Help Center

Routine Maintenance Requirements

Written By: Jason Leonard



© 2022

INTRODUCTION

Electric water heaters require little maintenance. But there are some things you can do to help your water heater last longer and work better. Your owner's manual will have specific maintenance advice for your model.

The information on this web site is supplemental to the printed instructions that came with your water heater. To reduce the risk of property damage, serious injury or death, read and follow all labels on the water heater and the safety instructions in the printed owner's manual.

TOOLS:

- Water pressure gauge with a lazy hand (1)

PARTS:

- Pressure reducing valve (1)
- Thermal expansion tank (1)

© 2022

Step 1 — Tools and Supplies





- Water pressure gauge with a lazy hand
- Pressure reducing valve
- Thermal expansion tank

© 2022

Step 2 — Check Your Home's Water Pressure





High water pressure is one of the main reasons water heaters leak prematurely.

Plumbing codes require that your home's water pressure be 80 pounds per square inch (psi) or less. Most experts recommend 50-60 psi.

- If your old water heater leaked prematurely, check your home's water pressure with a pressure gauge (available at hardware stores and home centers for a few dollars). Measure the water pressure over a 24-hour period. (Water pressures are highest at night.)

© 2022

Step 3 — Control High Water Pressure



- Controlling high water pressure helps protect your water heater, toilet valves, washing machine hoses, and the electronic valves on washing machines, dishwashers, ice makers and other appliances.

© 2022

Step 4 — Protect Appliances by Installing a Pressure Reducing Valve



- Plumbing codes require that your home's water pressure be no higher than 80 psi. If your water pressure exceeds 80 psi, install a Pressure Reducing Valve.

Pressure Reducing Valve are usually set to 50 psi at the factory. If necessary you can use the adjustment screw to set your home's water pressure to 50 psi.

- Controlling high water pressure helps protect your water heater, toilet valves, washing machine hoses, and the electronic valves on washing machines, dishwashers, ice makers and other appliances.

Step 5 — Thermal Expansion Tank Needed?



- Water meters and Pressure Reducing Valves usually have built-in check valves that create a "closed" plumbing system.
- Closed plumbing systems require a Thermal Expansion Tank.

A dripping T&P Relief Valve is a strong indicator that your plumbing system is "closed" and you need a Thermal Expansion Tank.

© 2022

Step 6 — Check Thermal Pressure



- After installing a Pressure Reducing Valve, leave the water pressure gauge in place for a second test.
- Heating water can increase the home's water pressure dramatically. But you can use a water pressure gauge to tell if you need a Thermal Expansion Tank.

Step 7 — Monitor Pressure During a Heating Cycle



- Measure your home's water pressure.
- Run the hot water from a faucet for 2-3 minutes to force the water heater into operation.
- Monitor the water pressure while the water heater is in a heating cycle.

© 2022

Step 8 — Install a Thermal Expansion Tank



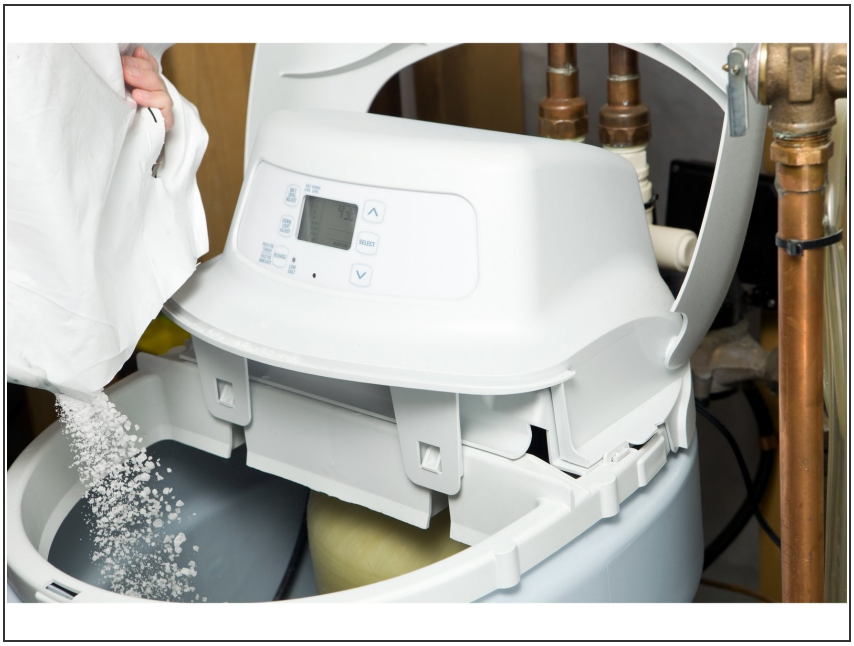
- If the water pressure increases when the water heater is heating, your plumbing system is "closed" and your home needs a Thermal Expansion Tank.

If you already have a Thermal Expansion Tank, this test will determine if the expansion tank is working properly.

- If you have an expansion tank and the pressure increases when the water heater is heating water, the expansion tank's rubber bladder may have failed, the tank may have the wrong air pressure, or it may be too small for your home.
- See **Thermal Expansion Tanks** for more information.

© 2022

Step 9 — How Corrosive is Your Water?



- High water pressure and thermal expansion are a leading cause of premature water heater leaks, but the corrosive effects of water also plays a role.
- How corrosive your water is depends on where your water utility gets its water and how your water is treated.
- Water softeners greatly increase the corrosive effects of water.

© 2022

Step 10 — Anode Rods Help Reduce Corrosion



- Water heaters come equipped with an anode rod which helps reduce tank corrosion.
- Anode rods help reduce tank corrosion but are consumed in the process.

Anode rods are typically made from magnesium, aluminum or zinc alloys.

- (Top) This is what a new anode rod looks like.
- (Middle) This is a partially depleted anode rod.
- (Bottom) This anode rod is completely depleted. Only the structural wire remains.

© 2022

Step 11 — Get Your Anode Rod Checked



- Checking and replacing the anode rod from time to time can help prevent premature tank leaks and can extend the life of your water heater.
- Have your plumber check your water heater's anode rod after the first six months of operation to determine the depletion rate. Most experts advise annual check ups after that.
- Water conditions in your area greatly affect the anode rod's life. Water softeners reduce the life of anode rods. If your home has a water softener, the anode rod should be checked and replaced more often.
- Have your plumber replace your water heater's anode rod if it's depleted.

© 2022