



GE Appliances

Deluxe High Wall Split System

***Owner's Manual &
Installation Instructions***

Cooling Only Models

*AS0CD09 AS1CD09
AS0CD12 AS1CD12
AS0CD18 AS1CD18*

Heat Pump Models

*AS0RD09 AS1RD09
AS0RD12 AS1RD12
AS0RD18 AS1RD18*



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Congratulations!

You Are Now Part of the GE Family

Welcome to the GE family. We're proud of our quality products and we are committed to providing dependable service. You'll see it in this easy-to-use Owner's Manual and you'll hear it in the friendly voices of our customer service department.

Best of all, you'll experience these values each time you use your air conditioner. That's important, because your new air conditioner will be part of your family for many years. And we hope you will be part of ours for a long time to come.

We thank you for buying GE. We appreciate your purchase, and hope you will continue to rely on us whenever you need quality appliances for your home.

GE & You, A Service Partnership.



FOR YOUR RECORDS

Write the model and serial numbers here for the indoor and outdoor units:

Indoor model #

Serial #

Outdoor model #

Serial #

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

Staple sales slip or cancelled check here.

Proof of the original purchase date is needed to obtain service under the warranty.



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 *Before You Call For Service* section. If you review our chart of *Troubleshooting Tips* first, you may not need to call for service at all.



IF YOU NEED SERVICE

If you do need service, you can relax knowing help is only a phone call away. A list of toll-free customer service numbers is included in the back section. Or, you can always call the GE Answer Center® at 800.626.2000, 24 hours a day, 7 days a week.

For any service which requires entry into the refrigerant sealed system, Federal regulations require the work be performed by a technician having a Class II or Universal certification.

IMPORTANT SAFETY INFORMATION. READ ALL INSTRUCTIONS BEFORE USING.

⚠ WARNING!

For your safety, the information in this manual must be followed to minimize the risk of fire, electric shock or personal injury.



SAFETY PRECAUTIONS

- This system must be properly installed in accordance with the Installation Instructions before it is used.
- Be certain the power source is disconnected before servicing the product.

For any service which requires entry into the refrigerant sealed system, Federal regulations require the work be performed by a technician having a Class II or Universal certification.

NOTES:

- We strongly recommend that any servicing be performed by a qualified individual.
- Since outdoor condensing unit has a sump heater on the compressor for heat pump models, the power should be turned on at least 5 hours before unit operation. Leave the power on unless you will not be using the system for an extended period of time.



Read and follow this Safety Information carefully.

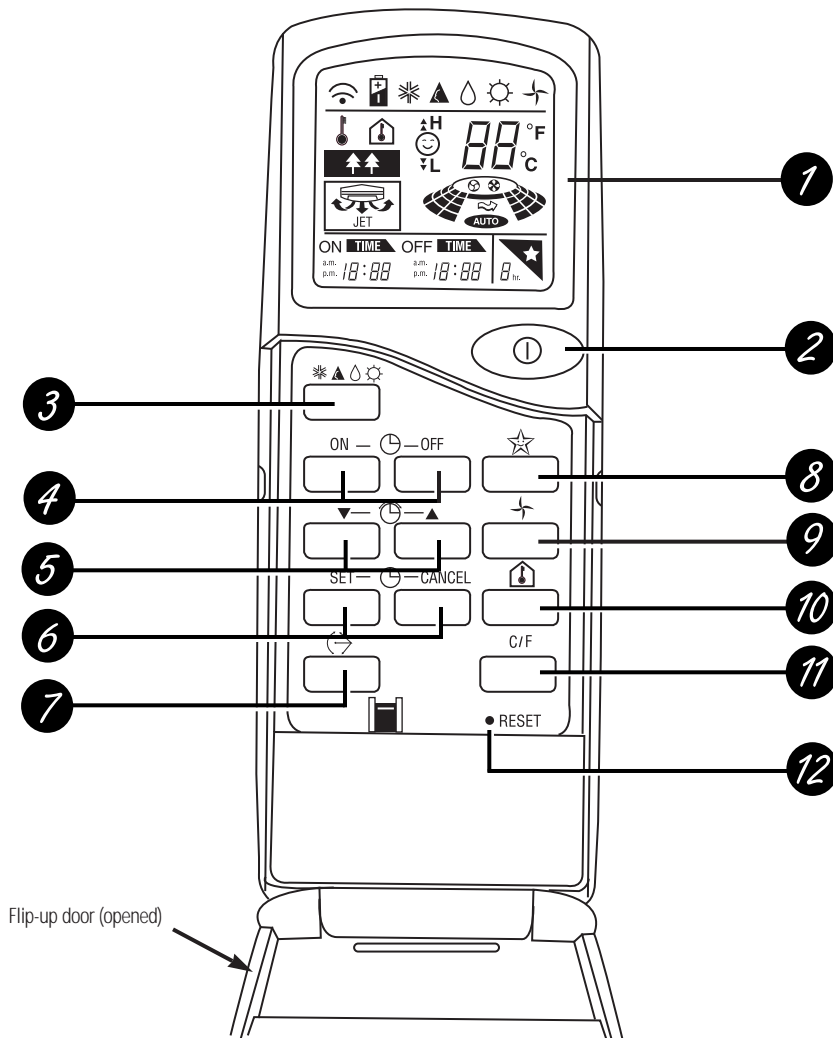
SAVE THESE INSTRUCTIONS

About the remote control on the system.

The remote control transmits the signals to the system.



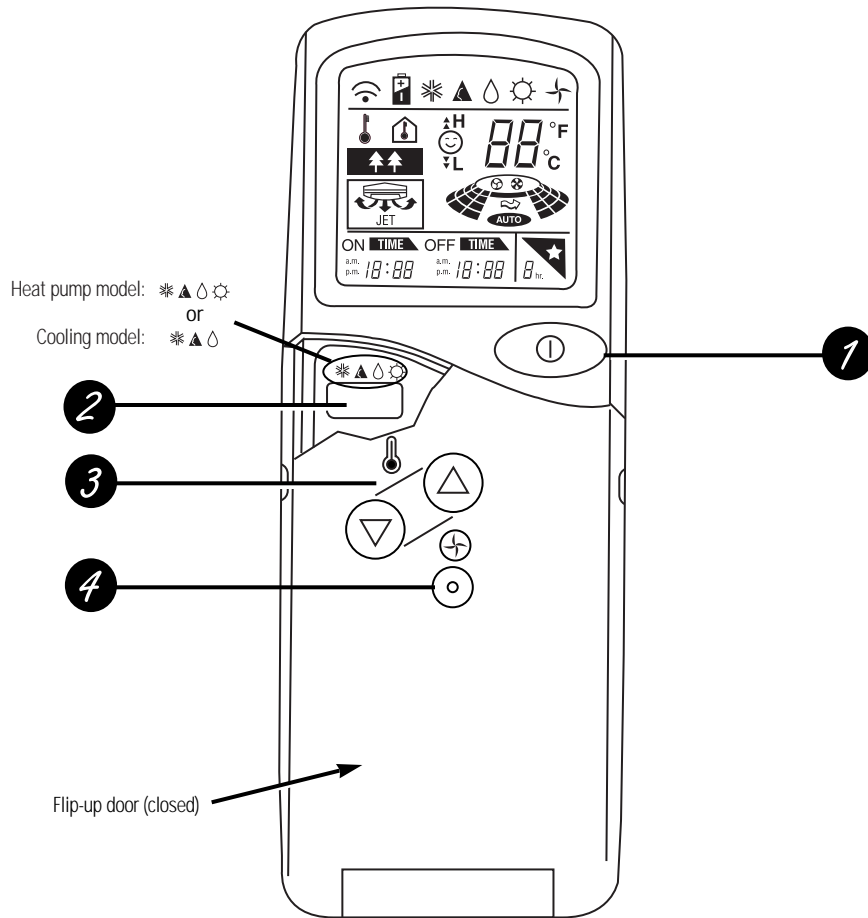
Features of the Remote Control — Door Open



- | | |
|--|--|
| <p>1 OPERATION DISPLAY
Displays the operation conditions.</p> <p>2 START/STOP BUTTON
Operation starts when this button is pressed and stops when the button is pressed again.</p> <p>3 OPERATION MODE SELECTION BUTTON
Used to select the operation mode.</p> <p>4 ON/OFF TIMER BUTTONS
Used to set the time of starting and stopping operation.</p> <p>5 TIME SETTING BUTTONS
Used to adjust the time.</p> <p>6 TIMER SET/CANCEL BUTTONS
Used to set the timer when the desired time is obtained and to cancel the Timer operation.</p> | <p>7 AIRFLOW DIRECTION START/STOP BUTTON
Used to stop or start louver movement and set the desired up/down airflow direction.</p> <p>8 SLEEP MODE AUTO BUTTON
Used to set Sleep Mode Auto operation.</p> <p>9 AIR CIRCULATION BUTTON
Used to circulate the room air without cooling or heating (turns indoor fan on/off).</p> <p>10 ROOM TEMPERATURE CHECKING BUTTON
Used to check the room temperature.</p> <p>11 °C to °F SWITCHING BUTTON
Used to switch temperature reading from Centigrade to Fahrenheit.</p> <p>12 RESET BUTTON
Used prior to resetting time or after replacing batteries.</p> |
|--|--|



Features of the Remote Control — Door Closed



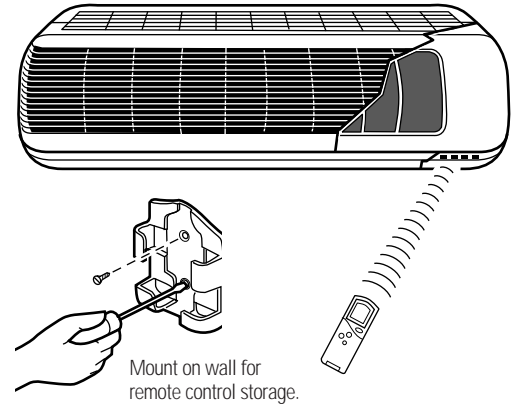
- 1** **START/STOP BUTTON**
Operation starts when this button is pressed and stops when the button is pressed again.
- 2** **OPERATION MODE SELECTION BUTTON**
Used to select the operation mode.

- 3** **ROOM TEMPERATURE SETTING BUTTONS**
Used to select the room temperature.
- 4** **INDOOR FAN SPEED SELECTOR**
Used to select fan speed in four steps—low, medium, high or **AUTO**.

About the remote control on the system.

Storage and Tips For Using the Remote Control

- The remote control may be stored inside the system or mounted on a wall.
- Aim at the signal receptor on the system so it will operate properly.
- The remote control signal can be received at a distance of up to 23 ft.



How to Insert the Batteries

- 1 Remove the battery cover by sliding it according to the arrow direction.
- 2 Insert new batteries making sure that the (+) and (-) of battery are installed correctly.
- 3 Reattach the cover by sliding it back into position.

NOTES:

- Use 2 “AAA” (1.5 volt) batteries. Do not use rechargeable batteries.
- Remove the batteries from the remote control if the system is not going to be used for a long time.






Inside the Indoor System

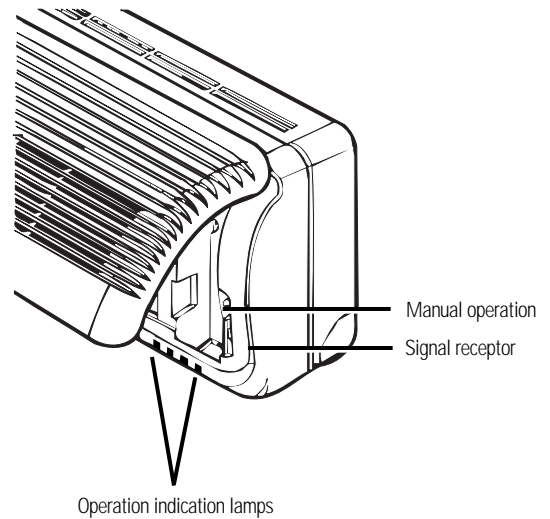
Some controls are located inside the indoor unit. Open the front panel by lifting it up.

Manual Operation—Use when the remote control cannot be used.

Signal Receptor—Receives the signals from the remote control.

Operation Indication Lamps

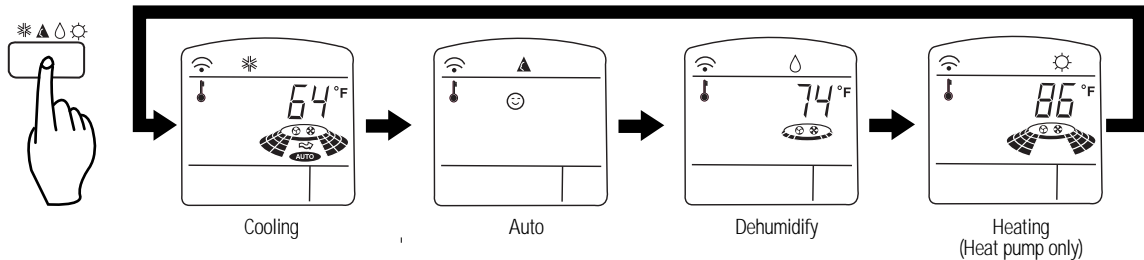
- | | | |
|---|--------------------------------|--|
|  | ON/OFF | Lights up during the system operation. |
|  | SLEEP MODE | Lights up during the Sleep Mode operation. |
|  | TIMER | Lights up during the Timer operation. |
|  | DEFROST MODE | Lights up during the Defrost Mode or Hot Start operation (heat pump model only). |
|  | OUT DOOR UNIT OPERATION | Lights up during Outdoor Unit operation (cooling model only). |



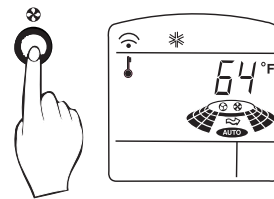
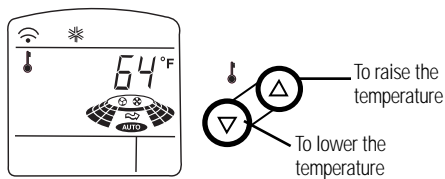
How to use the Operation Mode Selection button.

❄️ Cooling Operation

- 1 Press the Start/Stop button. The unit will respond with a beep.
- 2 Open the door on the remote control. To select cooling operation, press the Operation Mode Selection button. Each time the button is pressed, the operation mode is shifted in the arrow direction.

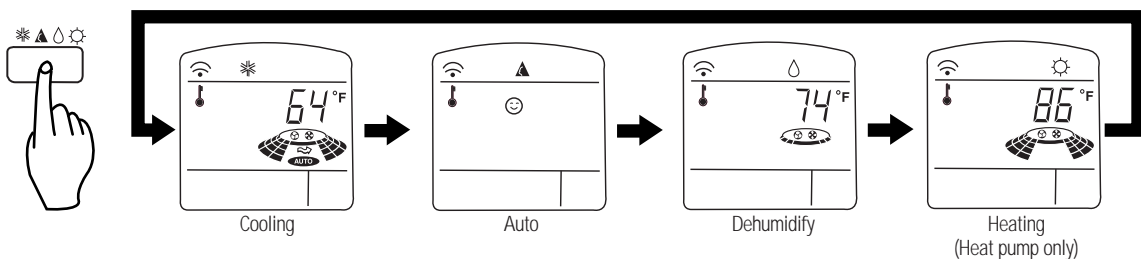


- 3 Close the door on the remote control. Set the temperature lower than the room temperature. The temperature can be set within a range of 64°F–86°F in 2°F increments.
- 4 Set the fan speed again with the door of the remote control still closed. You can select the fan speed in four steps—low, medium, high or **AUTO**. Each time the button is pressed, the fan speed mode is shifted.

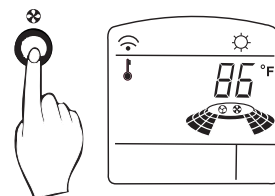
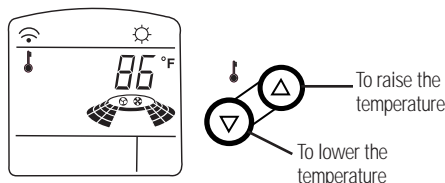


☀️ Heating Operation (Heat pump model only)

- 1 Press the Start/Stop button. The unit will respond with a beep.
- 2 Open the door on the remote control. To select heating operation, press the Operation Mode Selection button. Each time the button is pressed, the operation mode is shifted in the arrow direction.



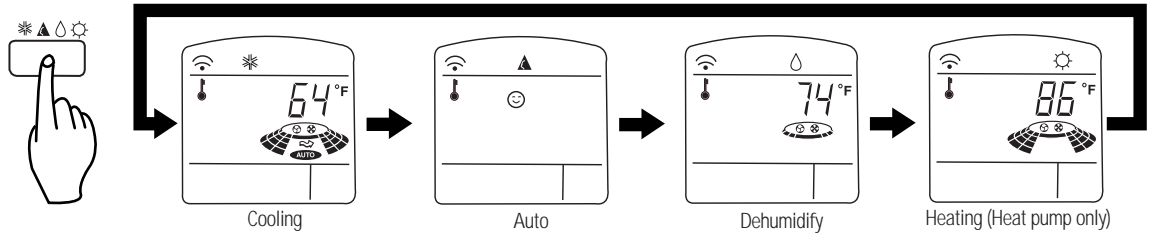
- 3 Close the door on the remote control. Set the temperature higher than the room temperature. The temperature can be set within a range of 60°F–86°F in 2°F increments.
- 4 Set the fan speed again with the door of the remote control still closed. You can select the fan speed in four steps—low, medium, high or **AUTO**. Each time the button is pressed, the fan speed mode is shifted.



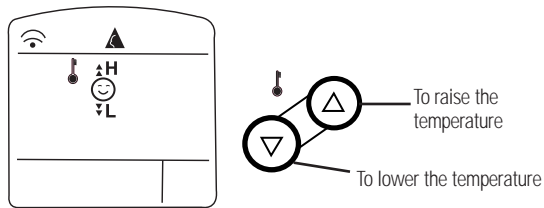
How to use the Operation Mode Selection button.

Auto Operation

- Press the Start/Stop button. The unit will respond with a beep.
- Open the door on the remote control. To select auto operation, press the Operation Mode Selection button. Each time the button is pressed, the operation mode is shifted in the arrow direction.



- The temperature and fan speed are automatically set by the electronic controls based on the actual room temperature. If you want to change the set temperature, close the door on the remote control and press the Room Temperature Setting buttons. The cooler or warmer you feel, the more times (up to two times) you should press the button. The set temperature will then be changed automatically.

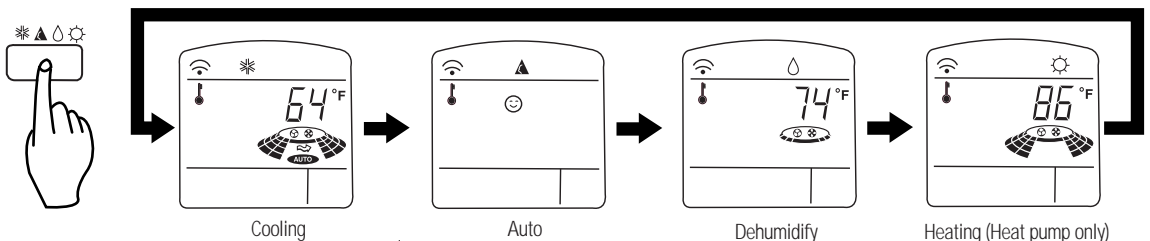


During Auto Operation:

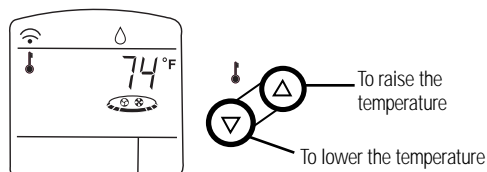
- You cannot switch the indoor fan speed. It has already been set by the electronic control.
- If the system is not operating as desired, manually switch to another mode. The system will not automatically switch from the cooling mode to the heating mode, or from heating to cooling, it must be done manually. Reset using the Operation Mode Selection button.
- During Auto Operation, pressing the Airflow Direction Start/Stop button makes the horizontal louvers swing up and down automatically. If you want to stop auto-swing, press the Airflow Direction Start/Stop button again.

Dehumidify Operation

- Press the Start/Stop button. The unit will respond with a beep.
- Open the door on the remote control. To select dehumidify operation, press the Operation Mode Selection button. Each time the button is pressed, the operation mode is shifted in the arrow direction.



- Close the door on the remote control. Set the temperature higher than the room temperature. The temperature can be set within a range of 64° F–86° F in 2° F increments.



During Dehumidify Operation:

- The indoor fan speed is automatically set to low and cannot be adjusted.
- The indoor fan may stop during this operation if the electronic control detects over-cooling.

Additional features.

Sleep Mode

- 1 Press the Sleep Mode Auto button to set the time you want the unit to automatically turn off.



To cancel the Sleep Mode, press the Sleep Mode Auto button several times until the star (☆) disappears from the operation display.

NOTE: The Sleep Mode will be operated at low fan speed (cooling) or medium fan speed (heat pump only) for quiet sleeping.

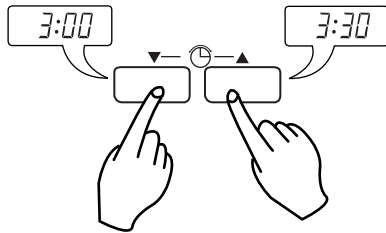
- 2 Make sure the Sleep Mode Auto LED lights up.
- 3 The Timer is programmed in one-hour increments by pressing the Sleep Mode Auto button 1 to 7 times.

IN COOLING MODE: The temperature will automatically rise by 2° F over the next 30 minutes and by 4° F in 1 hour for comfortable sleeping.

Setting the Time

Time can be set only when you have pressed the Reset button. If you have just replaced the batteries, the Reset button should be pressed to reset the time.

- 1 Press the Start/Stop button.
- 2 Press the Time Setting buttons until the desired time is set.



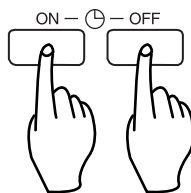
- 3 Press the Timer SET button.

NOTE: Check the indicator for A.M. and P.M.

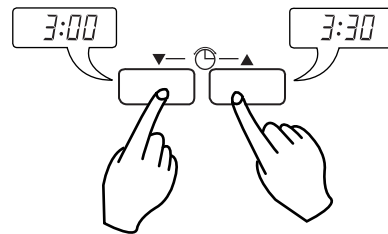


Delay Start/Pre-Set Stop

- 1 Make sure the time is set correctly on the remote control display.
- 2 Press the ON/OFF Timer buttons to turn Timer on or off.



- 3 Press the Time Setting buttons until the desired time is set.



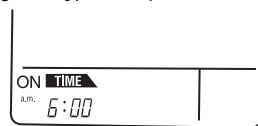
- 4 Store the selected on/off setting by pressing the Timer SET button.



NOTE: Select one of the following four types of operation.



Delay OFF Timer



Delay ON Timer



Delay OFF and ON Timer



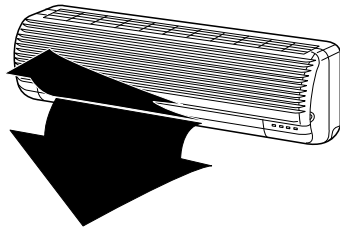
Delay ON and OFF Timer

With the unit running:

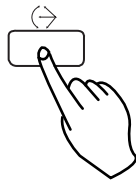
Additional features.

Airflow Direction (Indoor unit)

The up/down airflow can be adjusted by using the remote control.



- Press the Start/Stop button to start the unit.
- Open the door on the remote control. Press the Airflow Direction Start/Stop button and the louvers will swing up and down. Press it again and the louvers will stop at the desired setting.

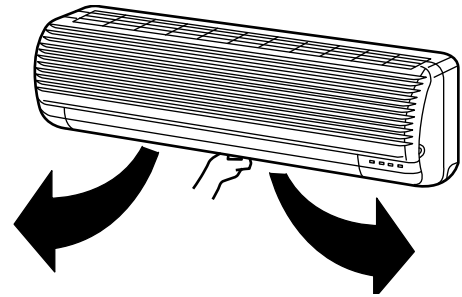


NOTES:

- Always use the remote control to adjust the up/down airflow direction. Moving the louvers by hand could cause operational errors or damage the unit.
- When the unit is shut off, the up/down airflow direction louver will close the air outlet vent of the system.

To adjust left/right direction:

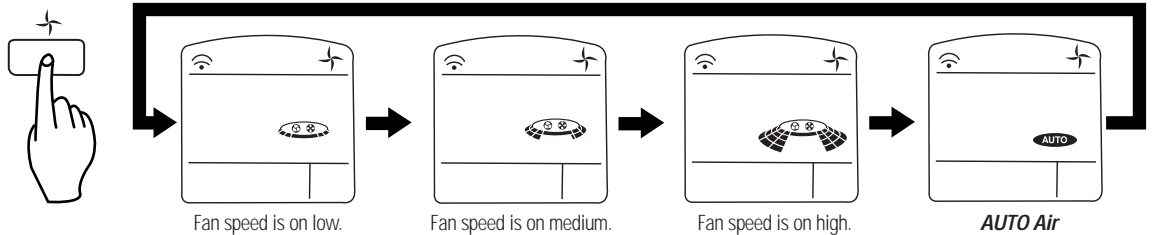
Adjust the left/right airflow direction by hand.



Air Circulation Mode

Circulates the room air without cooling or heating.

- Press the Start/Stop button. The unit will respond with a beep.
- Open the door on the remote control. Press the Air Circulation button. Close the door on the remote control. Now each time that you press the Indoor Fan Speed Selector, the fan speed is shifted from low to medium to high to **AUTO**, and then back to low again.

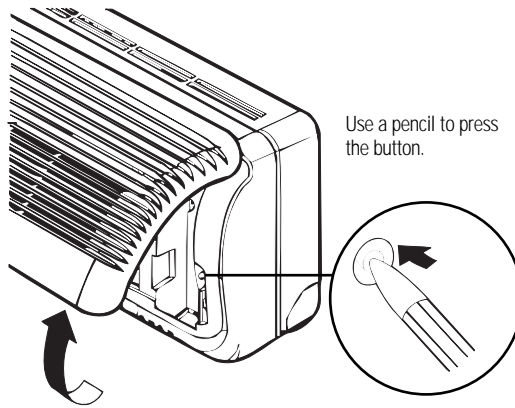


NOTES:

- The fan speed of the indoor unit will automatically cycle depending on the room temperature.
- **AUTO** economizes power consumption and prevents overcooling. The fan speed is automatically changed from medium to low or vice versa, depending on the ambient temperature.

Manual Operation

If the remote control will not operate the unit, open the front panel upward and press the Manual Operation button.



If you want to stop operation, raise the front panel and press the Manual Operation button again. During Manual Operation, the operating conditions are automatically set as follows:

	<i>Cooling Only Model</i>	<i>Heat Pump Model</i>		
		<i>Room Temp. above 76° F</i>	<i>Room Temp. 70° F thru 76° F</i>	<i>Room Temp. below 70° F</i>
Operating Mode	Cooling	Cooling	Dehumidify	Heating
Indoor Fan Speed	High	High	Fan turns on/off automatically	High
Setting Temperature	72° F	72° F	Air intake temperature	76° F

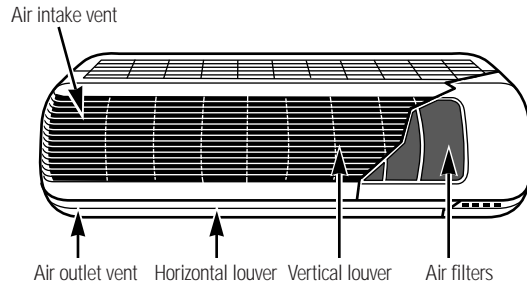
Care and cleaning of the air conditioner.

CAUTION: Before performing any maintenance, turn off the main power to the system.

Indoor Unit

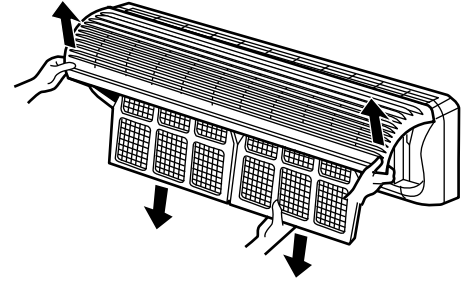
Grille, Case and Remote Control

Turn the system off before cleaning. To clean, wipe with a soft, dry cloth. Do not use bleach or abrasives.



Air Filters

The two air filters behind the front grille should be checked and cleaned at least every 30 days or more often if necessary.



Lift the front access panel and pull the filter tab slightly forward to remove the filter. Clean the filter with a vacuum or warm, soapy water. Rinse and let the filter dry before replacing it.

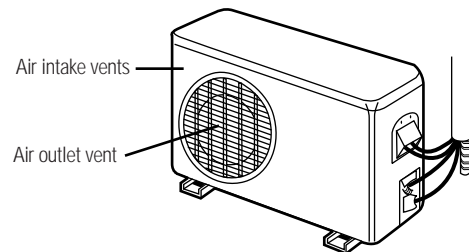
CAUTION: DO NOT operate the system without a filter because dirt and lint will clog it and reduce performance.

Outdoor Unit

The heat exchanger coils and panel vents of the outdoor unit should be checked regularly. If clogged with dirt or debris, the heat exchanger and panel vents may be professionally steam cleaned, a service available through your GE service outlet.

NOTE:

- Supply power must be disconnected before cleaning the outdoor unit.
- Dirty or clogged coils will reduce the operating efficiency of the system and cause higher operating costs.



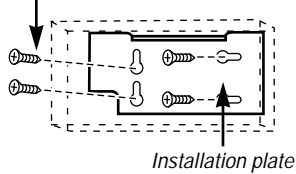
If you're closing up for the season...(cooling-only models)

- 1 Operate the system in the Air Circulation mode for 2 hours. This will dry out the system.
- 2 Remove the batteries from the remote control.
- 3 Cover the outdoor unit with a protective cover.

Installation instructions.

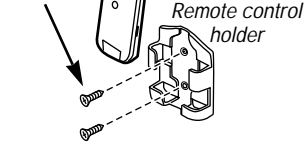
Parts included

Type A screws



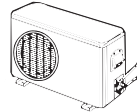
Installation plate

Type B screws



Remote control holder

Outdoor unit



Indoor unit



NOTE: Optional tube kits—which contain pre-flared insulated tubing, wiring, etc., to complete system installation requirements—are available from General Electric.



READ THE INSTALLATION INSTRUCTIONS CAREFULLY AND COMPLETELY BEFORE YOU BEGIN.

Before You Begin

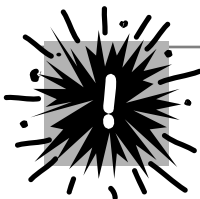
NOTE TO INSTALLER: Leave these instructions with the indoor unit after installation is completed.

NOTE TO CONSUMER: Keep these instructions for future use.

IMPORTANT NOTES:

- Follow National Electric Codes (NEC) and/or local codes and ordinances.
- For personal safety, this system must be properly grounded.
- Protective devices (fuses or circuit breakers) acceptable for installation are specified on the nameplate of each unit.
- Servicing and installation of the refrigerant system must be performed only by a licensed, HVAC certified technician.
- Make sure to avoid wiring or plumbing inside the wall when installing.

For any service which requires entry into the refrigerant sealed system, Federal regulations require the work be performed by a technician having a Class II or Universal certification.



CAUTION

- Do not use an extension cord with this system.
- Aluminum building wiring may present special problems—consult a qualified electrician.
- When the unit is in the STOP position, there is still voltage to the electrical controls.
- Disconnect the power to the system before servicing by removing the branch circuit fuses or turning the circuit breakers off at the panel.

Electrical Requirements

- Be certain all wiring complies with local building codes and NEC and that the supply voltage for this system is correct. The system supply voltage is connected to the outdoor unit only.
- Check the rating nameplate on side panel of outdoor unit for required circuit protection rating and required supply voltage.
- Use Underwriters-approved electrical branch circuit disconnect for providing supply voltage to split system outdoor unit. Locate disconnect within sight and readily accessible from outdoor unit.
- The split system indoor unit requires low voltage (D.C.) supplied from the outdoor unit via interconnecting wiring. The interconnecting wiring between indoor and outdoor units of this system must be 18-4 wiring, 18-gauge (minimum), 300-volt rating, type SJO-WA or STO-WA.
- Be certain there is an uninterrupted, unbroken electrical ground connection.

Tools You Will Need

- Electric drill
 - Carpenter's stud finder (recommended)
 - 2 3/4"-3" diameter hole saw
 - Phillips-head screwdriver
 - Pencil
 - Crescent wrench
- NOTE:** A licensed, certified (to handle refrigerant-22, recovery, etc.) technician is required for installation of these split air conditioning or heating pump systems.

Installation instructions.

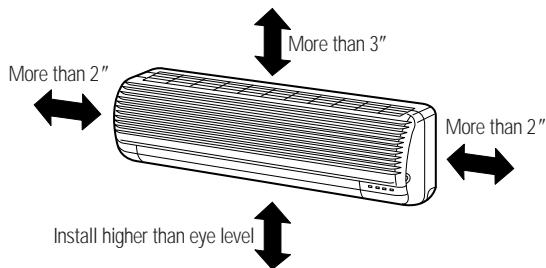
Read completely, then follow step by step.



Select the Best Location

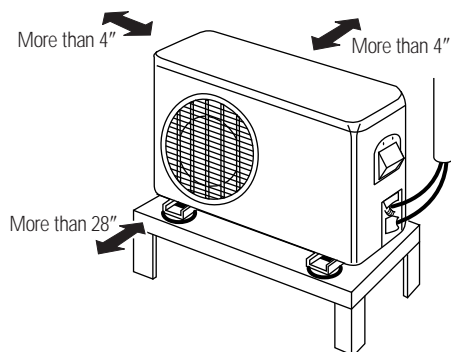
A Indoor Unit.

- Do not have any heat or steam near the unit.
- Select a place where there are no obstacles in front of the unit.
- Make sure that condensate drainage can be conveniently routed away.
- Do not install near a doorway.
- Ensure that the space around the left and right of the unit is more than 2". The unit should be installed as high on the wall as possible, allowing a minimum of 3" from ceiling.
- Use a stud finder to locate studs to prevent unnecessary damage to the wall.



B Outdoor Unit.

- If an awning is built over the unit to prevent direct sunlight or rain exposure, make sure that heat radiation from the condenser is not restricted.
- Ensure that the space around the back and sides is more than 4". The front of the unit should have more than 28" of space.



- Construct and anchor a strong and level mounting base or pad for the outdoor unit.
- Use the provided rubber grommets between the unit's four mounts and the base or pad.
- Anchor the outdoor unit through its four mounts using bolts.

■ Rooftop Installations:

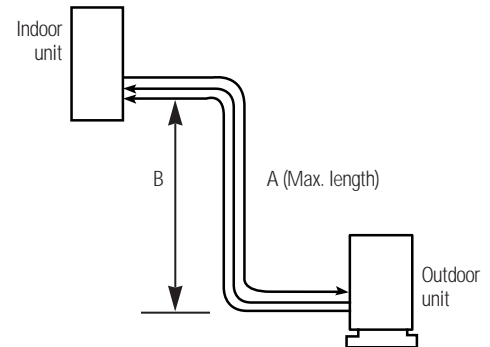
If the outdoor unit is installed on a roof structure, be sure to level the unit. Ensure the roof structure and anchoring method are adequate for the unit location. Consult local codes regarding rooftop mounting.

C Piping Length and Elevation.

Indoor unit mounted above outdoor unit

Model (Cooling Capacity)	Pipe Size*		Max. Length A	Max. Elevation B
	Gas	Liquid		
18K	5/8"	3/8"	40'	26'
9K, 12K	1/2"	1/4"	40'	26'

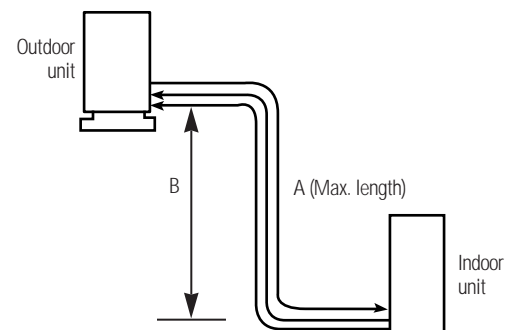
* Both gas and liquid interconnecting pipes must be insulated.



Outdoor unit mounted above indoor unit

Model (Cooling Capacity)	Pipe Size*		Max. Length A	Max. Elevation B
	Gas	Liquid		
18K	5/8"	3/8"	40'	26'
9K, 12K	1/2"	1/4"	40'	26'

* Both gas and liquid interconnecting pipes must be insulated.



* Both gas and liquid interconnecting pipes must be insulated.

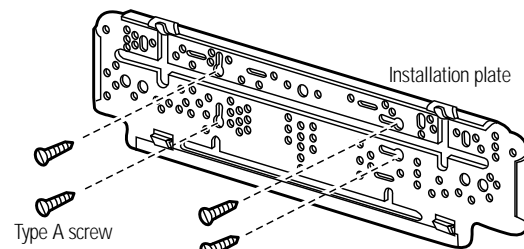
2

Indoor Unit Installation

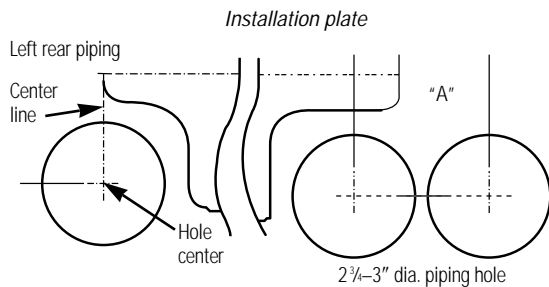
The wall you select should be strong and solid enough to protect it from vibration.

NOTE: These instructions do not cover all installations. However, the typical installation will be to secure the installation plate to wall studs 16" apart. It is recommended that a stud finder be used to locate the wall studs.

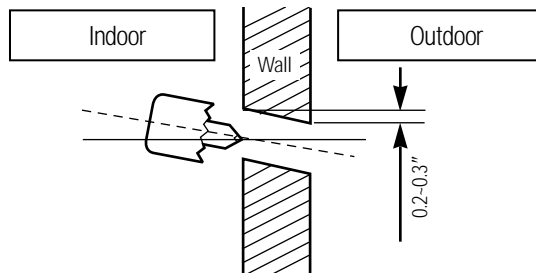
- A** Measure the wall and mark the centerline. It is also important to use caution concerning the location of the installation plate—routing of the wiring to power outlets is through the walls typically. Drilling the hole through the wall for piping connections must be done safely.
- B** Mount the installation plate on the wall with four type A screws. If mounting the unit on a concrete wall, use anchor bolts.
- C** Mount the installation plate horizontally by aligning the centerline using a level.
- D** Drill the piping hole with a 2 $\frac{3}{4}$ –3" hole core drill. Drill the piping hole at either the right or the left with the hole slightly slanted to the outdoor side (see illustration below).

**NOTES:**

- For right rear piping, draw a line in the direction of the arrow marked "A" and make another line extending from the bottom line of the installation plate. The meeting point of the two lines is the center of the hole.
- For left rear piping, draw a line extending left from the bottom line of the installation plate. This is the center line of any hole for the left rear installation.



(See templates in the back of this manual for hole location relative to the installation plate.)



Installation instructions.

3

Refrigerant Piping and Condensate Drain–Indoor Unit

- A** Optional tubing kits are available which consist of all interconnecting copper lines, wiring needed to connect indoor to outdoor units, and a plastic sleeve endcap to enhance the installation wall hole sealing. You may also purchase the tubing, insulation, wiring, etc., locally for the installation. See chart on page 14 for tubing diameter sizes required for the different models.

NOTE: Since the refrigerant metering device is located in the outdoor unit, both the gas and the liquid tubing line sets must be insulated. *Armaflex* material is recommended.



* For heat pump models, heat-resistant insulation material with minimum rating of 230° F is required.

- B** See chart on page 14 for maximum lengths of tubing for interconnecting units. The indoor and outdoor units are provided with flare nuts. See the brass fittings on the indoor/outdoor sections.

NOTE: The indoor unit is shipped from the factory with a nitrogen holding charge to prevent moisture contamination during shipment. Remove the flare nuts on the indoor unit to vent the nitrogen (environmentally friendly) into the atmosphere.

- C** Measure distance between indoor and outdoor units, considering the routing for the piping and wiring. Cut tubing to lengths, insert the tubing insulation. Flare the ends of tubes, after inserting flare nuts that will connect to the indoor and outdoor units.

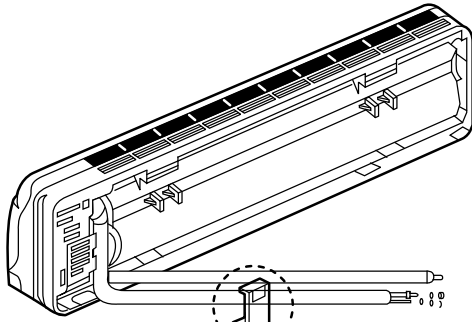
4

Connection of the Pipes

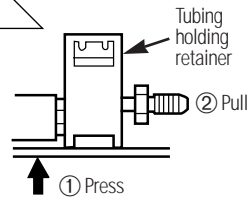
- A** Preparing the indoor unit's piping and drain hose for installation through the wall.

Remove the plastic tubing retainer (see illustration below) and pull the tubing and drain line away from chassis.

- B** Replace the plastic tubing holder in the original position.



To remove the retainer, press the bottom of chassis near the retainer upward and pull the tab out of its hole.

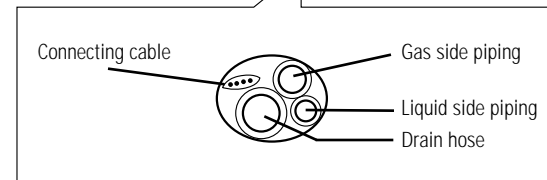
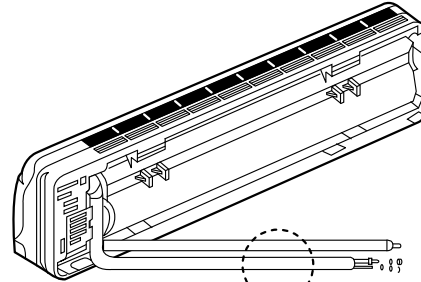
**FOR RIGHT REAR PIPING:**

- C** Route the tubing and the drain hose straight backwards.
- D** Insert the connecting wiring cable into the indoor unit from the outdoor unit through the piping hole.

- 1 Do not connect the cable to the indoor unit.
- 2 Make a small loop with the cable for easy connection later.

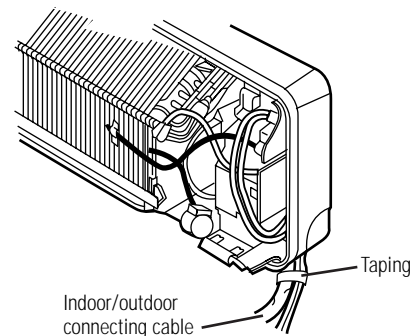
NOTE: Wiring must comply with local and NEC codes. The interconnecting wiring between indoor and outdoor units of this system must be 18-4 wiring, 18-gauge (minimum), 300-volt rating, type SJO-WA or STO-WA.

- E** Tape the tubing, drain hose and the connecting cable. Be sure that the drain hose is located at the lowest side of the bundle. Locating at the upper side can cause drain pan to overflow inside the unit.



NOTE: If the drain hose will be routed in the room, insulate the hose with an insulation material* so that dripping from "sweating" (condensation) will not damage furniture or floors.

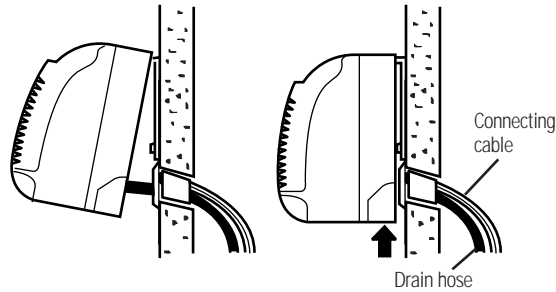
*Foamed polyethylene or equivalent is recommended.



Installation instructions.

F Indoor unit installation.

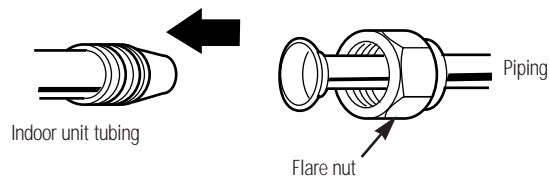
Hook the indoor unit onto the upper portion of the installation plate. (Engage the two hooks of the rear top of the indoor unit with the upper edge of the installation plate.) Ensure that the hooks are properly seated on the installation plate by moving it left and right.



Press the lower left and right sides of the unit against the installation plate until the hooks engage with their slots (clicking sound).

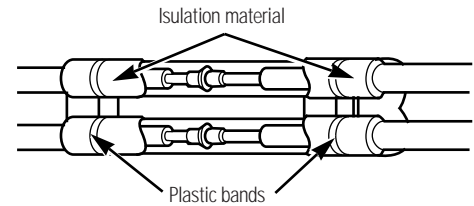
G Connecting the pipings to the indoor unit.

- 1 Align the center of the pipings and sufficiently tighten the flare nut by hand.
- 2 Tighten the flare nut with a wrench.



H Wrap the insulation material around the connecting portion.

CAUTION: Be careful to arrange the pipings, drain hose and cables as shown on page 17 by connecting them to the indoor unit.

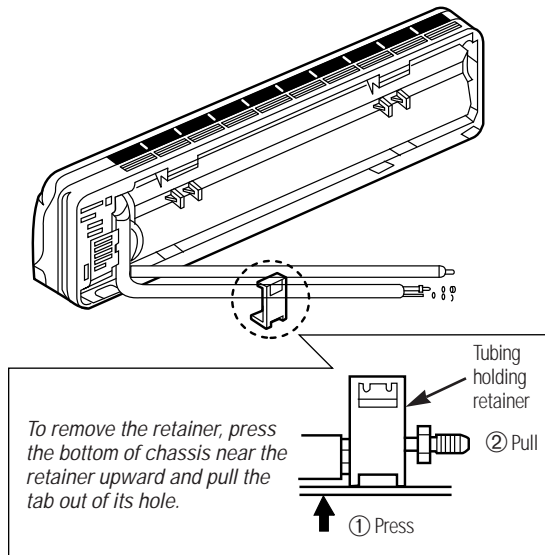


Wrap insulation material around the connecting portion.

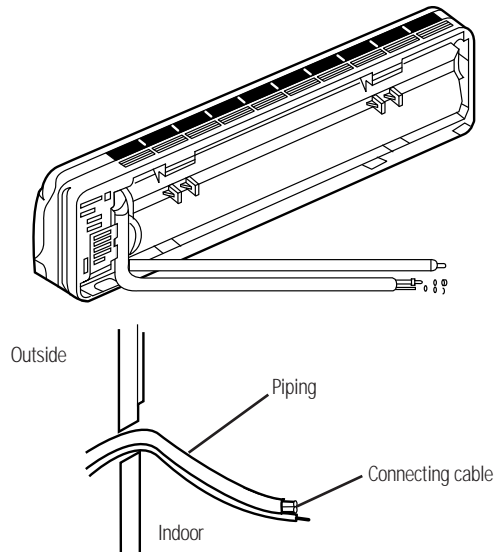
Connection of the Pipes

FOR LEFT REAR PIPING:

- A** Route the indoor tubing with the drain hose through the piping hole in the desired position.



- B** Insert the pipings, power supply cord and the connecting cable into the piping hole.

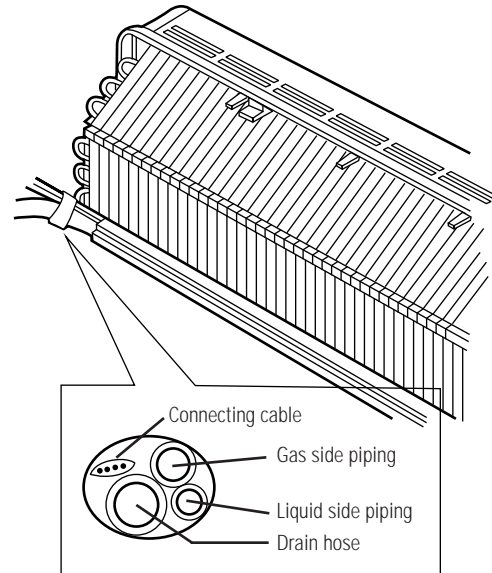


- C** Insert the connecting cable into the indoor unit.

- 1 Do not connect the cable to the indoor unit.
- 2 Make a small loop with the cable for easy connection later.

NOTE: Wiring must comply with local and NEC codes. The interconnecting wiring between indoor and outdoor units of this system must be 18-4 wiring, 18-gauge (minimum), 300-volt rating, type SJO-WA or STO-WA.

- D** Tape the tubing, drain hose and the connecting cable.



- E** Indoor unit installation.

Hook the indoor unit onto the upper portion of the installation plate. (Engage the two hooks of the rear top of the indoor unit with the upper edge of the installation plate.) Ensure that the hooks are properly seated on the installation plate by moving it left and right.

- F** Connect the pipings to the indoor unit.

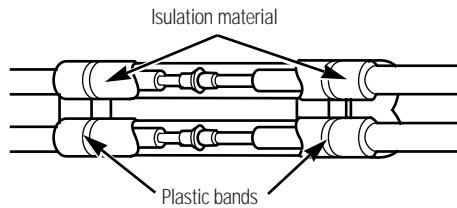
Align the center of the pipings and sufficiently tighten the flare nut by hand.

Installation instructions.

Piping and Condensate Drain Line—Indoor

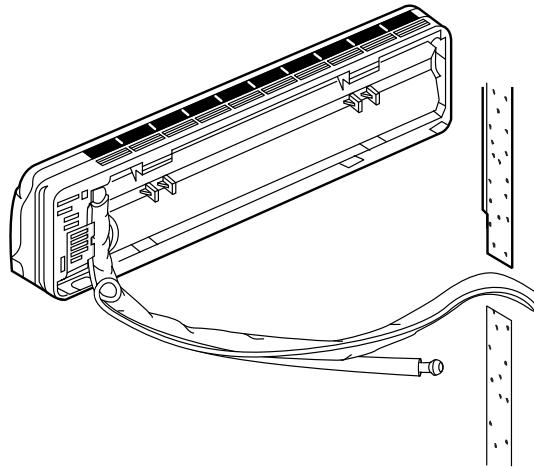
- G** Wrap the insulation material around the connecting portion.

CAUTION: Be careful to arrange the pipings, drain hose and cables as shown on page 17 by inserting them into the indoor unit and reattaching the tubing retainer.

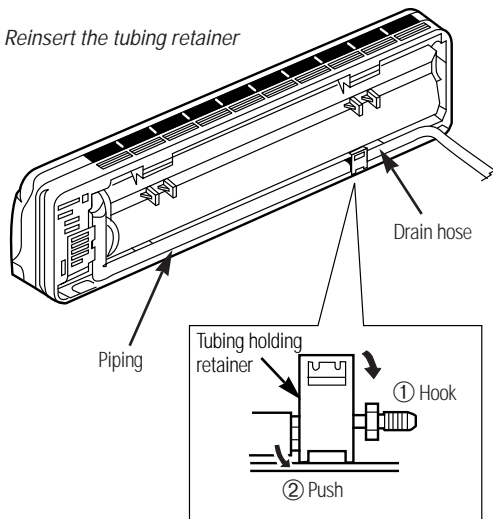


Wrap insulation material around the connecting portion.

- H** Reroute the pipings and the connecting cable across the back of the chassis.

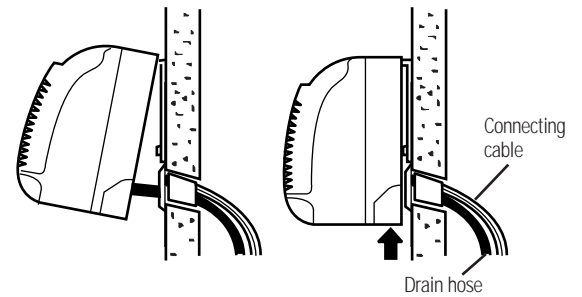


Reinsert the tubing retainer



- I** Indoor unit installation.

Hook the indoor unit onto the upper portion of the installation plate. (Engage the two hooks of the rear top of the indoor unit with the upper edge of the installation plate.) Ensure that the hooks are properly seated on the installation plate by moving it left and right.



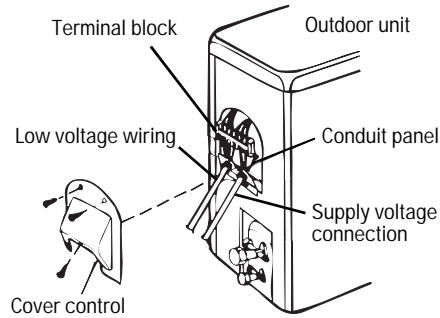
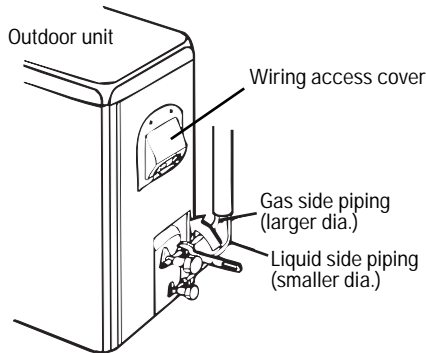
Press the lower left and right sides of the unit against the installation plate until the hooks engage with their slots (clicking sound).

5

Connection of the Pipes and the Cable to the Outdoor Unit

A Connecting the pipings to the outdoor unit.

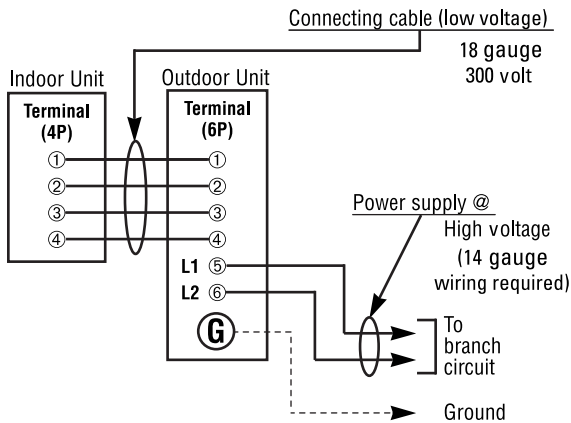
- 1 Align the center of the pipings and sufficiently tighten the flare nut by hand.
- 2 Tighten the flare nut with a wrench.



WARNING

- Be sure to comply with local codes to route the wire from the indoor unit to the outdoor unit (size of wire and wiring method, etc.).
- Every wire must be connected securely.
- No wire should be allowed to touch refrigerant tubing, the compressor or any moving parts.

B Wiring diagram:



Model	Power Source	AWG(Min.)		Fuse or Breaker Capacity
		Supply voltage connection	Low voltage wiring	
9K	115V 60Hz - 1Ph	14	18	15 amps
12K	115V 60Hz - 1Ph	14	18	20 amps
18K	230/208V 60Hz - 1Ph	14	18	15 amps

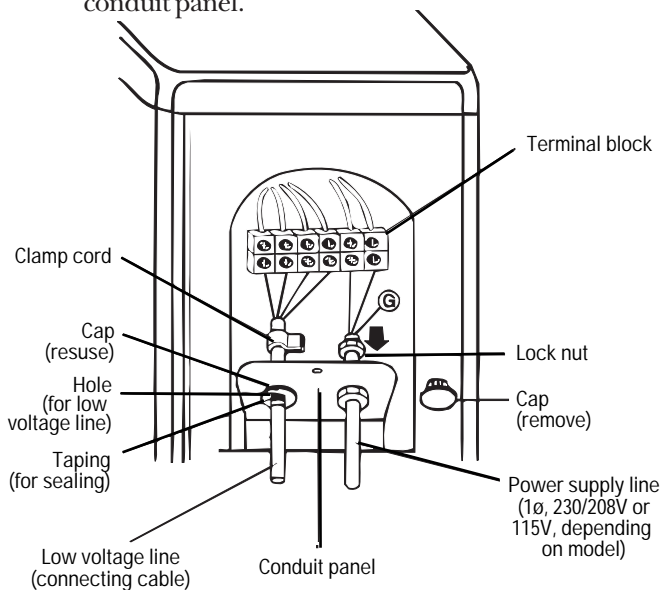
NOTES:

- shows field wiring (low voltage).
- shows power source wiring.
- Separately wire the high and low voltage lines.
- Use heat-proof electrical wiring capable of withstanding temperatures of up to 167° F.
- Use outdoor and waterproof connection cable rated more than 300V for the connection between indoor and outdoor units. (For example, Type SJO-WA.)

Installation instructions.

Connecting wiring to outdoor unit:

- 1 Remove the wiring access cover on the outdoor unit.
- 2 Drill a hole through the plastic plug cap appropriate for the passage of connecting cable (for low voltage line).
- 3 Pass the connecting cable through hole.
- 4 Properly connect the wire onto the terminal block.
- 5 Fix the connecting cable with the clamp cord provided on the unit to avoid strain at the terminal when the connecting cable is pulled outside by up to a 35-pound weight.
- 6 Wind vinyl tape over the connecting cable for sealing between the surface of the connecting cable and cap.
- 7 Mount the taped part of the cable on the cap.
- 8 Mount the holed cap with the wound cable on the conduit panel.

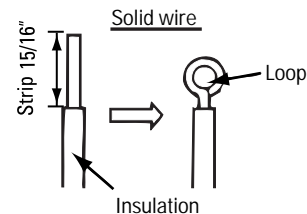


WARNING: Loose wiring may cause the terminal to overheat or result in unit malfunction. A fire hazard may also exist. Be sure all wiring is tightly connected.

How to connect wiring to the terminals:

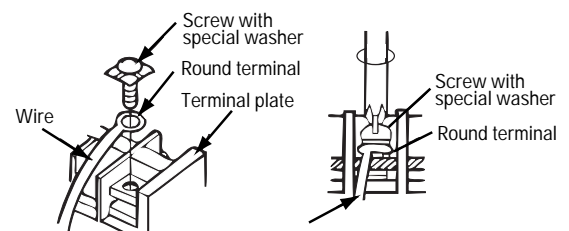
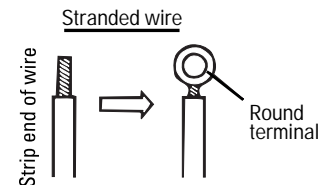
■ For solid core wiring (or F-cable)

- 1 Cut the wire end with a wire cutter or wire-cutting pliers, then strip the insulation to expose the solid wire about 15/16".
- 2 Using a screwdriver, remove the terminal screw(s) on the terminal plate.
- 3 Using pliers, bend the solid wire to form a loop suitable for the terminal screw.
- 4 Shape the loop wire properly, place it on the terminal plate and tighten securely using a screwdriver.



■ For strand wiring

- 1 Cut the wire end with a wire cutter or wire cutting pliers, then strip the insulation to expose the strand wiring about 3/8".
- 2 Using a screwdriver, remove the terminal screw(s) on the terminal plate.
- 3 Using a round terminal fastener or pliers, securely clamp each stripped wire end with a round terminal.
- 4 Position the round terminal wire, and replace and tighten the terminal screw using a screwdriver.

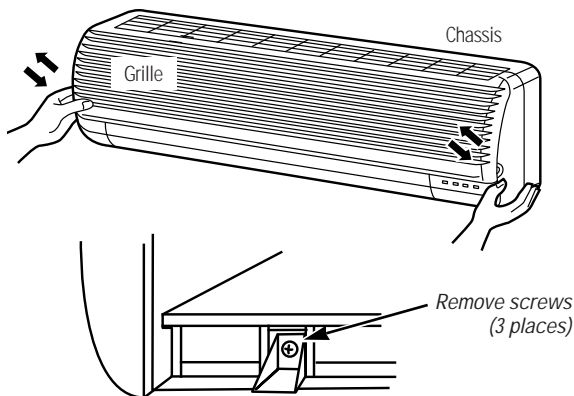


6

Check the Condensate Drain and Connect the Cable to the Indoor Unit

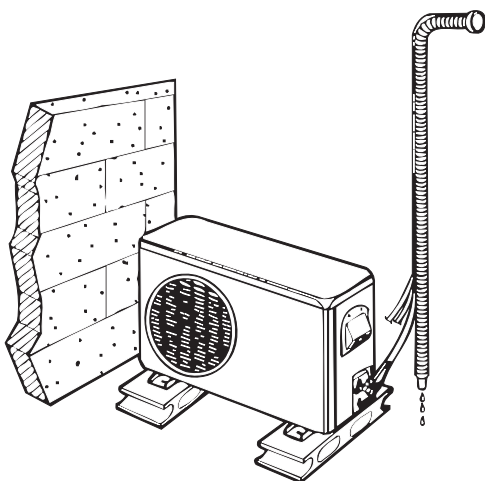
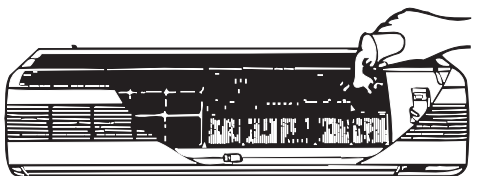
A Remove the grille from the indoor unit.

- 1 Set the up and down air direction louvers to the open position (horizontally) by hand.
- 2 Remove 3 screws that retain the front grille. Pull the lower left and right sides of the grille toward you and lift it off.



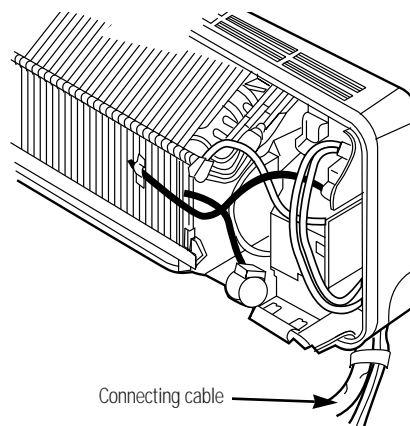
B Check the drainage.

- 1 Pour a glass of water on the evaporator.
- 2 Ensure that water flows through the drain hose of the indoor unit without any leakage and goes out the drain exit.



C Connect the cable to the indoor unit by connecting the wires to the terminals on the control board individually according to the outdoor unit connection.

- 1 Ensure that the color of the wires of the outdoor unit and the terminal No. are the same as those of the indoor unit. (Refer to the Wiring diagram on page 21.)

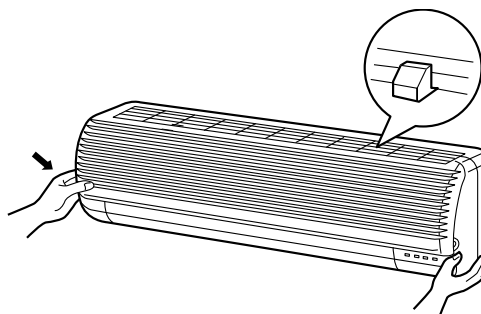


WARNING:

- Be sure to refer to the wiring diagram—see Mini Manual. Improper wiring can cause the unit to operate incorrectly and result in a fire hazard.
- Check local electrical codes and any specified wiring instructions or limitations.

D Attach the grille onto the cabinet.

- 1 Grasp the lower part of the left and right sides of the grille and engage the four tabs on the top inside edge of the chassis.
- 2 Press the grille toward the chassis until it clicks back into place.
- 3 Reinstall the (3) retaining screws.



- 4 Close grille front.

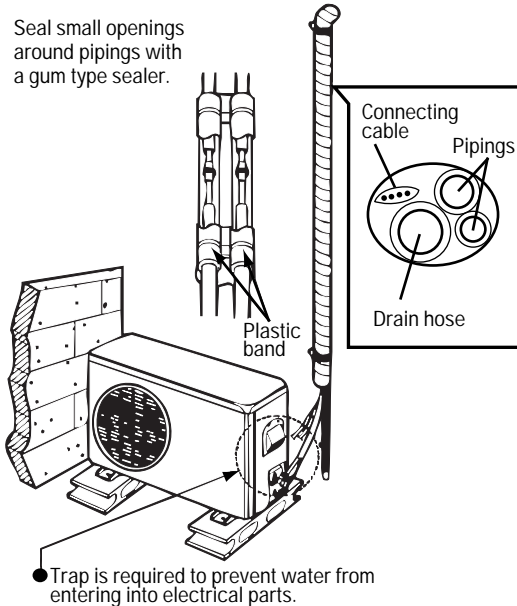
Installation instructions.

- E** Form the pipings by wrapping the connecting portion of the indoor unit with insulation material and secure it with two plastic bands (for the right pipings).

If you want to connect an additional drain hose, the end of the drain outlet should be routed above the ground. Secure the drain line appropriately.

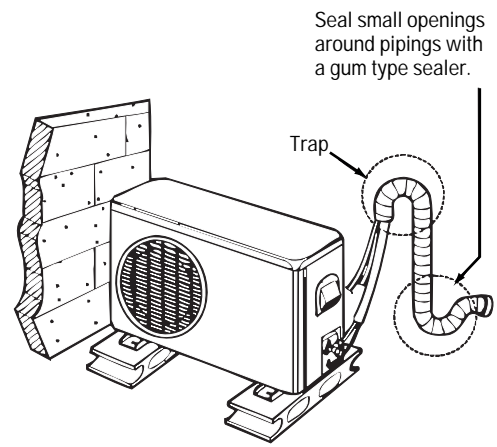
- **If the outdoor unit is being installed below the position of the indoor unit:**

- 1 Tape the pipings, drain hose and connecting cable from down to up.
- 2 Form the pipings gathered by taping along the exterior wall and fix them onto the wall by saddle or equivalent.



- **If the outdoor unit is being installed above the position of the indoor unit:**

- 1 Tape the pipings and connecting cable from down to up.
- 2 Form the pipings gathered by taping along the exterior wall. The trap should be formed up to prevent water from entering into the room.
- 3 Fix the pipings onto the wall by saddle or equivalent.



- F** A plastic drain elbow is provided with the outdoor heat pump unit for routing any condensation away from the outdoor unit basepan. Attach the elbow to the basepan near the compressor and then attach a hose (that you provide) to the other end to route the water away.

Air Purging

Any air or moisture remaining in the refrigerant system has undesirable effects as indicated below.

- Pressure in the system rises.
- Operating current rises.
- Cooling (or heating) efficiency drops.
- Moisture in the refrigerant circuit may freeze and block capillary tubing.
- Water may lead to corrosion of parts in the refrigerant system.

The indoor unit and tubing between the indoor and outdoor units must be leak-tested and the system evacuated to remove any noncondensables and moisture.

NOTE: The outdoor unit contains R22 charge for the total system.

A Air purging with a vacuum pump.

Preparation:

Check that each tube (both liquid and gas side tubes) between the indoor and outdoor units has been properly connected and all wiring for the test run has been completed. Remove the valve caps from both the gas and the liquid side service valves on the outdoor unit. Note that both liquid and gas side service valves on the outdoor unit are kept closed at this stage.

NOTE: The outdoor unit contains R22 charge for the total system.

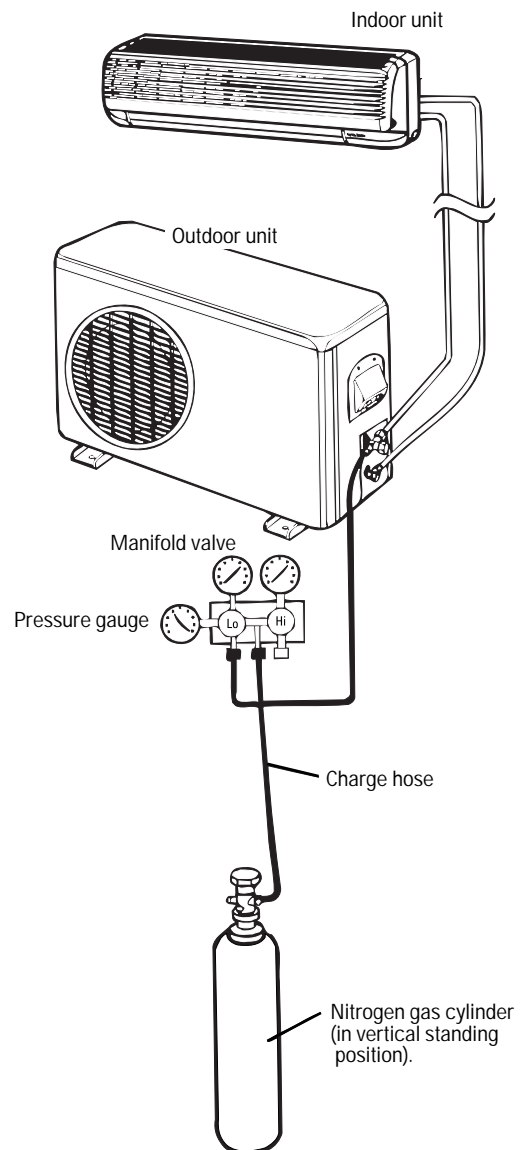
Leak Test:

- 1 Connect a manifold valve (with pressure gauges) and dry nitrogen gas cylinder to the suction service port.
- 2 Pressurize the system to no more than 150 P.S.I.G. with dry nitrogen gas and close the cylinder valve when the gauge reading reaches 150 P.S.I.G. Next, test for leaks with liquid soap.

CAUTION: To avoid nitrogen entering the refrigerant system in a liquid state, the top of the cylinder must be higher than its bottom when you pressurize the system. Usually, the cylinder is used in a vertical standing position.

- 3 Do a leak test of all joints of the tubing (both indoor and outdoor) and both gas and liquid side service valves. Bubbles indicate a leak. Be sure to wipe off the soap with a clean cloth.

- 4 After the system is found to be free of leaks, relieve the nitrogen pressure by loosening the charge hose connector at the nitrogen cylinder. When the system pressure is reduced to normal, disconnect the hose from the cylinder.



Installation instructions.

Evacuation:

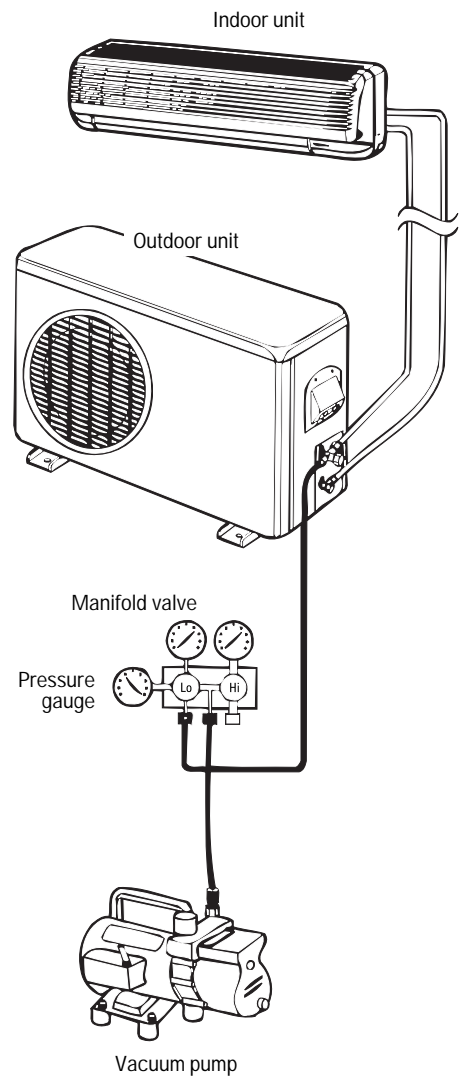
Connect the charge hose end described in the preceding steps to the vacuum pump to evacuate the tubing and the indoor unit. Confirm that the “Lo” knob of the manifold valve is open. Run the vacuum pump. The operation time for evacuation varies with the tubing length and capacity of the pump.

Allow the pump to operate until the system has been evacuated down to 300 microns. Allow the pump to continue running for an additional 15 minutes. Turn off the pump and leave the connections secured to the two service valves. After 5 minutes, if the system fails to hold 500 microns or less, check all connections for tight fit and repeat the evacuation procedure.

Finishing the Job:

- 1 With a service valve wrench, turn the valve stem of the liquid side valve counter-clockwise to fully open the valve.
- 2 Turn the valve stem of gas side valve counter-clockwise to fully open the valve.
- 3 Loosen the charge hose connected to the gas side service port slightly to release the pressure, then remove the hose.
- 4 Replace the flare nut and its bonnet on the gas side service port and fasten the flare nut securely with an adjustable wrench. This process is very important to prevent gas leaks in the system.
- 5 Replace the valve caps at both gas and liquid side service valves and fasten them securely and tightly.

This completes air purging with a vacuum pump. The system is now ready to test run.



For any service which requires entry into the refrigerant sealed system, Federal regulations require the work be performed by a technician having a Class II or Universal certification.



Test Running and Evaluation

- 1 Check that all tubing and wiring has been properly connected.
- 2 Check that the gas and liquid side service valves are fully open.

Operate the system for 15–20 minutes. Check the system refrigerant charge:

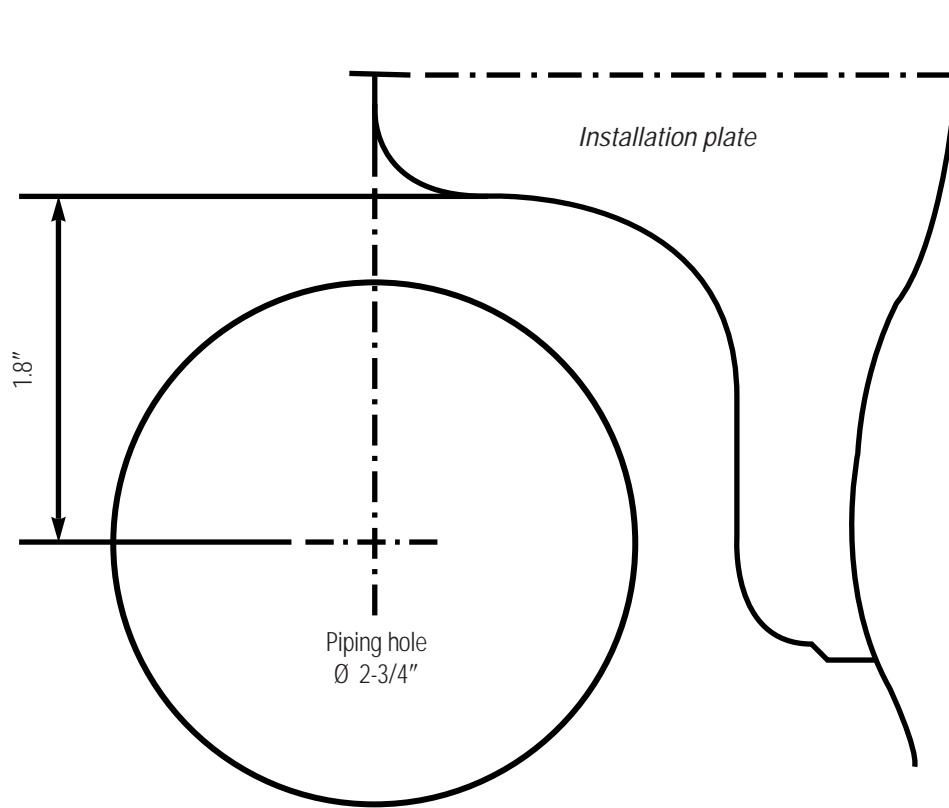
- 1 Measure the pressure of the gas side service valve.
- 2 Measure the outside ambient air temperature.

NOTE: Refer to the Mini-Manual supplied with the unit for the systems operating amperage and evaporator discharge air temperature at the various ambient levels. At a typical outdoor ambient temperature of 95° F, the gas (suction) pressure at the outdoor unit should be 70–75 P.S.I.G. in cooling mode.

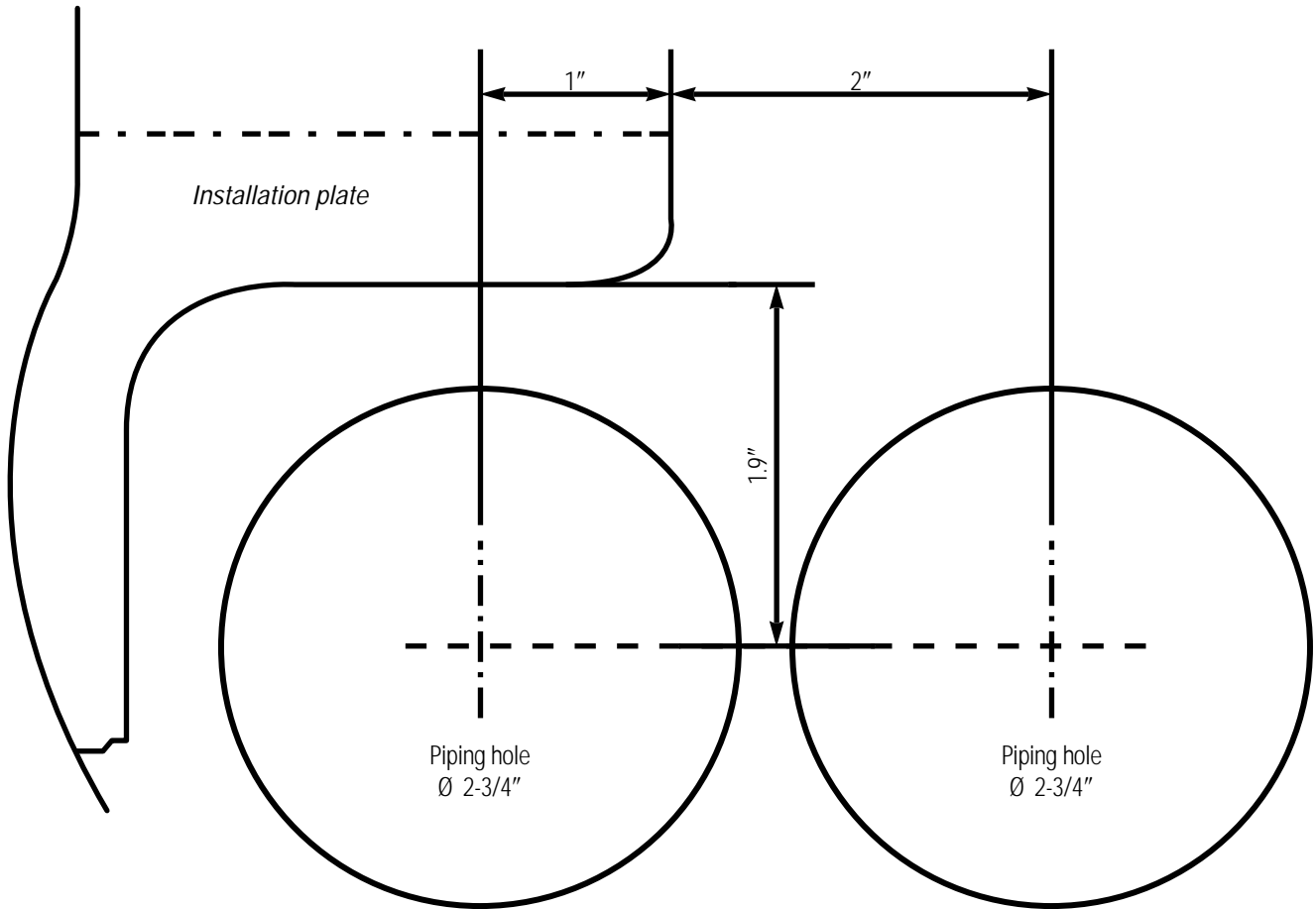
For any service which requires entry into the refrigerant sealed system, Federal regulations require the work be performed by a technician having a Class II or Universal certification.

Installation instruction templates.

Left Side Installation



Right Side Installation

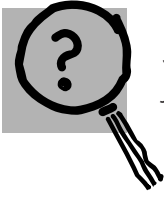


Models:

AS1CD09
AS1RD09
AS1CD12
AS1RD12

AS1CD18
AS1RD18

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.

Problem	Possible Causes	What To Do
<i>The system does not start</i>	The fuse is blown/circuit breaker is tripped.	• Check the house fuse/circuit breaker box and replace the fuse or reset the breaker.
	The Timer operation is not set correctly.	• Check the Timer functions and make sure they are set to the desired settings.
	The unit does not operate when restarted.	• This is normal. Wait about 3 minutes and the unit will restart.
<i>The system does not cool or heat as it should</i>	Airflow is restricted.	• Make sure there are no curtains, blinds or furniture blocking the front of the system.
	The temperature control may not be set high or low enough.	• Turn to a lower or higher setting. The lowest setting provides maximum cooling. The highest setting provides maximum heating (heat pumps only).
	The air filter is dirty.	• Clean the filter at least every 30 days. See the <i>Operating Instructions</i> section.
	The room may have been hot or cold.	• When the system is first turned on you need to allow time for the room to cool down or warm up.
	Cold or warm air is escaping.	• Check for open furnace floor registers and cold air returns.
<i>The remote control display is faint or shows no display at all</i>	The batteries may be dead.	• Replace the batteries.
	The batteries are inserted incorrectly.	• Check the position of the batteries. They should be inserted in the opposite (+) and (–) direction.

Normal Operating Sounds

- You may hear a sound like water flowing. This is the sound of refrigerant flowing inside the system.
- A noise that sounds like air being released is a design feature of dehumidifying water being processed inside the system.
- You may hear a clicking noise when you start or stop the unit. This sound is the expansion or contraction of the unit due to changes in the temperature.

Split System Warranty



All warranty service provided by our Factory Service Centers, or an authorized Customer Care® technician. For service, call 800-GE-CARES.

For The Period Of:	GE Will Replace, At No Charge To You:
One Year From the date of the original purchase	Any part of the split system air conditioner which fails due to a defect in materials or workmanship. During this full one-year warranty , GE will also provide, free of charge , all labor and in-home service to replace the defective part.
Five Years From the date of the original purchase	Any part of the sealed refrigerating system (the compressor, condenser, evaporator and internal connecting tubing) which fails due to a defect in materials or workmanship. During this five-year warranty , GE will also provide, free of charge , all labor and in-home service to replace the defective part.

For each of the above warranties: Transportation expense to and from a service shop and shop service labor, if required, will be free of charge.

What GE Will Not Cover:

- Service trips to your home to teach you how to use the product.
- Improper installation. If you have an installation problem, or if the split system air conditioner is of improper cooling capacity for the intended use, contact your dealer or installer. You are responsible for providing adequate electrical connecting facilities.
- Failure of the product resulting from modifications to the product or due to unreasonable use including failure to provide reasonable and necessary maintenance.
- In commercial locations, labor necessary to move the unit to a location where it is accessible for service by a technician.
- Replacement of house fuses or resetting of circuit breakers.
- Failure due to corrosion on models not corrosion-protected.
- Damage to the product or system leaks caused by improper field-installed interconnecting tubing between indoor and outdoor units, improper power supply voltage, accident, fire, floods or acts of God.
- Incidental or consequential damage to personal property caused by possible defects with this split system air conditioner.

This warranty is extended to the original purchaser and any succeeding owner for products purchased for home use within the USA. In Alaska, the warranty excludes the cost of shipping or service calls to your home.

Some states do not allow the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. To know what your legal rights are, consult your local or state consumer affairs office or your state's Attorney General.

Warrantor: General Electric Company, Louisville, KY 40225

Service Telephone Numbers.



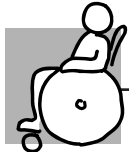
GE Answer Center® 800.626.2000

The GE Answer Center® is open 24 hours a day, 7 days a week.



In-Home Repair Service 800-GE-CARES (800-432-2737)

Expert GE repair service is only a phone call away.



Special Needs Service 800.626.2000

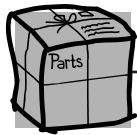
800-TDD-GEAC (800-833-4322)

GE offers, free of charge, a brochure to assist in planning a barrier-free kitchen for persons with limited mobility.



Service Contracts 800-626-2224

Purchase a GE service contract while your warranty is still in effect and you'll receive a substantial discount. GE Consumer Service will still be there after your warranty expires.



Parts and Accessories 800-626-2002

Individuals qualified to service their own appliances can have parts or accessories sent directly to their homes (VISA, MasterCard and Discover cards are accepted).

Servicing and installation of the refrigerant system must be performed only by a licensed, HVAC certified technician.

Instructions contained in this manual cover procedures to be performed by any user. Other servicing generally should be referred to qualified service personnel. Caution must be exercised, since improper servicing may cause unsafe operation.

For any service which requires entry into the refrigerant sealed system, Federal regulations require the work be performed by a technician having a Class II or Universal certification.



Service Satisfaction

If you are not satisfied with the service you receive from GE:

First, contact the people who serviced your appliance.

Next, if you are still not pleased, write all the details—including your phone number—to:

Manager, Consumer Relations
 GE Appliances
 Appliance Park
 Louisville, KY 40225

Finally, if your problem is still not resolved, write:

Major Appliance Consumer Action Program
 20 North Wacker Drive
 Chicago, IL 60606