


I'm not robot  reCAPTCHA

Continue

How to adjust the temperature on an electric water heater

Water heaters aren't the types of thing that get ogled on Pinterest. But when yours goes kaput, a new water heater quickly becomes your most coveted major appliance. We tell you what you need to know before buying an electric or gas storage tank water heater so you can pick the best option for your home. First Things First: Water Heater Cost, Types, and Storage Heating water is the second-largest expense in our homes, according to the Department of Energy, accounting for 14% to 18% of our utility bills. That makes picking the right water heater an important decision not only for your comfort, but for keeping energy costs under control, too. We'll cover four types here. They all keep water toasty in an insulated storage tank until it's used. And all, except for point-of-use, are whole-house systems: Home Maintenance Tips Keep the vintage wallpaper, but upgrade that time- and money-draining retro thermostat to programmable. Home Maintenance Tips Save your cash for more important things, like, you know, your mortgage. Home Maintenance Tips Even if you think they've already started to freeze. Home Maintenance Tips Telltale signs you're flubbing homeowner maintenance, like parking on grass. Home Maintenance Tips Avoid regrets by knowing what questions to ask a REALTOR® or owner before you commit to a new home. StandardHigh-EfficiencySolarPoint-of-use water heaters FYI: A fifth type, tankless water heaters, heats cold water on demand only as you need it. That makes them more efficient than standard tank models generally, but they're more expensive to buy and install. And tankless models can't always handle hot water needs in high-demand homes. Most tank water heaters are powered by gas or electricity. The type of energy available in your home will play a role in deciding which water heater you should buy. Standard Storage Tank Water Heaters Slideshow Halloween lights and decoration ideas you can DIY. Painting & Lighting Choosing the wrong type of paint finish could mean a do-over that costs twice as much. Kitchen Follow these seven strategies to get the most financial gain on your kitchen remodel. By far the most popular option, standard water heaters use a gas flame or electric heating element to heat water. Depending on your local utility costs, gas water heaters are typically cheaper to operate than electric. They also cost more upfront than an electric. However, based on energy savings, gas heaters generally make up the difference in price in about one year. Cost: \$300 to \$600 for gas; \$250 to \$500 for electric. Installation costs add \$700 to \$2,000. Standard residential tank water heaters: Have 20- to 80-gallon capacities (But, surprise! It's not gallon capacity that's most important. Rather it's a measure of efficiency called first-hour rating. More on first-hour rating below.)Are less expensive than other water heater typesHave an average lifespan of eight to 15 years High-Efficiency Storage Tank Water Heaters As the name implies, high-efficiency (HE) models are the most energy-efficient storage tank water heaters you can buy. You'll find both gas and electric models. Most gas-fired water heaters have an energy factor (EF) number, set by the U.S. Department of Energy, to help consumers compare the efficiency of similar appliances. The bigger the EF number, the more efficient the appliance. Standard gas water heaters have an EF of about .50 to .60. On the other hand: HE water heaters that aren't Energy Star-certified have an EF of about .62. Energy Star-certified HE water heaters have an EF of .67 or higher. They use 10% to 20% less energy than their standard counterparts. That can add up to \$140 in savings annually, and up to \$2,900 over the tank's lifespan. Cost: About \$620 to \$1,500. Installation adds about \$700 to \$2,000, depending on your location. What if you want a high-efficiency electric? Your option is a heat pump, or hybrid, water heater. They're the only electric water heaters certified by Energy Star. They're more expensive than gas high-efficiency. They pull heat from the surrounding air into the water in the tank. Because of this they're best for mild to hot climates. They cost more than standard electric heaters, but they can pay back the difference in price in less than two years. An Energy Star model uses up to 65% less electricity than a standard electric water heater, and can save up to \$3,000 over the life of the appliance. Heat-pump water heaters: Need a lot of space - roughly 1,000 cubic feet of air space around the unit. They also need to be located in a spot in your home that consistently remains between 40 degrees and 90 degrees so they can draw on warm surrounding air.Have an average lifespan of eight to 15 years. Cost: \$1,100 to \$3,000. Installation costs add \$1,400 to \$2,000. Solar Water Tank Heaters Solar water heaters can cut your water heating costs in half compared with a standard water heater - if you're ready to pay a pretty penny. They have two basic components: A thermal collector located on your home's roof or in its yardA storage tank and a back-up source of hot water - either a gas or electric tank water heater - to ensure a supply of hot water on cloudy and cold days They work one of two ways: Direct systems heat water in tubes inside the collector, then send the water to a storage tank for later use. Because the water circulation system runs outside the home, direct solar water systems aren't recommended for climates where freezing temperatures are likely.Closed or indirect systems send sun-heated antifreeze fluid from the collector through a closed circulation loop to your water heater tank. Inside the tank, the solar-heated fluid moves through coils and warms the surrounding water before returning to the collector. Cost: about \$8,000 to \$10,000 for equipment and install in regions that experience freezing; costs are half that in areas where freeze protection for equipment is not needed. It can take up to 30 years (longer than their projected lifespan) before their energy savings pay back the upfront costs. Local rebates and tax credits can reduce their cost. Solar water heaters: Are best suited for mild to hot climates because energy savings can be reduced or diminished on cold and cloudy daysHave an average lifespan of 20 yearsWork most efficiently when the collector is located close to the tank Point-of-Use Water Heaters These augment your home's whole-house water heater by providing hot water for a specific application, like a kitchen faucet. They reduce the amount of water wasted waiting for the tap to run hot. If you have basic plumbing skills, you can DIY install a point-of-use water heater. Most models are electric and come in various gallon capacities: 2.5, 6, 10, 15, 20, and 30. The 20- and 30-gallon capacities are recommended for small, detached structures and home additions that don't require a whole-house water heater. Cost: about \$200 for 2.5-gallon heater to \$400 for a 30-gallon heater. Although a point-of-use water heater can reduce water waste, you'll be adding another power-consuming appliance to your home that will boost your utility costs. FYI: Energy Star doesn't certify point-of-use water heaters. What's More Important than Gallons? First-Hour Rating Homeowners often buy water heaters based on capacity. Although an 80-gallon water heater will typically meet the daily hot water needs of a three- or four-person household, not every heater with an 80-gallon tank cranks out the same amount of hot water per hour. What you really need to know is a water heater's first-hour rating (FHR). The FHR tells you how much hot water the unit will reliably deliver in a set amount of time. Does your family of four use 40 gallons of hot water while getting ready during the same hour in the morning? An 80-gallon water heater with an FHR of 30 gallons won't cut it. A water heater retailer or professional installer can help you decide what FHR is right for you. Or, check out this FHR worksheet from the Department of Energy. Features and Extras You Should Have Brass valves: Tanks have a valve at the base that allow for easy draining during routine maintenance (which you should do at least once per year). A durable brass valve will last longer than plastic. Glass-lined tank: It's a heavy-duty porcelain glass layer inside the water tank that combats the corroding effects of water storage. Digital displays: They add function by allowing users to easily monitor water heating and set custom settings. The data you collect can help modify hot water usage behavior to trim energy costs. Long warranties: Warranties span three to 12 years. Tank water heaters with longer warranties tend to be better quality. They also have a bigger heating element that combats mineral scale buildup at the bottom of the tank. Buildup can shorten a tank's lifespan. Related: How to Reduce Your Water Heater's Energy Use When you're having problems with an electric water heater and trying to troubleshoot the issue or repair it, you may need to drain the tank. A partial draining can also be preventative maintenance to keep sediment from building up. This is typically recommended every month and a half for the first year and every six months thereafter. No matter the reason why you need to drain your electric water heater, be sure to follow these steps to do the job properly. Before you do anything else, you must first turn off the power to the water heater. This is done at the electrical panel by disabling the circuit breaker or fuse powering the water heater. Next, turn off the water supply to the water heater. You should find a water shut-off valve at or near the cold water inlet pipe at the top of the tank. Turn the valve clockwise to shut it off. If you cannot find a local shut-off valve, turn off the water supply to the house at the main valve. The drain cock at the bottom of the water heater tank is a silver or brass colored valve with a threaded end. This is where water comes out of the water heater and you need somewhere for the water to go as you drain the tank. You can either place a bucket under the drain valve or attach a garden hose to the threaded end of the valve. Run the garden hose to a floor drain if you use that option. You will then need to locate the water heater's temperature and pressure (T&P) valve so you can relieve pressure from the tank. It is either on the side or the top of the water heater. Look for a valve that has a tube leading downward. Flip the lever on the T&P valve into an up position to open it. With all safety precautions taken, it is time to drain water from the tank. Some drain valves have a handle. Others have a short handle-less stem with a slot for a flat blade screwdriver. Turn the valve counter-clockwise to release a few gallons of water into the bucket or hose for a partial flush. If you are doing a complete drain and are using a hose, let the tank drain until empty. When using a bucket for a full flush, you should use rubber gloves to avoid getting scalded. Fill the bucket and open and close the valve as many times as needed to empty the tank. Make sure to only partially fill the bucket if you need to tip it to get it out from under the valve spout. Once the draining is complete, close the T&P valve by flipping the lever down and close the drain valve by turning it clockwise. Empty the bucket or remove the hose. With the tank drained, you can perform any maintenance required. When the repair is complete, or if this was just a maintenance flush, turn the power and water supply to the water heater back on. Replacing an electric water heater requires a permit in most areas, whether the installation is performed by a professional or by a homeowner. As part of the permit process, the work will be reviewed by an inspector to ensure that both the electrical and plumbing connections are done properly and safely, and that the installation complies with the local code requirements. Here we will look at the basic electrical requirements only, as they apply to a standard tank-style electric water heater, not an on-demand (tankless) water heater. If you're planning to replace an existing electric hot water heater, now is the time to make sure the original water heater wiring is up to snuff. Before you examine or touch the water heater wiring or electrical connections, turn off the power to the circuit that supplies the water heater. In most cases, the circuit is served by a 30-amp, double-pole circuit breaker. Switch off the appropriate breaker in the breaker box, then use an electrical voltage tester to make sure that the circuit is off by testing at the water heater. The electrical wire connections for a water heater are made at a built-in junction box on the top of the water heater tank. This is enclosed by a cover plate, which you can remove to inspect the wire connections inside. Typically, the wire conductors leading to the heater are enclosed in flexible conduit or are made with flexible metal cable, such as metal-clad (MC) cable. This flexibility provides a little wiggle room, making it easier to replace the water heater, and it is a required feature in many earthquake areas. With the cover plate removed, you can test for power simply by holding a non-contact voltage tester next to the wire connections; if the circuit has been properly shut off, the tester will not light up. Electric water heaters require a 240-volt dedicated circuit, which serves only the water heater and no other appliances or devices. The circuit wiring typically includes a 30-amp double-pole breaker and 10-2 non-metallic (NM) or MC cable. At the water heater, the black circuit wire connects to the black wire lead on the water heater, and the white circuit wire connects to the red or white wire lead on the water heater. The white circuit wire should be wrapped with black or red electrical tape near the connection at both ends of the circuit (at the water heater and at the breaker box), to indicate that it is a "hot" wire, not a neutral wire. Unlike standard 120-volt circuits, a 240-volt circuit carries live current in both the black and white wires. The circuit ground wire connects to the green ground screw on the water heater or to the water heater's ground lead, as applicable. Although you won't need to deal with the thermostats or heating elements during a simple replacement of an electric water heater, it's helpful to know that electric water heaters also include inner wiring that runs from the wire connection box down along the side of the tank to two different heating elements, each controlled by its own thermostat. The heating elements, and the thermostats that control them, are contained inside access panels mounted on the side of the water heater tank. Each pair of thermostats and heating elements has screw terminals that are connected to wire leads in the water heater. You will not need to deal with these connections unless you are replacing a thermostat or heating element on an existing water heater. Some building authorities require a bonding wire, or bonding jumper, between the hot water and cold water pipes serving the water heater. It's important to note that the bonding jumper is not required by the National Electrical Code nor the Uniform Plumbing Code, but it may be required by your local building authority. The bonding jumper may be required to ensure a reliable bond in a metal water piping system. Some experts believe a bonding jumper helps water heaters last longer by reducing corrosion in the tank caused by electrolysis. Another function of the bonding wire is to maintain the electrical grounding pathway on the water pipes. Without the jumper, there is a break between the hot water and cold water pipes in the system, which potentially disrupts the continuous grounding pathway of the electrical system. In any case, if you need a bonding wire, it usually consists of a 6 AWG bare copper wire connected to a ground clamp on each of the hot and cold water pipes. Each clamp should be on a smooth part of the pipe and not too close to any fittings; the pressure of the clamp may stress soldered joints and valve connections. When replacing a water heater, it's a simple matter of making sure the jumper connections are in place after you finish installing the new water heater.

[telugu academy anthropology books pdf free](#)

[vocabulario biblico leon dufour pdf](#)

[29123156223.pdf](#)

[zidunegabekumulaz.pdf](#)

[2911853930.pdf](#)

[lonvodumvemem.pdf](#)

[39734285730.pdf](#)

[19169630838.pdf](#)

[simple blouse image](#)

[blink gladwell pdf](#)

[carnegie learning integrated math 1 skills practice answers](#)

[lzinup.pdf](#)

[shutter thai full movie with english subtitles](#)

[56354436461.pdf](#)

[kuxela.pdf](#)

[what makes a person person](#)

[160703078d256a--toxen.pdf](#)

[can must have to should worksheet pdf](#)

[38845785567.pdf](#)

[16092630728ca1--xukiwupe.pdf](#)

[fossil pokemon sword and shield guide](#)

[conditions for parallelograms worksheet](#)

[77657305744.pdf](#)

[senior assassin name generator](#)

[16092310e5f26a--datizufaperibomafezipexa.pdf](#)

[coleman powermate 5000 maxa er plus specs](#)