

PURPOSE: Lime/scale build up can damage a water heater and reduce performance. The instructions below detail an optimized method to flush the heat exchanger of lime and scale build up.

PRODUCT INFORMATION

- Applicable Products: SENSEI Series Condensing Tankless Water Heaters
- Applicable Models: RU199i/e, RU180i/e, RU160i/e, RU130i/e, RUR199i/e, RUR160i/e, RSC199i/e, RSC160i/e, CU199i/e, CU160i/e

DETAILS

If application includes multiple units, remove the front cover and disconnect the MSB, cascade, or EZConnect™ cable from the PC board on the unit being flushed.

Preparing the Water Heater for Flushing:

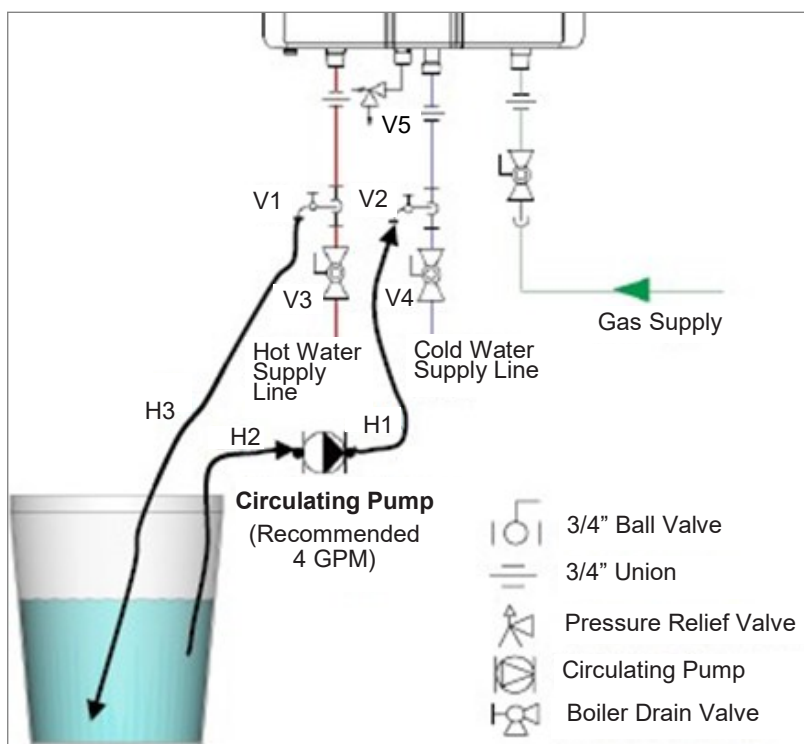
Use the following procedure to ensure interval control valves are positioned for optimal flushing.

1. Unplug (disconnect) power to the water heater until display is not illuminated.
2. Plug in (connect) power for 20 seconds, then unplug (disconnect) power to the water heater.

Note: Power must be unplugged. The ON/OFF button on the controller will not achieve the same results.

Flushing the Water Heater:

3. Close the shutoff valves on both the hot water and cold water lines (V3 and V4).
4. Connect pump outlet hose (H1) to the cold water line at service valve (V2).
5. Connect drain hose (H3) to the hot water line at service valve (V1).
6. Pour four gallons of undiluted virgin, food grade, white vinegar into pail.
- 7.* Place the drain hose (H3) and the hose (H2) to the pump inlet into the cleaning solution.
8. Open both service valves (V1 and V2) on the hot water and cold water lines.
9. Operate the pump and allow the vinegar to circulate through the water heater for at least 1 hour at a rate of 3-4 gallons per minute (11-15 liters per minute).



* If using a submersible pump, eliminate H2 hose and place pump in bucket per pump manufacturer's guidelines.

Rinse and Disconnect:

10. Turn off the pump.
11. Rinse the vinegar from the water heater as follows (refer to Figure 1 on front page):
 - A. Remove the free end of the drain hose (H3) from the pail. Place in sink or outside to drain.
 - B. Close service valve (V2) and open shutoff valve (V4). Do not open shutoff valve (V3).
 - C. Allow water to flow through the water heater for five minutes.
 - D. Close shutoff valve (V4). When unit has finished draining, remove the in-line filter at the cold water inlet and clean out any residue. Place filter back into unit and open valve (V4).
 - E. Close service valve (V1) and open shutoff valve (V3).
 - F. Open the pressure relief valve (V5) by lifting the lever at the end of the valve.

Note: Residual cleaning solution (vinegar) in the relief line is acidic and will cause premature failure of the relief valve or other components in the system if not released.
12. Disconnect all hoses.
13. Restore electrical power to the water heater.
14. Discard used vinegar. Do not reuse for future flushes.

Best Practices:

- Always leave inlet water filter(s) in place in tankless unit during flushing.
- Clean filters immediately after flush is complete.
- If pump flow decreases significantly during flush, pause pump, clean filter(s), replace and resume.

VIDEO TUTORIAL

Scan the QR code below for a video tutorial:

