

Your thermostat is one of the **most important** devices in your home.

It can make a big difference in how much energy you use and how comfortable your home is.

Most thermostats work best with specific kinds of heating and cooling systems. Some automatically cut energy use, while others leave this task up to you. Some thermostats offer precise temperature control, while others can cause wide swings in room temperature.

If you've upgraded your heating or cooling system – or if you just want to control your energy use and improve comfort – consider installing a new thermostat. This brochure is designed to help you choose one that meets your needs.



How to choose a **thermostat**



Find a thermostat to fit your heating and cooling system and your lifestyle.



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Which **thermostat** is right for you?

If you have one of these:

- Furnace
- Air-conditioner
- Heat pump

You need one of these:

- Mechanical low-voltage thermostat
- Electronic low-voltage thermostat

Low-voltage thermostats are typically 24 volts. There are several types available, which offer a range of features, quality and flexibility.

Mechanical low-voltage thermostats allow you to manually select the desired temperature with a simple lever or with a push button, as on the digital version pictured. The heating or cooling system turns on or off according to the designated temperature setting. There are two broad types.

– **Basic mechanical thermostats** have the least to offer in terms of flexibility and energy savings because they have only one temperature setting. If you set the temperature to 68° F during the heating season, your home will be heated to 68° F round the clock. Similarly, in the summer your cooling system will cool your home to the selected temperature all day and all night.



– **Setback thermostats** (not pictured), have largely been replaced by the electronic low-voltage thermostats described below. However, if you already have one, it can lower energy costs by decreasing the amount of time the heating or cooling system operates. They allow you to set separate day and night temperatures.

Electronic low-voltage thermostats are like mini-computers. They offer more precise temperature control, bringing greater comfort and economy. There are two types.

– **Programmable thermostats** give you maximum flexibility in setting back your temperature.

Most models allow you to program multiple setbacks within a 24-hour period. Some offer separate programming for every day of the week. Others use the same program Monday through Friday, with a different schedule on the weekend.

Programmable low-voltage thermostats are an excellent choice for electric, gas or oil furnaces, with or without air conditioning. Look for one that you can program to fit your household's schedule.

– **Intelligent recovery thermostats** are the best option if you have a heat pump. A tiny computer inside the thermostat automatically determines the most efficient type of heating to use and when to turn it on. This saves money by maximizing heat pump operation and minimizing use of back-up heating. These thermostats are also fully programmable with multiple setback options.



If you have one of these:

- Baseboard heat
- Ceiling cable heat
- Wall-mounted heat

You need one of these:

- Mechanical line-voltage thermostat
- Electronic line-voltage thermostat

These two basic types of line-voltage thermostats are typically 240 volts.

Mechanical line-voltage thermostats

usually consist of a dial with a “comfort zone” setting or a one to ten scale. Mechanically, they are a relatively inexpensive way to warm you home, but they have limitations. Their temperature control is imprecise, often resulting in wide temperature swings. If the dial is mounted on the heating unit rather than the wall, temperature control may be less accurate.



Electronic line-voltage thermostats

are much more precise. They are wall-mounted and usually allow you to key in the desired temperature. By eliminating wide temperature swings, they improve comfort and economy. A few manufacturers offer models with a setback feature to automatically lower temperatures at night or other times during the day. Some models use occupancy or light sensors to turn heat on or off.



Important tips

- 1 Make sure your home wiring supports your new thermostat.** Many electronic low-voltage thermostats require some additional wiring to ensure they operate properly. Consult a licensed electrician for assistance with proper installation.
- 2 Choose appropriate thermostat locations.** Thermostats should not be located next to a heat source or drafts. Placement next to a fireplace, wood stove, heat registers, windows or doors will affect temperature readings and cause the thermostat to operate less efficiently.
- 3 Avoid mercury.** Some mechanical thermostats still use mercury. Ask your contractor or retailer for a mercury-free thermostat.
- 4 Dispose of old thermostats safely.** Your old thermostat probably contains mercury and should be recycled at a hazardous waste facility. For disposal information, call Metro Recycling Information at 503-234-3000.

Call the **PGE Energy Experts** at **503-612-3500** or **1-800-722-9287**.

They can help you choose the right thermostat for your particular heating system and lifestyle.

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