

Series LFTWH

Tankless Water Heater Service Valve Set

Sizes: $\frac{3}{4}$ "

Installation Instructions

WARNING



**THINK
SAFETY
FIRST**

Read this Manual BEFORE using this equipment.
Failure to read and follow all safety and use information
can result in death, serious personal injury, property
damage, or damage to the equipment.

Keep this Manual for future reference.

STOP!

**Before connecting any components, be sure to read all
of the tankless water heater manufacturer's installation
instructions. Failure to follow instructions below can re-
sult in serious injury, death and/or property damage.**

1. Identify all components and orientations before beginning installation

1. HOT WATER SERVICE VALVE (Fig.1)

Identified by a RED ring on the upper union connection and by the red insulator handle.

2. COLD WATER SERVICE VALVE (Fig.2)

Identified by a blue ring on the upper union connection and by the blue insulator handle.

3. CHECK MODULE

Check element is integral to cold water service valve in TWH-QC-HC or LFTWH-QC-HC, TWH-UT-HC-RV or LFTWH-UT-HC-RV and TWH-QC-HC-RV or LFTWH-QC-HC-RV kits only.

4. PRESSURE RELIEF VALVE (Fig.3)

Identified by a silver test lever.

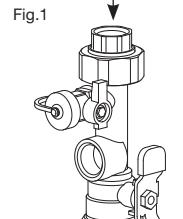
Note: ANSI Z21.22 and local codes govern the installation of pressure relief valves.

2. Before attaching any components to the tankless water heater, attach PRESSURE RELIEF VALVE to HOT WATER SERVICE VALVE (Figure 4)

CAUTION Do not over tighten relief valve. Do not tighten more than 2 turns past hand tight.

- Apply thread sealant to the exposed threads of the pressure relief valve.
- Thread the pressure relief valve into the $\frac{3}{4}$ " port on the side of the hot water valve and hand tighten. Using a wrench, tighten the pressure relief valve until the discharge on the pressure relief valve is positioned downward on the isolation valve, as shown in Figure 4.

Attach this end to
tankless water heater



Attach this end to
tankless water heater

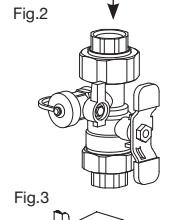
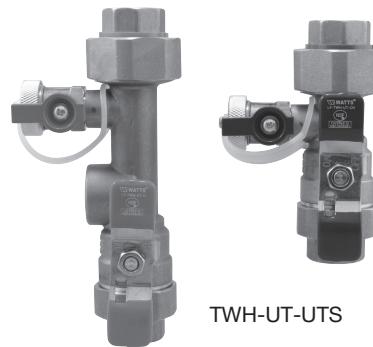
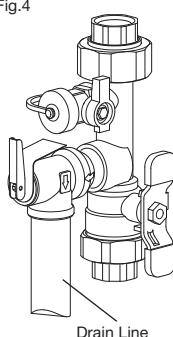


Fig.3



Fig.4



TWH-UT-UTS

3. Install COLD WATER SERVICE VALVE onto cold water inlet of tankless water heater

- Locate the cold water threaded inlet on the tankless water heater and apply thread sealant to the threads.
- Slightly loosen the union nut on the top of the cold water valve (i.e. the end with the blue insulator ring) so that the union tailpiece rotates freely.
- Holding the cold water valve beneath the cold water inlet, thread the union tailpiece onto the inlet and hand tighten. Using a wrench, tighten the union tailpiece. Next, position the cold water valve with the purge port pointing forward, towards the front of the water heater, and hand tighten the union nut.
- Verify that the blue insulator seats itself between the union tailpiece and the union nut. Tighten the union nut with a wrench, making sure that the valve does not rotate out of position.

4. Install HOT WATER SERVICE VALVE onto hot water outlet of tankless water heater

WARNING There should not be a shutoff located between the tankless water heater and pressure relief valve. (see direction arrow in Fig. 5)

- Locate the hot water threaded outlet on the tankless water heater and apply thread sealant to the threads.
- Slightly loosen the union nut on the top of the hot water valve (i.e. the end with the red insulator ring) so that the union tailpiece rotates freely.
- Holding the hot water valve beneath the hot water outlet, thread the union tailpiece onto the outlet and hand tighten. Using a wrench, tighten the union tailpiece. Next, position the hot valve with the purge port and pressure relief valve pointing forward, towards the front of the water heater, and hand tighten the union nut. Verify that the insulator seats itself between the union tailpiece and the union nut. Tighten the union nut with a wrench, making sure that the valve does not rotate out of position.

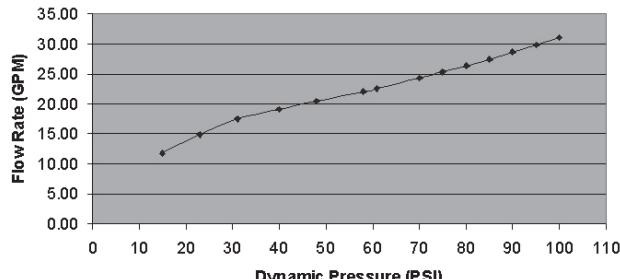
ATTENTION INSTALLER: After installation, please leave this Instruction Sheet for occupant's information.

IMPORTANT: Inquire with governing authorities for local installation requirements.

WARNING

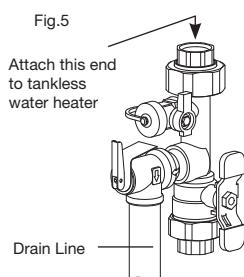
For valves with CPVC or PEX end connections do not exceed the tubing manufacturers pressure and temperature ratings. Refer to the tubing manufacturers product specifications for that information.

Hot Service Valve Purge Port Flow Data



5. Connect water line and pressure relief drain line

- Attach the HOT water supply line to the threaded connection on the HOT WATER VALVE using thread sealant on the threads of the water fitting. On US (union sweat) models, detach the copper tailpiece from the union assembly and sweat to the hot water supply line. Be sure to remove the O-ring from the tailpiece before seating. Allow tailpiece to cool before reassembly to avoid damaging O-ring.
- Attach the COLD water supply line to the threaded connection on the COLD WATER VALVE using thread sealant on the threads of the water fitting. On US (union sweat) models, detach the copper tailpiece from the union assembly and sweat to the cold water supply line. Be sure to remove the O-ring from the tailpiece before seating. Allow tailpiece to cool before reassembly to avoid damaging the O-ring.
- Attach the drain line to the pressure relief valve and run line per local code requirements.



6. Start-up & Normal Operation

- Before turning on the supply water to the heater, make sure that the main valve handles on both the hot & cold valves are closed (Tee handle perpendicular to the main valve bodies). Also ensure that the purge port valve caps are tightened down and that the valves are in the closed position (Tee handle perpendicular to the purge port valve body). NEVER RELY ON THE PURGE CAP TO STOP THE WATER FLOW.
- For water heater start-up, refer to the water heater owners' manual.

- During normal operation, the main water valves are open when the main valve handle is parallel with the main valve body and closed when the main valve handle is perpendicular to the main valve body.
- For the purge port valves, the purge port valve is open when the slot is parallel with the purge port valve body and closed when the slot is perpendicular to the purge port valve.

7. Inspection and Maintenance

- See tag attached to pressure relief valve for details.

WARNING: Hot water may be present in the system, use extreme caution when servicing tankless water heater. Hot water can cause personal injury, death and/or property damage.

8. Drain/Flush Operation

Note: The following are suggested instructions for the use of the service valves during draining and flushing of the tankless water heater. Please refer to the water heater owner's manual for specific instructions.

- Disconnect the power supply to the water heater.
- Close the main water valve handles on the cold water valve (blue handle) and the hot water valve (red handle) by rotating each until they are perpendicular with the respective valve body. This shuts off the incoming cold water to the water heater and isolates the water heater from the hot water piping within the rest of the home.
- The purge valve on the cold water valve (blue) is used as the flushing inlet and the purge valve on the hot water valve (red) is used for the flushing outlet or drain. Ensure that the purge port is closed (Tee handle perpendicular to the purge port valve body) before removing the purge port valve cap.
- Slowly open the drain caps on each purge port valve. Ensure that the rubber washer stays in the cap.
- Continue with the manufacturer's recommendations for attachment of the lines and for specific draining and flushing instructions. To open the purge port valves, the slots are rotated so that they are parallel to the purge port valve body.
- When flushing is complete and before the lines are removed, ensure that the purge port valves are closed. Remove the lines and reinstall the purge port valve caps, ensuring that the rubber washer is in the cap, and tighten.

Limited Warranty: Watts (the "Company") warrants each product to be free from defects in material and workmanship under normal usage for a period of one year from the date of original shipment. In the event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge.

THE WARRANTY SET FORTH HEREIN IS GIVEN EXPRESSLY AND IS THE ONLY WARRANTY GIVEN BY THE COMPANY WITH RESPECT TO THE PRODUCT. THE COMPANY MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. THE COMPANY HEREBY SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The remedy described in the first paragraph of this warranty shall constitute the sole and exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental, special or consequential damages, including without limitation, lost profits or the cost of repairing or replacing other property which is damaged if this product does not work properly, other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemical, or any other circumstances over which the Company has no control. This warranty shall be invalidated by any abuse, misuse, misapplication, improper installation or improper maintenance or alteration of the product. Some States do not allow limitations on how long an implied warranty lasts, and some States do not allow the exclusion or limitation of incidental or consequential damages. Therefore the above limitations may not apply to you. This Limited Warranty gives you specific legal rights, and you may have other rights that vary from State to State. You should consult applicable state laws to determine your rights. **SO FAR AS IS CONSISTENT WITH APPLICABLE STATE LAW, ANY IMPLIED WARRANTIES THAT MAY NOT BE DISCLAIMED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF ORIGINAL SHIPMENT.**

