For more energy information, go to http://energy.tennessee.edu.

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Water Heater Energy Saving

A water heater is like a trusty workhorse – steady, reliable and practically maintenance-free. By giving your water heater a little attention can extend its life and significantly reduce your energy costs. Water heating can account for up to 20 percent of your home's energy use – second only to space heating and cooling.

How Water Heaters Work

When you turn on the hot water tap, heated water is drawn into your home's pipes from the top of your water heater. To replace the water being used, fresh cold water flows into the bottom of the tank, activating the heating element. Gas and electric storage water heaters basically operate the same way. However, gas heaters have a pilot light at the bottom to ignite the burner. They also have a flue running through the center of the tank to exhaust combustion gases. And while gas models have only a single burner, electric heaters may have a lower and an upper heating element inside the tank.

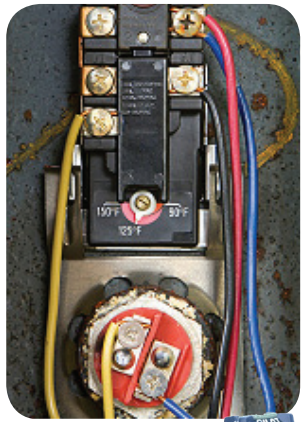
Both heaters must have a temperature/pressure release valve near the top of the tank. This valve will allow steam or hot water to escape safely, should a thermostat malfunction occur. It should be checked annually to ensure that it's working properly.

Energy-Saving Options

There are several strategies you can take to save water, energy, and money. By following these five steps, you can ensure that your water heater will operate efficiently.

1. Adjust the Thermostat

Your tank is probably keeping your water hotter than necessary. Most electric heaters are set at 140°F, but this high setting is only needed if you have a dishwasher without a booster heater. Turn the temperature down to 120°F (midway between low and medium on a gas heater dial), and you will cut your water-heating costs by six to 10 percent. Since gas water heaters do not have a temperature thermostat, use a cooking thermometer to test the temperature of the water at the tap. You will also slow tank and pipe mineral build-up and corrosion. Mark the current setting with a permanent marker so that if you need to adjust the temperature later, you can easily see where you started.

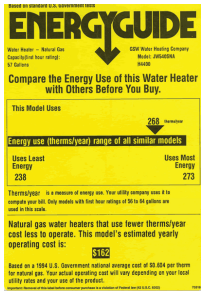


Electric Thermostat

Electric heaters may have both an upper and a lower thermostat you'll need to adjust. However, before removing the thermostat access panels, be sure to first turn the electricity off at the circuit breaker or fuse box.

When you're going to be away from home for several weeks, turn the thermostat down to the lowest setting or turn the heater off completely. Electric heaters can be shut off at the electrical circuit breaker box. If you turn-off a gas heater, be sure to learn how to re-light the pilot light (see page 3). It only takes about an hour to reheat the water once the heater is

Gas Thermostat



Before you buy, consider both purchase and operating costs. Heaters with the lowest price tags are often the most expensive to operate. Look for the Energy Star label for energy efficient water heaters that will save you money. Also look for and compare the bright yellow EnergyGuide labels. These labels provide information on energy efficiency and estimated annual operating costs.

Notes

Original work created by Montana State University Extension and the University of Wyoming. Adapted for use in Tennessee by Martha Keel, Department of Family and Consumer Sciences. -

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