

ELECTRIC WATER HEATER TESTING PROCEDURE

PLEASE USE EXTREME CAUTION WHILE TESTING AS THE POWER WILL BE TURNED ON AT CERTAIN TIMES!

STEP 1: CHECK FOR 240 VOLTS AT WATER HEATER:

If no voltage is present, follow steps below. If there are 240 volts present, move to step 2.

- Check for tripped circuit breaker or blown fuse.
- Check for tripped high limit “red button” push to reset.
- Possible load control by Stearns Electric (check control times):

WATER HEATING TIMES:

October - April: 10 p.m. - 6 a.m.

May - September: 10 p.m. - 9 a.m.

Peak Shave water heating program is only controlled during peak times (8 hours maximum control/day).

STEP 2: 240 VOLTS PRESENT AND STILL NOT HEATING:

- Turn power off at power source.
- Verify no voltage with volt meter.
- Disconnect two wires from top element.
 - Check continuity of element with ohm meter from terminal to terminal (should read around 13 ohms).
 - Check continuity from each terminal to metal tank (should read 0 ohms - anything else and the element needs to be replaced).
- Check lower element the same way as the top element.
- If both elements test out correctly, test thermostat next (see step 3).

STEP 3: THERMOSTAT TESTING:

- Remove thermostat away from the tank while still leaving all wires connected.
- Adjust thermostat to the highest setting.
- Use a clamp on - type amp meter. Clamp onto one of the incoming supply wires.
- Turn power supply back on.
- If both elements pass continuity test and 240 volts are present, then top element should be heating now.
- If there is no current draw, replace top thermostat.
- Next, use a lighter or small torch and apply heat to the back side of the thermostat. This will replicate a satisfied upper heat call and divert power to the lower thermostat.
- Check lower thermostat the same way as the upper thermostat.

ALL ELECTRIC WATER HEATERS HEAT TOP ELEMENT FIRST AND BOTTOM ELEMENT SECOND.



ST. JOSEPH BRANCH OFFICE

29643 Frontage Road,
PO BOX 816, St. Joseph, MN 56374
(800) 962-0655 | Fax: (320) 363-4631

WWW.STEARNSELECTRIC.ORG