

# OWNER'S MANUAL

## SPLIT-SYSTEM AIR CONDITIONER

### USING R-410A REFRIGERANT

#### A NOTE ABOUT SAFETY

Any time you see this symbol ⚠ in manuals, instructions and on the unit, be aware of the potential for personal injury. There are three levels of precaution:

**DANGER** identifies the most serious hazards which will result in severe personal injury or death.

**WARNING** signifies hazards that could result in personal injury or death.

**CAUTION** is used to identify unsafe practices which would result in minor personal injury or product and property damage.

**NOTE** is used to highlight suggestions which will result in enhanced installation, reliability, or operation.

#### ⚠ WARNING

##### PERSONAL INJURY, DEATH AND / OR PROPERTY DAMAGE HAZARD

Failure to follow this warning could result in personal injury, death or property damage. Improper installation, adjustment, alteration, service, maintenance, or use can cause explosion, fire, electrical shock, or other conditions which may cause personal injury or property damage.

Consult a qualified installer, service agency, or your distributor or branch for information or assistance. The qualified installer or service agency must use factory-authorized kits or accessories when modifying this product. Read and follow all instructions and warnings, including labels shipped with or attached to unit before operating your new air conditioner.

#### ⚠ WARNING

##### ELECTRICAL SHOCK HAZARD

Failure to follow this warning could result in personal injury or death.

Disconnect all electrical power to the indoor air handler or furnace before removing access panels to perform any maintenance.

Disconnect power to both the indoor and outdoor units.

**NOTE:** There may be more than one electrical disconnect switch.

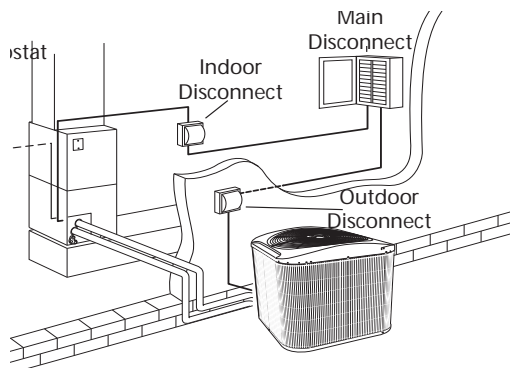


Fig. 1 – Electrical Disconnects

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#### ABOUT YOUR AIR CONDITIONING SYSTEM

Our products are designed, tested and built in accordance with US Department of Energy standardized procedures and other standards; however, actual operating results and efficiencies may vary based on manufacturing and supplier tolerances, equipment configuration, operating conditions and installation practices.

##### Identifying Your System

Your new air conditioning system is called a "split system." It has an outdoor unit and an indoor unit connected to each other with copper tubing called refrigerant lines. Each of these units has a rating plate with the model and serial numbers you will need to reference when calling an authorized dealer about your system.

Take a few moments now to locate those numbers and record them for future reference.

##### Using Your New System

Your air conditioning system is controlled by a wall-mounted thermostat installed inside your home. Because there are so many thermostats available, please refer to the owner's manual supplied with your thermostat for complete details on system operation.

##### 2-Stage Operation

If you own a two-stage air conditioning system, you may notice your system runs for longer periods of time. When appropriately sized, nearly 80% of the time it's running, it is operating in low-stage, and your indoor temperature will remain more consistent with fewer drafts, better humidity control, enhanced comfort and enhanced energy efficiency.

##### Cooling Your Home

For cooling operation, make sure the System or Mode control is set for Cooling. Then, adjust the Temperature control to your desired setting. Finally, use the Fan control to select Automatic (turns on and off as cooling is needed) or On (runs continuously).

##### Operation Under Extreme Conditions

Your air conditioner will run as long as necessary to maintain the indoor temperature selected on your thermostat. On extremely hot days, your air conditioner will run for longer periods at a time than on moderate days. Your system will also run for longer periods of time under the following conditions:

- Frequent opening of exterior doors
- Operating laundry appliances
- Taking hot showers
- More than the usual number of people present in the home
- More than the normal number of electric lights in use
- Drapes or blinds are open on the sunny side of the home

#### ROUTINE MAINTENANCE

Simple, routine maintenance as described below will enhance your air conditioning system's ability to operate economically and dependably. Always remember the following safety precautions:

#### ⚠ CAUTION

##### PERSONAL INJURY AND/OR PRODUCT AND PROPERTY DAMAGE HAZARD

Failure to follow this caution may result in personal injury or product and property damage. Although special care has been taken to minimize sharp edges in the construction of your unit, be extremely careful when handling parts or reaching into the unit.

**• Keep Filter Clean**

A clogged or improperly installed air filter on your indoor unit will increase operating costs and shorten the life of the unit. For detailed filter cleaning information refer to indoor unit literature.

**• Do Not Block Floor, Wall or Ceiling Vents**

When drapes, furniture, toys or other common household items block vents, the restricted airflow lessens the system's efficiency and life span.

**• Do Not Cover or Block Outdoor Unit**

The outdoor unit needs unrestricted airflow. Do not cover it or place items on or next to it. Do not allow grass clippings, leaves, or other debris to accumulate on the sides or top of the unit. And, maintain a 12" (304.8 mm) minimum clearance between the outdoor unit and tall grass, vines, shrubs, etc.

**• Check Condensate Drain**

Your air conditioner removes humidity from your home during the cooling season. After a few minutes of operation, water should trickle from the condensate drain of the indoor coil. Check this occasionally to be sure the drain system is not clogged. Drainage will be limited if you live in a very dry environment.

**• Do Not Operate Below 55°F/13°C**

Your outdoor unit is not designed to operate when outdoor temperatures are lower than 55°F/13°C without modification. If operation below this temperature is required, consult your authorized dealer.

**• Coil Cleaning**

Your indoor coil is located in a sealed cabinet on your indoor unit and will require minimal cleaning with routine filter maintenance. Longer operating cycles and reduced energy efficiency may indicate the need for a coil cleaning by your authorized dealer.

**• Base Pan Drainage**

Periodically check for and remove debris that has settled around the base of your outdoor unit. This will ensure proper drainage of the base pan and eliminate standing water inside the outdoor unit.

**• Level Installation**

Your authorized dealer will install the outdoor unit in a level position. If the support base settles or shifts and the unit is no longer level, be sure to re-level it promptly to assure proper drainage. If you notice water or ice collecting beneath the unit, arrange for it to be drained away from the unit.

**Sea Coast Coil Maintenance**

Coastal locations often require additional maintenance of the outdoor unit due to highly corrosive airborne ocean salt. Although your new

system is made of galvanized metal and is protected by top-grade paint, take the additional precaution of periodically washing all exposed surfaces and the outdoor coil approximately every 3 months. Consult your installing dealer for proper cleaning intervals and procedures for your geographic area or ask about a service contract for regularly scheduled professional cleaning and inspections.

**TROUBLESHOOTING**

Before you request dealer service, check for these easily solved problems:

- Check the indoor and outdoor disconnect switches. Also check your main electrical panel circuit breakers or fuses.
- Check for sufficient airflow. Air filter(s) should be reasonably clean and interior vents should be open and unobstructed.
- Check thermostat settings. For cooling, your desired temperature setting should be LOWER than the displayed room temperature, and the System/Mode control should be on Cool or Auto. For heating, your temperature setting should be HIGHER than the displayed room temperature, and the System/Mode control is set to Heat or Auto.
- Time delays - depending on the air conditioner you have, there may be delays in unit operation that are built-in to protect the equipment and your comfort. Don't be alarmed if you notice a time delay in operation. It may be a standard protection feature of your equipment. Check with your authorized Dealer for more information on time delays.

If you need to contact your authorized dealer for troubleshooting and/or repairs, be sure to have the model and serial numbers of your equipment available (there are spaces on the cover for you to write this information). With this information, your dealer may be able to offer helpful suggestions over the phone or save valuable time through knowledgeable preparation for the service call.

**Regular Dealer Maintenance**

In addition to the routine maintenance that you perform, your home comfort system should be inspected regularly by a properly trained service technician. Many dealers offer this service at a reduced rate with a service contract. Some service contracts offer additional benefits such as parts discounts and no additional charge for "after hours" or emergency service.

Monthly maintenance items and outdoor unit rinsing may be performed by the consumer. All other maintenance items and all service work must be performed by a qualified service technician. Read all warning labels.

Maintenance Checklist	Recommended Interval*	
	Monthly	Annual
<b>Outdoor unit specific:</b>		
Clear away debris and vegetation near unit.	X	
Inspect cabinet for damage. Replace components that are damaged or severely rusted.		X
Inspect electrical disconnect for proper function. Repair or replace as necessary.		X
Inspect electrical wiring and connections. Tighten loose connections. Inspect and perform functional test of equipment as needed to ensure proper function. Repair or replace damaged or overheated components and wiring.		X
Check refrigerant system subcooling and/or superheat (system dependent).		X
Inspect inside of unit. Clean if debris is present.		X
Inspect condenser coil. Clean if dust, dirt, or debris is present. Rinse unit with fresh water (see Note 2).		X
Inspect motor and fan for damage. Make sure fan spins freely.		X
<b>Indoor specific: (for fossil fuel furnaces and accessories, refer to unit specific literature)</b>		
Inspect, clean, or replace air filter if dirty.	X	
Inspect and clean blower assembly (includes blower housing, wheel, and motor).		X
Inspect internal and external of cabinet. Clean as needed.		X
Inspect electrical disconnect for proper function. Repair or replace as necessary.		X
Inspect electrical components, wiring, and connections. Tighten loose connections. Repair or replace damaged components and wiring.		X
Inspect evaporator coil. Clean if dust, dirt, or debris is present (see Note 2).		X
Clean condensate pan, trap, and drain lines (more frequent maintenance may be required in humid climates - consult your local HVAC dealer).		X
Inspect airflow system (ductwork). Check for leaks and repair as needed.		X

\* Monthly maintenance items and outdoor unit rinsing may be performed by the consumer. All other maintenance items and all service work must be performed by a qualified service technician. Read all warning labels.

- Notes:
1. The above list may not include all maintenance items. Inspection intervals may vary depending on climate and operating hours. Consult your HVAC dealer about a service contract for seasonal inspections.
  2. Do not use harsh chemicals or high pressure water on coils. More frequent rinsing is required for units near a sea coast.