OWNER'S MANUAL

R–410A Ducted Horizontal Heat Pump

Product Family: HC4H3

NOTE TO EQUIPMENT OWNER:

For your convenience, please record the model and serial numbers of your new equipment in the spaces provided. This information, along with the installation data and dealer contact information will be helpful should your system require maintenance or service.

OUTDOOR UNIT (Air Conditioner)

Model # _____

Serial # _____

INDOOR COIL (Furnace Coil or Fan Coil)

Model # _____

Serial # _____

ACCESSORIES (List type and model #)

_____

_____

_____

INSTALLATION INFORMATION:

Date Installed _____

DEALERSHIP CONTACT INFORMATION:

Company Name_____

Address_____

_____

Phone Number _____

Technician Name _____

_____

_____

NOTE TO INSTALLER:

This manual must be left with the equipment owner.

428 02 9700 00 May 2008

WELCOME TO EFFICIENT YEAR-ROUND COMFORT

CONGRATULATIONS! You have made an excellent choice and sound investment in home cooling comfort!

Your new Heat Pump is a product of that experience, and will provide you and your family with years of dependable, energy efficient cooling comfort.

This booklet provides information on how your system works as well as helpful hints on operation and maintenance so you can enjoy peak performance for years to come. For even greater peace of mind, your expert dealer can provide professional maintenance and service on an annual or as-needed basis to ensure that your system receives the very best care from the industry experts. Ask your dealer about scheduling annual maintenance visits or about the benefits of a service contract. In addition, your installing dealer can offer expert recommendations on all of the products, accessories and services available to enhance your comfort through personalized control of your system and improved indoor air quality.

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.

⚠ 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.

⚠ WARNING

PERSONAL INJURY, DEATH, OR PROPERTY DAMAGE HAZARD

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

Read and follow all instructions and warnings, including labels shipped with or attached to unit before operating your new Heat Pump.

ABOUT YOUR HEAT PUMP SYSTEM

Identifying Your System

Your new Heat Pump system is what we call 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 in the spaces provide on the cover of this booklet.

USING YOUR NEW SYSTEM

Your Heat Pump system is controlled by a thermostat inside your home. Because there are so many thermostats available, please refer to the owner's manual supplied with your thermostat or indoor unit for complete details on system operation. Or, read the next section for basic operating instructions.

SYSTEM OPERATION WITH BASIC THERMOSTAT

Most basic thermostats have three main controls:

- **System or Mode Control:** Typically offers the following selections: Cool, Off, and Heat. Some thermostats also have Auto, which lets the system switch between heating and cooling as needed.
- **Temperature Control**: A button, lever, or set of buttons that allows you to select the temperature inside your home.
- **Fan Control**: Typically offers two options: Auto and On. "Auto" provides slightly higher energy efficiency by circulating air only during cooling (or heating) operation. "On" provides better air circulation, better dehumidification and better air cleaning by running the system's blower continuously.

HEATING YOUR HOME

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

Depending on your typical heating needs, your home comfort system may also include a supplementary heating source that will automatically turn on as needed. You may also select this heat source manually if desired.

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).

DELUXE THERMOSTATS

There are a number of deluxe thermostats, including programmable models, which can provide a number of benefits depending on the model:

- Customized daily and/or weekly comfort schedules that you create to match your lifestyle
- Enhanced energy efficiency and comfort
- Enhanced comfort through humidity control
- Enhanced maintenance reminders
- Remote system operation

Ask your dealer for information on a deluxe thermostat option that matches your Heat Pump system.

OPERATION UNDER EXTREME CONDITIONS

Your Heat Pump will run as long as necessary to maintain the indoor temperature selected on your thermostat. On colder days, in the heat pump mode, the system will run for longer periods at a time than on moderate days. the same is true in the cooling mode. On extremely hot days, the system 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 cooling 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

IMPORTANT FACTS ABOUT HEAT PUMP SYSTEMS

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

- During the heating cycle, air from your registers may seem cooler than you may expect. This is because your heat pump delivers a constant flow of air at around 90°F (32°C) to about 105°F (41°C), compared to sudden blasts of hot air provided by a typical furnace. This air may feel cool if it is slightly below your body temperature, however it is warm enough to keep your home comfortable.
- 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.
- Heat pumps installed in areas expecting snow are elevated with support feet.

GET THE MOST FROM YOUR HEAT PUMP SYSTEM

These simple suggestions can help you enjoy years of maximum comfort:

- **Listen To Your System**

Get to know the start–up and operational sounds your indoor and outdoor units make. Learn to recognize and identify unusual sounds that may signal the need for service.

- **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. Plan to inspect the filter monthly and clean or replace it as needed.

- **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 Heat Pump 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) On Cooling Mode**

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 dealer.

- **Do Not Operate Above 66°F (19°C) on Heating Mode**

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

- **Increase Heating Temperature 1–2 Degrees at a Time**

During heating operation, increasing the thermostat setting more than 2 degrees at a time may cause the supplemental heat source to turn on. Needless use of supplemental heat can reduce potential energy savings.

ROUTINE MAINTENANCE

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

⚠ 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 (see Fig. 1.)

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

⚠ 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.

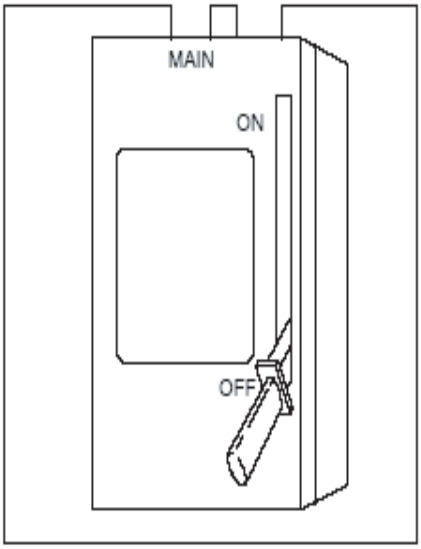

Fig. 1 – Main Electrical Disconnect

INDOOR UNIT (Furnace or Fan Coil)

(Also refer to the furnace or fan coil Owner's Manual)

- **Check the Air Filter Monthly**

There are no filters on your outdoor unit. However, a dirty air filter on the indoor unit can cause overheating, automatic system shutdown, and in extreme cases, component failure.

CHECK THE FILTER(S) MONTHLY AND CLEAN OR REPLACE AS NEEDED. For details on how to check, clean or replace your filter(s), refer to your furnace or fan coil owner's manual. OR, if you have an electronic air cleaner or a larger, "boxed" air filter, refer to the owners manual supplied with those products.

- **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 dealer.

OUTDOOR UNIT

- **Coil Cleaning**

The most visible part of the outdoor unit is the large "coil" wrapped around the inner components of the Heat Pump. If grass clippings, leaves, shrubbery, and debris are kept away from the coil, minimal care is needed. If the coil becomes dirty, clean the coil surface with a vacuum cleaner using a soft brush attachment. Use an up and down motion being careful not to bend or damage the delicate, aluminum coil fins. If dirt is deep in the coil, contact your dealer for service.

- **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 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 (see Fig. 1.) 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 Heat Pump model 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 dealer for more informationon time delays.

If you need to contact your 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.

Your annual system inspection should include:

- Routine inspection of air filter(s) with replacement or cleaning as required
- Inspection and cleaning of the blower wheel housing and motor
- Inspection and, if required, cleaning of indoor and outdoor coils
- Inspection of the indoor coil drain pan, as well as the primary and secondary drain lines. If the system has an auxiliary drain pan and line, they should be inspected at this time as well. Service should include cleaning if required.
- Check all electrical wiring and connections
- Check for secure physical connections of individual parts in each unit
- Operational check of the Heat Pump system to determine actual working condition. Necessary repair and, or adjustment should be performed at this time.

TURN TO THE EXPERTS

Your Heat Pump system, backed by the world's best name in comfort, and supported with expert installation, maintenance, and service by your local dealer should provide years of reliable, energy efficient comfort.