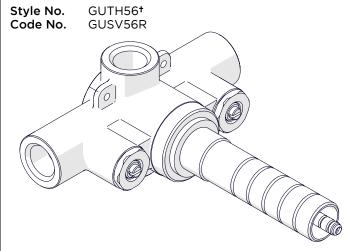
UNIVERSAL

1/2" THERMOSTATIC VALVE

INSTALLATION GUIDELINES



SPECIFICATIONS:

Fitting Hole Diameter	Ø4-1/2" (Ø 114mm)*
Inlet/Outlet Connection	1/2" Female NPT†
Size & Type:	
Recommended Water	45 psi (3 Bar)
Pressure:	
Unrestricted Maximum	7gpm @ 45 psi
Flow Rate:	(26 L/min @ 3 Bar)
Valve Material:	Wax Element
Water Pressure:	20 psi MIN - 80psi MAX
	(1.4 Bar Min - 5.5 Bar Max)

- * Ø4-1/2" (Ø 114mm) hole is required for servicing.
- [†] UK Style No. **GU56TH** supplied with 4 **BSP** Adapters, assembly required.

IMPORTANT:

- To ensure this product is installed properly, you must read and follow these guidelines.
- > The owner/user of this product must keep this information for future reference.
- > This valve includes integrated service stops. Make sure the tile guard is in place.
- This valve features anti-scald protection. The risk of scalding exists until the installer had properly calibrated/adjusted the temperature setting during final trim installation.
- > This product must be installed by a professional licensed contractor.
- Check local building and plumbing codes to ensure that your installation conforms to all applicable requirements. In the State of Massachusetts, all installations must comply with the rules and regulations set forth within 248 CMR.
- Supply fittings are designed in accordance with pressure and temperature ratings specified in ASME A112.18.1/B125.

- DO NOT APPLY DIRECT HEAT TO THE VALVE. Presolder any connections to prevent damage to the cartridge and service stop seals.
- > The trim should be on-site prior to rough in and allows the installer to visualize the installation.
- This thermostatic valve only mixes hot and cold water and does not have volume control or shut off capability. A diverter or wall valves (SOLD SEPARATELY) control on/off/volume and must be installed for each fitting that will have water flowing to it. This valve cannot be used with a diverting tub spout.
- Insure that the hot and cold supply lines are connected to the valve according to the markings on the valve body: NO INVERSE CARTRIDGE IS AVAILABLE.
- Inspect this product to assure you have all parts shown that are required for proper installation.
- > Check incoming water pressure.
- If valve is going to remain unused for an extended period of time (over 3 months), then the water to the valve should be shut off (via service stops or system control valve) and the volume control valves should be opened to allow the water in the thermostatic valve to evaporate. This is to keep the cartridge from being exposed to stagnant or hard water, which can cause the valve to malfunction.
- It is recommended to flush the supply lines prior to valve installation.

ROUGH-IN:

 Remove TILE GUARD from VALVE BODY by unthreading the SCREWS, as shown in Figure - 01.

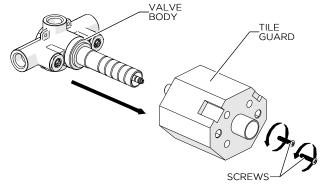


FIGURE - 01

2. 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. Turn the service stops to the right to close and to the left to open. See Figure - 02.

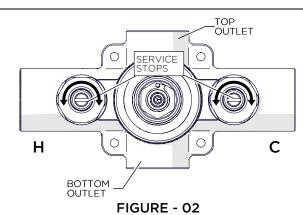
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WATERWORKS

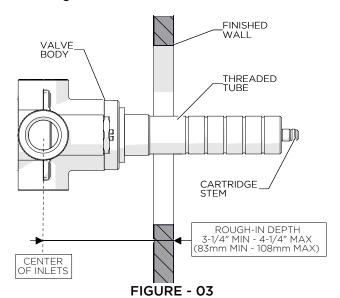
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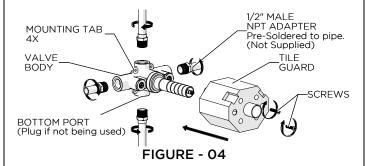


3. **IMPORTANT**: Valve <u>rough-in depth</u> is measured from the center of the inlets to the surface of the finished wall and varies depending on the trim used. See Figure - 03



- See Figure 04 for steps 4-8.
- 4. Run 1/2" (15mm) copper supply lines to the proper height of the valve inlets and be sure to secure all piping and fittings.
- Note: The valve body has 4 mounting tabs; 2 of these tabs are used to hold the tile guard to the valve body and the other 2 can be used to secure the valve body to adequate blocking.
- 5. **DO NOT APPLY DIRECT HEAT TO THE VALVE.** Presolder 1/2" male NPT adapters (not supplied) prior to threading into the valve body.
- For each fitting that will have water flowing to it, install a wall valve or diverter valve (both sold separately) at the same rough in depth and according to the flow direction arrow marked on the wall valve or diverter valve body.

- The bottom port of the valve body is not plugged and can be used to supply water to other fittings. Install a 1/2" NPT plug (not supplied) if the port will not be used.
- Install the TILE GUARD to protect the valve during the completion of the finished wall and to create the exact opening for access to the service stops and future servicing.

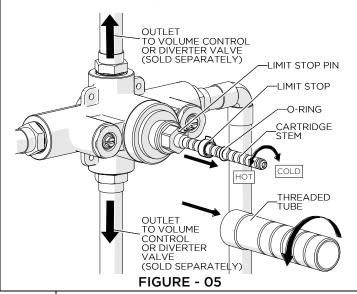


INSPECT THE INSTALLATION:

- Remove TILE GUARD and turn on water supply and inspect all connections for leaks.
- 10. Turn off the water supply and turn off the SERVICE STOPS, seen in Figure-02.
- 11. Reinstall TILE GUARD.

TEMPERATURE CALIBRATION:

- The risk of scalding exists until the installer has properly calibrated/adjusted the temperature setting prior to final trim installation.
- 12. Remove the TILE GUARD and THREADED TUBE. Slide the O-RING and LIMIT STOP up the CARTRIDGE STEM. **DO NOT REMOVE OR DAMAGE THE O-RING.** See Figure 05.



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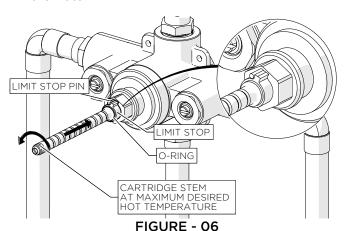
WATERWORKS

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1/2" THERMOSTATIC VALVE

INSTALLATION GUIDELINES

- See Figure 05 & Figure 06 for steps 13-16.
- 13. Turn on the water supply and a wall valve to run water through the valve.
- 14. Slowly rotate the CARTRIDGE STEM clockwise to attain full cold, then rotate it counterclockwise to attain full hot. Verify that a full range of temperatures exists. Note: It is approximately 3/4 of a rotation from full cold to hot.
- 15. With the water running, rotate the CARTRIDGE STEM to adjust the temperature to the MAXIMUM desired bathing temperature, verified with a thermometer. Note: It is not recommended to exceed 110°F.
- 16. With the CARTRIDGE STEM at the maximum desired bathing temperature, slide the LIMIT STOP back onto the CARTRIDGE STEM, making sure that it is making contact with the LIMIT STOP PIN. Slide the O-RING back to its original position to prevent the LIMIT STOP from sliding off the stem; then turn off the water.



INSPECT THE CALIBRATION & INSTALLATION:

- 17. Turn the CARTRIDGE STEM clockwise, then turn the water on and confirm that the LIMIT STOP is functioning properly by turning it counterclockwise at which point it should hit the PIN and stop.
- 18. Verify the temperature to be the maximum temperature set in Step 15. If it is not the correct temperature, repeat the calibration process.
- Reinstall the THREADED TUBE back onto the VALVE BODY.
- 20. Reinstall the TILE GUARD using the SCREWS to complete this installation.

- If further assistance is required, please contact Product Support at 1-800-927-2120 (8am-6pm EST).
- See service part document for parts ordering, available on WATERWORKS.COM.
- † BSP Adapters can be ordered separately: STYLE No. UNUK02 ITEM No. 45-57632-24328

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