



## START-UP OF ELECTRIC WATER HEATERS

**\*\*FOR DETAILED INFORMATION SEE INSTALLATION & MAINTENANCE MANUAL \*\***

**WARNING:** These startup instructions are prepared for a qualified service installer, service agency or utility company and require and rely on the experience and training of these qualified gas appliance technicians to be safely completed. Attempting to follow these instructions without such training and experience can result in property damage, exposure to hazardous materials, personal injury or death.

1. Visually inspect unit and components for damage and proper installation.
2. Check all electrical connections for tightness and proper voltage.
3. Check heater to make sure it is full of water. (Remove air through T&P valve).
4. Check the resistance to ground between all element terminals and the element mounting flange (should read infinity).
5. Check for leaks at elements and all tank penetrations (i.e. thermostat low water cut-off).
6. Energize manual disconnect switch. Check for proper voltage on power circuit. (Should not vary more than 5% from voltage on data plate.)
7. Energize control circuit switch. Check for proper voltage and amperage under full load (should not vary over 5% from voltage on data plate).
8. Check all components for proper operations (i.e. contactor sequencers).
9. Thermostat high limit opens at 200°F. Set lower operator to desired outlet temperature and upper operator 15°F higher.
10. After unit shuts down, turn water on and let unit cycle on (to check proper thermostat operation).
11. After at least 30 minutes of operation, turn off power and retighten all electrical connections.
12. Complete attached startup report.

**Important – Contact PVI Customer Service, 800-433-5654, if any recommended setpoint or analysis reading falls outside of the recommended ranges before completing startup.**



# START-UP REPORT ELECTRIC WATER HEATERS

**Warning: Startup must be performed by a qualified service installer, service agency or utility company.**

Model Number: \_\_\_\_\_ Serial Number: \_\_\_\_\_

Job Name: \_\_\_\_\_

Address: \_\_\_\_\_

### GENERAL INFORMATION

Restart?  Yes  No      Installation is:  New  Replacement/Renovation  Indoor  Outdoor

Primary operating voltage: \_\_\_\_\_ VAC      Voltage from neutral to earth ground: \_\_\_\_\_ (should be zero)

Thermostat Set Points: Hi-Limit \_\_\_\_\_ °F      Upper Operating: \_\_\_\_\_ °F      Operating \_\_\_\_\_ °F

Operating (optional): \_\_\_\_\_ °F      Operating (optional): \_\_\_\_\_ °F

Cold Water Inlet Temperature: \_\_\_\_\_ °F      Hot Water Outlet Temperature: \_\_\_\_\_ °F

T & P Relief Valve(s) plumbed to a suitable drain?  Yes  No

### WATER HEATER INSTALLATION

Type of piping connected to heater:  Copper  Brass  Galvanized

Check valve in the supply water piping?  Yes  No; Water Softener?  Yes  No; Operational?  Yes  No

Is there a mixing valve on the hot water supply?      If yes; temperature setting: \_\_\_\_\_ °F  No

Is there expansion relief in the cold water supply? If yes, what type:  tank  valve  No

Is there a recirculation loop?  Yes      Circulating pump horsepower: \_\_\_\_\_  No

Is there a floor drain in the room?  Yes  No

### ELECTRICAL SYSTEM

(Tighten all electrical connections prior to energizing and again after 30 minutes of operation)

Number and size of incoming power cables: \_\_\_\_\_      Power cables are:  Copper  Aluminum

Control Circuit Transformer: \_\_\_\_\_ / \_\_\_\_\_ Volts \_\_\_\_\_ kva      Primary Transformer Fuse Size: \_\_\_\_\_ V \_\_\_\_\_ A

Primary Voltage: \_\_\_\_\_ Volts \_\_\_\_\_ PH      Total Amps: \_\_\_\_\_ Amps per Leg: \_\_\_\_\_

Total Number of Contactors: \_\_\_\_\_      Contactor Fuse Size: \_\_\_\_\_ Amps

Total Number of Electric Elements: \_\_\_\_\_ each \_\_\_\_\_ KW, \_\_\_\_\_ each \_\_\_\_\_ KW

Measured resistance of all elements to ground?  Yes  No      Is Unit connected to BMS?  Yes  No

Comments: \_\_\_\_\_

\_\_\_\_\_

Service Company Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Service Company Address: \_\_\_\_\_

Start-up Performed By: \_\_\_\_\_ Date: \_\_\_\_\_

Customer Representative: \_\_\_\_\_ Date: \_\_\_\_\_

**Important: You must submit the original copy of the completed form to your PVI representative before the warranty will become effective on this product. Contact Customer Service for assistance at 1-800-433-5654.**