

Myth: It is cheaper to run portable plug – in heaters than built in electric heat.

Many people mention this. I assume the only saving would be they are unplugging them on warmer days.

When you consider the math, a watt is a watt so there is no difference in the amount of power used.

Watts = amps X volts

At 240v the voltage of built in electric heat, there would be half as much current as a portable running at 120 volts but the same amount of power is consumed.

Mothers Treasures, your electrician has the following advice to offer.

Portable electric heaters are much more dangerous than built in baseboard heaters for a number of reasons.

- If you have a 1500w portable heater with different settings you most likely are pushing your luck to run it on as higher setting in a standard household wall plug. The standard household wall plugs are wired with #14 wire which when loaded to a recommended safety value of 80% are only designed for 1200w continuous. Heating loads are considered continuous loads and heat up at connection points at the plug and breakers. I have seen many melted receptacles and plug caps and have been called in to replace many breakers that may not stay on anymore. Remember electric fireplaces should be rewired with a 20 amp dedicated circuit for safety. A baseboard heater 1500w is only running at half the amperage at 7.5 amps, running much cooler than the same load at 120v and connection points are usually wired in and the design of the circuit is automatically below 80% capacity.
- Baseboard heaters if designed properly have automatic thermostats in the room to control temperature. What one needs to understand is the single pole variety does not have a shut off and can come on in the summer when temperatures are below 10 degrees Celsius. If you want the ability to shut them off, you either have to shut them off at the breaker panel or have double pole thermostats with an off position installed. Maybe this is why people think portable heaters are cheaper as they find it easier to shut them off by pulling the plug affecting the bottom line on the power bill.
- The heating element on a portable heater can get much hotter than that on a eight foot baseboard for instance as the element over a longer distance can do a more effective job at evening out room temperature by radiating over a longer distance at a lower temperature. It is important to make sure drapes and bed clothes do not get near portable heaters. Portable heaters tend to be on more than 220v heaters as they are radiating from a smaller area.