

QUESTIONS AND ANSWERS ABOUT YOUR HEAT PUMP SYSTEM

What is a heat pump?

A heat pump is an "Air Conditioner" that cools in the Summer, and heats in the Winter, and, because it is a "Refrigeration Machine" instead of a conversion device (Electric Furnace), it is one of the most efficient ways to heat a home.

How does it work? It's Simple.

It collects heat and transfers it from one place to another. In the Winter, it takes the heat from the outside air (even at temperatures below zero) and transfers it inside the house where it is needed. In the Summer, it takes the heat from inside the house and transfers it outside.

How does it operate?

In the winter, the Heat Pump Thermostat has two stages which controls its operation. The first stage controls the Heat Pump (outdoor unit) by itself, turning it off and on as it is needed. The second stage controls the supplemental heat which supplies additional heat if there is a drop in the room temperature below what the heat pump can supply. When the temperature rises sufficiently again, the supplemental heat will cut off, leaving the Heat Pump to operate by itself until it is no longer needed.

Sometimes, the airflow from your register will feel cool, however it is warmer than room temperature. This is the nature of the heat pump producing a low temperature heat.

During the heating cycle and under high humidity or freezing rain which occurs, there may be a frost build-up on the outdoor coil. Your unit will reserve itself and go into the Defrost Cycle causing the emission of condensation (Steam) for a short period of time. This is normal.

To operate the Heat Pump

To operate your heat pump system, set the Thermostat Selector on your thermostat at the indoor temperature you wish to maintain. Next set the System Selector to heat or cool. Set the Fan Switch to auto or on. On Auto the indoor air handler will cycle the fan "on and off" with the outdoor section. In the ON position, the indoor fan operates continuously (even when the system switch is set to off). To turn the system completely off, set both the System Switch to off and the Fan Switch to auto.

The Emergency Heat Switch (Red Light) should only be used if the Heat Pump becomes inoperative, but not due to power failure. Do not use the Emergency Heat Switch except for inoperation of the Heat Pump; at all other times keep in Normal position. In cold weather (below 45 degrees outdoors) the Blue Light will cycle "on and off". If the Blue Light stays on constantly above 35 degrees and does not cut off at all, you should call for service.

During your heating cycle and under normal conditions, and/or high humidity and freezing rain, there may be a build-up of frost on your outside Heat Pump coil. Your system will automatically reverse itself and go into a Defrost Operation. During the time period that this cycle lasts, the supply air may feel "cool". Furthermore, under certain conditions of temperature and humidity, an emission of a cloud of condensation vapor will appear, coming from your outside unit. While this unit is in defrost, your outside fan will be shut off, while the inside fan continues to run. Also inside on your thermostat, your blue light will be on.

Running Time

The most serious concern of the average new user of the heat pump is: "Why does it run so much? Won't it use a lot of electricity?" The answer is "NO", and here's why:

The Heat Pump produces a low level of heat and uses a modest amount of electricity in the process. It does not get as hot as a gas or oil fired furnace and the air coming from your supply registers will not feel as warm as that from a gas or oil fired furnace. Once you recognize this and accept the lower discharge temperature you will be much more comfortable. Comfort isn't necessarily the result of frequent blasts of hot air, but of a steady, smooth flow of lower temperature air for a longer period of time. That's how your Heat Pump does it.

At temperatures below approximately 40 degrees the Heat Pump may be expected to run continuously. This is normal operation.

NOTE: In case of heavy snow, please remove the snow surrounding your outside unit to allow free air operation. (This would only apply to those residents living on the first floor).

Checklist before you call for Maintenance:

- 1). Are circuit breakers or fuses properly on?
- 2). Is thermostat on proper heat or cool setting?
- 3). Is the temperature in the house hot or cold enough to activate the setting on the thermostat?
- 4). If malfunction persists, notify your landlord.
- 5). If the heat pump compressor malfunctions, turn emergency heat switch to the on position. The Supplemental heat will cycle with the thermostat setting.

If you have any questions, please call the office.