Energy Sense: Thermostats

Cooperative Extension South Dakota State University

Follow this and additional works at: https://openprairie.sdstate.edu/extension_fact

Recommended Citation
https://openprairie.sdstate.edu/extension_fact/783

This Fact Sheet is brought to you for free and open access by the SDSU Extension at Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. It has been accepted for inclusion in SDSU Extension Fact Sheets by an authorized administrator of Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. For more information, please contact michael.biondo@sdstate.edu.
ENERGY SENSE:
thermostats

Cooperative Extension Service
South Dakota State University
U.S. Department of Agriculture
A thermostat is a temperature-sensitive control for heating or cooling equipment. Your automatic heating system has such a device. To operate satisfactorily, a thermostat must be properly located and maintained as its operation influences the amount of fuel used for heating.

**Location**

If your home has a single thermostat, it should be located on a central, interior wall in the living area. A thermostat will sense localized hot and cold spots around it rather than the average interior temperature of a room. It should be located away from heat sources such as stoves and fireplaces, heating vents and radiators, electric lights and televisions, and sunlight, and away from cool or drafty areas such as windows, doors, and interior halls. If drafts are noticed, a shield can be placed around the perimeter of the thermostat. However, the thermostat should not be enclosed completely.

Zone heating utilizes several thermostats and saves a considerable amount of heating fuel if used wisely. If your home has zone heating, close doors between heating zones or install doors if there are none.

**Maintenance**

Have your thermostat(s) checked seasonally by a heating service specialist. This can be done when your furnace is serviced. The dust should be removed, the accuracy checked and adjusted if necessary, and the contacts cleaned, if possible. If a thermostat is off by one degree, it can affect your fuel bill as much as 3 percent. You can check your thermostat’s accuracy with a centrally located, reliable thermometer, but if a discrepancy is noted, a professional should be called in to make adjustments.

**Setting**

A thermostat setting of 65°F provides sufficient heat for normal daytime activity and comfort, although young children and the elderly may require more. Whereas less heat is required when sleeping, a thermostat setting of 60-65°F is recommended for nighttime hours. In the Northeast, an around-the-clock setback of 5 to 8 degrees from current level will reduce fuel consumption 15-20 percent.

If your home has zone heating, set the thermostats for the activity of the area: higher temperatures in bathrooms, study, and living areas; lower temperatures in the kitchen, sleeping, and less active areas.

Don’t reset your thermostat higher than needed: your furnace will not produce heat any faster and you may forget to turn it back. Constant resetting of a thermostat increases fuel consumption and costs. Determine satisfactory and regular settings and stick with them. A clock or light-sensing device attached to the thermostat does this for you automatically.

**Additional Tips**

- During winter vacations or long periods away from home, reduce your thermostat setting to 50°F.
- If your home has one thermostat, adjust radiator valves, dampers in air ducts, or heat registers. Concentrate heat where you need it; lower the temperature in less active areas.
- Water vapor from cooking and bathing adds moisture; so use exhaust fans sparingly during the heating season. This will help to increase humidity in the home.

**Recommended thermostat settings**

![Image of recommended thermostat settings: 65°F and 60°F]
• If an electric clothes dryer is being used, it can be vented into the home during winter months to add heat and humidity. Install an extra lint trap; vent outside during summer months; discontinue if condensation runs off windows or if a dust problem occurs.

• Warm, loose clothing and sweaters are energy and money savers during the heating season. By regularly wearing a sweater, you might comfortably lower your thermostat 3 degrees and save as much as 10 percent on your fuel bill.

A 5°-8° thermostat setback can result in a 15%-20% savings in fuel.