

# The facts about space heaters

By Brian Sloboda

Space heaters are small, versatile and generally good at warming a room. However, some manufacturers claim that their electric space heater can significantly cut a home's heating bill. Do these claims make sense?

Some basic facts about space heaters will help get at the truth of the matter. Space heaters work best as a supplement to a furnace or heat pump—they are rarely used as the primary heating source. Three main types of space heaters are available, which can usually be bought for \$30 to \$100: radiant heaters, convection heaters and combination heaters.

## Radiant heaters

A radiant heater heats objects and people—not the air—in a room. They are best used in rooms where the person who wants to be warmed can be in direct line of sight of the heater.



*A radiant space heater.*

Radiant heaters can be a good choice if you are in a room for a short period of time and want instant heat. They can pose a burn or fire risk and should not be placed near furniture, drapery, pets or small children.

## Convection heaters

Convection heaters are designed to heat the air—not people or objects—in a room. Hot air from the convection heater rises to the ceiling and forces cooler air to the floor. The cooler air is warmed by the heater and rises to the ceiling, creating a cycle that continues as long as the heater is on. These are typically either baseboard heaters or oil- or water-filled heaters. The oil- or

water-filled heaters are the most efficient and typically look like a small radiator. Convection heaters are generally warm to the touch and, compared to a radiant heater, have a decreased fire and burn risk.

## Combination heaters

A combination heater tries to bring the best of the radiant and convection heaters into one package. They often have an internal fan that aids in distributing heat throughout the room. They do not typically perform as well as a radiant or convection heater.

## Choosing a space heater

Before purchasing a space heater you should determine how and where it will be used, and whether a radiant, convection or combination heater will do the job best. Combination units are versatile, but you will most likely get better performance from a radiant or convection heater. Use a radiant heater if you want heat instantly and will not move from one spot. If you need to warm an entire room, a convection heater should do the trick.

Most space heaters use between 600 and 1,500 watts of electricity. If a homeowner were to use a space heater 8 hours a day, 5 days a week for a month it would cost approximately \$15.26.

So, can using a space heater cut your home heating bill? Maybe.

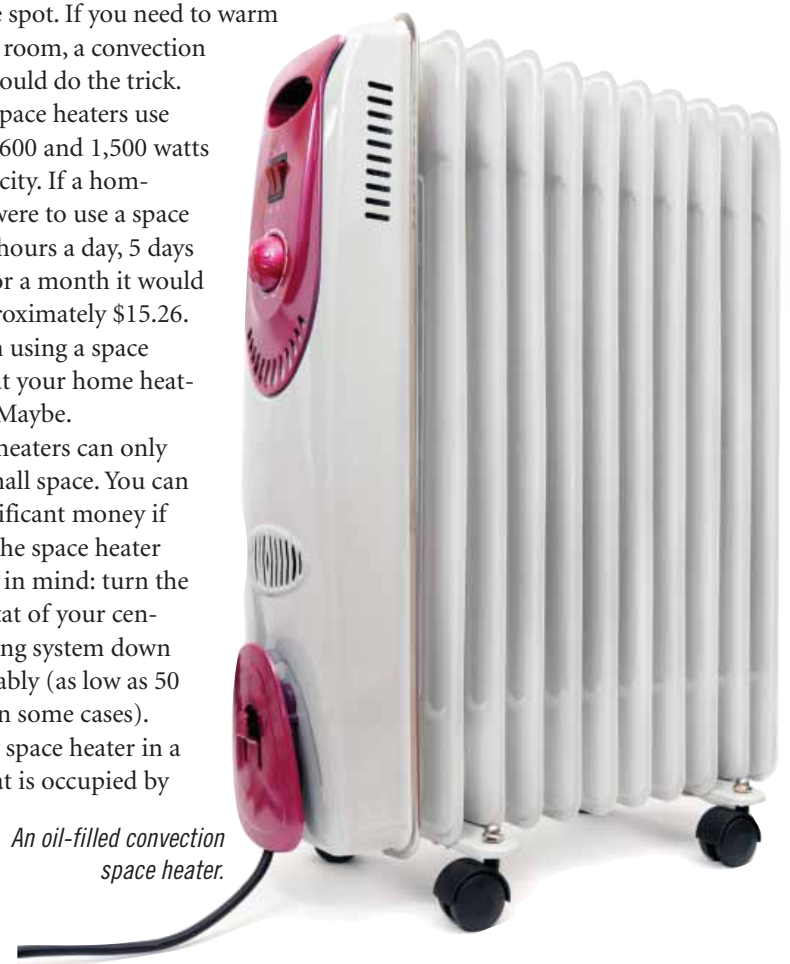
Space heaters can only heat a small space. You can save significant money if you use the space heater with this in mind: turn the thermostat of your central heating system down considerably (as low as 50 degrees in some cases). Place the space heater in a room that is occupied by

people, and close that room off from the rest of the home. This method of “zone heating” will save money.

Space heaters do have their place in warming a house. But they simply cannot replace energy efficient central heating or weatherization improvements to the home. For example, all electric space heaters produce 1 unit of heat for every 1 unit of electricity consumed, meaning they are 100 percent energy efficient. Those that use natural gas are 80 percent efficient. In comparison, geothermal heat pumps can produce more than 3 units of heat for every unit of electricity consumed, making them 300 percent efficient.

While it may be technically possible to cut your heating bill by 50 percent using a space heater, it is impractical for most people. Ⓛ

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*An oil-filled convection space heater.*