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# ENERGY STAR Qualified Cooling Equipment

## Enhances Comfort and Improves Durability

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Cooling costs can make up a large part of a home's energy bill, especially in the South. In fact, air conditioning can account for more than one-third of the energy used in an average southern home. ENERGY STAR qualified homes built in the South typically include right-sized ENERGY STAR qualified cooling equipment that lowers energy use, increases comfort, and improves durability.



### BENEFITS OF ENERGY STAR QUALIFIED COOLING EQUIPMENT

- **Energy Savings.** Central air conditioners with the ENERGY STAR label have a higher Seasonal Energy Efficiency Ratio (SEER) than standard models. The higher the SEER, the greater the efficiency. ENERGY STAR qualified central air conditioners are approximately 8 percent more energy efficient than minimum standard equipment. Homeowners living in hot and humid climates can expect to save up to \$700 in energy costs over the life of the ENERGY STAR qualified equipment.
- **Improved Comfort.** When properly sized and installed, an energy-efficient system supplies conditioned air more steadily over longer periods of time than an oversized unit. This results in more effective dehumidification and better mixing of conditioned air in the interior space.
- **Less Noise.** Many ENERGY STAR qualified air conditioning systems have variable speed fans, more insulation, and improved compressors that operate more quietly than standard models.
- **Reduced Maintenance.** Over-sized equipment typically results in "short cycling," (frequent on and off), which increases wear and tear and the need for future repairs. Right-sized ENERGY STAR qualified cooling equipment often uses higher quality components that can result in longer equipment life and longer warranties compared to standard models. Properly designed and installed ENERGY STAR qualified equipment can provide optimal performance with fewer problems down the road.

#### **Maintenance Tips**

- Hire a contractor to perform an annual pre-season check-up.
- Schedule a cooling check-up in the spring when contractors are more readily available.
- Clean or change air filters once a month.
- Use a programmable thermostat.

## ASK ABOUT INSTALLATION

Proper installation of air conditioning equipment can have a big impact on performance. Look for cooling equipment to be installed according to best practices, which include:

- **Proper System Sizing.** Load calculations (from Manual J and Manual S of the Air Conditioning Contractors of America [ACCA]) should be used to determine air conditioning requirements. These calculations are more accurate than rule-of-thumb estimating (for example, square footage ratios). In addition, ACCA Manual D should be used to properly size the duct system.
- **Proper Equipment Placement.** The best location for air-handling equipment and ducts is inside the conditioned space of the home (as opposed to an unconditioned garage or attic) to minimize exposure to harsh conditions (e.g., hot, humid, dusty attics in summer). Outdoor compressors should be positioned to minimize direct sun exposure, while allowing plenty of room for air to flow around the units.
- **Proper Refrigerant Charge.** Once the system is installed, the refrigerant line should be checked to verify proper refrigerant charge. An incorrect amount of refrigerant can lower system efficiencies by up to 20 percent and ultimately lead to premature component failure.
- **Correct Airflow.** The airflow and duct leakage should be tested and airflow adjusted as necessary to improve operating efficiency, comfort, and indoor air quality.



## A BETTER FUTURE

ENERGY STAR is a voluntary partnership between the government and more than 9,000 organizations, including more than 3,500 of the nation's home builders. Together with home buyers and their families, we are working to achieve a common goal—protecting the environment for future generations by changing to more energy-efficient practices and products today.

ENERGY STAR is the government-backed symbol for energy efficiency. It identifies new homes, buildings, and more than 50 types of products that are energy efficient and offer the features, quality, and performance that today's consumers expect. Products that can earn the ENERGY STAR include windows, heating and cooling equipment, lighting, and appliances. To learn more about ENERGY STAR, visit [www.energystar.gov](http://www.energystar.gov).