



* SAVE THESE INSTRUCTIONS

**RV WATER HEATERS,
6 OR 10 GALLON SIZE FOR:
ATWOOD - SUBURBAN - AMERICAN - MORE-FLO**

**SAVING YOUR PROPANE
IS AS EASY AS 1, 2, 3...**

THANK YOU FOR YOUR PURCHASE!

You have selected the leader in RV aftermarket hot water systems. With proper installation you will enjoy years of trouble free operation.

*****CAUTION*****

Running the Hott Rod in an empty, dry tank will damage your heating element AND VOID YOUR WARRANTY!

PLEASE READ ALL INSTRUCTIONS BEFORE USING WATER HEATER

These installation instructions are written to have as universal an application as possible. Most installations are performed easily using simple hand tools. If you do encounter any questions or difficulties please contact your local RV service center for professional installation or contact DIAMOND DISTRIBUTING.

Wherever the word **CAUTION** appears in this book, the instruction following needs to be performed EXACTLY as written. Failure to do so can result in injury to yourself or others, damage to your RV or failure of the Hott Rod® to work properly. **NOTE:** Any alteration to the Hott Rod® kit will void your warranty.

NOTE: Make sure you have purchased the correct Hott Rod® kit for your water tank. The use of other than supplied adapters, reducer bushings, etc., may cause the Hott Rod® to burn out prematurely and WILL NOT be covered by warranty.

DO NOT use the supplied reducer bushing for any purpose - except as listed in Step B of this instruction book.

CAUTION The following must be performed prior to kit installation:

- 1) Disconnect coach from power supply.
- 2) Turn off water supply and 12 volt pump
- 3) Relieve tank pressure by turning on hot water spigot in coach
- 4) If water tank is hot, allow to cool
- 5) Use this water heater only for its intended use as described in this manual.

** KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE AS THEY CONTAIN IMPORTANT INFORMATION AND MAINTENANCE INSTRUCTIONS.

A. REMOVE EXISTING DRAIN PLUG

Suburban - American - More-Flo tanks have 2 basic drain openings: Petcock style, as seen in Figure #1 and anode style which has a 1 1/16" hex nut attached to an anode rod (1995 and newer tanks). For the petcock style, use pliers to remove the brass tube and "wing" valve, then use a wrench or socket to remove the 9/16" hex nut. (see Figure #1). For anode style use 1 1/16" wrench or socket to remove anode rod.

Atwood tanks 1978 and newer have 7/8" hex plastic or metal plugs. Unscrew with wrench or socket to remove drain plug. (Save drain plug for use during the winterizing of your tank.)

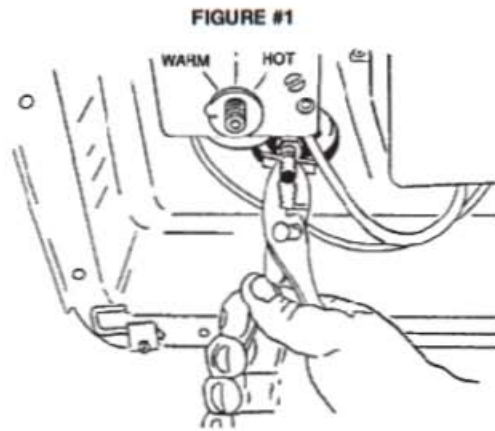


FIGURE #1
Use pliers to remove brass tube and "wing" valve - then use ratchet and 9/16" socket to remove hex nut.

B. INSTALL ROD INTO DRAIN OPENING

Remove probe from package and disconnect heater plug and cord. "Gently pulling the molded end and the probe apart". Apply Teflon tape or similar non-setting sealer to threaded area of fitting. (See Figure #2).

NOTE - On Suburban tanks with anode style drain, it will be necessary to use the **LARGE** supplied reducer/anode bushing.

NOTE - On Atwood tanks it will be necessary to use the **SMALL** supplied reducer bushing. When needed, first thread reducer bushing into drain opening in tank - No more than two turns. Then install probe into reducer bushing and carefully engage threads, turn by hand and tighten with wrench.

***** CAUTION *****

YOU MAY ONLY NEED TO TIGHTEN 1 OR 2 TURNS, DO NOT TIGHTEN MORE THAN 3 TURNS (8 FT LBS TORQUE) OR PROBE MAY BREAK!!!

BROKEN PROBES ARE NOT COVERED UNDER WARRANTY.

Turn on water supply to the coach and open all hot water spigots until all air is expelled and a steady stream of water appears. Turn off spigots as the tank is now refilled. Check the probe and tighten if necessary.

4ft CORD AND HEATER PLUG END

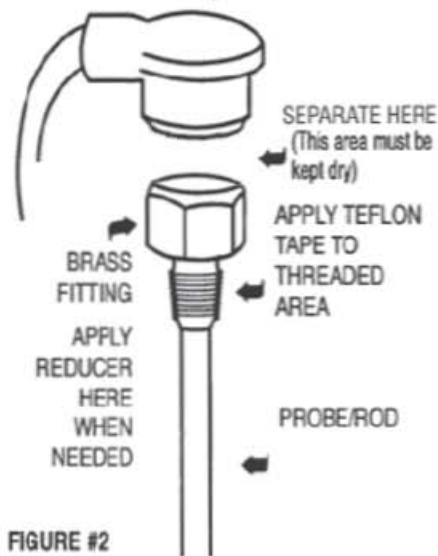


FIGURE #2

DO NOT OVERTIGHTEN!

If the reducer bushing is leaking, tighten **ONLY** reducer bushing.

To drain tank, "first" remove the reducer bushing (if used) with the probe, both as one unit, in drain opening.

Re-attach heater plug taking care to align the holes in the plug with the pins inside the fitting.

Install or locate this water heater only in accordance with the provided installation instructions.

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C. ROUTE HEATER CORD FROM OUTSIDE HEATER COMPARTMENT TO THERMOSTAT AREA

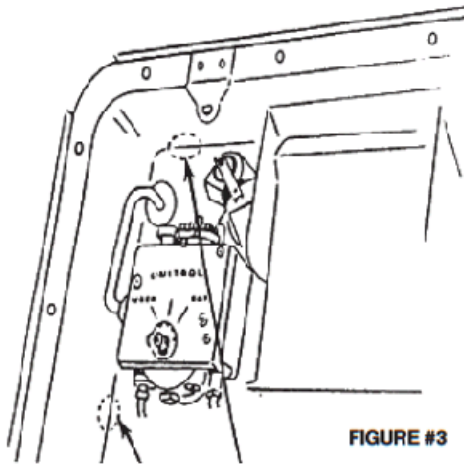


FIGURE #3

Refer to Figures #3 and #4. Drill 1/2" diameter hole after checking for clearance inside the coach. Route the heater cord into this hole. Gently pull the cord being careful not to snag cord on the sharp edge of the hole. From inside the coach pull the end of the cord to where the thermostat will be mounted. Use the supplied piece of split loom to protect the heater cord from contacting the drilled hole.

Check for proper clearance inside RV then drill 1/2" dia. wire entry hole. Two suggested positions are shown. Your tank style may be different than this illustration and a better entry hole position may be indicated. CAUTION Drill hole at an angle to avoid hitting the tank.

CAUTION Make certain the heater cord does not contact any hot surfaces in the outside water heater compartment.

CAUTION Carefully line the sheet metal opening with 3/8" split loom and cover split loom hole and cord with silicone to ensure hole is air tight from outside vapors.

NOTE: If you have purchased the Hott Rod® Power Switch Wiring Kit, and you choose to have an outside switch. At this point you can route the power switch cord through the same opening before sealing the split loom with silicone.

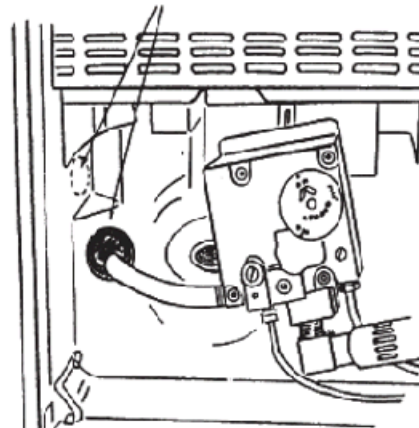


FIGURE #4 ATWOOD STYLE SHOW
Drill wire entry hole approx. 1 1/2" above Gas Line.

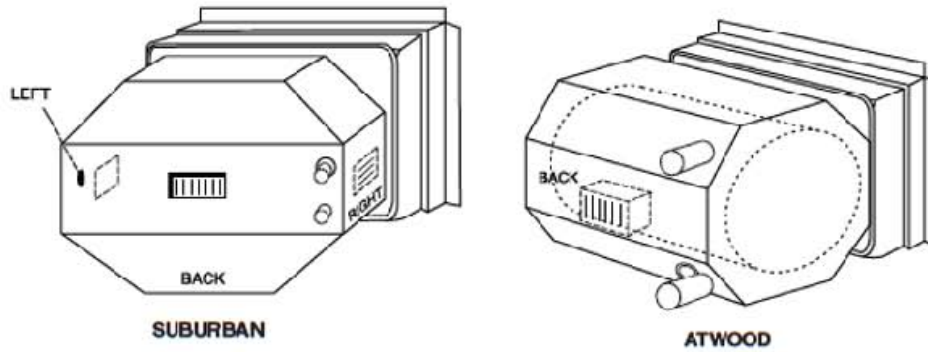
D. CHOOSE AND PREPARE LOCATION FOR THERMOSTAT CONTROL

The thermostat mounts directly to the back of the tank which can be located from inside the coach. This area is generally accessed under a cabinet, drawer or bed. If the tank is below floor level, look for access hatch at the back of the tank. There may also be access through an outside storage compartment to the left or right of the water heater.

"THERMOSTAT MUST BE MOUNTED TO TANK"

The tank will be covered by cardboard, Styrofoam or on older tanks, sheet metal. Staying toward the center the thermostat may be placed on top, back, left or right of the tank covering. Use a sharp utility knife to cut out a 3" x 4" thermostat opening. (See Figure #5). Push back the fiberglass insulation to expose the tank surface.

FIGURE #5
Suggested Thermostat Locations



BACK OF TANK SHOWN
(Your tank may appear different. All tanks have rounds sides)

IMPORTANT NOTICE

CAUTION

DO NOT mount control thermostat on the pressure RELIEF VALVE!!! This will result in:

- Excessive water temperature
- Premature product failure
- Damage to your RV and/or personal injury
- VOIDS Hott Rod warranty

Read this installation manual for proper procedure.

NOTE — On sheet metal covered tanks the opening must be cut using metal shears or small grinder with cutting wheel. Cut sheet metal is extremely sharp! Use of heavy gloves is recommended.

Prior to mounting thermostat, prepare the tank surface as follows:

- 1) Rough up the tank surface using coarse sandpaper or steel wool
- 2) Wipe the tank surface with rubbing alcohol pad included to remove any surface film
- 3) For best recovery thermostat should be mounted on the lower half of the tank, the TOP of the tank should be last choice.

E. CONNECT WIRES AND MOUNT THERMOSTAT ONTO TANK SURFACE

Refer to Figure #7. Connect wires as shown and snap on the plastic thermostat cover. Peel off the paper backing from the thermostat tape and firmly press thermostat onto the tank.

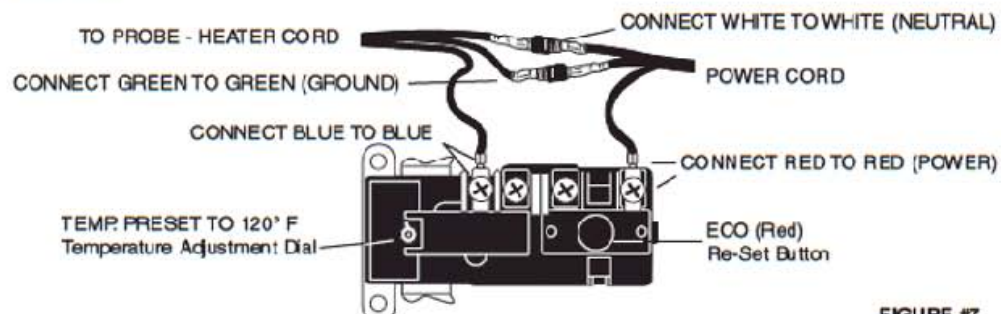


FIGURE #7

NOTE — The thermostat will bond more readily to a warm tank but in any event, full bonding will occur within 48 hours. Use duct tape to hold the thermostat firmly against the tank during this bonding process.

The E.C.O. is a backup thermostat and will trip if the thermostat fails and the water temperature exceeds 170° F. This is a manual reset, you must depress the red ECO button on thermostat and if the circuit trips again after resetting, immediately disconnect power and discontinue use of unit. Contact Diamond Distribution regarding warranty replacement.

NOTE — Add a small bead of silicone sealant along both sides of thermostat **AFTER** application on the tank to insure that thermostat will be affixed semi-permanent to the tank.

(DO NOT GET SILICONE ON CENTER OF HEAT SENSOR HOLE)
Thermostat must be mounted to the tank.

NOTE — Check thermostat area periodically to ensure thermostat is securely attached to the tank. And check for any signs of water leakage or damage.

CAUTION Diamond Distribution has pre-set your thermostat to 120° F. Higher setting increases scald hazard.

F. CHOOSE LOCATION FOR POWER SOURCE.

The B' power cord is designed to plug into an existing outlet inside of the coach.

NOTE — Do not use an extension cord set with this water heater. If no receptacle is available adjacent to the water heater, contact a qualified electrician to have one properly installed.

NOTE — Do not plug in power until all installation has been completed and tank is full. Once the power source has been established route the other end of the power cord to the back of the hot water tank.

CAUTION All wiring must be secured so that it does not interfere with drawers or items in storage areas and away from devices that can generate heat. The use of the wire ties from cords may be used to hold down and secure wires in position.

NOTE — This product may be permanently wired to a power source in the coach with an on-off switch. It is recommended only a professional electrician or certified RV Dealer Service technician performs this work, and install a 15 amp fuse or breaker for this line.

NOTE — You can install a Hott Rod® Power Switch Wiring Kit designed with color coded ends to use with your Hott Rod® unit.

NOTE — This water heater must be grounded. Connect only to properly grounded outlet.

OPERATION

Initial heat up should take from 45 to 90 minutes depending on water temperature. If a faster heat up is required, use the propane system along with the Hott Rod®. Once full tank temperature is achieved, the Hott Rod® is designed to be a total substitute for the propane system.

The Hott Rod® is designed for constant operation, however if the coach is to be left un-attended for any length of time, disconnect power to the Hott Rod® as you would other non essential systems.

NOTE — As with any appliance, close supervision is necessary when used by children.

CAUTION The Hott Rod® is designed to be immersed in water. Always make sure there is water in your water tank before you turn the Hott Rod® on. Running the Hott Rod® in a dry empty tank will IMMEDIATELY blacken and damage probe. This is not a manufactures defect and is NOT COVERED UNDER WARRANTY!

CAUTION Refer to Figure #2. THE AREA AROUND THE HEATER PLUG END MUST BE KEPT DRY! The molded end is designed to be effective against occasional spray such as washing your coach. Longer exposure to water, particularly from a leaking pressure relief valve will cause premature failure of the Hott Rod® and WILL NOT BE COVERED BY WARRANTY! Take any necessary corrective action and check this area frequently for evidence of water deposits. IT IS HIGHLY RECOMMENDED THAT YOU SPRAY THE AREA OF THE HEATER PLUG END TWICE A YEAR WITH WD-40 OR SIMILAR WATER DISPLACING AGENT TO ENSURE A GOOD ELECTRICAL CONNECTION.

Do not operate this water heater if it has a damaged cord or plug, if it is not working properly, or if it has been damaged or dropped.

WARRANTY PROCEDURE: All trouble-shooting and returns are to be handled directly by DIAMOND DISTRIBUTION. Should the Hott Rod® fail to perform properly, TURN OFF POWER to Hott Rod® and promptly contact Diamond Distribution or visit our website at www.DDOEM.com for more information.

DO NOT RETURN DEFECTIVE PARTS TO YOUR PLACE OF PURCHASE!!
MAKE SURE TO KEEP THIS INSTRUCTION BOOK IN YOUR FILES
FOR FUTURE REFERENCE AND WARRANTY PROCEDURES.

SPECIFICATIONS:

Atwood & Suburban 6 Gallon Kits are rated 110V, 400W, 4.0 Amps.

Atwood & Suburban 10 Gallon Kits are rated 110V, 675W, 6.0 Amps. Hott Rod® kits produced for foreign markets are rated at 240V, 675W, 3.0 Amps.

NOTE: For an ON/OFF switch use Power Switch Wiring Kit #PSK1.

YEARLY MAINTENANCE REQUIRED

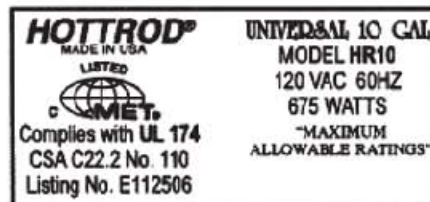
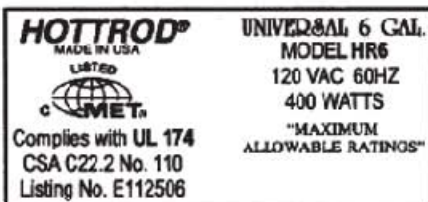
When winterizing or draining your tank, refer to section "B" to remove probe/rod from tank; use this opportunity to examine the rod for mineral deposits. Mineral deposits can be removed by using a putty knife, wire brush, steel wool or vinegar & water. Water tanks should always be flushed once or twice a year.

Remove the Hott Rod®, turn on water supply and run for at least 5 minutes or until water runs clear. The use of a pressure reducer device at the supply faucet is a must to protect your hose and water lines inside your RV.

Always maintain your manufacturers maintenance schedule for long life of your tank.

This water heater should be serviced only by qualified service personnel. Contact nearest authorized service facility for examination, repair, or adjustment.

You may return your Hott Rod® to DIAMOND DISTRIBUTION for a professional cleaning, re-polish and electrical test. Send the unit along with a note requesting this service and \$10.00 for shipping and handling, Canada send \$20.00 for S/H.



DIAMOND DISTRIBUTION, Warranty Dept.
P.O. Box 100576 • Birmingham, AL 35210
VISIT OUR WEBSITE AT: www.DDOEM.com