

Is there anything I should check prior to calling for service?

Yes. Check to be sure that the air handler or furnace has power. Check that the breakers and the disconnects are turned on and be sure the thermostat is set correctly.

Should I cover my outdoor unit in the winter?

Covering your unit during the winter months is a good idea. Even though air conditioning systems are manufactured to withstand all possible climate changes, covering your outdoor unit will prevent snow and ice from damaging fan blades and putting them out of balance.

Do I need a humidifier?

Although it depends largely on your personal needs and tastes, a home humidifier is certainly helpful during the coldest weeks of winter. In extremely cold temperatures, insufficient moisture in the air is responsible for a variety of problems, including dry and bleeding noses, sore throats, dust build-up, static electricity, and cracks and dried-out joints in wood furniture.

In the spring, if you have a drum-style humidifier, remember to turn off the water flow, drain and clean the pan to ensure that harmful mold spores and bacteria cannot form over the summer.

Why does our furnace smell badly when we first turn it on?

A bad smell is usually the result of not using the gas furnace very often, which allows dust to settle on the heat exchanger. Then, when the furnace is turned on, the dust is burnt off – producing the bad smell.

I've been using a fireplace to help heat my house, but my energy bills remain high. Why is this?

As a rule, fireplaces are not very efficient for heating your home. They draw a great deal of inside, heated air up the chimney. If you have a fireplace in your home, consider installing glass doors that limit the amount of air drawn up the chimney.

If my heat is not working, is it safe to turn on my oven and open the door for heat?

Absolutely not! If your stove/oven is electric, the exposed elements can cause severe burns if they come in contact with your skin. If you have a gas stove/oven, breathing the combustion by-products can cause severe breathing difficulties or even death. The safest thing to do is keep all doors and windows closed and bundle up until the heat is restored.

What air temperature should my air conditioner produce?

The air temperature your system produces depends on the temperature of the air going into the system. Generally, the air produced should be 18°-20° below what enters the system. So if the air entering the system is 80°, the air exiting should be about 60°-62°. However, that only works on a system that has been running at least 15 minutes on a warm, dry day with a home that is about 80° inside. On a mild day, with an indoor temperature in the low 70's, or during humid conditions, the air coming out may only be 15°-17° cooler than what enters.

How often should I replace my filters?

For optimum efficiency and filtration, we recommend that you replace your disposable filters at least once a month. If you have washable filters, they should be cleaned once a month. If they are larger than 1" then you will be able to increase this frequency.

What maintenance should I do on my air conditioner?

The most important maintenance you can do is to change your filters regularly. Ground mounted outdoor units need to be kept clear of debris, clutter, and weeds or landscaping that can grow too close and reduce the airflow to the unit. Also, keep pets away from the unit because pet urine can cause expensive damage. Use caution with a weed trimmer around the unit to prevent damaging control wiring. Any additional maintenance should only be performed by qualified personnel and should be done on a yearly basis to help maintain the air conditioner's efficiency.

How often should I have maintenance done on my air conditioner?

You should have maintenance done on your air conditioning system once a year. This not only ensures maximum efficiency, it enables us to foresee any possible problems that may occur in the near future.

Why are humidifiers used more in heating than cooling?

When cool outdoor air enters a home it tends to dry out as it warms up, which increases the static electricity in the home and causes sinus problems. Adding a humidifier will help to add moisture back into the air and limit sinus problems. In the summer, even with outdoor relative humidity hovering around in the single digits, the humidity in your home tends to be around 40%. The average comfort range for relative humidity in a home is from 35%-45%.

How is the efficiency of heating and cooling equipment measured?

The S.E.E.R (seasonal energy efficiency ratio) is the amount of cooling your system will deliver per dollar spent on electricity. For example, a 3-ton unit may have a S.E.E.R efficiency rating of 13, 14, or 15. The higher the S.E.E.R, the more efficient the system will be. The S.E.E.R rating of any given unit can range anywhere from 13-17.

Is a system with more capacity better?

No. A larger system with more capacity delivers less comfort and costs more to operate. An air conditioner is at its least efficient when first turning on. A system with too much capacity will run in numerous short cycles, turning on and off repeatedly, therefore causing it to be less efficient. Also keep in mind that an air conditioner only removes humidity when it's running, so a system with shorter run cycles doesn't remove humidity from the air very well.

What is a variable-speed furnace?

The term "variable speed" refers to the furnace's indoor air blower motor. The blower motor is the component that determines the amount of air the blower is required to deliver to your home.

When your furnace is installed, the speed and airflow for your home are set depending upon your specific situation, such as the size of your home, etc. However, there are situations that can occur within the household to restrict this airflow, such as ductwork design, unit location, zoning and dirty filters, to name just a few. Think of variable-speed technology as your insurance for home comfort the way you prefer it. Variable-speed technology ensures that your home receives the amount of air required to keep you and your family comfortable. Variable-speed motors have intelligent technology that monitor incoming data from the blower and adjust accordingly so you can feel confident that your system is working to keep you comfortable.

Is a DC (ECM) motor really that much better than an AC motor?

Yes, it is. According to General Electric Corporation, a DC (ECM) motor can save up to \$325 per year on electrical usage.

What is the most efficient thermostat setting for heating?

The best setting is the lowest temperature at which your family is comfortable. Most people are comfortable at a setting of 68-70 degrees. You can save up to three percent for each degree you lower your thermostat temperature.

I've heard that setting back my heat can actually cost me more when I turn the thermostat back up. Is this true?

With most heating systems, you will save money by turning your thermostat back when you are away from home four hours or more. If you have a heat pump, you should either set the thermostat at a comfortable temperature and leave it or purchase a programmable thermostat specifically designed for a heat pump. DO NOT set your thermostat back more than 5 degrees; This will cause your unit to work harder to achieve the desired temperature setting.

What is two-stage heating (or a two-stage furnace)?

Thanks to the innovation of two-stage heating, it is possible for your home to be cozier than ever while saving you money on your energy bill in the process. Two-stage heating can be a tremendous help when looking for that just-right temperature during the cold winter months.

Traditional single-stage furnaces are designed to heat your home and keep you warm during the coldest weather in your climate. Therefore, when they are operating, they are heating at their full capacity. Unlike those furnaces, two-stage furnaces are designed to operate like two separate furnaces, maintaining more consistent comfort levels throughout the home.

The first stage consists of the furnace running at about 68% of its heating capacity. A two-stage furnace will always start in the first stage and attempt to meet the heating demand. This reduced capacity is enough to warm a home on mild winter days. When temperatures drop, the furnace adjusts itself and enters the second stage to meet the demand for heat within the home. With two-stage heating, a homeowner has no need to keep adjusting the thermostat.

Two-stage heating has many advantages:

Consistent comfort: Thanks to two-stage technology, the temperature inside your home should vary only a couple of degrees versus the larger temperature swings that are common with traditional furnaces.

Quiet comfort: Because a two-stage furnace starts in its first stage, when the amount of heat required is lower, and runs in this stage about 80 percent of the time, it greatly reduces the noise associated with furnaces that turn on and run full blast. Two-stage technology means quiet comfort.

Improved air filtration: A two-stage furnace provides more consistent airflow and with more consistent airflow comes improved air filtration, which means you'll breathe easier with two-stage heating.

Efficient operation: Because the furnace spends the majority of its time operating in its lower-capacity first stage, it burns less fuel than a traditional furnace that always runs at full capacity and then shuts off when the heating demand has been met.

Although you can't see the air and temperature within your home, you can certainly feel them. A two-stage furnace can provide preferred comfort within your home despite the changes in weather outside your home.

I can see the arrow on my furnace filter but I'm not sure how to correctly position it. What should I do?

The arrow should point in the same direction as the air flow. In most cases, it will point towards the furnace and should fit between the return air part of the system and the furnace. The filter screens out the dust and other impurities before the air is warmed in your furnace and then distributed through the duct system.

Do I need to get my furnace cleaned every year?

A cleaning means that your furnace will operate more efficiently, getting more heat for your fuel dollar. More importantly, however, the cleaning also includes a thorough safety check of the entire unit for cracked or defective/damaged parts. This annual maintenance check will assure you a carbon monoxide free winter. An annual cleaning is also recommended by all manufacturers as well as utilities.

I have trouble getting even amounts of heat/cooling to certain parts of my house. How can I get more heat/cooling to the upstairs/downstairs of my home?

Adjust the louvers inside the registers on the wall or floor in the room where too much heat/cooling is present so that the registers are partially closed. For example, to get more cooling upstairs during hot summer months, partially or fully close the registers downstairs to force more airflow to the upstairs registers.

Another possible solution is a furnace equipped with a variable speed blower motor. These furnaces are designed to overcome airflow problems in a home and will keep the airflow steady all over the home. These types of furnaces also use about 1/3 the electricity of a standard furnace and can save considerable amounts of money in operating costs.

A zoning system is also a possible solution to this problem. Zoning is the controlled delivery of heated or cooled air to a particular area of the home, without heating and cooling the entire home. Temperatures can be set and maintained independently throughout the home through the use of multiple thermostats.

How efficient is my standard 1" throw-away filter as far as how much it will remove from the air?

A standard 1" throw-away furnace filter is between 5-10% particle efficient. This means that across the particle size spectrum, these filters will only trap about 5-10% of what passes through them. You can improve the efficiency of the filtration of your heating and/or cooling system by upgrading to either a media or electronic style filter. Their particle removal efficiencies are 60-65% and 90-95%, respectively and either is quite an improvement over standard 1" filtration capabilities. By doing an upgrade like this, you will also cut down on maintenance costs on the system as dirty systems are the #1 cause for malfunction. This will also boost the efficiency of the system as the heat and cooling transfer coils will be able to operate with the least amount of resistance.

Can I turn off the power to my central air conditioning unit during the cold winter months?

Yes, you can. There is a disconnect in your panel box or at the outside unit. Turn it off over the winter and save energy. But when you turn it on again in the spring, do it at least 24 hours before turning on the cooling equipment. A day's delay will give the oil time to warm and lubricate the essential parts upon start-up.

What is A.F.U.E (Annual Fuel Utilization Efficiency) rating and what do they mean to you?

The efficiency of a furnace is measured in a rating known as A.F.U.E. (Annual Fuel Utilization Efficiency). A lot like your car's miles per gallon rating, A.F.U.E. tells you how efficiently the furnace converts fuel (gas, oil or propane) into heat. An A.F.U.E. of 80% means that 80% of the fuel is used to heat your home, while the other 20% basically goes up the chimney.

In 1992, the government mandated a minimum A.F.U.E. rating of 78% for furnaces installed in new homes. (In contrast, many furnaces manufactured before 1992 had A.F.U.E. ratings as low as 60% — so nearly half the fuel was being wasted.) Furnaces with A.F.U.E. ratings of 78% to 80% are considered "mid-efficiency", while those with ratings of 90% or higher are termed "high efficiency."

In general, a higher efficiency furnace usually means two things:

-lower monthly operating costs

-higher comfort levels

If you have an older furnace (10-15 years old with an estimated A.F.U.E. of around 60%), you could save up to 40% on your heating bills by replacing it with a new high-efficiency furnace. So the cost to replace your older, inefficient furnace is paid back through lower utility bills.

What is a Modulating Furnace?

Most furnaces are either "off," providing no heat, or "on" at full capacity, with the burner and blower operating at 100 percent. This causes the temperature in your house to go up and down by several degrees - affecting both your comfort and your energy bills. Furnaces are designed to keep your home warm on the coldest of days. But in most cases, those days account for only 2-1/2 percent of the heating season. The rest of the time, your furnace is providing more heat than is needed to satisfy your comfort requirements. Modulating furnaces solve this problem by "modulating" between different capacities (40-100%), depending on the comfort requirements of the homeowner and the temperature outside. This results in lower operating costs, quieter operation and much more even temperatures throughout the home. It's like having a separate furnace to handle the unique heating requirements of each day - all in one unit!

How does an air conditioning system actually work to cool the air in my home?

An air conditioning system consists of 2 parts: an outdoor unit (where liquid refrigerant is contained) and an indoor coil (where the refrigerant is pumped into). As the air moves across the air conditioning coil (usually located on top of the furnace), the refrigerant removes the heat from the air as well as the moisture by condensing it on the cold surface of the coil. In this way, an air conditioner not only cools but also dehumidifies the air. Virtually any system can have air conditioning hooked up to it provided that it is a forced air system. In cases where there is not forced air heating or a duct system, "ductless" air conditioning systems to cool an entire home or small business.

What is an S.E.E.R. (Seasonal Energy Efficiency Ratio) rating and what does it mean to you?

S.E.E.R. stands for Seasonal Energy, Efficiency Ratio, the standard measurement of air conditioning efficiency established by the U.S. Department of Energy. What does this mean to you? Higher S.E.E.R. ratings translate into greater energy efficiency which means lower summer cooling bills. The most important thing to remember is the higher the S.E.E.R. rating, the more money you save.

Why a higher efficiency rating (SEER) saves energy: If your current air conditioner or heat pump is more than 10 years old, it could be operating at lower than 8.00 S.E.E.R. Compare the estimated annual bill of an 8.00 S.E.E.R. system to that of a higher S.E.E.R., such as a 12.00 or 13.00. For instance, if the annual cooling bill of an 8.00 S.E.E.R. system in a particular area is \$1,000, it would cost only \$615 for a 13.00 S.E.E.R. system to operate at the same capacity in the same area. This is an annual savings of 38%. Now that makes sense, doesn't it?