Cooling Mode Troubleshooting Tips

What if...

The outside unit continuously runs?

Then...

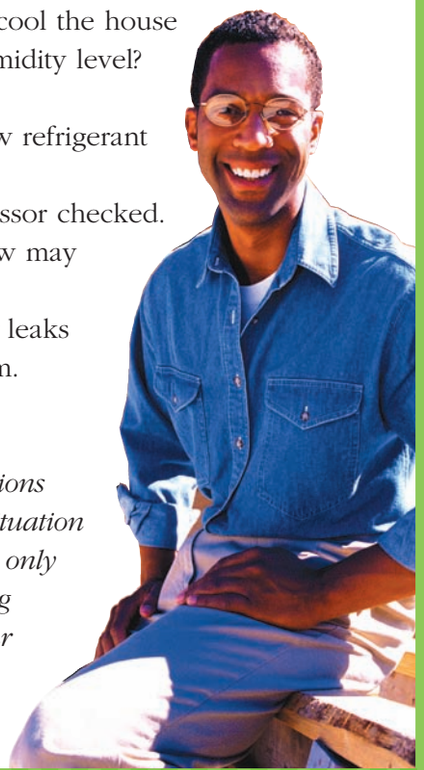
- Check the refrigerant level in the unit.
- The thermostat may be set too low or too high.
- The outside coil may be partially blocked.
- The thermostat may be located near a heat source, such as appliances, television, etc.
- There may be dirty filters or too many registers closed, limiting air movement.

What if...

You are unable to cool the house and reduce the humidity level?

Then...

- There may be low refrigerant level in the unit.
- Have the compressor checked.
- A door or window may be open.
- There may be air leaks in the duct system.



These recommendations do not cover every situation and are intended to only be a guide in helping you understand your heat pump.

Have a qualified serviceperson check over the unit at least once a year.

Flint Energies

Your Touchstone Energy® Cooperative

1.800.342.3616
www.flintenergies.com

HEAT PUMP
USER GUIDE

Flint Energies

Your Touchstone Energy® Cooperative

When used properly, heat pumps are more than 100 percent efficient.

Your heat pump does not operate like other heating systems. In heating mode, the heat pump removes heat from outside air and transfers it to the inside air. In cooling mode, the heat pump removes heat from inside air and discharges it to the outside air. Heating and cooling modes are controlled automatically by the indoor thermostat setting.

Heat pump coils operate at lower heat levels than fossil fuel systems that operate at much higher temperatures for shorter time periods. Air at the register usually has temperatures ranging from 85°F to 106°F in winter. A properly installed heat pump efficiently maintains a comfortable level by providing these temperatures.

Even outside winter air contains heat. As outside air temperature drops, the unit runs more to collect and deliver the necessary heat inside your home. Simultaneously, as outdoor temperatures decrease, heat pump efficiency decreases. Even at 17°F, a heat pump is more than 100 percent efficient.

This means for every unit of energy you pay for, you receive greater than one unit of energy for space heating. The heat pump balance point occurs when at full capacity, it supplies all the heat your home requires. As outside temperatures drop below the balance point, supplemental heat assists your heat pump and maintains settings. Supplementary heat is controlled by outdoor and/or inside thermostats.

Suggested Operating Instructions

1. Before starting your heat pump, be sure electric service has been supplied to the compressor for eight hours in cold weather or two hours at other times. A small heater in the compressor needs to be in operation long enough to keep the oil and refrigerant separated, or the compressor may be damaged. This is also true whenever there is a power outage for more than a few minutes, and particularly if the weather is cold. If heat is needed, put the thermostat on emergency heat for about six to eight hours after power is restored.
2. Do not set standard thermostats back at night. The energy savings of a heat pump may be offset if you set the thermostat too high in the morning. Specially-designed heat pump thermostats that have a built-in setback feature are available for most heat pumps. Check with your dealer.
3. Getting the proper amount of air across the indoor and outdoor coils is very important. Check the filters every month during heating and cooling seasons and keep the area around outside unit cleared. Use water pressure from a hose to clean the outside coils once a year.
4. Do not close off individual room supplies. Closing supply registers may restrict airflow through the system resulting in less efficient operation.
5. Keep the return grills free so that unrestricted air can flow back to the indoor unit.
6. Have a qualified serviceperson or contractor check the unit at least once a year.

Heating Mode Troubleshooting Tips

The following tips will help you troubleshoot your heat pump:

What if...
The outside unit gives off what looks like steam?
Then...
The process is normal. The steam you see is actually water vapor and occurs during the defrost cycle.

What if...
The auxiliary heat light on the thermostat is on?
Then...
The supplementary heaters are providing heat. This usually happens when the outside temperature is lower than the balance point, generally 35°F or less. Or, you adjusted your thermostat up more than 1.5 degrees. That causes supplementary heaters to come on until the thermostat is satisfied.

What if...
There is little or no airflow from registers.
Then...
Check for the following: 1) dirty filters *(replace them);* 2) blower motor or belt failure; 3) possible air leaks from ducts; or 4) the return filter grill may be blocked.

What if...
The outside unit runs continuously in very cold weather. *(All units run continuously below the balance point.)*
Then...
Check for the following: 1) thermostat may be set too high; 2) the refrigerant may be low in the unit; 3) the thermostat may be exposed to a cold draft; 4) the outside unit coils may be blocked by ice or plants; or 5) the thermostat needs adjusting.

For energy saving tips, visit www.flintenergies.com.