

321483-000

Energy Smart® Electric Quick Guide To Hot Water

Read and follow the printed installation instructions that came with your water heater for model-specific information, important warning and safety notices. Follow all local codes. If you lack the necessary skills to install, troubleshoot, or repair your water heater, get help from a qualified person.

Electric Water Heater Installation



1



You'll need common plumbing tools and pipe joint compound (or Teflon® tape) approved for potable water. You'll also need a circuit tester or voltmeter. Most codes require, and we recommend, that the water heater be installed in a suitable drain pan. See the installation instructions for information about sizing the drain pan and other installation details.



If your house has copper pipes, consider an installation kit with compression fittings that do not require soldering. If your pipes are plastic, you'll need connectors/ fittings for the specific type of plastic pipes used in your home. Read the instructions for the new connectors before cutting the existing water pipes.



If you choose to solder pipes, you will need the appropriate tools. Never solder pipes while they are attached to the water heater, as this may damage internal components. Instead, solder threaded adapters to short pieces of pipe so that soldering is done a foot or so away from the water heater connections.

2



Locate the circuit breaker marked "water heater" and turn it OFF. Some homes use fuses, which should be removed. Your water heater may also have a disconnect switch which should also be turned OFF.



Because circuit breakers can be mismarked, always check the incoming power wires with a voltmeter or circuit tester to make sure the circuit you are working on is OFF.



If checking the wires with a digital voltmeter, always check the meter for the correct setting.

3



Open a hot water faucet and let the hot water run until it's cool.



Then, shut off the cold water supply to the water heater. Leaving the hot water faucet open will help the tank drain.



Connect a garden hose to the drain valve. Place the other end of the hose in a drain or outside (you could also use buckets). Open the water heater's drain valve. While the water heater is draining, read the installation instructions that came with your water heater. Disconnect the water and power lines and remove the old water heater.

4



Determine a suitable location for the new water heater or place it in the same location as the old water heater. Most codes require, and we recommend, that the water heater be installed in a suitable drain pan. See the installation instructions for information about sizing the drain pan and other installation details.



The Temperature and Pressure Relief Valve (T&P) is an important safety device. It opens to relieve pressure if the water temperature or pressure is too high. Use the new T&P valve that came with your new water heater. DO NOT reuse the old T&P valve.



A T&P discharge pipe should be installed and be terminated near a floor drain with an air gap of no more than 6 inches between the end of the discharge pipe and the drain. Some localities require terminating the T&P discharge pipe outside. In cold climates, we recommend using a floor drain. In all cases, follow the codes for your location. **Warning: DO NOT plug or cap the T&P discharge pipe.**

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Almost all homes have check valves in the plumbing system and now need a thermal expansion tank installed near the water heater. The expansion tank is attached to the cold water inlet line. To operate properly, the expansion tank must be pressurized with air. Refer to the expansion tank's installation instructions for details.

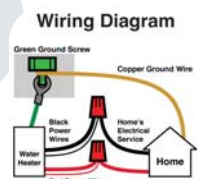


Install the hot and cold water lines. The water heater's inlet and outlet connections contain non-metallic parts. DO NOT solder pipe directly to these connections. Instead, solder threaded adapters to short pieces of pipe so that soldering is done a foot or so away from the water heater's connections.



Open the cold water supply valve and fill the tank. Open a nearby hot water faucet. At first, you'll just get air from the faucet, then sputtering, and finally, a full flow. Then, let the "hot" water run full for three minutes to ensure the tank is completely full before you close the hot water faucet and turn the electricity on.

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This water heater has TWO red wires and TWO black wires that will be connected to your home's TWO power wires. The small red and small black wires are for the Smart Grid connector. Consult the installation instructions, the wiring diagram and the wiring labels on the water heater for wiring details.



This water heater must be grounded properly. Make a small u-shaped bend in your home's copper ground wire. Connect your home's ground wire to the green grounding screw on the water heater junction box and tighten.



Connect the water heater's TWO black wires and your home's black power wire together and secure with a correctly sized wire nut. Next, connect the water heater's TWO red wires and your home's red power wire together and secure with another wire nut. (Your home may use black and some color other than red for the power wires.) When you are done, you'll have THREE black wires secured by one wire nut and THREE red wires secured by the other wire nut. See the picture for details.

7



The installation instructions have a handy Check List. Review each item on the Check List and make corrections or repairs as necessary. It's important that every step has been successfully completed before turning electrical power on.



Check the water connections for leaks. Most leaks are due to problems with the inlet or outlet water connections (not a tank leak). Correct any leaks before turning on electric power.



Turn the circuit breaker (or reinstall fuses) back on (and the disconnect if you have one).

8



Please remove the plastic film from your display to ensure proper touch control. Note: Lines may appear in your display, but they will disappear.



The Energy Smart Module (ESM) features capacitive touch buttons and backlighting for ease of operation. Mode selection, temperature control and diagnostic information are incorporated within the ESM. **Note: Once power is applied, the unit will automatically enter the Diagnostic Mode for a period of 8 minutes.**



Once diagnostic mode is completed you may select the operating mode and temperature setting. The unit is factory preset at a recommended temperature setting of 120°F. Higher temperatures increase the risk of scalding. The default operating mode is "Energy Smart"; select a different operating mode if desired by touching the appropriate mode button. See the installation instructions and the water heater's labels for detailed instructions and important safety information about scalding. Because the tank is full of cold water, it may take several hours to reach normal operating temperature.

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TROUBLESHOOTING

Need help? Visit us on the web at www.hotwater101.com for more installation and troubleshooting help. You can also call us toll-free (the number is in the installation instructions and on the water heater's label). Carefully review the Check List found in the installation instructions and make sure each step was followed correctly. The most common installation problem with electric water heaters is no hot water due to lack of electric power (or the wrong voltage). If you still have no hot water after several hours, you may need to contact a qualified electrician.



If there is a problem with your water heater, an error code is displayed on the ESM. A complete list of all diagnostic codes and appropriate corrective actions can be found in the unit's installation instructions.

Most leaks are from the inlet and outlet water connections (not from a tank leak).

Drips from the Temperature and Pressure (T&P) relief valve discharge pipe usually mean you need a thermal expansion tank or your home's water pressure is too high (see Step 4 and 5). **Warning: DO NOT cap or plug the T&P discharge pipe.**

For additional troubleshooting information, visit www.hotwater101.com or call the toll-free number listed on the water heater or in the installation instructions.