

# Are Smart Thermostats Worth the Price?

**Q:** *We have an old dial thermostat. There seem to be a lot of choices for thermostats nowadays. Are the pricier, more tech-focused options worth the additional cost?*

**A:** Many new thermostats offer great technologies that do things thermostats of the past simply could not do. That said, it's certainly worth asking if these new thermostats can save enough money to justify the extra cost.

Let's start by looking at the three main options for thermostats: manual, programmable and smart.

The main benefits of a manual thermostat are that it's simple to operate and there are no batteries to replace. You just have to remember to raise and lower the temperature in the morning and evening, and whenever you leave the house.

The second option is a programmable thermostat. Typically, these allow settings for four periods each day. Some models can handle a different schedule for each day of the week. You control the settings so they suit your climate, schedule and temperature preferences. It is easy to change settings anytime.

The third option is a smart thermostat. A smart thermostat connects to your home's Wi-Fi network. After installation, you input the basics of your schedule and temperature. As you change the settings, the thermostat learns your schedule and adjusts to minimize energy use. You also can control it remotely using an app on your smartphone or tablet.

If your electric utility has a demand response program that offers discounts for using less power during peak energy-use hours, a smart thermostat can provide additional savings on your monthly power bill.

The move to smart technology is a significant investment—units can cost up to \$400. It's also important to note

not all homes have the proper wiring in place to accommodate smart thermostats, so you may need to get professional installation.

Are newer, more expensive thermostats worth the extra cost? How much a thermostat can save depends on how much you spend on heating and cooling your home.

You can estimate your heating and cooling expenses by examining your electric bills related to heating your home. Compare the bills for winter and summer to those for spring and fall. Most of the difference is likely due to heating and cooling. If that amount is more than \$900 a year, which is the national average, you have a better chance of a good return on your investment.

The second factor that determines how much you can save is how you operate your current thermostat. If you are conscientious about adjusting the temperature to save energy when you're leaving the house or going to bed, the new thermostat may not reduce your bills that much, even if you program it correctly or it learns your behavior.

Whichever direction you go, remember there are other ways you can use your thermostat more efficiently:

- Don't adjust the temperature drastically in hopes of making it heat or cool your home more quickly.
- Keep the temperature at or below 68 F while you are home during the day, and cooler during the night. During summer months, keep it at or above 78 F while you are home.
- Save up to 10 percent on your monthly heating and cooling bill by turning back your thermostat 7 to 10 degrees for eight hours a day.

You might save even more by adding insulation or sealing air leaks. A professional energy audit is the best way to

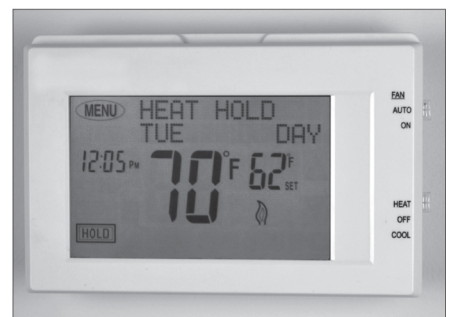
identify your home's energy weaknesses.

As you make your decision, don't forget to look to your electric utility's website for advice, ratings and rebates. ■

*This column was co-written by Pat Keegan and Brad Thiessen of Collaborative Efficiency. For more information on efficient thermostats, visit [www.collaborativeefficiency.com/energytips](http://www.collaborativeefficiency.com/energytips).*



**A manual thermostat is still a good option for people willing and able to give it frequent attention.**



**A programmable thermostat is only effective if it is programmed correctly.**



To ask a question, send an email to **Patrick Keegan** at [energytips@collaborativeefficiency.com](mailto:energytips@collaborativeefficiency.com).

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