



Published by the University of Missouri-Columbia  
Extension Division  
College of Home Economics

## Obtaining Comfort and Fuel Economy with Your Thermostat

Marilyn W. Caselman, Department of Family Economics and Management, College of Home Economics

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, since its operation influences the amount of fuel used for heating.

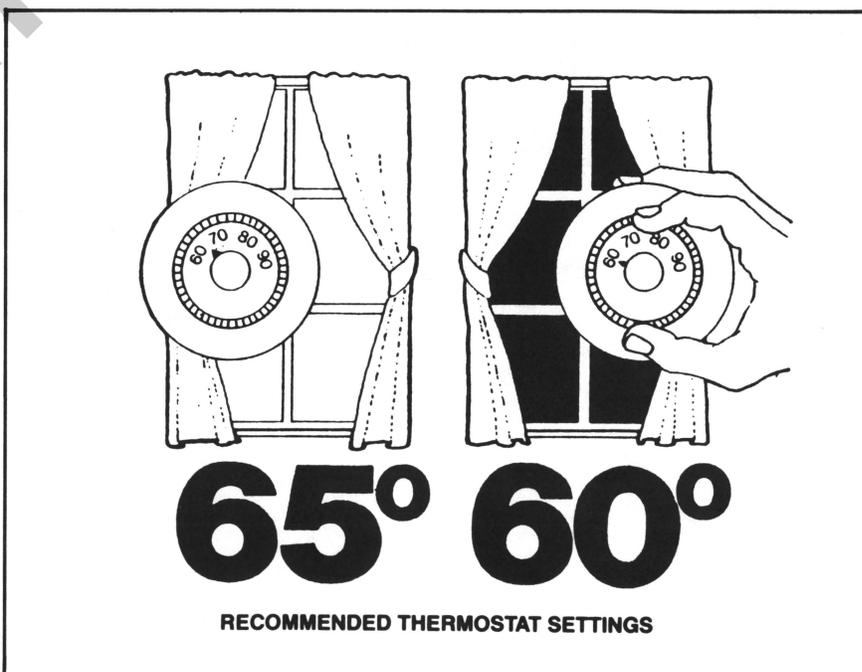
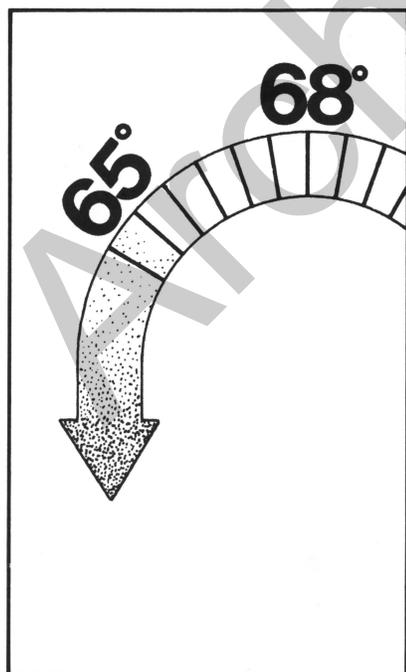
If your home has a single thermostat, it should be located on a central, interior wall in the living area. A thermostat will sense localized hot and cold spots around it rather than the average interior temperature of a room. It should be located away from heat sources such as stoves and fireplaces, heating vents and radiators, electric lights and televisions, and sunlight. It should also be 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, a thermostat should not be enclosed completely.

Zone heating uses several thermostats and can save a considerable amount of heating fuel. If your home has zone heating, close doors between heating zones or install doors if there are none.

### Maintenance

Maintenance of a thermostat is important for efficient operation of your heating system. 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 improved 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 three 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.

A thermostat must be perfectly level to operate properly. Have this checked and adjusted during seasonal servicing.

If you notice a great variation in room temperatures between heating cycles (the time when the burner is not running), the anticipator mechanism may need adjustment. This, too, should be done by a professional.

## Temperature Setting

A thermostat setting of 65° to 68° F (18° to 20° C.) provides sufficient heat for normal daytime activity and comfort, although young children and the elderly may require higher temperatures. Because less heat is required when sleeping, a thermostat setting of 60°F. (16°C) is recommended for nighttime hours. It is estimated that there is a three percent saving in heating fuel cost for each degree the thermostat is lowered.

A clock thermostat automatically takes care of day and night temperature adjustments. Set the daytime setting for a half-hour before you get up in the morning and the nighttime setting for a half-hour before you retire. Other energy-saving thermostats available through a heating contractor or building supply store include light-sensitive

devices and thermostats that run on battery-operated timers.

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, bedrooms and less active areas.

Don't reset your thermostat higher than usual in an effort to heat an area quickly; your furnace will not produce heat any faster. It will just raise the temperature above the desired level until you turn the thermostat back. And you may forget to turn it back! Constant resetting of a thermostat increases fuel consumption. Determine regular, satisfactory settings and stick with them.

## Additional Tips

—During winter vacations or long periods away from home, reduce your thermostat setting to 50°F (10°C).

—If your home has one thermostat, adjust radiator valves, dampers in air ducts, or heat registers to provide heat where you need it. Reduce the heat flow to areas that do not need high temperatures.

—Warm, loose clothing and sweaters are energy-savers and money-savers during the heating season. By regularly wearing a sweater, you might comfortably lower a thermostat 3°F. (2°C) and save as much as 10 percent on your fuel bill.

*This material adapted, with permission, from "Save Energy, Save Dollars," Cornell University.*

