

Use and Care Manual

MODELS H1318-601VAR — 1.5 THRU 5 TON 13 Seer Split System Heat Pump



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INTRODUCTION

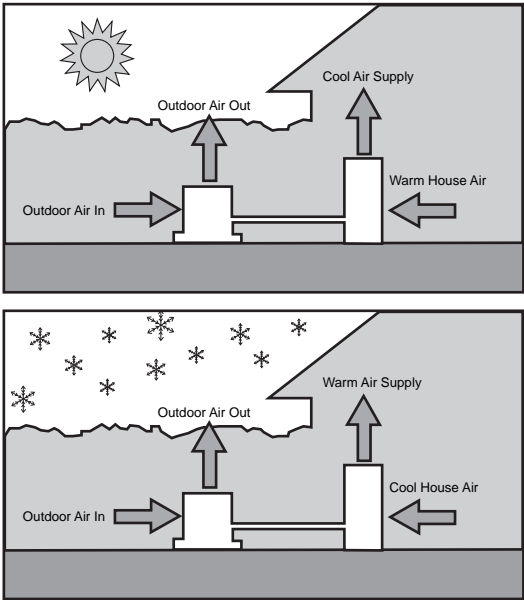
Congratulations on the purchase of your new ECR Heat Pump. This ECR product has been engineered and manufactured to a world-class quality standard and it has passed vigorous factory inspections and tests to ensure years of satisfactory service. Please familiarize yourself with your new system by reading this booklet and saving it for future reference. You will learn about the system operation and the maintenance required to keep your air conditioner operating at peak performance.

HOW YOUR SYSTEM WORKS

Your outdoor unit is designed to work with a matched indoor unit (Refer to Figure 1). The heat pump system heats, filters, dehumidifies and circulates the air inside your home. It uses a compressor, an indoor coil and an outdoor coil to move heat from inside your house to outside. In summer fans move air across the coils and circulate air in the conditioned space. A thermostat turns the fans and compressor on and off as cooling is needed. Hotter weather means more cooling is required, so your unit will run longer. When the temperature is highest, the unit may run continuously for several hours.

During the winter, the heat pump extracts the heat present in cold winter air and pumps the heat into your home, (Yes, there's heat in the air even in the Coldest weather.)

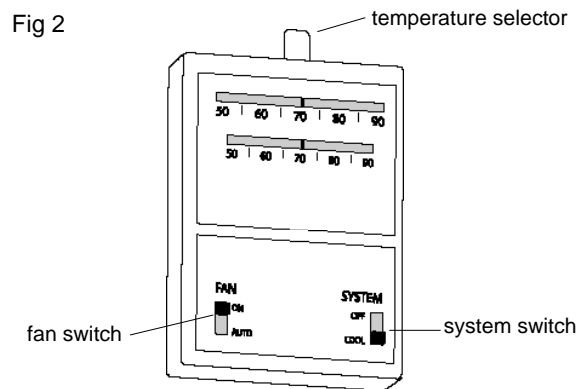
Fig.1 : Heat pump System



Operation Instructions

! WARNING – To prevent injury, or property damage, your air conditioner should be installed by a skilled installer, familiar with local codes and safety requirements. Read and follow all instructions and warnings, including labels shipped with or attached to unit before operating your new heat pump system.

Your heat pump system is controlled by your thermostat.* Many different thermostats are used, but their operation is similar. A typical mechanical thermostat is illustrated in Figure 2.



* Accessory, purchased separately. Please carefully read the instructions that came with your thermostat for proper operation

Z ! CAUTION - Do not switch your thermostat rapidly "ON" and "OFF". This could damage your equipment. Always allow at least 5 minutes between changes.

Z ! CAUTION - The thermostat control switch should be used to turn the system off. In cold weather if the main power is disconnected for more than 3 hours, turn off the thermostat before restoring the main power to the outdoor unit. After power has been restored to the outdoor unit allow sufficient time (approximately 3 hours) for the crank case heater to warm the compressor before starting the system. Failure to follow this procedure could result in damage to your system.

Cooling Operation

Set the thermostat system switch to "COOL", and the fan switch to AUTO". Then set the temperature by using the temperature selector on the thermostat. Now the system will cool your house whenever the indoor temperature is above the thermostat setting. It will shut off when the desired room temperature is reached.

Heating Operation

Set the thermostat system switch to "HEAT", and the fan switch to AUTO". Then set the temperature by using the temperature selector on the thermostat. Now the system will heat your house whenever the indoor temperature is below the thermostat setting. It will shut off when the desired room temperature is reached.

Fan Only Mode

Set the system switch to "OFF" and the fan switch to "ON". Now the system will run only the fan to circulate and filter the air in your house. Be sure to return the switches to their original positions for normal operation.

Continuous Air Circulation

Set the system switch to "COOL" and the fan switch to "ON", with the temperature selector at the desired level. This provides continuous air filtering and more even temperature distribution.

System Off

Set the system switch to "OFF" and the fan switch to "AUTO". This puts the system on stand by mode with no cooling or fan.

Let the thermostat do its job. Your air conditioner will perform most efficiently when you let the thermostat control the system. Select a comfortable temperature setting, typically between 75° and 80° F. And allow the system to operate. Once the temperature is set, you should leave your thermostat alone. Manually adjusting the set point to extreme settings will not cool or heat the room any faster.

Please remember that your system will not operate properly when the outdoor temperature is below 65° F. A low-ambient kit is advised for operation in low ambient conditions. Check with your dealer if needed.

SYSTEM MAINTENANCE

A heat pump is not a household appliance. It's a self-contained system that requires periodic professional maintenance. Other than performing the simple maintenance recommended in this booklet, you should not attempt to make any adjustments to your central air conditioning system. Your dealer will be able to answer any questions you may have, and also assist you if problems develop.



! WARNING – 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. Electric shock can cause personal injury or death.



! CAUTION – 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.

Filters

When the heat pump circulates and filters the air in your house, dust and dirt particles build up on the filter. Excessive accumulation can reduce the airflow, forcing the unit to work harder to maintain desired temperatures. The harder your unit works, the more energy it uses.

Filters should be checked at least once a month and cleaned or replaced when needed. During seasons when the unit runs more often, clean or replace your filter twice a month.

When replacing your filter, always use the same size and type that was originally supplied. Filters are available from your dealer or many retail outlets. Where disposable filters are used, they must be replaced every month with the same size as originally supplied.

Before removing the filter, see the operating instruction manual furnished with the indoor unit. Ask your dealer where the filter is located in your system and how to service it. Make sure to replace it with the arrows pointing in the direction of the airflow.



! CAUTION – Condensate drains (see instruction with the indoor unit) should be checked and cleaned periodically to assure condensate can drain freely from coil to drain. If condensate cannot drain freely, water damage could occur.



! WARNING – 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 or service agency for information or assistance. The qualified installer or agency must use factory-authorized kits or accessories when modifying this product.

Outdoor Unit

Keep the outdoor coil clean and free of restrictions. Unrestricted airflow is essential. Keep fences, shrubs, debris or other obstructions at least two feet from all coil air inlets. Make sure that nothing is stacked against the sides of the unit or draped over it. Keep the coil free of grass clippings, weeds, leaves, etc. Turn electrical power off before cleaning!

Cleaning and waxing the cabinet of the outdoor unit with automotive polish will improve its appearance and extend the life of the finish.

Never use your heat pump as a stand for garden hoses or tools. Do not permit children to play near it as moving parts and electrical components can cause serious injury including death. Use caution with lawn mower and trimmer to avoid damaging refrigerant piping or electrical wiring.

TIPS ON SAVING ENERGY

Here are other ways to save energy and improve your system's performance.

- Keep all grills and registers open and clear of obstructions such as drapes or furniture.
- Reduce the solar load by using drapes and blinds.
- Be sure all air ducts are well insulated and sealed with a vapor barrier
- Keep sun out during the summer
- Add thermal insulation, storm windows and insulated outside doors.
- Seal cracks to prevent air leakage. Also, weather-strip and caulk around all entrance doors and windows.
- Make sure attics are adequately ventilated to relieve heat buildup.
- Remember that by increasing the glass area, you increase the amount of heat added in summer
- Make sure fireplaces have dampers which can be closed when the fireplace is not in use.
- Keep your filter clean.
- Set thermostat as high as comfort will permit.
- Don't run kitchen and bath exhaust fans longer than necessary
- Don't place lamps, TV, or other heat producing devices beneath a wall-mount thermostat.
- Don't use the heat pumps unnecessarily during moderate weather

SERVICE CALLS

Before you call for service, check the Troubleshooting Guide first in Table 1.

Table 1: Troubleshooting Guide		
Problem	Possible Cause	Solution
No cooling or heating	1. Power off 2. Incorrect thermostat settings 3. Open circuit breaker or blown fuses	1. Make sure main switch is ON 2. Set thermostat to proper setting 3. Reset or replace
Insufficient cooling or heating	1. Dirty filters 2. Indoor air blockage 3. Blocked outdoor coil	1. Clean and replace 2. Check supply registers & return grills for blockage 3. Clear away leaves or other debris
Water on floor or in furnace	1. Blocked condensate drain and "P" trap	1. Remove blockage

After reviewing the troubleshooting guide, turn thermostat to "OFF" for 10 seconds and restart the system. Wait for 5 minutes. Call for service if system does not start.

Periodic inspections and services by your professional serviceman will help to keep your system operating at peak performance reducing operating costs and reducing the chance of major repairs.

If a repair is needed, the serviceman will want to know if your unit is still under Warranty. Take a few minutes to record the following information here:

Outdoor Model and Serial Number

Date Installed

Indoor Model and Serial Number

Installing Dealer

Thermostat Model Number

Service Phone



Since ECR International has a policy of continuous product and product data improvement, it reserves the right to change design and specifications without prior notice.



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