modes. Wait approximately 3 minutes and listen for compressor to restart when set in the COOL mode.</p>
Air conditioner cooling, but room is too warm- ice forming on cooling coil behind decorative front.	<p>Outdoor temperature below 64°F (18°C). To defrost the coil, set FAN ONLY mode.</p> <p>Air filter may be dirty. Clean filter. Refer to Care and Cleaning section. To defrost, set to FAN ONLY mode.</p> <p>Thermostat set too cold for night-time cooling. To defrost the coil, set to FAN ONLY mode. Then, set temperature to a Higher setting.</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>Temperature is set too High, set temperature to a Lower 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. 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 FAN speed to a Higher setting to bring air past cooling coils more frequently.</p>
Noise when unit is cooling	<p>Air movement sound. This is normal . If too loud, set to a slower FAN setting.</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 the rear/outside to allow water drainage. Refer to installation instructions - check with installer.</p>

Problem	Solution
Water dripping OUTSIDE when unit is cooling.	<i>Unit removing large quantity of moisture from humid room. This is normal during excessively humid days.</i>
Remote Sensing Deactivating Prematurely (some models)	<i>Remote control not located within range. Place remote control within 20 feet & 180°, radius of the front of the unit.</i>
	<i>Remote control signal obstructed. Remove obstruction.</i>
Room too cold	<i>Set temperature too low. Increase set temperature.</i>

Service Questions: Contact Comfort-Aire at (517) 787-2100

Sales Inquiries: Contact Sylvane at (800) 934-9194 or visit sylvane.com

Design, material, performance data and components
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