Comfort-Cire

Owner's Manual

RAD Series

Window Type Room Air Conditioner RAD-283R



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USER'S MANUAL WINDOW TYPE ROOM AIR CONDITIONER

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

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.

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.

(This symbol indicates th	e possibility of	f death or serious injury.
		This symbol indicates th	e possibility of	f injury or damage to property.
	\bigcirc	Never do this.	0	Always do this.

^① Plug in power plug properly.	⊗Do not operate or stop the unit by inserting or pulling out the power plug.	O Do not damage or use an unspecified power cord.
• Otherwise, it may cause electric shock or fire due to excess heat generation.	 It may cause electric shock or fire due to heat generation. 	 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 per son in order to avoid a hazard.
① Always install circuit breaker and a dedicated power circuit.	⊗Do not operate with wet hands or in damp environment.	\odot Do not direct airflow at room occupants only.
 Incorrect installation may cause fire and electric shock. 	 It may cause electric shock. 	 This could damage your health.
①Always ensure effective grounding.	⊗Do not allow water to run into electric parts.	① Do not modify power cord length or share the outlet with other appliances.
 Incorrect grounding may cause electric shock. 	 It may cause failure of machine or electric shock. 	 It may cause electric shock or fire due to heat generation.
Ounplug the unit if strange sounds, smell, or smoke comes from it.	⊗Do not use the socket if it is loose or damaged.	\otimes Do not open the unit during operation.
 It may cause fire and electric shock. 	 It may cause fire and electric shock. 	 It may cause electric shock.
[⊕] Keep firearms away.	⊗Do not use the power cord close to heating appliances.	O Do not use the power cord near flammable gas or combustibles, such as gasoline, benzene, thinner, etc.
 It may cause fire. 	 It may cause fire and electric shock. 	 It may cause an explosion or fire.
Oventilate room before opera a gas leakage from another	ating air conditioner if there is appliance.	⊘ Do not disassemble or modify unit.
• It may cause explosion, fire and,	burns.	 It may cause failure and electric shock.

- When the air filter is to be removed, do not touch the metal parts of the unit.
- It may cause an injury.
- O 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.
- ^① Stop operation and close the window in storm or hurricane.
- Operation with windows opened may cause wetting of indoor and soaking of household furniture.
- ^① Always insert the filters securely. Clean filter once every two weeks
- Operation without filters maycause failure.
- © Do not place obstacles around air-inlets or inside of air-outlet.
- It may cause failure of appliance or accident.
- ^① Use caution when unpacking and installing. Sharp edges could cause inju

- O Do not put a pet or house plant where it will be exposed to direct air flow.
- This could injure the pet or plant.
- O Do not clean the air conditioner with water.
- Water may enter the unit and degrade the insulation. It may cause an electric shock.
- 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.
- ^① Hold the plug by the head of the power plug when taking it out.
- It may cause electric shock and damage.
- O 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.

- Ventilate the room well when used together with a stove, etc.
- An oxygen shortage may occur.

◎ 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.
- ① 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.
- ① 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 drink water drained from air conditioner.
- It contains contaminants and could make you sick.

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

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

IMPORTANT SAFETY INSTRUCTIONS

NOTE:

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.

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.

Grounding type wall receptacle



For Your Safety

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

Prevent Accidents

To reduce the risk of fire, electrical shock, or injury to persons when using your air conditioner, follow basic precautions, including the following:

- 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 the cabinet and behind the grille.
- If the air conditioner is to be installed in a window, you will probably want to clean both sides of the glass first. If the window is a triple-track type with a screen panel included, remove the screen completely before installation.
- Be sure the air conditioner has been securely and correctly installed according to the installation instructions in this manual. Save this manual for possible future use in removing or installing this unit.
- When handling the air conditioner, be careful to avoid cuts from sharp metal fins on front and rear coils.

Electrical Information

The complete electical rating of your new room air conditioner is stated on the serial plate. Refer to the rating when checking the electrical requirements.

- 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 adapter 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 it also indicated by a light on the plug head.)

NOTE:

- 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: Indoor temp:	64-109°F/18-43°C (64-125°F/18-52°C for special tropical models) 62-90°F/17-32°C
Heating	Outdoor temp:	23-76°F/-5-24°C
operation	Indoor temp:	32-80°F/0-27°C

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

NOTE: The unit you purchased may be look like one of the followings:













NOTE:

All the illustrations in this manual are for explanation purpose only. The air conditioner you have may be slightly different. The actual shape shall prevail.

INSTALLATION INSTRUCTIONS(for 5000 to 12000Btu/h)



Read these instructions completely and carefully.

IMPORTANT- Save these instructions for local inspector's use. **IMPORTANT-** Observe all

governing codes and ordinanaces. Note to Installer- Be sure to leave these

instructions with the Consumer. Note to Consumer- Keep these instructions for future reference.

Skill level- Installation of this appliance requires basic mechanical skills.

Completion time- Approximately 1 hour. We recommend that two people install this product.

Proper installation is the responsibility of the installer.

Product failure due to improper installation is not covered under the Warranty. You MUST use all supplied parts and use

proper installation procedures as described in these instructions when installing this air conditioner.

WINDOW REQUIREMENTS

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





Do not, under any circumstances, cut or remove the third (ground) prong from the power cord.

Do not change the plug on the power cord of the air conditioner.

Aluminum house wiring may present special problems- consult a qualified electrician.

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

TOOLS YOU WILL NEED



Level

TOOLS YOU MAY USE



NOTE:

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



PREPARE THE WINDOW

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.



PREPARE AIR CONDITIONER

- A: Remove the air conditioner from the carton and place on a flat surface.
- B: Remove top rail and R1 hardware (R1 hardware and Weather stripping only for Energy star models) from 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: The top rail hardware and the Fig.A, Fig.B and Fig.C are not applicable to the units more than 10000Btu/h. Before installing unit, the top rail must be assembled on the unit (For <10000Btu/h models only).

3 INSTALL THE ACCORDION PANELS

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.



A.Place unit on floor, a bench or a table. 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 end " I " section of the panel directly into the cabinet as shown in Fig. 2. 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.



Fig.2

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.3.





D. Slide the panel all the way in and repeat on the other side.





4 SECURE THE ACCORDION PANELS

A.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.5A and Fig.5B). Carefully close the window behind the top rail of the unit.



NOTE: Check that air conditioner is tilted back about H (Fig.5A and Fig.5B)(tilted about 3° to 4° downward to the outside).

After proper installation, condensate should not drain from the overflow drain hole during normal use, correct the slope otherwise.

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



5 INSTALL SUPPORT BRACKET

A.Place the frame lock between the frame extensions and the window sill as shown(Fig.7A for Wooden windows), (Fig.7B for Vinyl-Clad windows).



6 DRIVE LOCKING SCREWS

A: For wooden windows:

Drive 1/2" (12.7 mm) locking screws through the frame lock and into the sill (Fig.8A). NOTE: To prevent window sill from splitting, drill 1/8" (3mm) pilot holes before driving screws. Drive 1/2" (12.7mm) locking screws through frame holes into window sash (Fig.8B). B: For Vinyl-Clad windows(on some models): Drive 1/2" (12.7 mm) locking screws through the frame lock and into the window sashl (Fig.8B). NOTE: Before driving the screws, use a drill to drill 5 holes through the holes in the frame lock and frame extensions into the windows sash as shown (Fig. 8B).





Fig.8B

C.To secure lower sash in place, attach right angle sash lock with 3/4" (19mm) or 1/2" (12.7mm) screw as shown(Fig.9).



Fig.9

D.Cut Window sash seal foam and insert it in the space between the upper and lower sashes (Fig.10).





INSTALL R1 HARDWARE (only be applicable to Energy star models)

In order to minimize air leaks and ensure optimal insulation, it is necessary to install the included R1 hardware to the side curtain. Follow the instructions below.

Step 1. After the unit is installed to the window, measure the inner width of the side curtain as shown (Fig.11).

Step 2. Remark a line on the provide R1 insulation panel according to a length 1/8" (3mm) less than the measured width in step 1, then cut the R1 insulation panel along the line (Fig.12).



Measure the inner width of the side curtain





Step 3. Slide the R1 insulation panel into the side curtain, the side with pattern should facing the indoor side.(Fig.13).



Fig.13

Step 4. Repeat on the other side.

7

INSTALL WEATHER STRIPPING (only be applicable to Energy star models)

In order to minimize air leaks between the room air conditoner and the window opening, trim the weather sttipping with a proper length, peel off the protective backing and plug any gaps if needed (Fig.14).



If AC is Blocked by Storm Window

Add wood as shown in Fig.15, 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 sash lock.

Remove screws installed through frame and frame-lock.

Remove the R1 Panel and close (slide) side panels into frame.

Keeping a firm grip on air conditioner, raise sash and carefully remove.

Be carefully not to spill any remaining water while lifting unit from window. Store parts WITH air conditioner.



INSTALLATION INSTRUCTIONS(for 15000 to 28500Btu/h)



Read these instructions completely and carefully.

IMPORTANT- Save these instructions for local inspector's use. IMPORTANT- Observe all governing codes and ordianaces. Note to Installer- Be sure to leave these instructions with the Consumer. Note to Consumer- Keep these instructions for futrue reference. Skill level- Installatio of this appliance requires basic mechanical skills. Completion time- Approximately 1 hour. We recommend that two people install this product.

Proper installation is the responsibility of the installer.

Product failure due to improper installation is not covered under the Warranty.

You MUST use all supplied parts and use proper installation procedures as described in these instructions when installing this air conditioner.

Do not, under any circumstances, cut or remove the third (ground) prong from the power cord.

Do not change the plug on the power cord of the air conditioner.

Aluminum house wiring may present special problems- consult a qualified electircian.

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

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.

Preliminary Instructions



 Storm Window Frame or Other Obstruction
 Thickness As Required, Along Entire Sill. Fasten Frame or Other Other With Two Nails Or Screws.

 1. Check window opening size-- the mounting parts furnished with this air conditioner area

- parts furnished with this air conditioner are made to install in a wooden sill double-hung window. The standard parts are for window dimensions listed above. Open sash to a minimum of 19 inches(483mm). See Fig.D.
- 2. Check condition of window-- all wood parts of window must be in good shape and able to firmly hold the needed screws. If not, make repairs before installing unit.

Preliminary Instructions

- 3. Check your storm windows-- if your storm window frame does not allow the clearance required, correct by adding a piece of wood as shown in Fig.E, or by removing storm window while room air conditioner is being installed.
- 4 .**Check for anything that could block airflow**-check area outside of window for things such as shrubs, trees, or awnings. Inside, be sure furniture, drapes, or blinds will not stop proper airflow.
- 5. Check the available electrical service- Power supply must be the same as that shown on the unit serial nameplate. Power cord is 48 inches long. Be sure you have an outlet near.
- 6.**Carefully unpack air conditioner-** Remove all packing material. Protect floor or carpet from damage. Two people should be used to move and install unit.

Hardware(Packed with the unit)

7/16 inch Locking screw and Flat washer for window panels	2 ea.
3 / 4 (or 1/2)inch Long Hex-head Screw	7
Safety Lock	1
1 / 2 inch Long screw and Locknut	4ea.
3 / 4 inch Long Flat Head Bolt and Locknut	2ea.
Sill Angle Bracket	2
Lock Frame(For Wooden windows)(on some models)	2
3 / 4 inch Long Screw(on some models)	2
Long hex-head locking screw for top angle, side retainer 5 /16 inch Long	10
Foam insert	2
Window sash seal foam	1
Safety Lock (for Vinyl-Clad window)(on some models)	2
Locking screw # 10X 1/ 4 panhead Phillips screws (for Vinyl-Clad window)(on some models)	2
R1 hardware	2
Weather stripping (10 [*] *3/4 [*] *1/12 [*])	5
NOET: R1 hardware and Weather stripping is only for Energy star models.	
	Flat washer for window panels 3 / 4 (or 1/2)inch Long Hex-head Screw Safety Lock 1 / 2 inch Long screw and Locknut 3 / 4 inch Long Flat Head Bolt and Locknut Sill Angle Bracket Lock Frame(For Wooden windows)(on some models) 3 / 4 inch Long Screw(on some models) Long hex-head locking screw for top angle, side retainer 5 /16 inch Long Foam insert Window sash seal foam Safety Lock (for Vinyl-Clad window)(on some models) Locking screw#10X 1/4 panhead Phillips screws (for Vinyl-Clad window)(on some models) Locking screw#10X 1/4 panhead Phillips screws (for Vinyl-Clad window)(on some models) Locking screw#10X 1/4 panhead Phillips screws (for Vinyl-Clad window)(on some models) Cocking screw#10X 1/4 panhead Phillips screws (for Vinyl-Clad window)(on some models) Cocking screw#10X 1/4 panhead Phillips screws (for Vinyl-Clad window)(on some models) Cocking screw#10X 1/4 panhead Phillips screws (for Vinyl-Clad window)(on some models) Cocking screw#10X 1/4 panhead Phillips screws (for Vinyl-Clad window)(on some models) Cocking screw#10X 1/4 panhead Phillips screws (for Vinyl-Clad window)(on some models) Cocking screw#10X 1/4 panhead Phillips screws (for Vinyl-Clad window)(on some models) Cocking screw#10X 1/4 panhead Phillips screws (for Vinyl-Clad window)(on some models) Cocking screw#10X 1/4 panhead Phillips screws (for Vinyl-Clad window)(on some models) Cocking screw#10X 1/4 panhead Phillips screws (for Vinyl-Clad window)(on some models) Cocking screw#10X 1/4 panhead Phillips screws (for Vinyl-Clad window)(on some models) Cocking screw#10X 1/4 panhead Phillips screws (for Vinyl-Clad window)(on some models) Cocking screw#10X 1/4 panhead Phillips screws (for Vinyl-Clad window)(on some models) Cocking screw#10X 1/4 panhead Phillips screws (for Vinyl-Clad window)(on screw#10X 1/4

Tools Required

A large flat blade screwdriver; Tape measure; Adjustable wrench or pliers; Pencil; Level Socket wrenches; Phillips Screwdriver

A.Window Mounting

- **1 Remove Air Conditioner from Cabinet** NOTE: Remove any packaging material from cabinet exterior.
- 1.Pull down front grille and remove filter. (See Fig.1).
- 2. Lift front grille upwards and place to one side.
- 3.Locate the four front screws and remove. These screws will be needed to re-install the front panel (see Fig.2).



- 4.Push metal cabinet side to release plastic tabs on each side of front panel (see Fig.3).
- 5.Gently lift front panel off unit(see Fig.3A).
- 6.Disconnect the connector plug of the display panel from the unit and place front panel to one side(see Fig.4).





Fig.4



Fig.3A

- 7. Remove shipping screws from top of unit and also on the side by the base if installed (see Fig.5).
- 8. Hold the cabinet while pulling on the base pan handle, and carefully remove the unit.
- 9. Add two foam inserts to holes in top of cabinet where shipping screws were removed from (see Fig.6).



10. Your unit may come with internal packaging. This packaging must be removed prior to installing the air conditioner back into the cabinet.(see Fig.7).





2 Install Top Angle and Side Bracket

- 1. Attach foam gasket to top angle above holes as shown in Fig.6.
- 2. Install top angle and side retainers to cabinet as shown in Fig.8 (10 screws).



3Assemble Window Filler Panels

- 1. Place cabinet on floor, a bench, or a table.
- Slide "I" section of window filler panel into side retainer on the side of the cabinet (see Fig.9 & Fig.10). Do both sides.





- 3. Insert top and bottom legs of window filler panel frame into channel in the top angle and bottom rail. Do both sides.
- Insert washer head locking 7/16" screws

 into holes in top leg of filler panel frame (see step 6). Do not totally tighten. Allow leg to slide freely. Screws will be tightened after section 6.

Place Cabinet in window

- 1.Open window and mark center of window inner sill as shown(Fig.11).
- 2. Place cabinet in window with bottom sill angle firmly seated over window sill as shown. Bring window down temporarily behind top angle to hold cabinet in place(Fig.12).



- 3. Shift cabinet left or right as needed to line up center of cabinet on center line marked on inner sill.
- For wooden window: Fasten cabinet to window inner sill with two screws into holes (Fig.13) (You may wish to pre-drill pilot holes).

For Vinyl-Clad window: Place two safety locks into the holes located in the bottom of the cabinet and drive two #10X1/4" pan-head Phillips locking screws through the safety locks into the cabinet as shown (FIG.13B)(on some models).

5. Remove protective strip from adhesive side of Bottom Rail Foam Seal. Apply Seal over screws fastening bottom rail to window inner sill.



4. Attach the top angle to window frame: Use a 3/32" drill bit to drill one hole through the hole in the middle of top angle into the window frame, and drive one 3/4" (or 1/2") HEX-HEAD locking screw through hole in the middle of top angle into the window frame as shown (Fig.17A).



3. Attach the Lock Frames to the winow sill using two 3/4"(19mm) screws(Fig.18C)(on some models).



Attach Window Filler Panels to Window Frame

- 1. Extend the window filler panels out against the window frame.
- 2. Use a 1/8" drill bit to drill a starter hole through the hole in the top leg of each window filler panel and into the window sash (Fig. 18A and Fig. 18B). Connect with one 3/4" (or 1/2") long hex head screw.



A.3/4" (or 1/2") long hex head screw B. Left-hand Window Filler Panel Top Leg C. Window channel



8 Install Window Sash Seal and Safety Lock

1. Trim sash seal to fit window width. Insert into space between upper and lower sashes(Fig.18).





2. Attach right angle safety lock (Fig. 19).



9 Install Chassis into Cabinet and Install Front to Unit

- 1. Lift air conditioner and carefully slide into cabinet leaving 6 inches protruding.
- 2. DO NOT push on controls or finned coils.
- 3. Be sure chassis is firmly seated towards rear of cabinet.
- 4. Installation of front is the reverse of removal outlined in Section 1.



Step 3. Slide the R1 insulation panel into the side curtain, the side with pattern should facing the indoor side.(Fig.22).



Fig.22

Step 4. Repeat on the other side.



INSTALL WEATHER STRIPPING (only applicable to Energy star models)

In order to minimize air leaks between the room air conditoner and the window opening, trim the weather stripping with a proper length, peel off the protective backing and plug any gaps if needed (Fig.23).



INSTALL R1 HARDWARE (only applicable to Energy star models)

In order to minimize air leaks and ensure optimal insulation, it is necessary to install the included R1 hardware to the side curtain. Follow the instructions below.

Step 1. After the unit is installed to the window, measure the inner width of the side curtain as shown (Fig.20).

Step 2. Remark a line on the provided R1 insulation panel according to a length 1/8" (3mm) less than the measured width in step 1, then cut the R1 insulation panel along the line (Fig.12).



B.Thru-The-Wall Installation

NOTE: Consult local building codes prior to installation or a qualified carpenter.

1 Select Wall Location

The air conditioner has a slide-out chassis, so that it can be installed through an outside wall as specified below:

Max. Wall thickness: 12" or 10" **IMPORTANT:** Side louvers must never be blocked. **NOTE:** All parts needed for Thru-The-Wall Installation are provided, except a wood frame, shims, and 10 wood screws(#10-1" long minimum). Select a wall surface that:

- 1. does not support major structural loads such as the frame construction at ends of windows, and under truss-bearing points, etc.
- 2. does not have plumbing or wiring inside.
- is near existing electrical outlets or where another outlet can be installed.
- 4. is not blocked to the area to be cooled.
- 5. allows unblocked airflow from rear sides and end(outside) of installed air conditioner.

Prepare Wall

- 1. Prepare wall in frame construction (including brick and stucco veneer). Working from inside the room, find wall stud nearest the center of area where air conditioner will be installed (by sounding wall or by magnetically finding nails).
- 2. Cut or knock out a hole on each side of center stud.
- 3. Measure between inside edges of every other stud as shown in Fig.1.



Carefully measure and cut an opening with the following dimensions depending on your model. See Fig.1 and Fig.2.

WIDTH" X"= inside model width plus twice the thickness of framing material used.

HEIGHT"Y" = inside model height plus twice the thickness of framing material used.

Inside Frame Height: 18-7/8"(47.9cm) or18" (45.7cm) Inside Frame Width: 26-3/4"(67.9cm) or 23-7/8"(60.6cm)



- 4. Build a wooden frame with the INSIDE dimensions of your model listed above. (Remember to measure twice). Frame depth should be the same as wall thickness. Fill in the space from the opening to the studs with wood spacers, as shown.
- 5. Nail frame to spacers to spacers with front flush with drywall.



NOTE: If wall thickness is 8-1/2" or more, add aluminum flashing over bottom of frame opening to assure no water can enter area between inner and outer wall.



3 Prepare and Install Cabinet

- 1. Slide chassis from cabinet. Refer back to Step one of Window Mounting.
- Place cabinet into opening with bottom rail resting firmly on bottom board of wooden frame.
- 3. Position cabinet to achieve proper slope for water removal.(See Fig.5 below.)
- Secure bottom rail to wood frame with two large wood screws 1"(2.5cm) long using the two holes in the bottom of the channel resting on frame. (See Fig.6).

NOTE: Check that air conditioner is tilted back about $1^{1}/{4}^{"}$ to $1^{5}/{8}^{"}$ (tilted about 3° to 4° downward to the outside). After proper installation, condensate should not drain from the overflow drain hole during normal use, correct the slope otherwise (Fig.14).



Refer to Step 5 of Window Mounting for assembly of support brackets. A wooden strip nailed to the outside wall should be used in conjunction with sill support angle brackets.



5. Screw or nail cabinet wooden frame using shims if frame is oversized to eliminate distortion. See Fig.8.Remember to maintain proper slope as described in Step 3.



6. Install chassis into cabinet by following all steps in Step 8 of Window Mounting.

OPTIONAL: Caulking and installation of trim on interior wall may be done. You can buy wood from your local lumber or hardware supply. On the outside, caulk openings around top and sides of cabinet, and all sides of wood sleeve to the opening.

NOTE: See Step 5, Item 3 of Window Mounting Instructions for bottom rail seal location.

C.Masonry Construction

- 1. Cut or build a wall opening in the masonry wall similar to the frame construction (refer to Step 2 of Thru-the-wall Installation for a wall thickness greater than 8-1/2").
- Secure cabinet in place using masonry nails, or the right masonry anchor screws. (Another way to secure cabinet is to build a frame in the masonry wall such as the one shown in Fig. 3 of Step 2 Prepare Wall. Securely anchor frame to masonry wall. This way gives very good louver clearance on either side of cabinet.)
- 3. Install a lintel to support masonry wall above cabinet. Existing holes in cabinet can be used and/or additions holes can be drilled to fasten cabinet at various positions. Be sure that side louver clearance is in accordance with Step 1 Select Wall Location.
- 4. Install exterior cabinet support brackets as shown in Step 2 of Thru-the-wall installation. Caulk or flash if needed, to provide a weathertight seal around top and sides of cabinet.
- 5. To complete installation, apply wood trim molding around room side projection of cabinet.

NORMAL SOUNDS



NOTE:

All the illustrations in this manual are for explanation purpose only. The air conditioner you have may be slightly different. The actual shape shall prevail.

WARNING

To reduce the risk of fire, electric shock, or injury to persons, read the IMPORTANT SAFETY INSTRUCTIONS before operating this appliance.

Please always wait 3 minutes when turning unit off then on again, and when changing from cool to fan and back to cool. This prevents compressor from overheating & possible circuit breaker tripping.

To begin operating the air conditioner, follow these steps:

- 1. Set the thermostat to the highest number (coldest or cooler setting).
- 2. Set the selector control to the highest COOL setting.
- 3. Adjust the louver for comfortable air flow (see Air Directional Louvers).
- 4. Once the room has cooled, adjust the thermostat to the setting you find most comfortable.
- 5. Make sure that the air flow inside and outside are not obstructed by anything.

Air Directional Louvers



for 06K, 08K, 10K, 12K, 15K, 18K, 25K, 28.5K

UUU

Fig. C (VENT & EXHAUST OPEN)

The louvers will allow you to direct the air flow Up or Down(on some models) and Left or Right throughout the room as needed. Pivot horizontal louvers until the desired Up/Down direction is obtained. Move the Lever(s) from side to side until the desired Left/Right direction is obtained.

Fresh Air Vent Control (on 10~12K models):





Fig. A (VENTCLOSED) Fig. B (VENTOPEN)

The Fresh Air Vent allows the air conditioner to:

1. Recirculate inside air - Vent Closed (See Fig.A)

2. Draw fresh air into the room- Vent Open (see Fig.B)

3. Exchange air from the room and draws fresh air into the room - Vent and Exhaust Open (see Fig.C)

AIR CONDITIONER FEATURES

Fresh Air Vent Control (on 15~28.5K models):



Fig. A (VENT CLOSED) Fig. B (VENT OPEN)

The Fresh Air Vent allows the air conditioner to:

- 1. Recirculate inside air Vent Closed (See Fig.A)
- 2. Draw fresh air into the room- Vent Open (see Fig.B)
- 3. Exchange air from the room and draws fresh air into the room Vent and Exhaust Open (see Fig.C)



MECHANICAL CONTROL OPERATING INSTRUCTIONS

NOTE:

The controls featured in this manual are representative of many available models. Your model may offer slightly different features.

Cool Mode

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

HI COOL has maximum cooling effect and airflow.

LO COOL has minimum cooling effect and airflow.

MED COOL has the intermediate cooling effect and airflow(on some models). **OFF** will completely shut off the unit.

NOTE: If your unit is equipped with a vent handle, keep it closed for maximum efficiency.

Fan Mode

Rotate the knob to the left to select your choice of fan speeds for air circulation. **NOTE:** When selecting a fan speed, the compressor will not run. On models with a vent control, this mode can be used to remove stale air from the room, or to draw fresh air into the room.Check the section''Fresh Air Vent Control.''

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.









Fig. C (VENT & EXHAUST OPEN)

AIR CONDITIONER FEATURES

ELECTRONIC CONTROL OPERATING INSTRUCTIONS

NOTE: Different models have different control buttons and indicator lights. Not all the control buttons and indicator lights describing below are available for the unit you purchased. Please check the control panel of the unit you purchased. **The unit can be controlled by the unit control alone or with the remote.**



NOTE: Ion or clear air may be instead of SMART or WIRELESS or CONNECT for some models. Heat, clean air, ion, smart, Wireless, Connect and follow me features are optional.lon, clean air is not applicable for R32/R290 units. Ion, clean air, smart, wireless and connect features may be not applicable for some models.

NOTE: The outline of the operation panel is based on typical model, the function is thesame with your air conditioner while some difference may exist in appearance.

TO TURN UNIT ON OR OFF:

Press () ON/OFF button to turn unit on or off.

NOTE:The unit will initiate automatically the Energy Saver function under Cool, Dry and Auto modes.

CLEAN AIR(ION)/SMART(WIRELESS or CONNECT)FEATURE: (on some models)

Press Clean Air(ION) button, the ion generator is energized and will help to remove pollen and impurities from the air, and trap them in the filter.

Press SMART(WIRELESS or connect) button for 3 seconds to turn off the unit and initiate SMART (WIRELESS or connect)connection mode.

TO CHANGE TEMPERATURE SETTING:

Press UP/DOWN button to change temperature setting.

NOTE:Press or hold either UP or DOWN button until the desired temperature is shown 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.

SLEEP FEATURE:

Press Sleep button to initiate the sleep mode. In this mode the selected temperature will increase (cooling) or decrease (heating) by $2^{\circ}F/1(or 2)^{\circ}C$ 30 minutes after the mode is selected. The temperature will then increase (cooling) or decrease (heating) by another $2^{\circ}F/1(or 2)^{\circ}C$ after an additional 30 minutes. This new temperature will be maintained for 6 or 7 hours before it returns to theoriginally 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 pressing the Sleep button again.

TO ADJUST FAN SPEEDS:

Press Fan button 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.

CHECK FILTER FEATURE:

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

ENERGY SAVER FEATURE:

Press Energy saver button to initiate this function. This function is available on COOL, DRY, AUTO (only AUTO-COOLING and AUTO-FAN) modes.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.

FOLLOW ME FEATURE:(on some models)

0
Follow Me

 Light flashes or illuminates

This feature can be activated from the remote control ONLY. The remote control serves as a remote thermostat allowing for the precise temperature control at its location.

To activate the Follow Me feature, point the remote control towards the unit and press the Follow Me button. The remote display is actual temperature at its location. The remote control will send this signal to the air conditioner every 3 minutes interval until press the Follow Me button again. If the unit does not receive the Follow Me signal during any 7 minutes interval, the unit will beep to indicate the Follow Me mode has ended.

TO SELECT THE OPERATING MODE:

To choose operating mode, press Mode button.Each time you press the button, a mode is selected in a sequence that goes from Auto, Cool, Dry ,heat(cooling only models without)and Fan. The indicator light beside will be illuminated and remained on once the mode is selected.

The unit will initiate automatically the Energy Saver function under Cool, Dry, Auto(only Auto-Cooling and Auto-Fan) modes.

To operate on COOL mode:

• Choose Cool Mode to set the cooling function. Use the Up and Down buttons to choose the desired temperature. When Cool Mode is selected, the fan speed can be adjusted by pressing the fan button.

To operate on HEAT mode(cooling only models without):

• Choose Heat Mode to set the heating function. Use the Up and Down buttons to choose the desired temperature. When heat Mode is selected, the fan speed can be adjusted by pressing the fan button. NOTE: For some models, the fan speed can not be adjusted under HEAT mode.

To operate on Auto feature:

- When you set the air conditioner in AUTO mode, it will automatically select cooling, heating(cooling only models without), 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.
- 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. Since the conditioned space is a closed or sealed area, some degree of cooling will continue. On Dry mode, the fan speed is controlled at Low automatically.

TIMER: AUTO START/STOP FEATURE:

- Press Timer button, the TIMER ON or TIMER OFF indicator light illuminates. It indicates the Auto Start or Auto Stop program is initiated. For some units, keep pressing the Timer button will cancel the timer settings.
- Press or hold the 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.(when the unit is off,there is no display.)
- 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.

AIR CONDITIONER FEATURES

DISPLAYS:



Displays

DISPLAYS:

Shows the set temperature in " $^{\circ}$ C" or " $^{\circ}$ F" and the Auto-timer settings.While on Fan only mode, it shows the room temperature. If the room temperature is too high or low, it will display "HI" or "LO".

Error codes:

- **AS -**Room temperature sensor error
- ES -Evaporator temperature sensor error
- or
- NOTE: "•" is displayed as shown in the obove picture.
- *HS* -Electric heating sensor error(on some models);
- CS -Condenser temperature sensor error(on some models);
- **OS** -Outside temperature sensor error(on some models);
- *E7* -Unit malfunction(on some models).
- NOTE:When error occurs, unplug the unit and plug it back in. If error repeats, call for service.

CARE AND CLEANING

If the unit breaks off unexpectedly due to the power cut, it will restart with the previous function setting automatically when the power resumes.

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 minutes 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.
- The control is capable of displaying temperature in degrees Fahrenheit or degrees Celsius. To convert from one to the other, press and hold the Up and Down buttons at the same time for 3 seconds.

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.

CARE AND CLEANING

Air Filter Cleaning

- Push the vent handle to the Vent Closed position (where applicable). Open the front panel.
- Take the filter by the center and pull up and out.
- 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. Instead of washing, you may vacuum the filter clean.

Note: Never use hot water over $40^{\circ}C(104^{\circ}F)$ 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

Problem	Solution
Air conditioner	Wall plug disconnected. Push plug firmly into wall outlet.
does not start	House fuse blown or circuit breaker tripped. Replace fuse with time delay type or reset circuit breaker.
	Plug Current Device Tripped. Press the RESET button.
	Power is OFF. Turn power ON.
	Room temperature below $62^{\circ}F(17^{\circ}C)$. Cooling may not occur until room temperature rises above $62^{\circ}F(17^{\circ}C)$.
Air from unit does not feel cold enough	Temperature sensing behind air filter element touching cold coil. Keep it from the cold coil.
	Set to a Lower temperature.
	Compressor stopped when changing modes. Wait for 3 minutes after set to the COOL mode.
Air conditioner	Outdoor temperature below 64° F(18°C). To defrost the coil, set FAN ONLY mode.
cooling, but room is too warm- ice forming on cooling	Air filter may be dirty. Clean filter. Refer to Care and Cleaning section. To defrost, set to FAN ONLY mode.
forming on cooling coil behind decorative front.	Thermostat set too cold for night-time cooling. To defrost the coil, set to FAN ONLY mode. Then, set temperature to a Higher setting.

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

TROUBLESHOOTING TIPS

Problem	Solution
Air conditioner	Dirty air filter- air restricted. Clean air filter. Refer to Care and Cleaning section.
cooling, but room is too warm- NO	Temperature is set too High, set temperature to a Lower setting.
ice forming on	Air directional louvers positioned improperly. Position louvers for better air distribution.
cooling coil behind decorative front.	Front of units is blocked by drapes, blinds, furniture, etc restricts air distribution. Clear blockage in front of unit.
	An open doors, windows,or register may allow cold air to escape. Close any doors, winows, or registers.
	The room may be too warm. Allow additional time to remove "Stored heat" from walls, ceiling, floor and furniture.
Air conditioner turns on	Dirty air filter- air restricted. Clean air filter.
and off rapidly	Outside temperature extremely hot. Set FAN speed to a Higher setting to bring air past cooling coils more frequently.
Noise when unit is	Air movement sound. This is normal . If too loud, set to a slower FAN setting.
cooling	Window vibration - poor installation. Refer to installation instructions or check with installe
Water dripping INSIDE when unit is cooling.	Improper installation. Tilt air conditioner slightly to the outside to allow water drainage. Refer to installation instructions - check with installer.
Water dripping OUTSIDE when unit is cooling.	Unit removing large quantity of moisture from humid room. This is normal during excessively humid days.
Remote Sensing Deactivating	Remote control not located within range. Place remote control within 20 feet and pointed in the general direction of the air conditioner unit.
Prematurely (some models)	Remote control signal obstructed. Remove obstruction.
Room too cold	Set temperature too low. Increase set temperature.

LIMITED EXPRESS WARRANTY

Congratulations on purchasing your new HVAC equipment. It's been designed for long life and reliable service, and is backed by one of the strongest warranties in the industry. Your unit automatically qualifies for the warranty coverage listed below, providing you keep your proof of purchase (receipt) for the equipment and meet the warranty conditions.

LIMITED ONE (1) YEAR EXPRESS WARRANTY

Comfort-Aire warrants this Room Air Conditioner to be free from defects in workmanship and materials for normal use and maintenance for one (1) year from the date of purchase by the original consumer. This Express Limited Warranty applies only when the Room Air Conditioner is installed and operated per Comfort-Aire installation and operating instructions for normal use.

EXCEPTIONS

The Limited Express Warranty does not cover normal maintenance Comfort-Aire recommends that regular inspection/maintenance be performed at least once a season. Additionally, labor charges diagnostic charges, transportation charges for replacement of refrigerant or filters, and any other service calls/repairs are not covered by this Limited Warranty. It also does not cover any portion or component of the system that is not supplied by Comfort-Aire, regardless of the cause of failure of such portion or component.

CONDITIONS FOR WARRANTY COVERAGE

Unit must be operated according to Comfort-Aire operating instructions included with the unit and cannot have been subjected to accident, alteration, improper repair, neglect or misuse, or an act of God (such as a flood)

- Serial numbers and/or rating plate have not been altered or removed
- Performance cannot be impaired by use of any product not authorized by Comfort-Aire, or by any adjustments or adaptations to components
- Damage has not been a result of inadequate wiring or voltage conditions, use during brown-out conditions, or circuit interruptions
- Air flow around any section of the unit has not been restricted
- Unit remains in the original installation

DURATION OF WARRANTY & REGISTRATION

The warranty begins on the date of purchase by the original consumer. The consumer must retain a receipted bill of sale as proof of warranty period. Without this proof, the express warranty begins on the date of shipment from the factory.

REMEDY PROVIDED BY THE LIMITED EXPRESS WARRANTY

The sole remedy under the Limited Warranty is replacement of the defective unit. Labor to diagnose and replace the defective unit is not covered by this Limited Express Warranty. If for any reason the replacement product is no longer available during the warranty period, Comfort-Aire shall have the right to allow a credit in the amount of the current suggested retail price of the product instead of providing replacement.

LIMITATION OF LIABILITY

- There are no other express or implied warranties. Comfort-Aire makes no warranty of merchantability. We do not warrant that the unit is suitable for any particular purpose or can be used in buildings or rooms of any particular size or condition except as specifically provided in this document. There are no other warranties, express or implied, which extend beyond the description in this document.
- 2. All warranties implied by law are limited in duration to the one-term of the warranty. We will not be liable for any consequential or incidental damages caused by any defect in this unit.
- 3. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Some states do not allow limitation on how long an implied warranty lasts or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.
- No warranties are made for units sold outside the continental United States and Canada. Your distributor or final seller may provide a warranty on units sold outside these areas.
- 5. Comfort-Aire will not be liable for damages if our performance regarding warranty resolution is delayed by events beyond our control including accident, alteration, abuse, war, government restrictions, strikes, fire, flood, or other acts of God.

HOW TO SUBMIT A WARRANTY CLAIM

If you have a warranty claim, notify you installer or dealer promptly.

Somfort-Cine

Please visit www.marsdelivers.com to register your new product

PRODUCT IDENTIFICATION	INSTALLATION
Model Number	Installer Name (if used)
Serial Number	Phone Number/Contact Information
Date of Purchase	Date Installation Completed

Comfort-Aire_9-2018

The design and specifications are subject to change without prior notice for product improvement. Consult with the sales agency or manufacturer for details. Any updates to the manual will be uploaded to the service website, please check for the latest version.

Due to ongoing product improvements, specifications and dimensions are subject to change and correction without notice or incurring obligations. Determining the application and suitability for use of any product is the responsibility of the installer. Additionally, the installer is responsible for verifying dimensional data on the actual product prior to beginning any installation preparations.

Incentive and rebate programs have precise requirements as to product performance and certification. All products meet applicable regulations in effect on date of manufacture; however, certifications are not necessarily granted for the life of a product. Therefore, it is the responsibility of the applicant to determine whether a specific model qualifies for these incentive/rebate programs.

Comfort-Cire.

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