

CMI

Tankless Water Heater Valve Kit

- ✓ Installation Manual
- ✓ Maintenance / Operation Manual
- ✓ Pressure Relief Valve Installation / Maintenance



Simple



Superior

Savings

Warning: Drain valves should remain closed during normal operation. This valve is not designed for installation exposed to subfreezing or extreme weather conditions.



Visit us at www.charmaninc.com/valvekit for our **visual** instructional video

Installation Instructions

Inspection and Set-up

Check valve set complete with the following:

- Cold water 3-port valve
- Hot water 4-port valve
- Pressure relief valve

1- Use and Installation manual

- a. Remove tank-less unit from box and inspect contents
- b. Carefully position tank-less unit front face-up on floor or blocks in a stable location for valve installation

2. Installing the valve set

- a. Begin with applying approved thread sealant and/or Teflon tape to the male threads on your tank-less unit
- b. Next remove the hot water 4-port valve from box and hand thread a pipe nipple into the valve outlet
- c. Use the pipe nipple as a handle and rotate valve handle a couple of times to exercise it before installing
- d. Gently thread hot water valve onto hot outlet of tank-less heater, position of valve should face handle away from tank-less unit when in the "Run" position / wrench tighten carefully using a back-up wrench to protect the outlet on the tank-less unit
- e. On the final turn of your wrench position the handle at a slight angle past center of facing forward from the unit
- f. Next remove the 3-port cold water valve from the box and hand thread a pipe nipple into the valve inlet
- g. Use the pipe nipple as a handle and rotate valve handle a couple of times to exercise it before installing
- h. Gently thread cold water valve onto cold inlet of tank-less heater, position of valve should face handle away from tank-less unit when in the "Run" position / wrench tighten carefully using a back-up wrench to protect the outlet on the tank-less unit
- i. On the final turn of your wrench position the handle at a slight angle past center of facing forward from the unit

3. Installing the pressure relief valve

- a. Apply approved thread sealant and/or Teflon tape to the male threads on the relief valve
- b. Gently thread relief valve into open fourth port opposite hose thread on hot water valve/ wrench tighten and position valve for connection to drain line



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Operation Instructions

Caution: Confirm safety cap is secure BEFORE any servicing!

Important: Refer to manufacturer's recommendations or instructions for any specific procedures required to flush and clean unit/ always shut-down unit and dis-connect power before beginning any service / Never reverse flush a tank-less water heater, Always forward through normal operation flow path!

1. Confirm existing position of valve "Run or Flush"

- a. Run position allows flow thru tank-less unit and seals flush port hose connection from leakage
- b. Flush position allows flow thru flush port hose connection and seals cold water inlet or hot water outlet from leakage

2. Position valve to desired operation "Run or Flush"

- a. Run position on properly installed valves is handle pointed down parallel to inlet/outlet of valve body and perpendicular to the flush port hose connection
- b. Flush position is one quarter turn clockwise rotation of handle from proper "Run" position placing the handle perpendicular to the inlet/outlet of valve body and parallel to the flush port hose connection.

3. Preparing unit for cleaning or flushing

- a. Confirm both Hot and Cold valves are in the "Run" position
- b. Slowly and carefully remove cap from each valve one at a time aware a small amount of pressurized water may remain trapped beneath the cap
- c. Connect drainage hoses to the hose outlets on both valves placing the opposing ends of each hose into a reservoir, storage container, plastic bucket, or other safe dumping area.
- d. Position cold water valve to flush position isolating the cold water supply from the unit initiating drainage from the inlet side of the unit
- e. Position hot water valve to flush position isolating the hot water system from the unit initiating drainage from the outlet side of the unit
- f. Allow enough time for unit to complete drainage and once complete leave both valves in flush position until cleaning / flushing procedures are completed
- g. Basic cleaning with vinegar is the most common solution used for flushing the unit / total time required to flush and clean unit is dependent on water quality and usage between cleanings
- h. Every tank-less unit has specific features with filters or strainers requiring cleaning you must refer to your owner's manual to obtain instruction for your unit.



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4. Restoring unit to operation

- a. Before disconnecting hoses return hot water valve to run position
- b. Return cold water valve to run position
- c. Locate closest hot water outlet and open tap for 5 to 10 seconds or until any trapped air is released from the system
- d. Carefully remove hoses and replace caps/ hand tighten only
- e. You may now restore power to your unit as per manufacturer's instructions.

Pressure Relief Valve (PRV)

Installation Instructions:

The PRV must be connected by the threaded connection opposite the wing handle on the hot water valve (designated by the RED drain handle) or the threaded connection on the side of the relocation fitting above the hot water valve.

Installation must maintain a $\frac{3}{4}$ " port size with no shut off valve or line restriction in-between the appliance and the PRV. The discharge line from the PRV should pitch downward and terminate 6" above drains where discharge will be clearly visible. The discharge end of the line shall be plain (unthreaded) and a minimum of $\frac{3}{4}$ " in diameter. The discharge line material must be suitable for water at least 180 ° Fahrenheit and can be no more than 30 feet in length and contain no more than 4 elbows or bends. No valve of any type may be installed in the discharge line of the pressure relief valve.

PRV Maintenance Instructions:

For proper care of this approved pressure relief valve, it is recommended that the valve is manually operated once a year. IN doing so, it will be necessary to take precautions with regard to the discharge of potentially scalding hot water under pressure. Ensure discharge has a place to flow. Contact with your body or other property may cause damage or harm.

Please note that only the PRV in this package is certified by CSA International as an approved item.