


# Split System Heat Pump

## Home Owner's Information

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.

### 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.

### Thermostat

Your heat pump is controlled by the thermostat mounted on your wall. The thermostat is a highly sensitive low voltage device and is available in several different configurations from different manufacturers. The details listed below are typical for most installations. Ask your dealer for more specific information regarding the model of thermostat installed.

#### Heating Mode

Set the system selector switch to HEAT. The heat pump will run until the actual room temperature is raised to the point you have selected.

#### Cooling Mode

Set the system selector switch to COOL. The heat pump will run until the actual room temperature is lowered to the point you have selected.

#### Temperature Control

Set the temperature selector to your desired room temperature. For heating, the heat pump will run any time the actual room temperature falls below the point you have selected. For cooling, the heat pump will run (as an air conditioner) any time the actual room temperature rises above the point you have selected.

#### Fan Control

The fan selector switch allows you to run the fan continuously or cycle it automatically with the cooling system. Set the selector switch to ON for continuous operation or to AUTO for automatic cycling. For maximum comfort satisfaction, continuous fan operation throughout the year is recommended (selector switch set to ON).

### Important Heat Pump Facts

Heat pump systems have a few unique features and operations you should be aware of:

- During the heating cycle, your heat pump delivers a constant flow of air at around 95°F (35°C) to about 105°F (41°C), compared to sudden blasts of hot air provided by a typical furnace.
- Ice or frost may form on the outdoor coil during winter heating operation. Your heat pump will automatically melt the ice using its defrost cycle. During defrost, you may see steam or fog rising from the outdoor unit, which is normal. At the beginning and end of the defrost cycle, you may hear a “whoosh” sound coming from the unit. This is normal for heat pump applications.
- Heat pumps installed in areas expecting snow are elevated with support feet.
- In Extreme weather conditions with heavy snow and ice storms, build-up may accumulate on the top of the heat pump and fan blade, causing excessive vibration that may result in damage and or reduced performance. In these conditions, it may be appropriate to turn the heat pump off and run on auxiliary heat until snow and ice has cleared

### Operation under Extreme Conditions

Your heat pump will run as long as necessary to maintain the indoor temperature selected on your Ion<sup>TM</sup> Control or thermostat. On extremely hot days, your heat pump 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

#### **Do Not Operate Above 66°F (19°C) in Heating Mode**

Your outdoor unit is not designed to operate in heating mode when outdoor temperatures are above 66°F (19°C). You can safely operate the system above 66°F (19°C) on emergency or auxiliary heat.

#### **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.

### What To Do If Your System Does Not Work

**IMPORTANT:** Before Requesting a Service Call:


1. Check thermostat settings. If you desire heat, make sure to select a temperature above the actual room temperature, and set the system selector switch to HEAT. If you desire cooling, make sure to select a temperature below the actual room temperature, and set the system selector switch to COOL.
2. Inspect your return air filter. Replace a dirty filter or clean a reusable type filter.
3. Check circuit breakers and/or fuses. Reset breakers or replace fuses as necessary.
4. Inspect the coils and fins on the outdoor unit. Clean away any obstructions (grass clippings, leaves, dirt, dust, or lint). Check that branches, twigs, or other debris are not obstructing the fan blade.

**If your system still does not operate, contact your servicing dealer.**

Have the Model and Serial Numbers of the indoor and outdoor units available and be sure to describe the problem.

**Regular Maintenance Requirements**

Your system should be regularly inspected by a qualified 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. Between visits, there are some routine maintenance procedures you can do to help keep your system operating at peak performance.


WARNING

**ELECTRICAL SHOCK HAZARD**

Failure to turn off electrical power could result in personal injury or death.

Turn OFF all electrical power to both the indoor and outdoor units before performing any maintenance or removing any panels or doors. There may be more than one electrical disconnect switch.

**Air Filter**

Inspect air filters at least monthly and replace or clean as required. Disposable type filters should be replaced. Reusable type filters may be cleaned by soaking in mild detergent and rinsing with cold water. Install filters with the arrows on the side pointing in the direction of air flow.

**Dirty air filters are the most common cause of inadequate cooling performance, and of compressor failures.**

**Condensate Drain**

The indoor coil condenses water from the air, and this water must be disposed through an appropriate drain system. During the cooling season check at least monthly for free flow of drainage and clean if necessary.

**Outdoor Unit Coils**

Grass clippings, leaves, dirt, dust, lint from clothes dryers, and fall-off from trees can be drawn into the coils. Clogged coils will lower the efficiency of your unit and damage the compressor. Keep debris away.

Use a soft bristle brush with light pressure only. Do not damage or bend coil fins. Damaged or bent fins may affect unit operation.

**Painted Surfaces**

In geographical areas where the water has a high concentration of minerals (calcium, iron, sulfur, etc.) it is recommended that lawn sprinklers not be allowed to spray on the unit. Spraying this type of water on the unit may result in premature deterioration of the paint finish and metal components.

Never use a weather cover on a heat pump unit, as the unit runs throughout the year. If a cover is used during lengthy off cycles, make sure the cover is breathable fabric and does not hold moisture that could cause rust and damage.

**Sea Coast Coil Maintenance (when applicable)**

Coastal locations 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, we suggest washing all exposed surfaces and the outdoor coil about every 3 months. Consult your dealer for cleaning intervals and procedures or ask about a service contract for scheduled professional cleanings.

**Table 1 – Maintenance Checklist**

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.

Description of Maintenance	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

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.