HERE’S HOW TO INSTALL YOUR NEW ELECTRIC WATER HEATER

1 TOOLS NEEDED
Just these few simple tools are all you need to install your new electric water heater.

- PIPE WRENCH
- PLIERS
- SLOT HEAD SCREWDRIVER
- PHILLIPS SCREWDRIVER
- HACKSAW
- GARDEN HOSE

2 PARTS NEEDED
*Some local codes may prohibit the use of flexible connectors. Check with local authority having jurisdiction before installation.

- 1/2" COPPER
  - FLEXIBLE WATER CONNECTORS
  - 1/2" COPPER CONNECTORS
  - TEFOLON TAPE AND/OR PASTE
  - BALL VALVE
  - T & P VALVE
  - ELECTRICAL WIRING
  - 3/4" x 1/2" GALVANIZED BUSHINGS
  - TEFOLON TAPE AND/OR PASTE
  - T & P VALVE
  - ELECTRICAL WIRING

It is important to use red wire nuts or a wire nut properly sized to connect #10 wire.

3 HERE’S HOW TO REMOVE YOUR OLD ELECTRIC WATER HEATER

a. Turn electricity off going to the heater.

b. Turn water off going to the water heater. Some installations require that the water be turned off to the entire house.

c. Connect garden hose to drain valve near the bottom of the water heater and open valve. Water can be drained outside or to a suitable floor drain. Draining can be sped up by opening a hot water faucet or loosening any plumbing fitting on the top of the water heater.

d. After you’ve made sure that electricity is OFF, the wiring connection can be removed.

(1) If you have copper piping going to the water heater...The two copper water pipes can be cut with a hacksaw or tubing cutter approximately four inches above the water heater top. This will avoid cutting off pipes too short. Additional cuts can be made later if necessary.

(2) If you have galvanized piping going to the water heater...Loosen the two galvanized pipes with a pipe wrench at a union in each line. Remove the piping still connected to the heater. These pieces should be saved since they may be needed when reconnecting the new water heater.

The old water heater is now completely disconnected and ready to be moved. To install your new water heater, follow the instructions on reverse side.
4 HERE'S HOW TO INSTALL YOUR NEW ELECTRIC WATER HEATER

a. Position the water heater so that the existing piping and electrical hookup will require the shortest distance between connections.

b. Using the wire nuts and clamp, the connection can now be made to the heater wiring as shown above. The new water heater must meet the same voltage requirements as the one which was removed.

c. Nipple will usually be factory installed on the tank. If not, wrap one end of 3/4" x 2-1/2 galvanized pipe nipples with Teflon tape and/or paste and screw into the top of the heater. Attach waterflex to nipples. Pipe sealant is not necessary here as the flex lines have washers.

d. If your home has 3/8" or 1/2" copper piping going to the water heater, use the correct size compression fittings to connect both flexible water connectors to existing copper pipes. Connect fittings to existing piping first.

e. Temperature and pressure relief valves are normally factory installed. If not, apply teflon tape and/or paste to the relief valve and screw it into the top or side of the tank. Discharge piping must be galvanized, copper, CPVC, or PEX pipe.

f. After checking that all connections are tight and the drain valve is closed, turn the water on. Turn on a nearby faucet to allow the air in the tank to escape as it is replaced by water. The element will be destroyed if not completely immersed in water when the power is applied.

d (2). If your home has 3/4" galvanized piping going to the water heater, simply attach the flex line to the galvanized pipe. Again, the washers inside the flex line will make the seal on this connection.

5 WIRING

Check your local codes for wiring requirements. You may find that your existing wiring is adequate.

a. Install and connect a circuit from the main breaker box. This will usually be a 30 amp double pole breaker and 10-2 w/ground wire.

b. A standard 1/2" conduit opening has been made in the heater junction box for the conduit connection.

c. Provide a way to easily shut off the electric power when working on your heater. This could be a circuit breaker or fuse block in the entrance box or a separate disconnect switch.

d. Connect the ground wire from the electrical service to the grounding screw near the junction service cover.

These "How-To-Do-It" sheets have been reviewed in June 2007 by a professional Engineer. If you find a problem, please notify G & G Electric & Plumbing at 1900 NE 78th Street, Ste. 101, Vancouver, Washington 98665.