Lightning Rod
INSTALLATION INSTRUCTIONS

Step 1

Turn off the water heater’s gas operation, let water cool down by running hot water out a faucet for a few minutes then turn off water supply. Working from the outside, open water heater door. Raise lever on upper pressure relief valve briefly to allow water pressure to drop. Remove drain plug located on the bottom of heater. Now is an excellent time to flush out the water heater with our “Tank-Saver” flushing tool (special ordering information on the back of this sheet).

Atwood Models (with 1/2” NPT drain plug, 1977 to present): Add 3+ winds of Teflon tape to all the brass fittings used! Thread small brass adapter fitting (Fig. 1) into drain plug opening and snug down with wrench. Now thread in the heat element into the brass adapter. On Atwood models it is best to remove the anode for winter draining. Never bend the Heat Element, this will crack the inside insulation and short out. American Mor-flo (Suburban): Add 3+ winds of Teflon tape to the brass fittings needed! Thread in large brass fitting (Fig. 1) into drain plug opening and snug down with wrench. Now thread in heat element into drain plug opening. Helpful hints, 1993 and older models used petcock fittings for draining and can be difficult to remove. Use pliers to grip the petcock’s neck and by using a side to side motion, you can break away the neck of the petcock and now a 9/16” deep socket will easily remove what’s left of the petcock. The factory anode on these models is located back at the upper rear of the water heater (facing back) and you can use the anode provided in this opening, but you need to get a 1/4” pipe plug to seal the bushing’s center.
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**Step 2**

Turn back on water supply to RV, go inside and open a hot water faucet to allow air in water heater to escape. When a steady stream of water arrives, shut off faucet. Check the heat element fittings for leaks, tighten if necessary (do not over tighten). Wires coming out of the heat element must stay dry.

**Step 3**

Install thermostat to the pressure relief valve. Using the two plastic wire ties, secure the thermostat to the pressure relief valve. Note: pressure relief valves normally seep water while the water is heating and you must mount the thermostat in such a way that this leakage doesn’t saturate the thermostat (*Fig. 2*). Make sure the thermostat is tightly held and the adjustment dial is visible. The thermostat is temperature calibrated for sensing the temperature at the pressure relief valve. Any other location that you place the thermostat will result in inaccurate water temperature, usually very hot!
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**Step 4**

Power cord installation. Punch a small hole with an awl punch or drill a 1/8” hole on the lower inside left hand corner. Slip the nylon clamp around power cord and bend back the green center wire with ring terminal, put enclosed screw through the ring terminal, then through nylon clamp and tighten screw down on 1/8” hole previously drilled (fig. 3).

*Figure 3*
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**Step 5**

Wire terminals. Plug **light green** terminal from heat element to **light green** power cord terminal. Plug **blue** terminal from thermostat to **blue** power cord terminal. Plug **red** terminal from heat element to **red** terminal from thermostat (*fig. 4*). A helpful hint, to clean up the installation, use the black tape from the heat element and cut it in 1/2” strips. Bunch up the loose wires and tape them together. Allow at least 7” of wire coming out of heat element to be free so you have no restriction when removing the heat element for draining or when you check its condition. Now plug into an 110v outlet, protected by a 15 or a 20-amp breaker (no more).

*Figure 4*
Caution: Power cord must always be grounded. No 2-way adapters. Failure to use a 3-way grounding cord will result in a slight electrical shock when touching any metal around the water heater. Also, never plug in power cord when the water heater is empty of water as it will burn out the heat element within a minute (it is black and discolored non-warranty). Tip: when winterizing un-plug one of the quick connectors to break the circuit if you accidentally plug in power while the heater is empty of water.

Normal Maintenance

After the first 60 working days, slide out the Heat Element and check its condition. If it’s coated with deposits (light to dark tan colored), call us or send us a check for $7 and we’ll send you First Class (N/C) one of our “Tank-Saver” flushing tools. To remove the deposits from the heat element, you can place the heat element in vinegar for overnight (or CLR). Just make sure not to get the wires wet where they come out of the heat element. This will insure that the heat element will slide out smoothly and it will heat your water more rapidly. Anodes will take on a honeycomb effect as they are doing their job. You should expect at least 2 years of service of the zinc anodes.