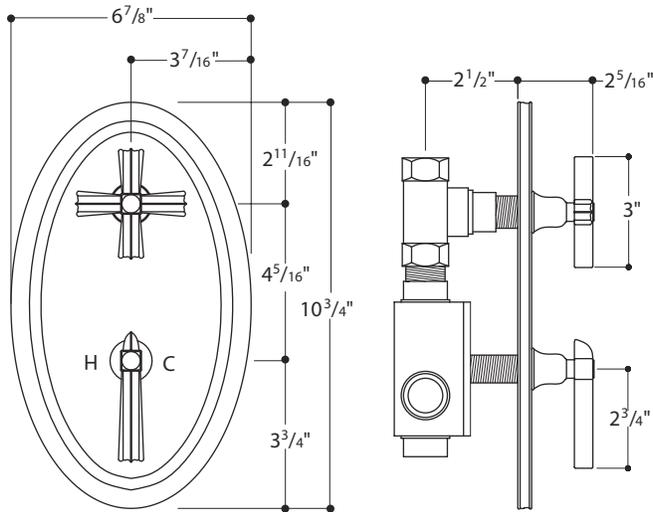
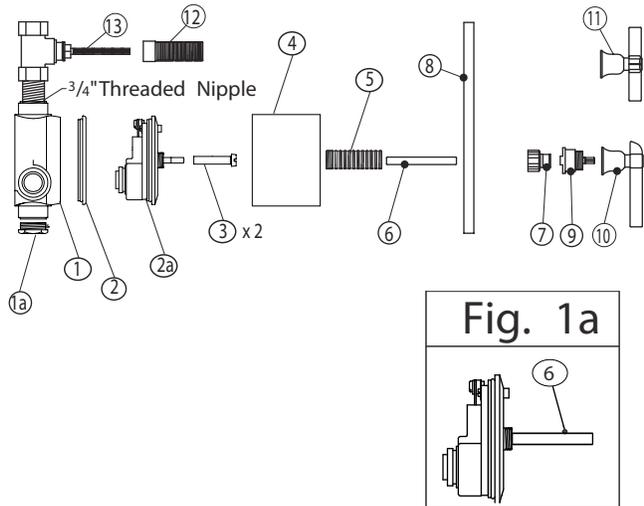


**GUSV46R** (rough) + **BDSV58** (trim)



**Figure 1**



**IMPORTANT**

1. To ensure this product is installed properly, you must read and follow these guidelines.
2. The owner/user of the valve must keep this information for future reference.
3. This valve includes integrated service stops. Make sure the tile guard is in place.
4. This valve features anti scald protection. The risk of scalding exists until the installer has properly calibrated/adjusted the temperature setting during final trim installation.

5. Valve body rough-in depth is 2 1/2" the centerline of the inlets to the face of the finished wall.
6. Be sure your installation conforms to local codes.
7. This valve assembly includes 2 valves - a thermostatic valve and a volume control/on/off valve. The thermostatic valve only mixes hot and cold water and does not have volume control. A wall valve is included as part of the assembly for volume control/on/off. Additional wall valves can be installed for each fitting that will have water flowing to it.
8. This product must be installed by a professional contractor.
9. Refer to the specification and assembly drawings attached. Valves are sold partially assembled but shown fully disassembled for illustrative and service purposes only.
10. If soldering any connections, remove cartridge to prevent damage to seals and internal assembly.
11. The trim should be on-site prior to rough in and allows the installer to visualize the installation.
12. Inspect this product to assure you have all parts shown that are required for proper installation.
13. Check incoming water pressure; ideal operating pressure is 50-60 psi. The minimum is 25 psi. and the maximum is 80 psi.

**ROUGH IN:**

14. Make sure the valve body (1, 1a) is positioned according to valve markings so the inlets are situated with hot piped on the left and cold piped on the right. Positioned correctly, notice the inlets are below an imaginary horizontal line drawn between the 2 cover screws (3).
15. **IMPORTANT:** Valve rough-in depth is 2-1/2 "measured from the centerline of the inlets to the surface of the finished wall.
16. Run 3/4" copper supply lines to the proper height of the valve inlets and be sure to secure all piping and fittings.

- 17. For additional fittings that will have water flowing to it, install a wall valve or diverter valve (both provided separately) at the same rough in depth and according to the flow direction arrow marked on the wall valve or diverter valve body.
- 18. The bottom port of the valve body is plugged (1a), but can be used to supply water to other fittings.
- 19. **IMPORTANT:** The opening in the finished wall surface is larger than the tile guard (4) provided with the valve. Verify trim dimensions to determine ideal opening in the finished wall.

**FLUSH OUT THE SYSTEM:**

The supply lines must be flushed out to prevent clogging of the filter screens. Failure to flush the lines will permanently damage the cartridge and void the warranty.

- 20. The valve body is shipped with the flush plate installed (2,3) but without the cartridge installed and is ready for flushing the lines.
- 21. Turn on the water supply to flush out the lines then inspect all connections for leaks.
- 22. After the lines are flushed, turn off the water supply, unthread the 2 cover screws (3), then remove the flush plate (2).
- 23. Install the cartridge/cover plate (2a) using the 2 cover screws and turn off the service stops.

**FINISH:**

Please refer to the specification diagrams

- ▶ Use only a protected smooth-jawed, or strap wrench on any finished surface.
- 24. Attach the threaded sleeve (5) to the cover (2a). Slide the escutcheon plate (8) over the sleeve. Mark the threaded sleeve (5) in preparation of cutting  $\frac{3}{16}$ " beyond where it protrudes through the escutcheon plate.
- 25. Remove the plate and threaded sleeve so that the threaded sleeve (5) can be cut. Be sure not to cut the end with internal threads. File the cut edge with care.
- 26. Reattach the threaded sleeve (5) and place the wall plate (8) over it.
- 27. Place cap (7) onto threaded sleeve (5). This should lock the escutcheon plate against the finished wall.
- 28. With the escutcheon plate (8) tight against the wall temporarily attach the handle trim (11).

- 29. Measure from the base of the handle trim escutcheon (11) to the face of the escutcheon plate (8). Remove the handle trim and retain this measurement.
- 30. Cut the amount measured in the previous step from the valve stem (13) and threaded sleeve (12) so that the handle trim (11) becomes flush with the escutcheon plate (8) when reinstalled.
- 31. Reattach the handle trim (11) and check to ensure it is flush with the escutcheon plate (8). If necessary, cut the valve stem and threaded sleeve further to make flush.
- 32. Introduce the square tube (6) into the cap (7) and set it completely onto the axis of the thermostatic cartridge (2a). See figure 1a.
- 33. Mark the square tube (6) and cut so that it is behind  $\frac{1}{8}$ " from the end of the cap (7). After cutting, reinsert the square tube.
- 34. Carefully turn on the water supply and check all connections for leaks.

**EXTREMELY IMPORTANT:**

Adjusting the temperature

- 35. **IMPORTANT:** The risk of scalding exists until the installer has properly calibrated the temperature setting.

**SETTING THE HIGH TEMPERATURE LIMIT:**

- 36. Adjust the water to the maximum desired temperature. Temperature adjustments are made by inserting a flat screwdriver into the square tube (6) and turning clockwise for cooler temperatures and counter-clockwise for hotter temperatures.
- 37. Place the handle trim adapter (9) over the cap (7) and rotate to the full hot position. Now lock the handle trim adapter (9) in place using the set screws provided.
- 38. Attach the handle trim to the adapter (9) with the pointer in the full hot position.
- 39. Rotate the lever to the left and to the right to ensure the valve is functioning properly.
- 40. Temperature settings should be checked periodically to ensure the high temperature limit is maintained.
- ▶ If further assistance is required, please contact Product Support at 1-800-927-2120 (8am-7pm EST)..