



FACT SHEET

COMPONENTS: PROGRAMMABLE THERMOSTAT

Description

Programmable thermostats allow the homeowner to set different temperatures for the heating and cooling system in their house to maintain throughout the day or night. Many programmable thermostats run on batteries or use batteries as a back up system in the event of a power outage. Some models will allow the thermostat to be temporarily removed from the base, programmed at another location, and then replaced on the base. Another useful feature on some thermostats allows the homeowner to override the usual program settings when they go on vacation, and then return to the usual program settings when they return. Most programmable thermostats are intended for use with furnaces and air conditioning systems - heat pump owners will need to purchase a programmable thermostat specially made for use with heat pumps. Otherwise the thermostat may shut off the heat pump, causing the electric backup heater to kick in, and negating the cost savings of the heat pump. There are three types of programmable thermostats; single day programmable; week and weekend programmable; and multi-day programmable.

Recommendations

A programmable thermostat is a must for all new and existing housing construction. The week and weekend programmable thermostats accommodate daily schedules, offer enough flexibility for most households, offer relative ease of use, and low cost. Look for Energy Star rated models to ensure maximum energy savings and comfort.

Criteria Summaries

Cost: Programmable thermostats come in a range of features and price points. Prices range from under \$60 to premium models as high as \$150. A January 2001 Consumer Reports rating of available models gave high ratings to products at all price points. Programmable thermostats have a payback period from a few months to a year depending on house size, insulation levels, and occupant schedules.

Energy: According to the U.S. Department of Energy, dropping the temperature in a home slightly at night or when no one is home can result in energy savings of 10% or more annually.

IAQ: Although not directly affecting indoor air quality, some thermostats are equipped with a feature to remind the homeowner when it is time to change the filters on their furnace and/or air conditioners.

Expected Product Life: Energy Star rated thermostats come with a one year limited warranty.

Practice: Programmable thermostats are common technology today, but require some programming training for the owner. Developers should provide manuals for thermostats and all equipment to the homeowner.

Reminder: When replacing old thermostats which may contain mercury, be sure to dispose of them properly through your local or county hazardous waste handler. Improper disposal can affect area water quality and local fisheries. For more information about mercury and its impacts on the Minnesota environment visit the Minnesota Pollution Control Agency at <http://www.pca.state.mn.us/air/mercury.html>