

SHERLE

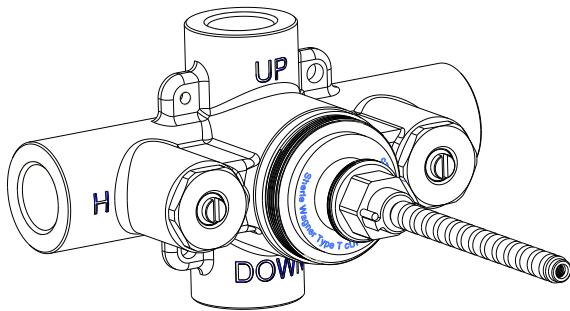


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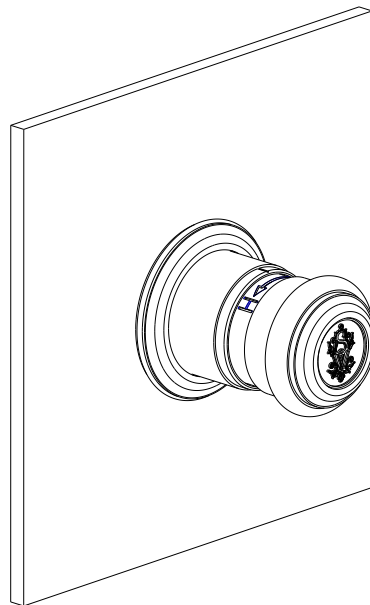
## INSTALLATION GUIDE

1/2" THERMOSTATIC VALVE & TRIM

Retain this Guide for future use.

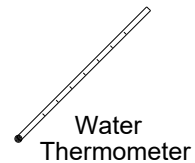
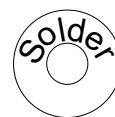
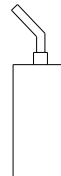
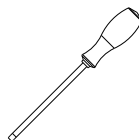
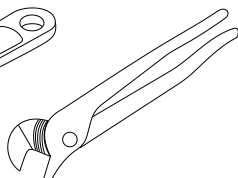
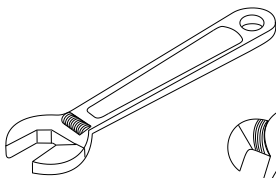


VLVE-TMO-S25



TMO01, TMO02, TMO03, TMO04, TMO05,  
TMO06, TMO07, TMO08, TMO09, TMO10

Installation tools that may be needed:

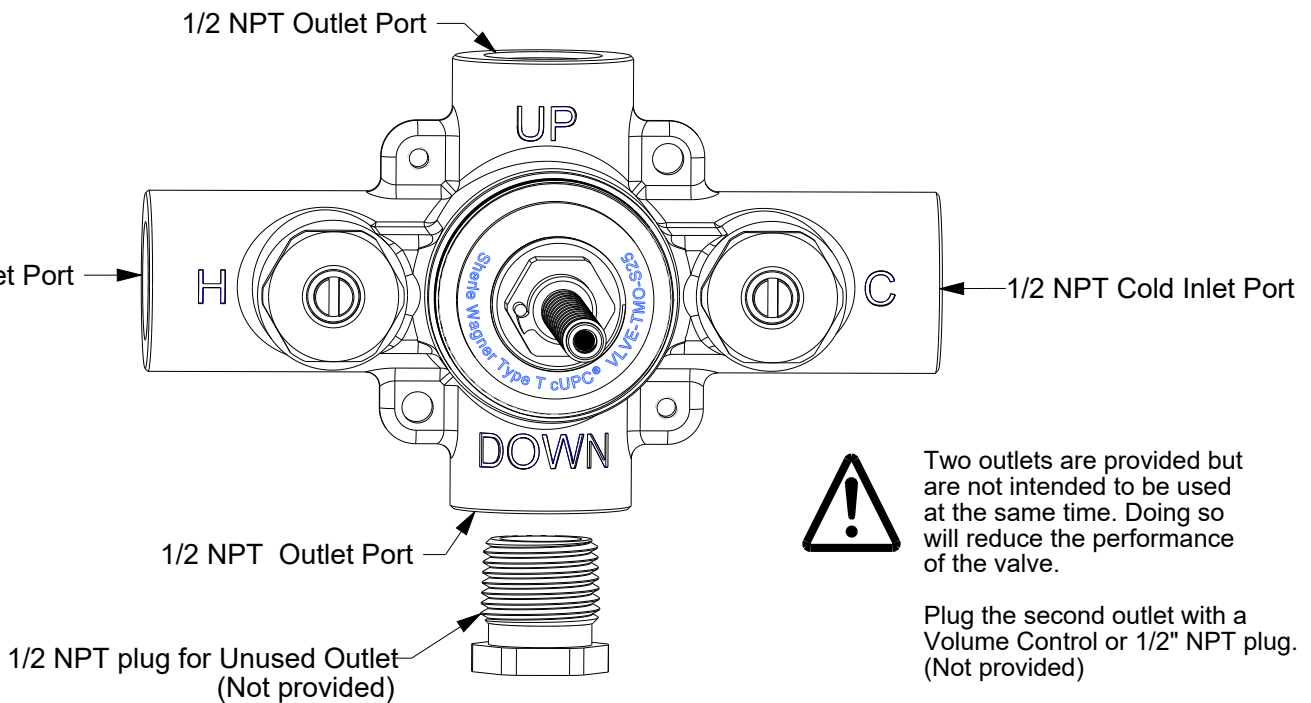


# 1/2" THERMOSTATIC VALVE SPECIFICATIONS:

|  |                            |
|--|----------------------------|
| Piping.....                              | 1/2 NPT inlets and outlets |
| Recommended pressure range.....          | MIN 25 - MAX 80 PSI        |
| Water temperature (hot water inlet)..... | 165 °F maximum             |
| Outlet water temperature.....            | Adjustable 70 °F to 120 °F |
| Unrestricted Flow Rate Maximum.....      | 7 GPM @ 45 PSI             |

## IMPORTANT INSTALLATION NOTES: Read through entire guide before starting installation.

- A. Follow all applicable local Plumbing, Public Health and Safety Codes.
- B. This unit has no serviceable filter. See cartridge maintenance on page 7.
- C. Before installation, flush all supply pipes thoroughly.
- D. The Hot Water supply must be connected on the LEFT Port (marked H), and the Cold Water supply must be connected on the RIGHT Port (marked C).  
No inverse cartridges are available.
- E. Do not use sweat connections. Excessive heat will damage internal parts and void warranty.
- F. Do not use petroleum-based lubricants during installation. Use only silicone-based grease when needed.
- G. Pressure test entire system in full ON and OFF positions several times before closing up the wall.
- H. Do not use solvent-based sealers on coated trim parts.
- I. The rough-in depth of this valve is measured from the finished wall surface and will vary according to the Sherle Wagner trim used. Find the correct depth for each trim style from the chart on Page 3.



## CARE AND MAINTENANCE GUIDE

Thank you for selecting a Sherle Wagner product. As with fine jewelry, care must be exercised when cleaning the product in order to maintain the distinctive Sherle Wagner finish.

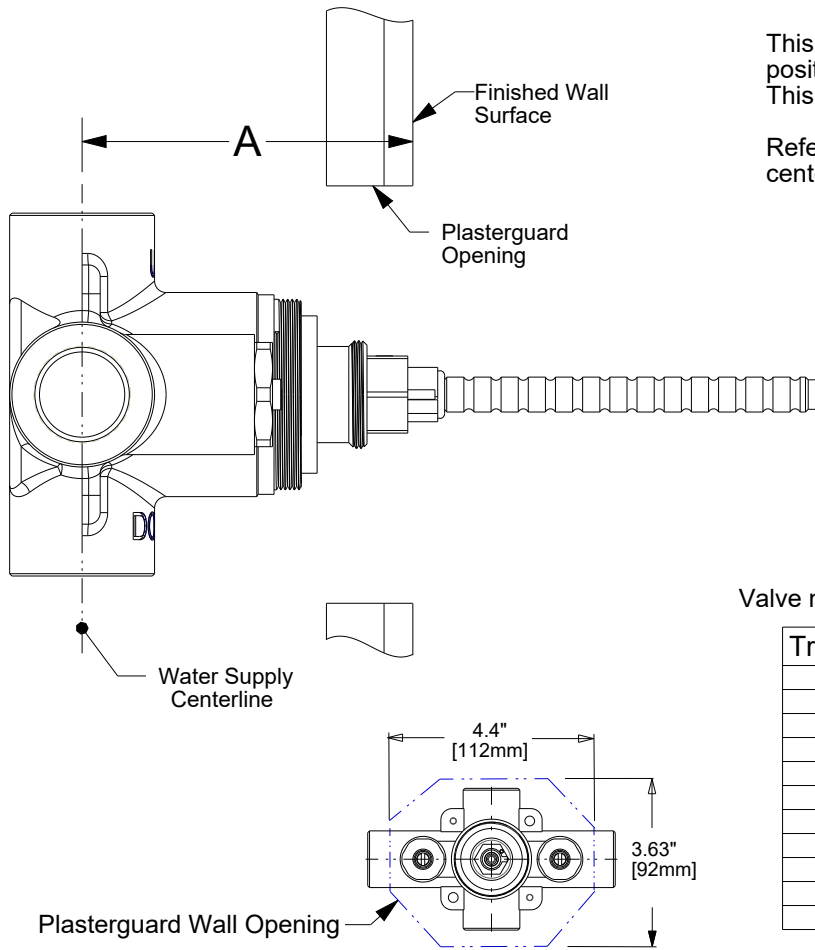
### General Cleaning Instructions for Metal Finishes:

Never use an abrasive cleaner on any of the products. Do not use any cleaning agents that contain solvents, acids or ammonia. In most instances, wiping with a soft damp cloth and drying with a soft towel is sufficient. Periodic cleaning with a mild soft soap, thoroughly rinsing the surface and drying, will Keep the product looking new.

BEWARE of "polishing cloths," which may contain damaging agents.

The Sherle Wagner website contains additional instructions for specific products and finishes. Please visit: <https://www.sherlewagner.com/pages/care-and-maintenance>

# VLVE-TMO-S25 Rough-In Installation



This valve must be installed to the correct depth to be positioned correctly when the finished wall is complete. This depth will vary according to the Trim Style used.

Refer to the chart below for the correct water supply / inlet centerline location specific to the Sherle Wagner trim ordered.

**NOTE:** A backer board may not fit behind the valve in some 2x4 studded or other thin wall installations.

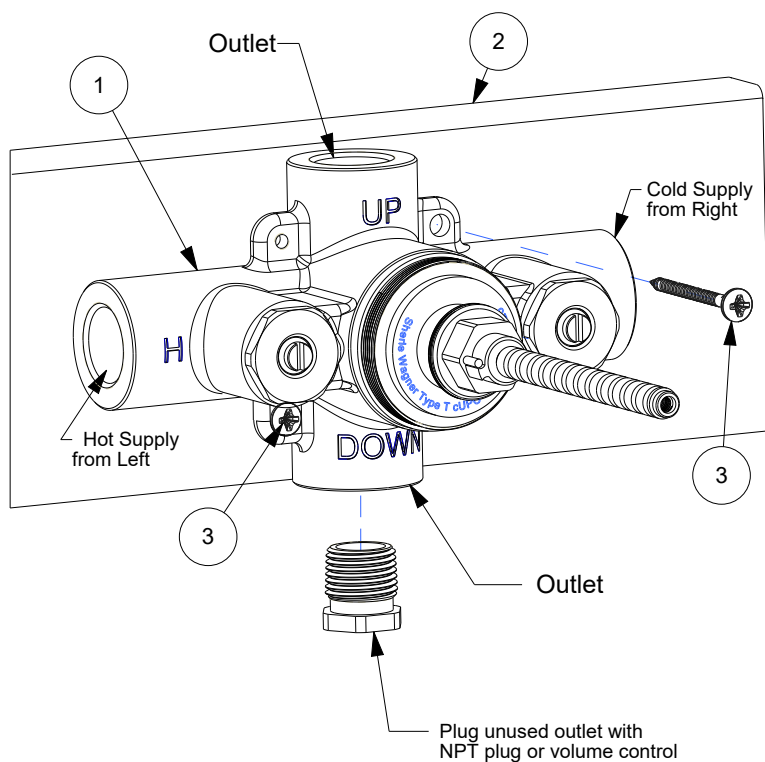


It is the installer's responsibility to mount this valve to suitable support framing appropriate for the project.

Valve must be mounted to depth shown to fit trim style indicated.

| Trim Code | Style             | A Minimum       | A Maximum       |
|-----------|-------------------|-----------------|-----------------|
| TMO-01    | Square Knuckle    | 2.63" [ 66 mm ] | 3.25" [ 83 mm ] |
| TMO-02    | Acanthus          | 2.63" [ 66 mm ] | 3.25" [ 83 mm ] |
| TMO-03    | Ribbon & Reed     | 2.63" [ 66 mm ] | 3.25" [ 83 mm ] |
| TMO-04    | Filigree          | 2.63" [ 66 mm ] | 3.25" [ 83 mm ] |
| TMO-05    | Bamboo            | 2.63" [ 66 mm ] | 3.25" [ 83 mm ] |
| TMO-06    | Reeded w- Rosette | 2.63" [ 66 mm ] | 3.25" [ 83 mm ] |
| TMO-07    | Grey              | 2.63" [ 66 mm ] | 2.75" [ 70 mm ] |
| TMO-08    | Harrison          | 2.63" [ 66 mm ] | 2.75" [ 70 mm ] |
| TMO-09    | Modern            | 2.63" [ 66 mm ] | 3.10" [ 79 mm ] |
| TMO-10    | Nouveau           | 2.63" [ 66 mm ] | 2.85" [ 72 mm ] |
| TMO-11    | Keystone / Dorian | 2.63" [ 66 mm ] | 3.10" [ 79 mm ] |

Contact SW Representative for custom applications.



1. Unpack the valve assembly from box. Remove plasterguard from valve body (1) and set aside.

2. Mount valve body (1) securely to adequate bracing (2), using mounting holes on flange of valve body (1) and screws (3).



Verify that the Water Supply Centerline depth matches the chart for the selected trim.

3. Flush all piping. Connect the Hot and Cold supplies using copper supply lines.

Supply ports are stamped Hot and Cold.  
HOT INLET MUST BE ON THE LEFT.  
COLD INLET MUST BE ON THE RIGHT.



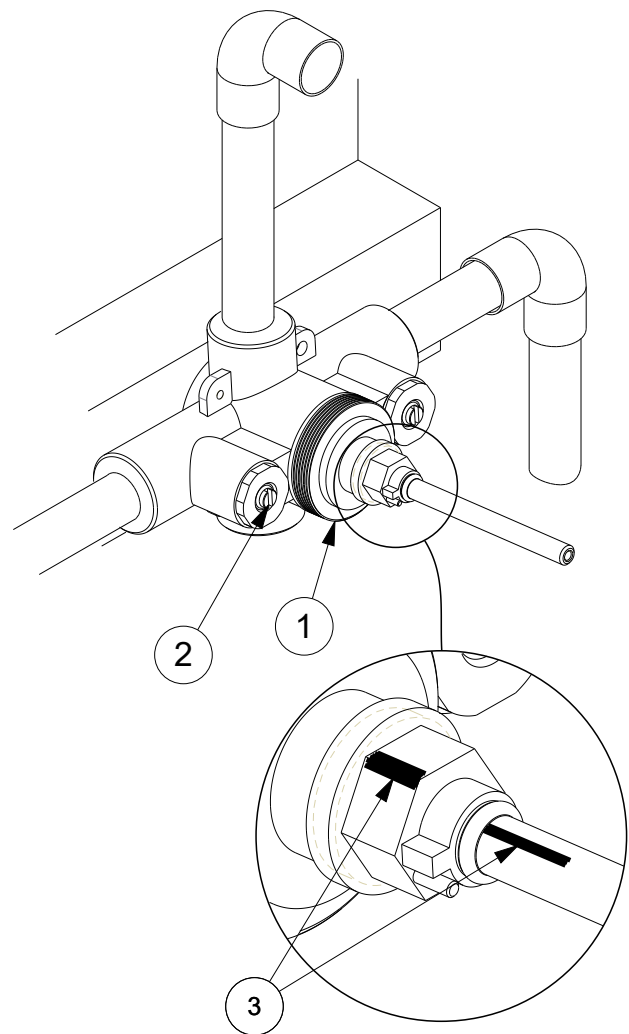
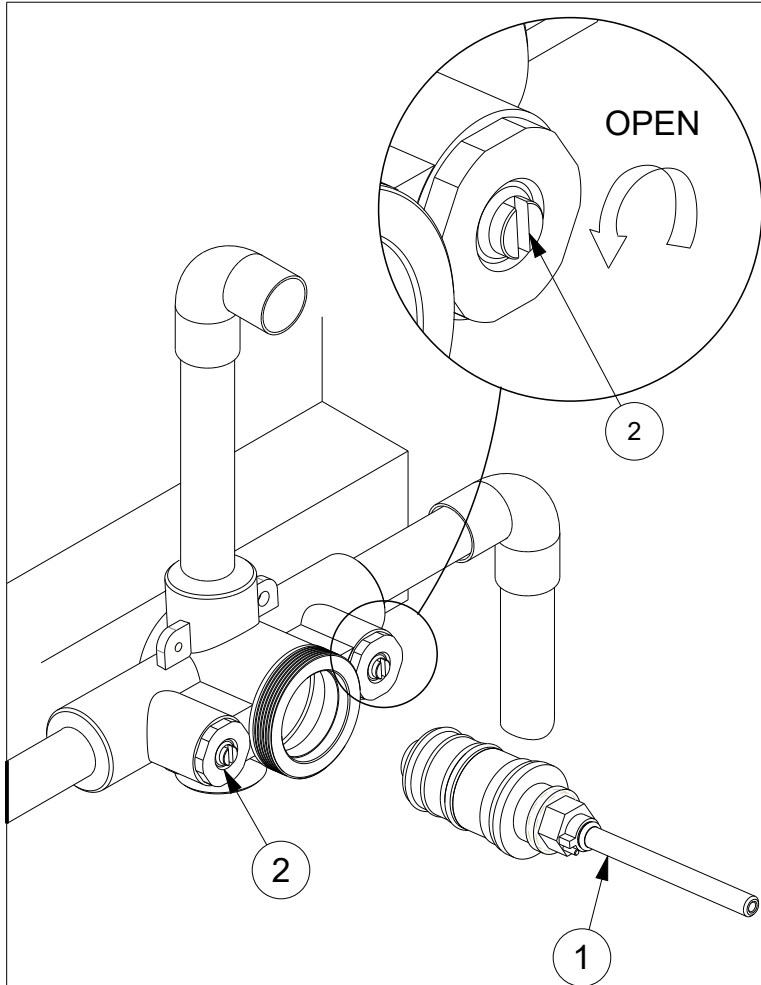
Do not apply heat directly to the valve, as this may damage internal components and will void the warranty.

4. Connect the outlet port to the Volume Control or Diverter component downstream. (Purchased separately.)

5. Plug the unused Outlet port.

6. Reinstall Plasterguard to protect valve during construction of finish wall surfaces.

# Flushing System



Failure to complete these steps will void the warranty!

1. Close integral stops (2) by turning both screwdriver slots clockwise fully.
2. Carefully unthread the cartridge (1) from the valve body.
3. Turn on water supplies, then slowly open integral stops (2) by turning screwdriver slots counter-clockwise.
4. Allow water to run until no debris is found, then close integral stops (2).

5. Reinstall cartridge (1) and ensure that the alignment marks (3) on cartridge and stem are aligned.

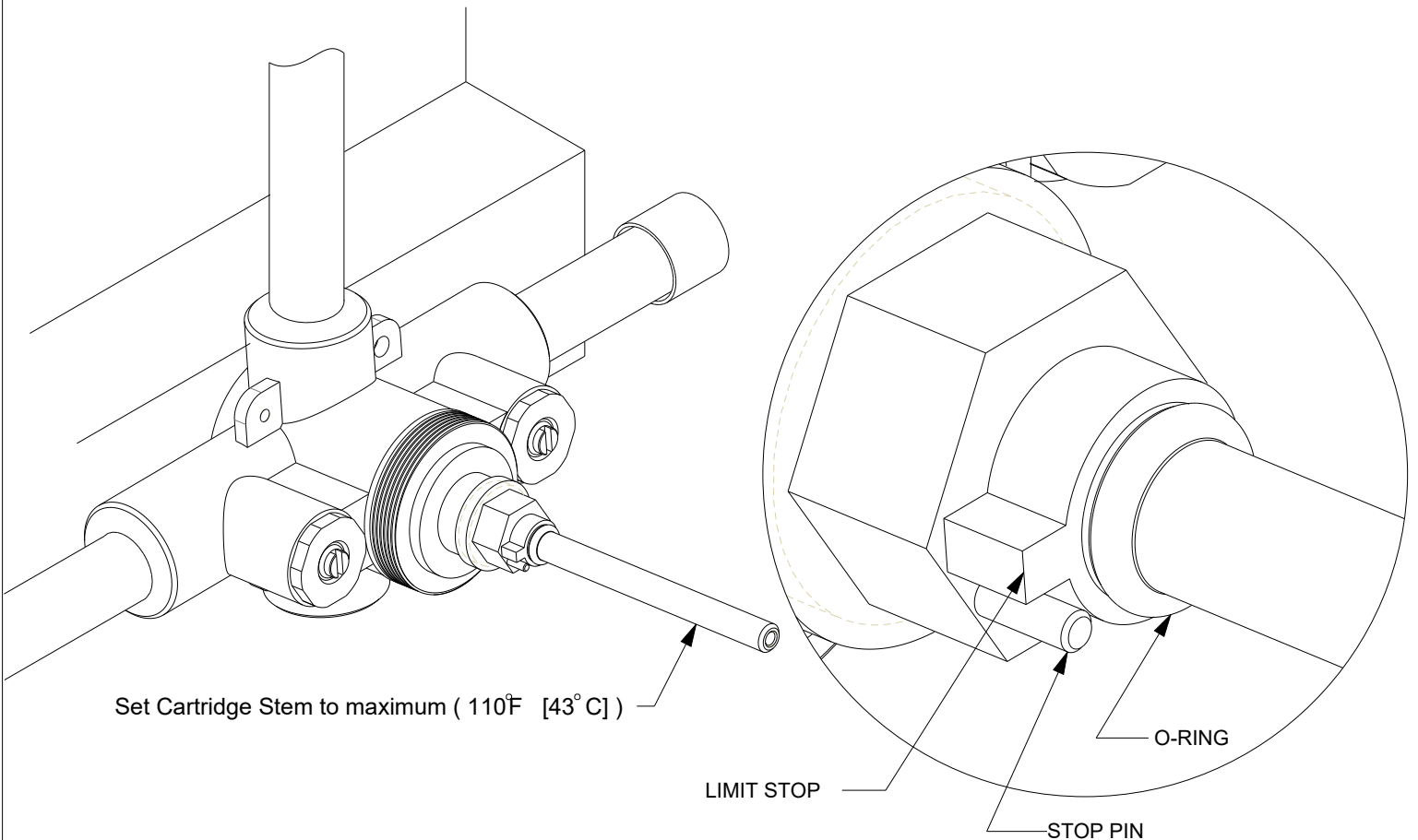
Note: If a lubricant is needed to reinstall the cartridge, use a silicone-based grease only.

Do not use any petroleum-based lubricants!

6. Open integral stops (2) and flush lines to all outlets. Check all connections for leaks.
7. Close integral stops.
8. Reinstall Plasterguard to protect valve during construction of finish wall surfaces.

# Setting Temperature Limit

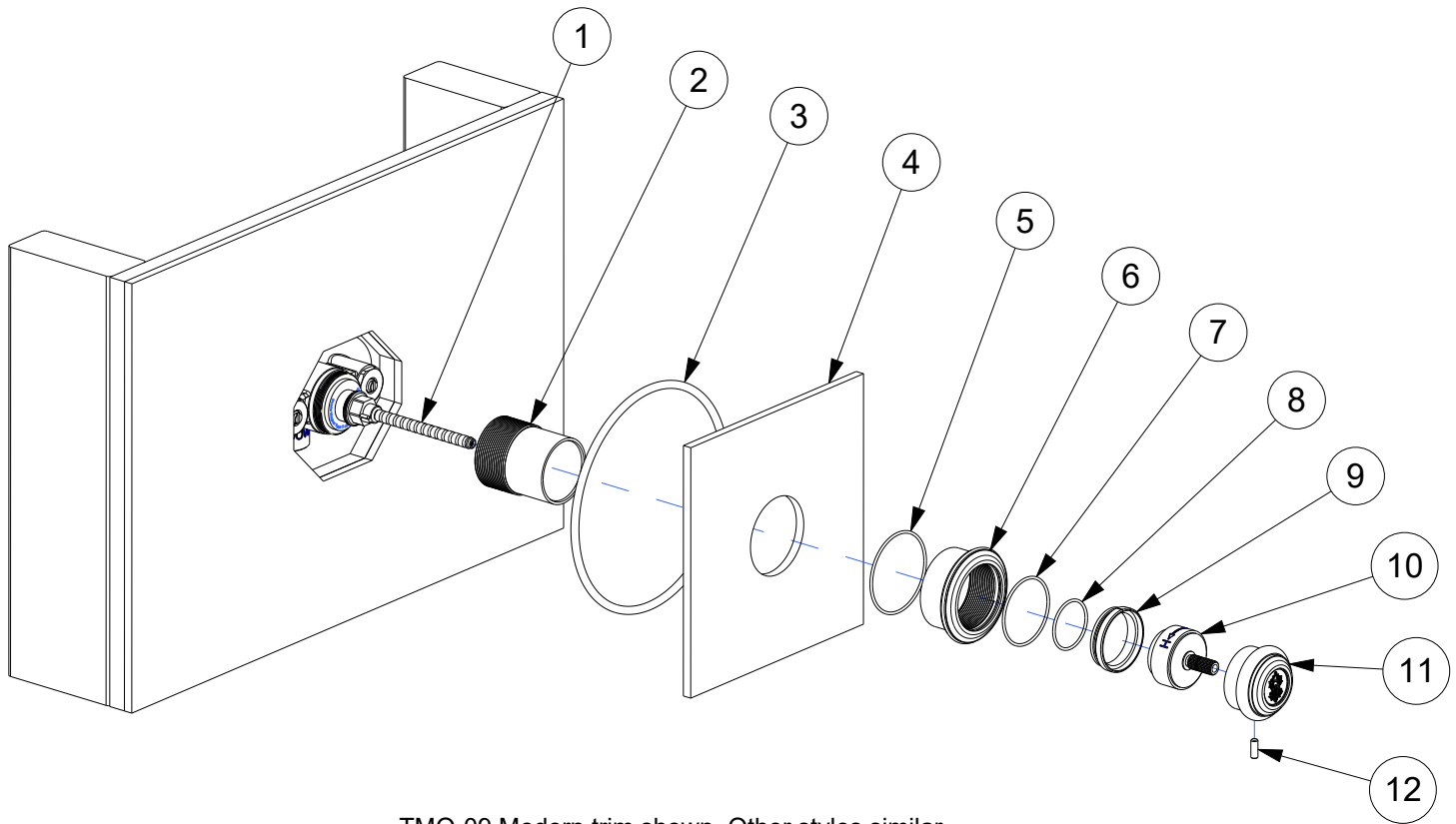
To minimize the risk of scalding, this valve must be calibrated by the installer to set the maximum safe discharge temperature of the water.



Sherle Wagner does not recommend setting this limit greater than 110° F [43° C] .

1. Turn on the Hot and Cold water supplies to run water through the Thermostatic Valve.
2. Slide O-ring and Limit Stop off the cartridge stem. Do not lose or damage O-ring.
3. Rotate the Cartridge Stem counter-clockwise to full hot. Allow the flowing water temperature to stabilize.
4. Hold a water thermometer under the running water to measure the temperature.
5. Slowly rotate Cartridge Stem clockwise until the water temperature stabilizes at 110° F [43° C].
6. Reposition the Limit Stop back onto the Cartridge Stem, making sure that the tab engages the Stop Pin as shown. Slide the O-ring back into place to secure into position.
6. Verify calibration: Rotate the cartridge stem clockwise to full cold, then counter-clockwise until it hits the stop pin. The temperature of the running water should rise to the temperature set in the previous step. If it does not, repeat the calibration process.
7. Reinstall Plasterguard to protect valve during construction of finish wall surfaces.

# TRIM-TMO-S25 Installation

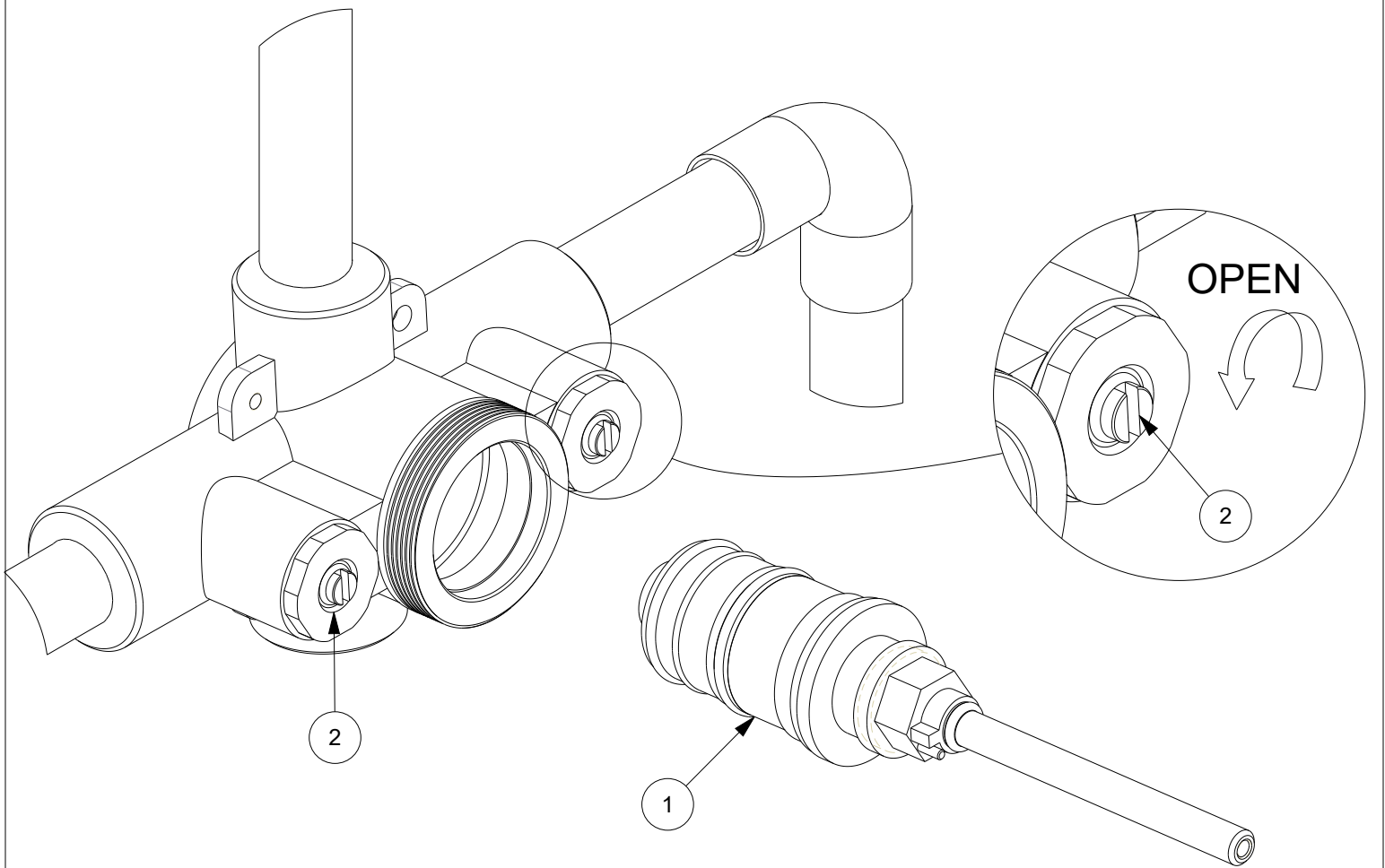


TMO-09 Modern trim shown. Other styles similar.

After the finished wall is in place, the length of the valve stem must be trimmed to fit.

1. Thread sleeve (2) onto valve (1) in wall.
2. Slide the escutcheon (4) onto sleeve (2) against finished wall. Make sure gasket (3) is in position of back of escutcheon (4).
3. Thread lock nut (6) onto sleeve (2) and tighten by hand until escutcheon seals against wall. Make sure lock nut gaskets (5) and (7) are in position.  
A coat of silicone-based lubricant may be used on the lock nut gaskets.
4. Mount ring (9) onto sleeve (2). Make sure the notch faces up and that the gasket (8) is in position.
5. Mount temperature dial (10) onto valve stem (1). Carefully measure the gap between face of ring (8) and temperature dial (9).
6. Remove dial (10) and cut stem length 0.04" [1mm] less than the gap measured.
7. Using water thermometer, run water and adjust temperature to 90° F [32° C].
8. Re-mount temp dial (10) onto valve stem (1) with "H  $\leftrightarrow$  C" markings facing up and secure with screw (10). Do not over-tighten.
9. Mount knob (11) onto temperature dial (10) and secure with set-screw (12).
10. Turn knob and check for proper function and temperature. Rotating dial to full hot should yield a maximum temperature of 110° F [43° C] at the outlet.

# Cartridge Maintenance and Removal



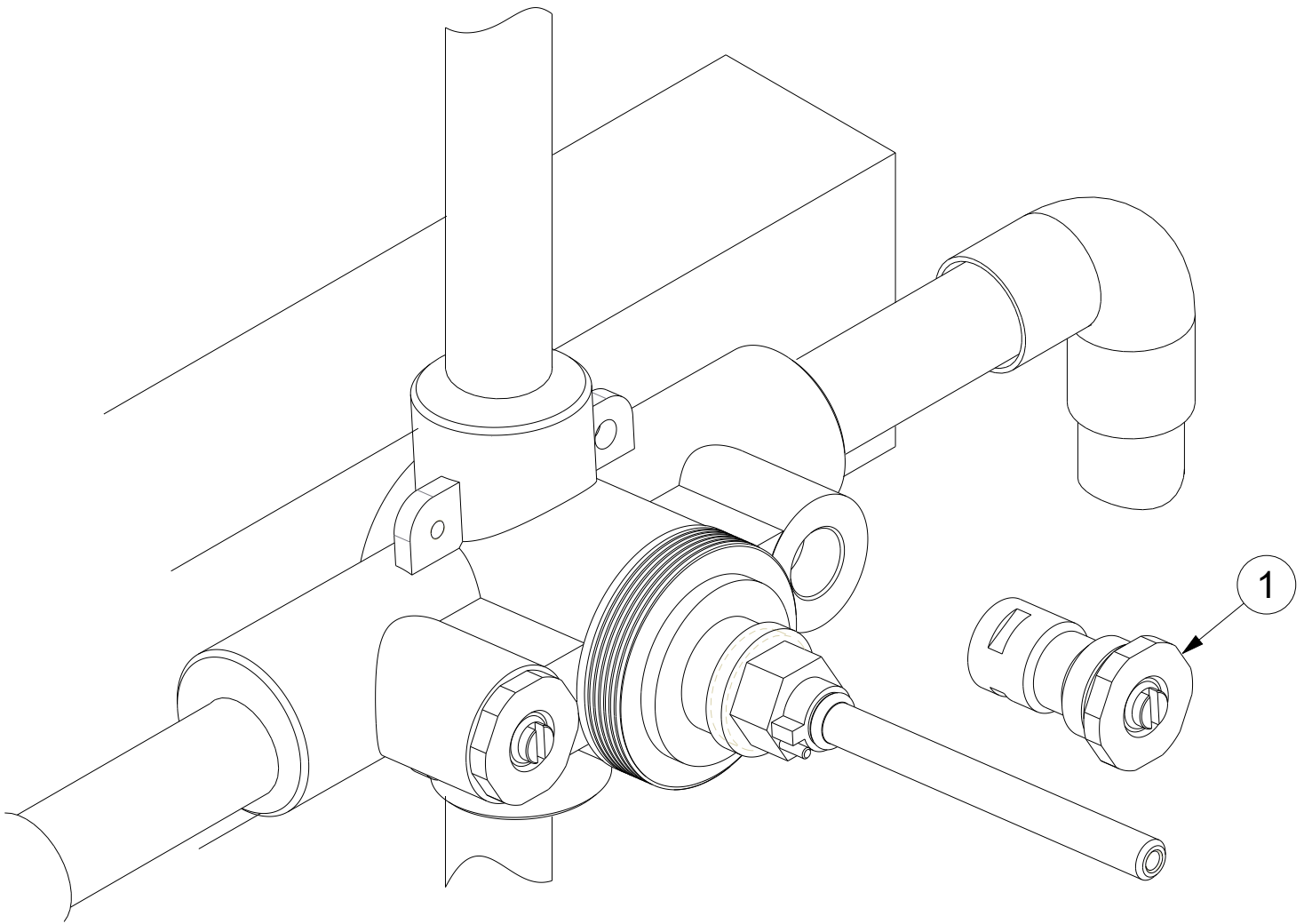
1. Shut off volume control valve(s) and uninstall trim from wall. [See Page 6].
2. Shut off the integral stops (2) with screwdriver by rotating each one fully, clockwise.
3. Open a lower volume control valve to relieve system pressure and drain.
4. Carefully unscrew cartridge (1) counter-clockwise. Examine for wear or damage and flush any debris from screens.
5. To reinstall cartridge, apply silicone-based grease to O-Rings and then insert in valve. Make sure that alignment marks on cartridge and stem are aligned. [See Page 4]. Do not use any petroleum-based grease, as damage will result.
6. Before pressurizing system, make sure all volume control valves are closed.



This step is critical to avoid damage to check stop seals!

7. Open integral stops (2) and check for leaks. Volume control valves can now be opened.
8. Recalibrate temperature limit stop per instructions. [See Page 5].

# Integral Check-Stop Valve Maintenance and Removal

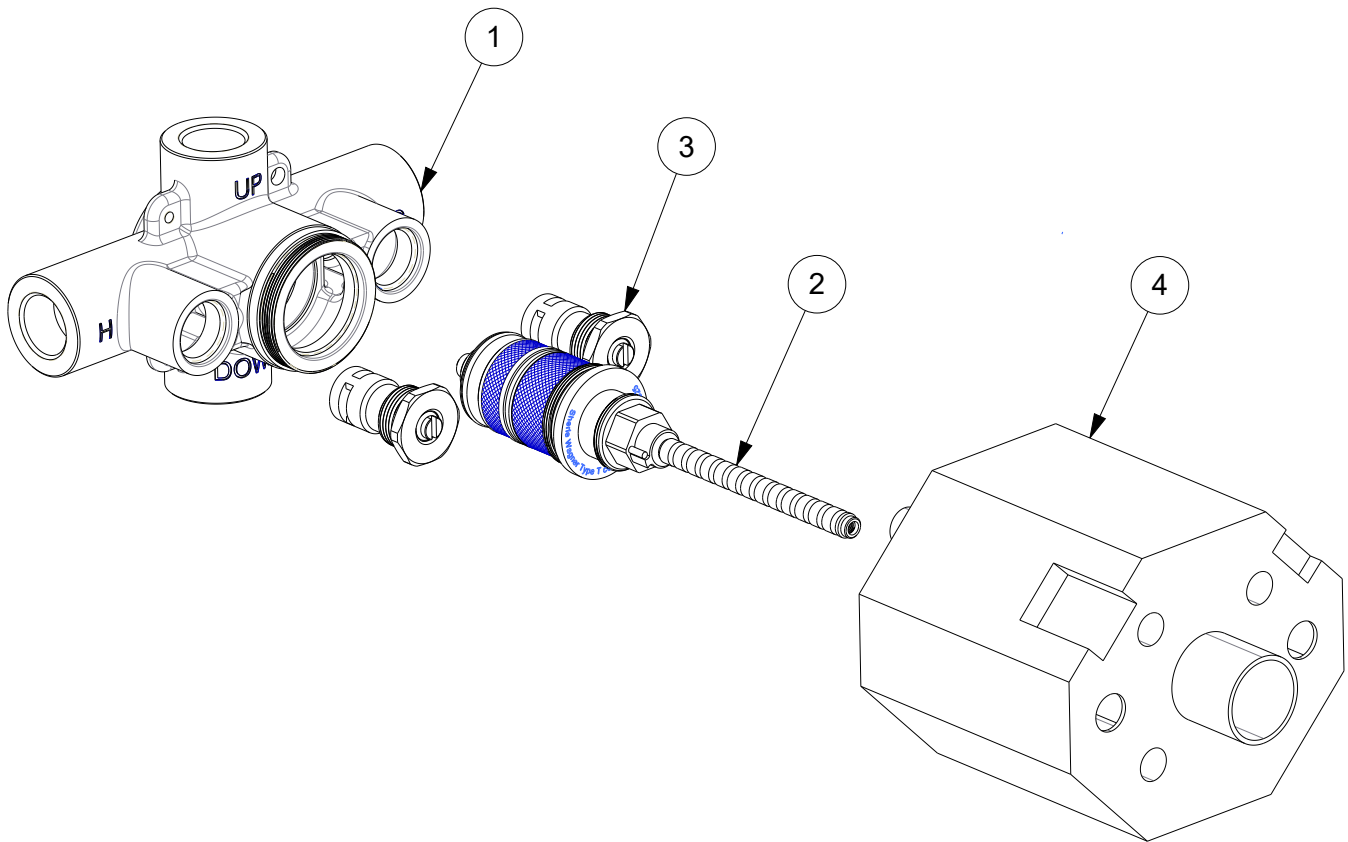


1. Shut off main supply valves to Hot and Cold water.
2. Open a lower volume control valve to relieve system pressure and drain.
3. Unscrew check valve (1). Flush the cavities to remove any debris.
4. Examine, clean, and if necessary, replace o-rings and/or the entire check stop.
5. Re-insert check-stop (1) assembly in body.
6. Make sure check-stop valves are in open position.
7. Close the volume control valve(s). Restore hot and cold water, and check for leaks.



# VLVE-TMO-S25 Parts List

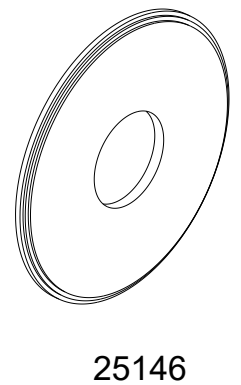
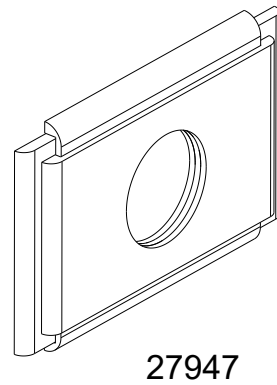
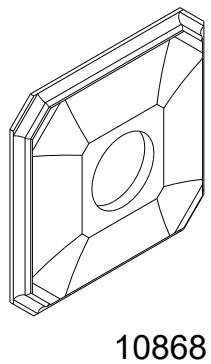
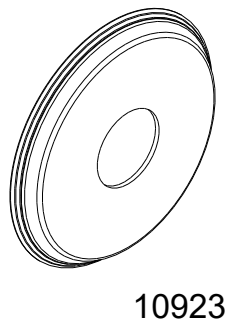
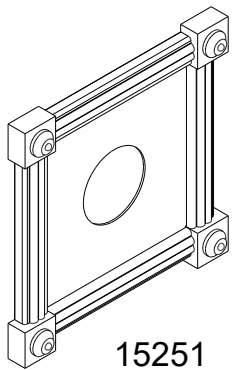
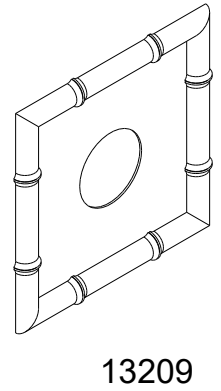
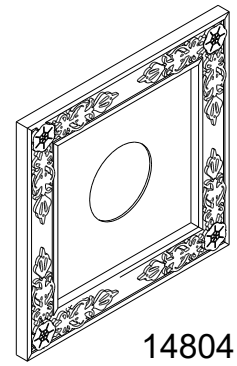
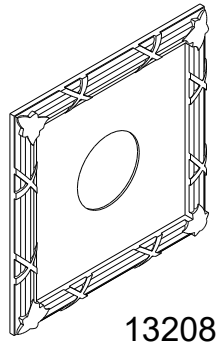
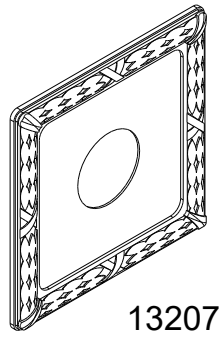
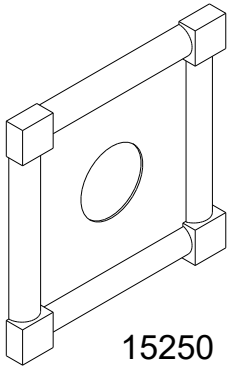
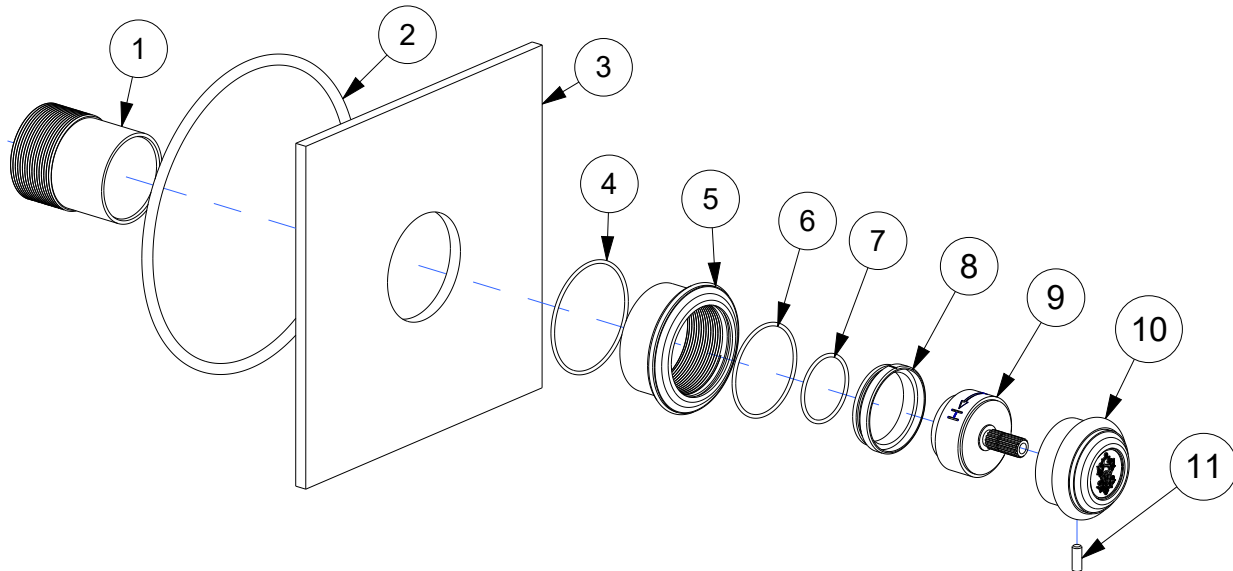
| ITEM | PART NUMBER  | DESCRIPTION                          |
|------|--------------|--------------------------------------|
| 1    | VLVE-TMO-S25 | VALVE BODY                           |
| 2    | CART-TMO-S25 | 1/2" THERMOSTATIC CARTRIDGE          |
| 3    | CKVL-TMO-S25 | INTEGRAL STOP / CHECK VALVE ASSEMBLY |
| 4    | 29094        | PLASTERGUARD                         |



# TRIM-TMO Parts List

| Item | Part Number | Description           |
|------|-------------|-----------------------|
| 1    | 27531*      | Sleeve                |
| 2    | 22370       | Escutcheon Gasket     |
| 3    | 16643*      | Escutcheon            |
| 4    | 12441       | Outer Lock Nut Gasket |
| 5    | 12442*      | Lock Nut              |
| 6    | 12443       | Inner Lock Nut Gasket |
| 7    | 13370       | Dial Pointer Gasket   |
| 8    | 12460*      | Dial Pointer          |
| 9    | 27052*      | Temperature Dial      |
| 10   | 21066       | M4 Screw              |
| 11   | 20917       | 10-32 UNF Set Screw   |

\* Indicates a Plated/Finished Part. Notify representative of finish when ordering.



# 1/2" THERMOSTATIC VALVE TROUBLE SHOOTING GUIDE

| PROBLEM   | POSSIBLE CAUSE  | SOLUTION   |
|---|---|--|
| Water leaks from showerhead/tub spout when the volume control is shut off.  | <ol style="list-style-type: none"> <li>1) The shower head is trapping water behind the faceplate.</li> <li>2) The volume control valve has been installed incorrectly.</li> </ol>   | <ol style="list-style-type: none"> <li>1) Remove shower head and clean out the holes in the face plate. Reinstall shower head.</li> <li>2) Volume control has three ports, one inlet and two outlets. The two outlet ports are opposite each other and the inlet port is positioned 90° from the outlet ports. (Refer to shut-off valve instructions.) If valve connections cannot be seen, turn both STOP VALVES to the off position. Turn volume control on to relieve pressure and remove cartridge. Turn on cold water STOP VALVE slowly until you see water coming out of the volume control valve. If the water is coming out of the center of the valve seat, it is installed correctly. If the water is coming from around the seat, the valve will have to be re-installed. Turn off STOP VALVE.</li> </ol> |
| Water is hot or cold, but not mixing.   | <ol style="list-style-type: none"> <li>1) Thermostatic valve is installed upside down or the supply lines to the thermostatic valve are reversed.</li> </ol>  | <ol style="list-style-type: none"> <li>1) Refer to installation guide for proper installation.</li> </ol>  |
| Cannot adjust water temperature properly.   | <ol style="list-style-type: none"> <li>1) Check valves/stops are not opened all the way.</li> <li>2) Thermostatic cartridge is damaged.</li> <li>3) Debris in screens of thermostatic cartridge.</li> <li>4) Limit stops are not set properly.</li> <li>5) Dial assembly is not calibrated</li> <li>6) Check valves/stops are damaged.</li> </ol> | <ol style="list-style-type: none"> <li>1) Remove trim and make sure the check valves/stops are fully open.</li> <li>2) If cartridge spindle rotates more than 270° (DO NOT FORCE), replace cartridge.</li> <li>3) Remove thermostatic cartridge and clean screens. See Page 8.</li> <li>4) Refer to installation guide, Page 6, for setting limit stops.</li> <li>5) Set water temperature with a thermometer and adjust dial assembly to reflect the measured temperature. Refer to installation guide, Page 7.</li> <li>6) Install new check valves/stops. Refer to Check-stop Valve Maintenance and Removal section, Page 9, of the Installation guide.</li> </ol>  |
| Low flow of mixed water.  | <ol style="list-style-type: none"> <li>1) Check valves/stops are damaged.</li> <li>2) Debris in screens of thermostatic cartridge.</li> <li>3) Check valves/stops are not opened all the way.</li> </ol>  | <ol style="list-style-type: none"> <li>1) Install new check valves/stops. Refer to Check-stop Valve Maintenance and Removal section, Page 9, of the Installation guide.</li> <li>2) Remove thermostatic cartridge and clean screens. See Page 8.</li> <li>3) Make sure the check valves/stops are fully open.</li> </ol>   |
| Cold water in nearby faucet is lukewarm.  | <ol style="list-style-type: none"> <li>1) Check valves/stops have been damaged or filled with debris.</li> </ol>  | <ol style="list-style-type: none"> <li>1) Install new check valves/stops. Refer to Check-stop Valve Maintenance and Removal section, Page 9, of the Installation guide.</li> </ol>   |
| Thermostatic valve is working properly, but the water is not hot enough and water in nearby faucet is hot enough. | <ol style="list-style-type: none"> <li>1) Limit stops are not set properly.</li> <li>2) Boiler temperature not set high enough.</li> </ol>  | <ol style="list-style-type: none"> <li>1) Set water temperature with a thermometer and adjust dial assembly to reflect the measured temperature. Refer to installation guide, Page 7</li> <li>2) Thermostatic valve has cold water mixing with the hot water at all times, so the water temperature on the hot water heater will need to be increased to get the desired temperature.<br/>CAUTION: Increasing the temperature will affect all plumbing throughout the system.</li> </ol>   |