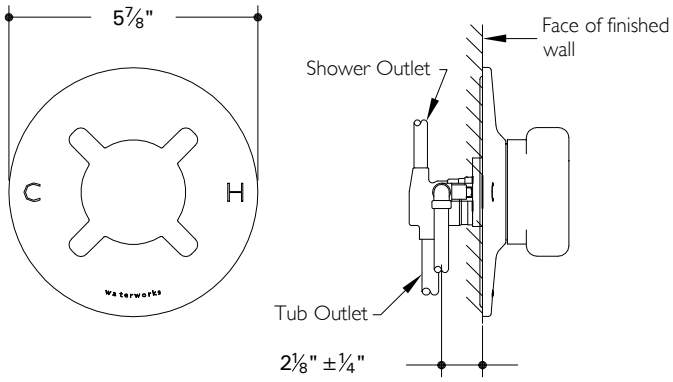
.25 Pressure Balance Valve Trim

Installation Guidelines

PTSV59 (trim) **& GUSV81R** (rough)



IMPORTANT

- To ensure this product is installed properly, you must read and follow these guidelines.
- The owner/user of the valve must keep this information for future reference.
- The risk of scalding exists until the installer has properly set the temperature high limit stop.
- This product must be installed by a professional contractor and conform to all applicable codes
- Refer to the specification and assembly drawings attached. Valves are sold partially assembled but shown fully disassembled for illustrative and service purposes only.
- If soldering any connections, remove cartridge to prevent damage to seals.
- This valve should be on-site prior to rough in and allows the installer to visualize the installation.
- Inspect this product to assure you have all parts required for proper installation.
- Check incoming water pressure; ideal operating pressure is 40-50 PSI. The minimum is 20 PSI. and the maximum is 100 PSI.
- Designed for a rated supply pressure of 100 PSI and a supply temperature from 40°-160° F.
- Use only a strap wrench or protected/smooth-jaw wrench on any finished surface.

ROUGH IN:

1. Make sure the valve body is positioned according to valve markings so the inlets are situated with hot piped on the left and cold piped on the right.
2. Remove and discard the wall mounting flange located beneath the tile shield. The dome cover included will not be used during the installation.
3. REQUIRED: Valve body rough-in depth is 2 ⅛" +/- ¼" from the centerline of the supplies/inlets to the face of the finished wall. Install so the back side of the plaster shield contacts the finished wall as indicated on the shield.
4. Run ½" copper supply lines with a 5 ½" center spread to the proper height of the valve inlets and be sure to secure all piping and fittings.
5. Turn on the hot and cold supplies then check for leaks.

VALVE OPERATION:

6. When the finished wall is complete, turn on the hot and cold supplies and pull off the tile shield and discard. Both supplies must be on or the valve will not operate.
7. The handle (28) is for controlling temperature only, not volume. Remove the 3mm hex set screw (27) from the handle then slide the handle onto the spindle (11).
8. Turn the handle counter clockwise through the cold position then warm and stopping at the hot position. If additional rotational friction is required to maintain the handle position, tighten the packing nut (10).
9. Allow the valve to run in warm position for a few minutes to completely flush the system. If system is quite dirty, remove valve spindle to ensure proper flushing.
10. IMPORTANT: This valve is equipped with a limit stop screw (8) to be used to limit the valve handle from being turned to excessively hot water discharge temperatures.

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WATERWORKS

11. Setting the temperature limit stop screw: Open the valve to the maximum desired temperature then turn the limit stop screw (8) in until it seats.

12. WARNING: FAILURE TO ADJUST THE LIMIT STOP SCREW PROPERLY MAY RESULT IN SERIOUS SCALDING.

13. WARNING: THIS SHOWER SYSTEM MAY NOT PROTECT THE USER FROM SCALDING WHEN THERE IS A FAILURE OF OTHER TEMPERATURE CONTROLING DEVICES ELSEWHERE IN THE PLUMBING SYSTEM.

INSTALL THE TRIM:

14. Remove the handle after setting the temperature.

15. Hand tighten the trim connector (31) completely onto the valve body. This connector MUST be tightened to prevent damage to the handle.

16. Slide the trim plate (30) over the trim connector and hold the plate against the wall.

17. Thread the handle/trim adapter (29) onto the trim connector to secure the plate against the wall. If desired, a bead of clear silicone can be applied to the back side of the trim plate.

18 Position the handle with the set screw hole at 6:00 then slide the handle onto the spindle. Secure the handle to the spindle by tightening the 3mm hex set screw (27).

19. Open the valve and confirm the temperature setting, adjust as required.

If further assistance is required, please contact Product Support at 1-800-927-2120 (8am-7pm EST).

MAINTENANCE INSTRUCTIONS

PROBLEM	CAUSE	SOLUTION
Valve will not flow water	Hot and cold water not turned on. service stops not opened.	Be sure both supplies are turned on and service stops are opened. Valve will not operate unless both **HOT** and **COLD** water inlets have pressure.
Valve leaks when shut-off.	Hot and cold water washers are worn, or foreign matter (solder, chips, etc.) are between washers and seat surfaces.	Replace Hot and Cold washers and inspect top surface on hot and cold seats for damage.
Water volume from valve is inconsistent during operation.	Pressure balancing piston housed in control spindle assembly is blocked from free movement by foreign matter.	With valve open half way, remove temperature handle and tap spindle with plastic hammer. If problem is not solved, remove spindle assembly completely and tap handle end against a solid object to free piston. Rinse out control sample assembly. Soaking in household vinegar will help free foreign matter build-up.
Valve delivers an insufficient quantity of Hot and Cold water.		
Temperature fluctuates without moving temperature handle.		
Temperature out of valve reduces gradually during use.	Supply system is running out of hot water.	Reduce maximum flow rate out of valve or shower head. This will allow longer period of use before reduction of hot water supply.
While using a tub & shower valve with integral diverter set for shower, a trickle of water runs from tub spout.	This is a design function of the valve. Water is allowed to trickle from the tub spout when diverter is set in shower position; in accordance to national standards.	This is a design function in accordance to national standards.

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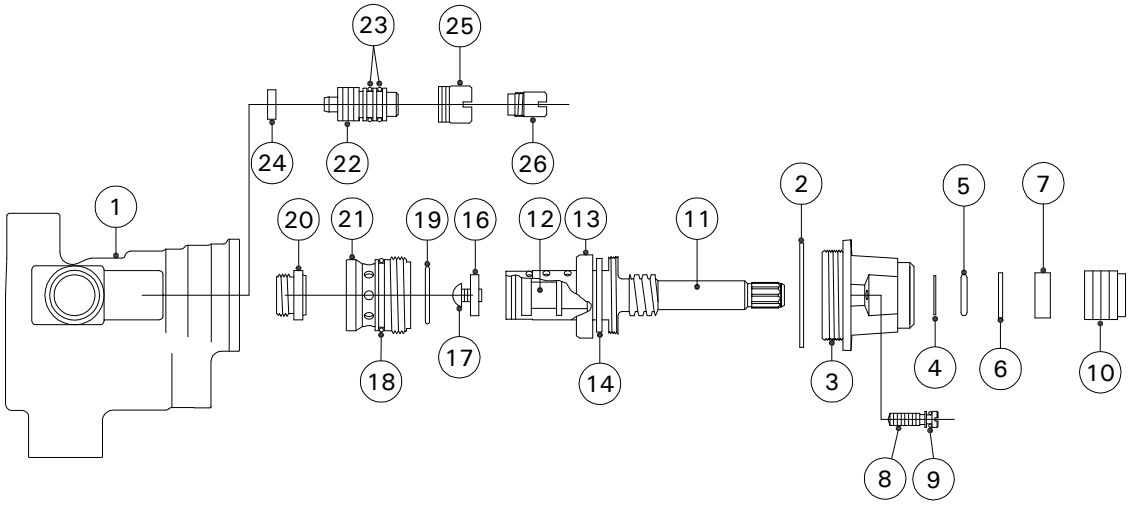

REPLACEMENT PART KITS		
CONTROL STEM REPLACEMENT KIT		
ITEM NO.	DESCRIPTION	QTY.
2	CAP GASKET	1
11	CONTROL STEM	1
12	CONTROL PISTON	1
13	COLD WASHER RETAINER	1
14	COLD WASHER	1
16	HOT WASHER	1
17	WASHER RETAINING SCREW	1
SEAT REPLACEMENT KIT		
18	COLD SEAT O-RING	
19	INT. COLD SEAT O-RING	1
20	HOT WATER SEAT	1
21	COLD WATER SEAT	1
SEAT REPACEMENT KIT		
	COLD SEAT TOOL	1
	HOT SEAT TOOL	1
CONTROL STEM WASHER REPLACEMENT KIT		
2	CAP GASKET	1
13	COLD WASHER RETAINER	1
14	COLD WASHER	1
16	HOT WASHER	1
17	WASHER RETAINING SCREW	1
SERVICE STOP REPLACEMENT KIT (2) PER		
22	VALVE STOP	1
23	STOP O-RING	1
24	STOP GASKET	1

REPLACEMENT PART KITS		
ADJUSTMENT SCREW REPLACEMENT KIT		
ITEM NO.	DESCRIPTION	QTY.
8	ADJUSTMENT SCREW	1
9	O-RING	1
CAP REPLACEMENT KIT		
2	CAP GASKET	1
3	BONNET	1
4	O-RING WASHER	1
5	O-RING	1
6	PACKING WASHER	1
7	RUBBER PACKING	1
8	ADJUSTMENT SCREW	1
9	ADJUSTMENT SCREW O-RING	1
10	PACKING NUT	1
PACKING REPLACEMENT KIT		
2	CAP GASKET	1
4	O-RING WASHER	1
5	O-RING	1
6	PACKING WASHER	1
7	RUBBER PACKING	1

ADDITIONAL ITEM LIST		
ITEM NO.	DESCRIPTION	QTY.
1	VALVE BODY	1
25	STOP RETAINER	1
26	SERVICE STOP CAP	1

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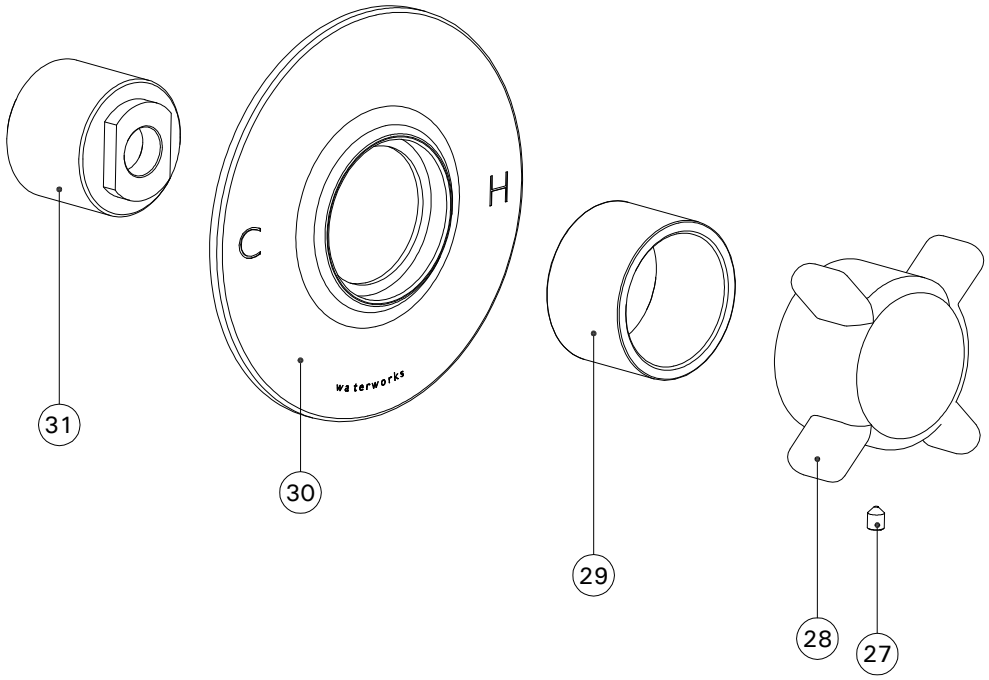

PARTS TABLE		
ITEM NO.	DESCRIPTION	QTY.
27	SET SCREW	1
28	HANDLE	1
29	HANDLE/TRIM ADAPTER	1
30	TRIM PLATE	1
31	TRIM CONNECTOR	1

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