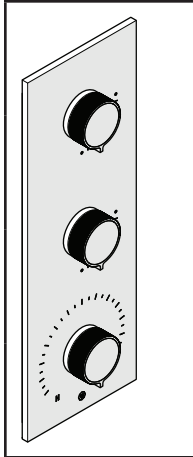


WATERWORKS

INSTALLATION GUIDELINES

STYLE No. BTH64A, BTH64B, BTH64D, BTH65C
Bond Integrated Thermostatic and Dual Volume Control Trim with Knob Handles

	STYLE	DESCRIPTION
	BTH64A	Bond Tandem Series Integrated Thermostatic and Dual Volume Control Trim with Guilloche Lines Knob Handles
	BTH64B [SHOWN]	Bond Tandem Series Integrated Thermostatic and Dual Volume Control Trim with Two-Tone Guilloche Lines Knob Handles
	BTH64D	Bond Union Series Integrated Thermostatic and Dual Volume Control Trim with Enamel Guilloche Lines Knob Handles
	BTH65C	Bond Union Series Integrated Thermostatic and Dual Volume Control Trim with Guilloche Link Knob Handles

- Inspect this product to ensure you have all the parts required for proper installation.
- Use only a strap wrench or protected/smooth-jaw wrench on any finished surface.
- The use of certain plumber's putty may stain stone or tile surfaces.
- If this product will remain unused for an extended period of time (over 3 months), then the water to the THERMOSTATIC VALVE should be shut off (via service stops or system control valve) and the integrated VOLUME CONTROLS should be opened to allow the water in the THERMOSTATIC VALVE to evaporate. This is to keep the THERMOSTATIC CARTRIDGE from being exposed to stagnant or hard water, which can cause the VALVE to malfunction.
- If further assistance is required, please contact Product Support at 1-800-927-2120 Monday through Friday, 8am - 6pm EST.
- Refer to the separate Service Parts Documents for available replacement parts.

REQUIRED PLUMBING DETAILS:

- Universal 3/4" Thermostatic Valve with Dual Volume Control
STYLE No. GUTH74

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 product must be installed by a professional licensed contractor and must be on-site prior to rough-in. This allows the installer to visualize the installation.
- **ALL VALVES AND TRIMS SOLD SEPARATELY.**
- This product is intended to work with the UNIVERSAL 3/4" THERMOSTATIC VALVE WITH DUAL VOLUME CONTROL (Style No. **GUTH74**). Refer to the Installation Guidelines provided with the VALVE for complete rough-in installation details and related information.
- Be sure your installation conforms to federal, state, and local codes. In the State of Massachusetts, all installations must comply with the rules and regulations set forth within 248 CMR.
- **WARNING:** The **GUTH74** features anti-scald protection. The risk of scalding exists until the installer has properly calibrated/adjusted the temperature setting during final TRIM installation.
- Product is sold partially assembled but shown fully disassembled for illustrative and service purposes only.

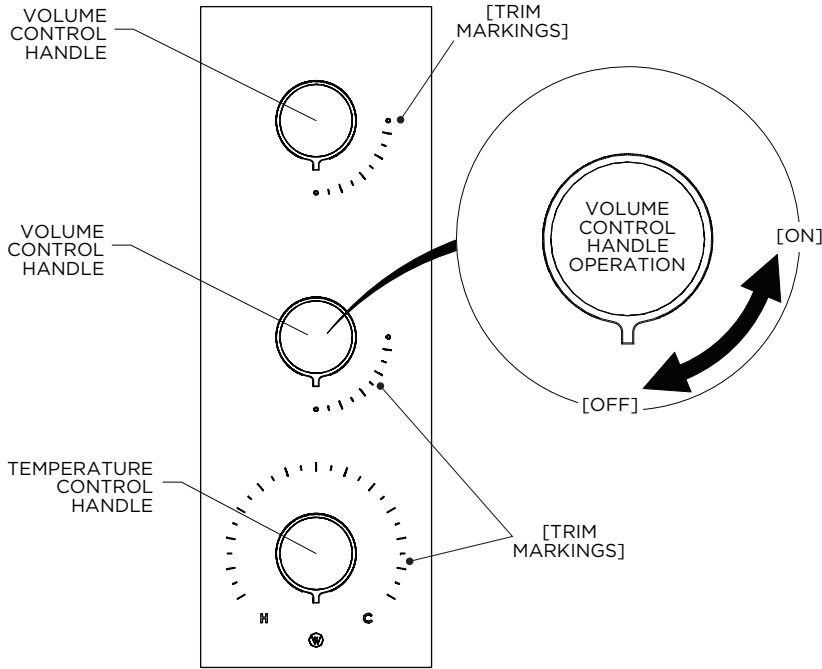
WATERWORKS

INSTALLATION GUIDELINES

STYLE No. BTH64A, BTH64B, BTH64D, BTH65C
Bond Integrated Thermostatic and Dual Volume Control
Trim with Knob Handles

VALVE FUNCTION AND HANDLE OPERATION:

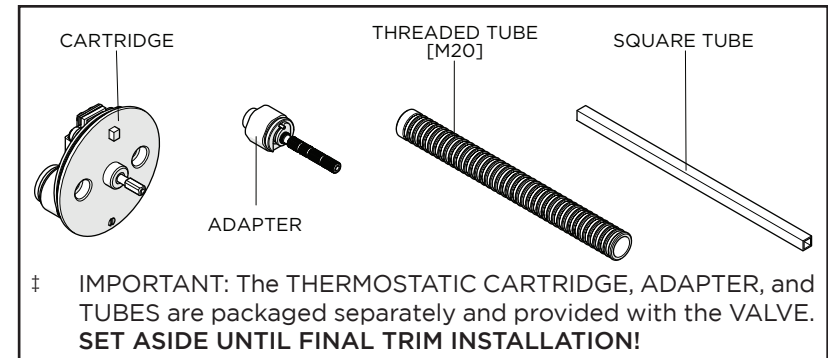
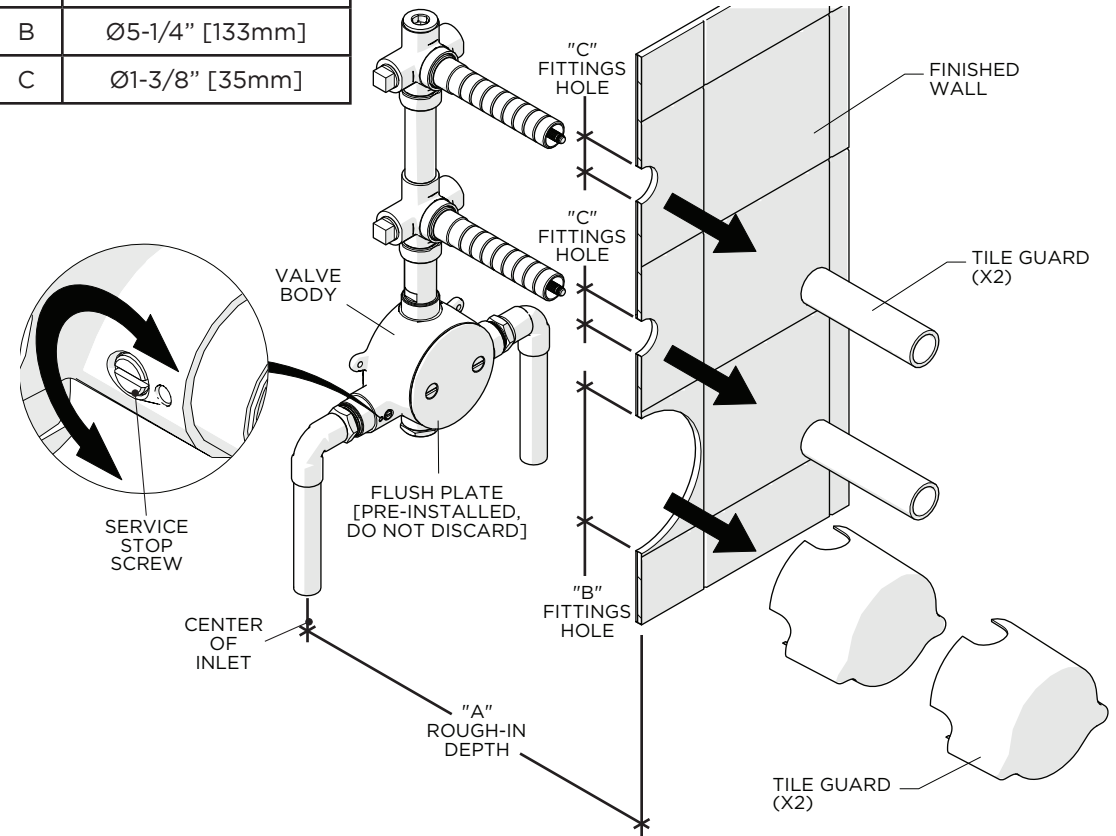
- The THERMOSTATIC VALVE only mixes hot and cold water. It does not have volume or shut-off capabilities. Mixed water flows out at a fixed volume to the integrated VOLUME CONTROLS which can operate simultaneously.



ROUGH-IN AND VALVE PREPARATION:

- CAUTION:** The rough-in depth is measured from the centerline of the inlets to the surface of the finished wall. CARTRIDGE STEM and THREADED TUBE extensions are available if the VALVE is roughed-in too deep. If the VALVE is roughed-in too shallow, this TRIM cannot be installed correctly.
- IMPORTANT:** The THERMOSTATIC VALVE is provided with a pre-installed FLUSH PLATE. Make sure the supply lines are flushed prior to final TRIM installation using the FLUSH PLATE provided. Refer to the Installation Guidelines provided with the VALVE for further information.
- The THERMOSTATIC CARTRIDGE, ADAPTER, and TUBES are packaged separately and provided with the VALVE. Remove and discard the TILE GUARDS only when the finished wall surface (TILE or SLAB) is completed and the CARTRIDGE and TRIM are ready to be installed.

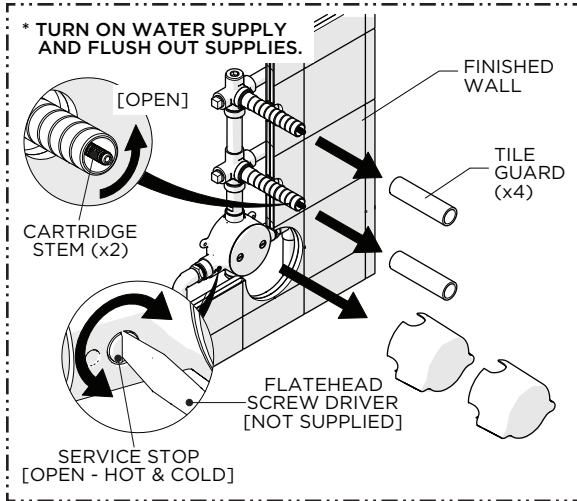
DIM	VALUE
A	3-5/8" [92mm] MIN 6-1/8" [156mm] MAX
B	Ø5-1/4" [133mm]
C	Ø1-3/8" [35mm]



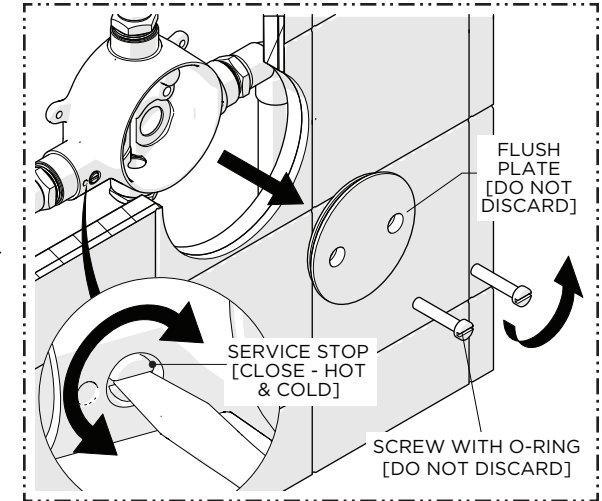
WATERWORKS INSTALLATION GUIDELINES

STYLE No. BTH64A, BTH64B, BTH64D, BTH65C

Bond Integrated Thermostatic and Dual Volume Control
Trim with Knob Handles



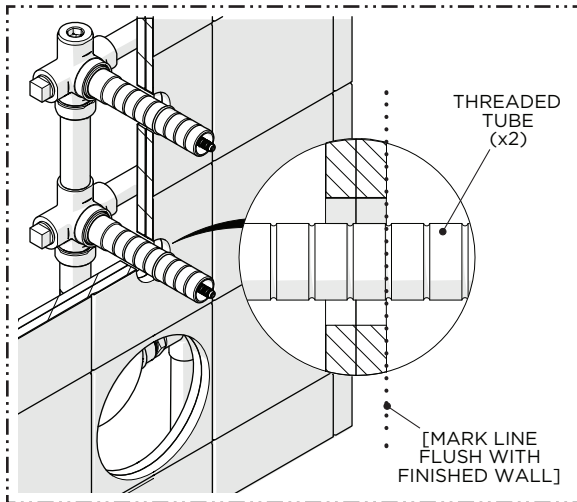
CAUTION: FAILURE TO FLUSH THE SUPPLY LINES WILL PERMANENTLY DAMAGE THE CARTRIDGE AND VOID THE WARRANTY! REPEAT THE FLUSHING PROCESS AS NEEDED BEFORE FINAL TRIM INSTALLATION.



1. Remove the TILE GUARDS when ready to install the TRIM and **OPEN** the SERVICE STOPS (hot & cold) then turn on the water supplies and **OPEN** both VOLUME CONTROLS to flush out all the lines.

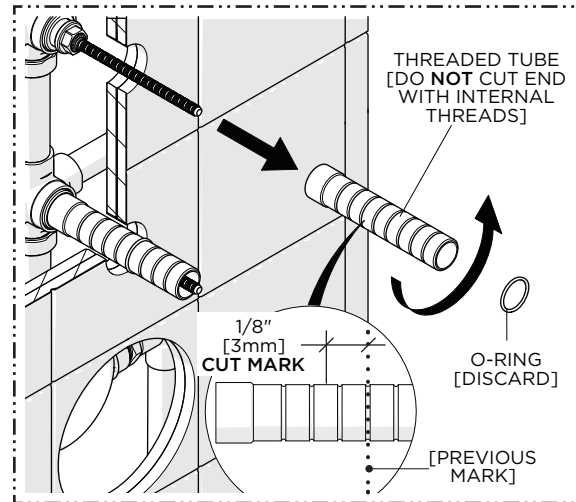
NOTE: Flushing prevents clogging of the FILTER SCREENS.

2. After the lines have been **FULLY** flushed, **CLOSE** the SERVICE STOPS (hot & cold) then unthread the SCREWS and remove the FLUSH PLATE.



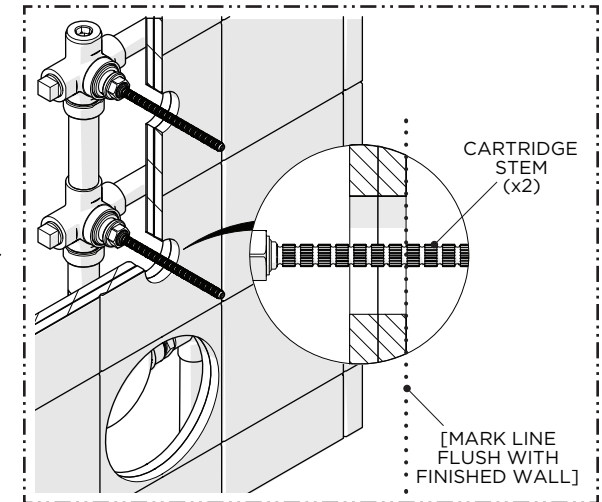
3. Mark the THREADED TUBES on the VOLUME CONTROLS where they protrude past the finished wall.

NOTE: A straight edge (not supplied) can be used to mark the TUBES.



4. Remove the TUBES then cut them 1/8" [3mm] behind the previous mark so the TUBES will be 1/8" [3mm] below or recessed into the finished wall surface.

NOTE: The O-RING used to hold the TILE GUARD can be discarded.



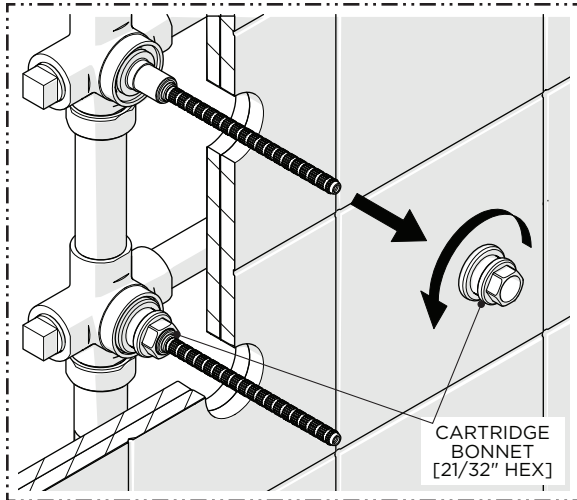
5. Mark the CARTRIDGE STEMS on the VOLUME CONTROLS where they protrude past the finished wall.

NOTE: A straight edge (not supplied) can be used to mark the TUBES.

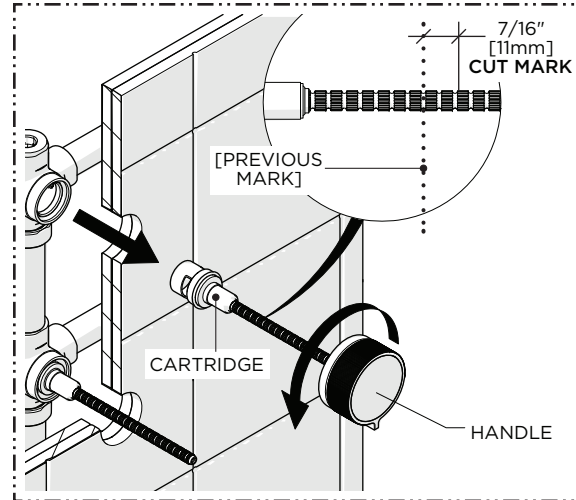
WATERWORKS INSTALLATION GUIDELINES

STYLE No. BTH64A, BTH64B, BTH64D, BTH65C

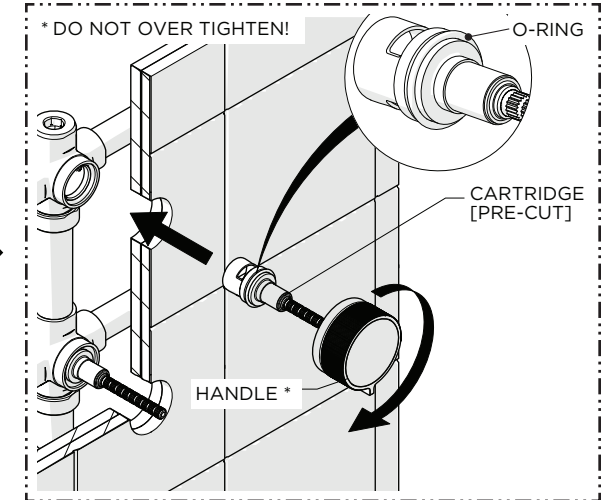
Bond Integrated Thermostatic and Dual Volume Control
Trim with Knob Handles



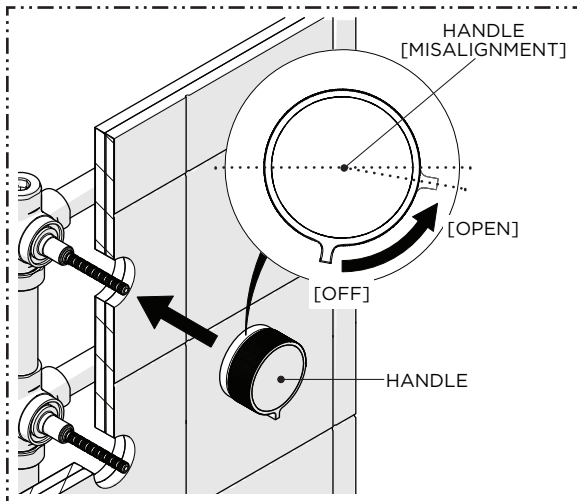
6. Unthread and remove the BONNETS from the VOLUME CONTROL CARTRIDGES using a 21/32" [17mm] shower valve socket wrench (not supplied).
NOTE: The entire CARTRIDGE may unthread from the VALVE which is normal.



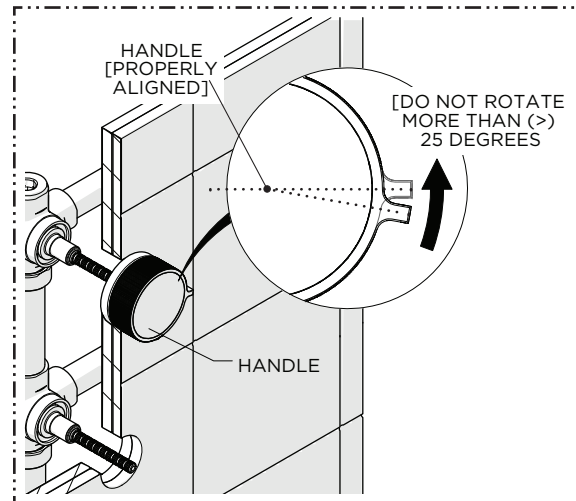
7. Attach a HANDLE to the CARTRIDGE STEMS and use it to unthread and remove the CARTRIDGES then cut the STEMS 7/16" [11mm] in front of the previous mark so the STEMS will protrude 7/16" [11mm] from the finished wall surface.



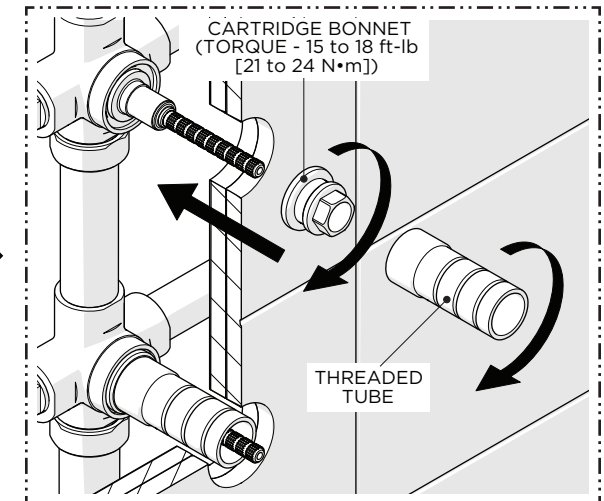
8. Using the HANDLE, thread the CARTRIDGES back into the VALVE until there is **NOTICEABLE** resistance.
NOTE: Ensure the O-RINGS on the CARTRIDGES have not been damaged and are properly seated.



9. Remove and replace the HANDLE to position it as close as possible to the "OFF" position then turn the HANDLE a 1/4 turn to the "OPEN" position making sure NOT to unthread the CARTRIDGE.



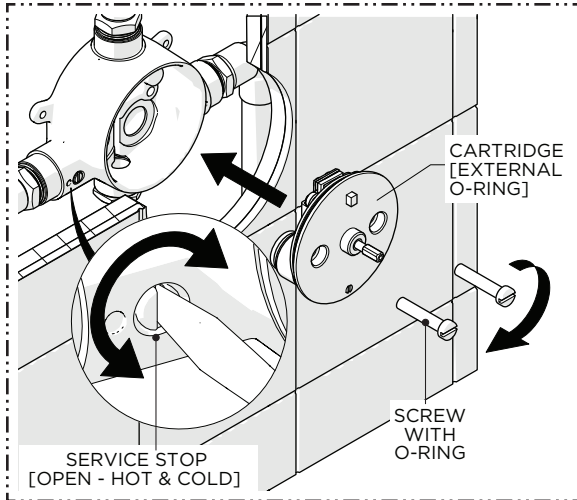
10. If **needed**, carefully continue to rotate the HANDLE counter-clockwise to obtain the proper alignment. Do **NOT** rotate/unthread the CARTRIDGE more than 25 degrees.
NOTE: Repeat Steps 8 - 10 if the CARTRIDGE is unthreaded too far.



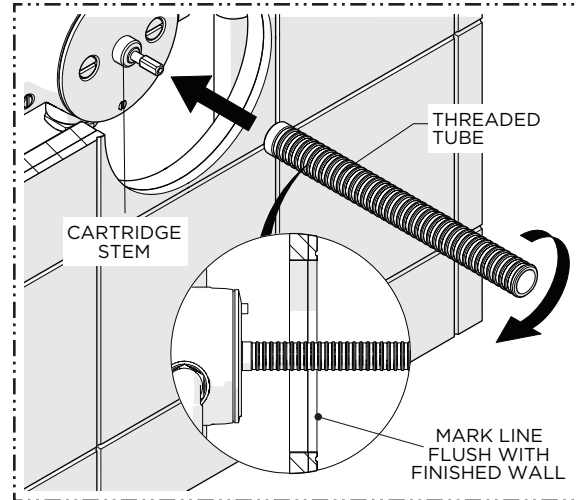
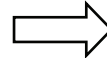
11. Remove the HANDLE then thread and securely tighten the BONNETS and THREADED TUBES back onto the CARTRIDGES.
NOTE: The BONNETS require a torque between 15 and 18 ft-lb [21-24 N*m].

WATERWORKS INSTALLATION GUIDELINES

STYLE No. BTH64A, BTH64B, BTH64D, BTH65C
Bond Integrated Thermostatic and Dual Volume Control
Trim with Knob Handles

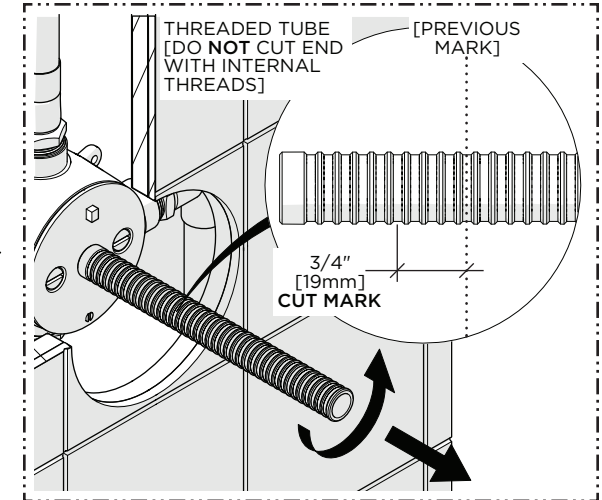
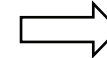


12. Insert the THERMOSTATIC CARTRIDGE into the VALVE BODY then thread and securely tighten the SCREWS, re-open the SERVICE STOPS, and check all CARTRIDGES for leaks.



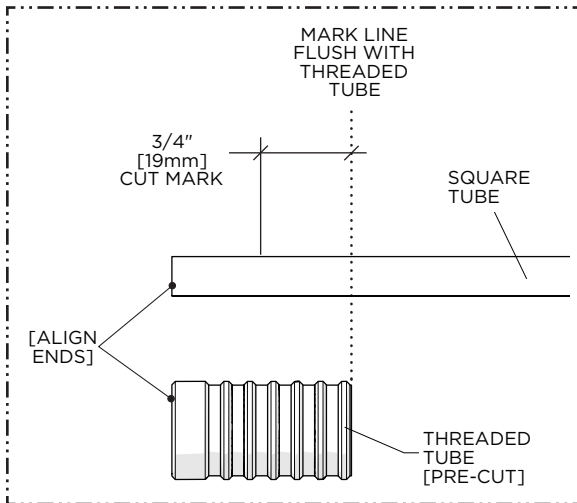
13. Fully thread the THREADED TUBE onto the CARTRIDGE STEM and mark the TUBE where it protrudes past the finished wall.

NOTE: A straight edge (not supplied) can be used to mark the TUBE.

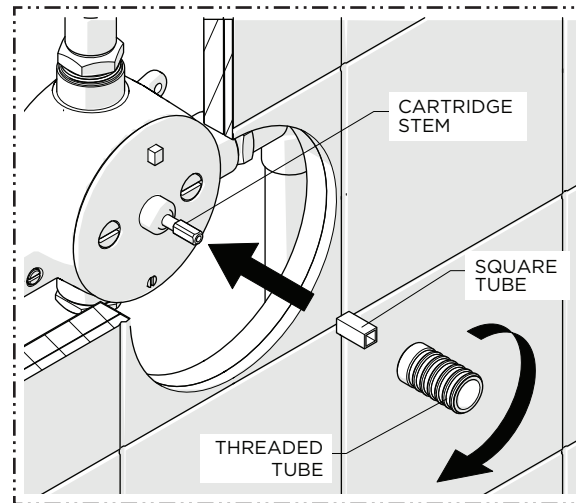
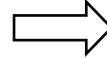


14. Remove the THREADED TUBE then cut it 3/4" [19mm] behind the previous mark.

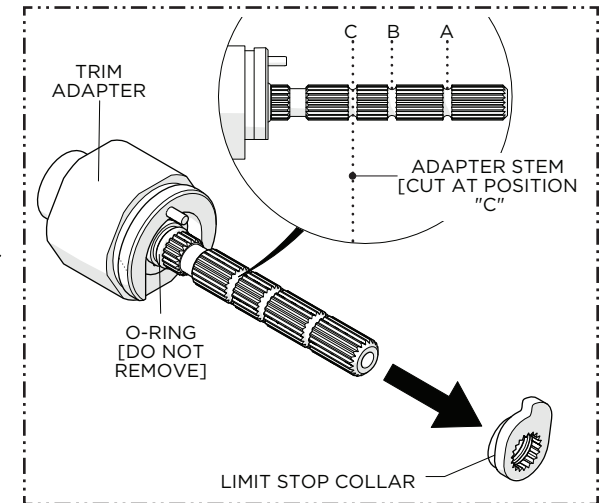
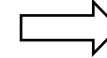
CAUTION: Do NOT cut the end with the internal threads.



15. Align the pre-cut THREADED TUBE with the SQUARE TUBE then mark and cut the SQUARE TUBE 3/4" [19mm] shorter than the THREADED TUBE.



16. Slide the SQUARE TUBE onto the CARTRIDGE STEM then thread the THREADED TUBE onto the STEM until it stops.



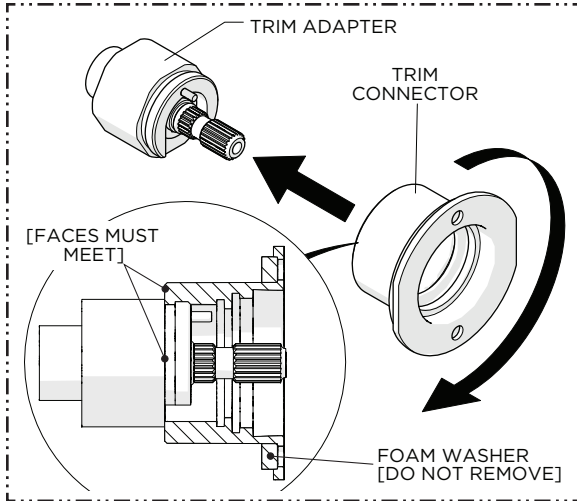
17. Remove the LIMIT STOP COLLAR from the TRIM ADAPTER then cut the ADAPTER STEM at position "C" as shown.

WATERWORKS

INSTALLATION GUIDELINES

STYLE No. BTH64A, BTH64B, BTH64D, BTH65C

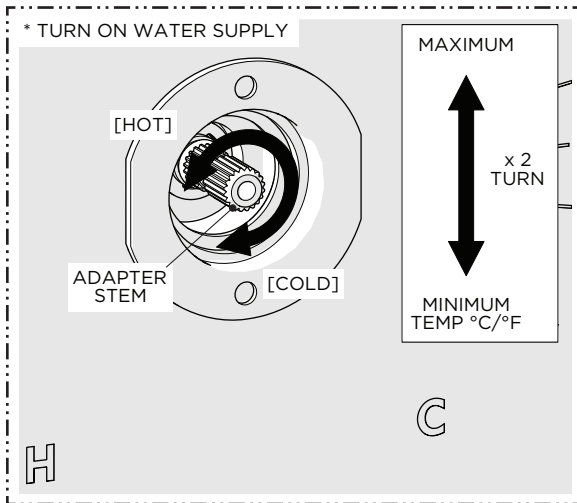
Bond Integrated Thermostatic and Dual Volume Control Trim with Knob Handles



TRIM CONNECTOR & ADAPTER ASSEMBLY

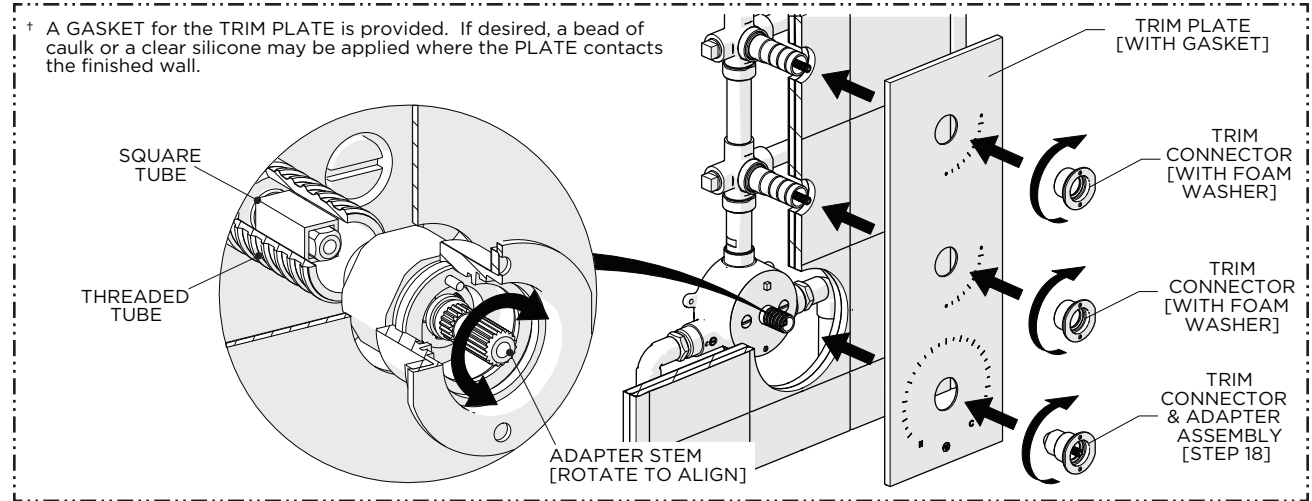
18. Thread the TRIM CONNECTOR onto the TRIM ADAPTER until the bottom face of the CONNECTOR touches the ADAPTER.

NOTE: Do **NOT** remove the FOAM WASHER.



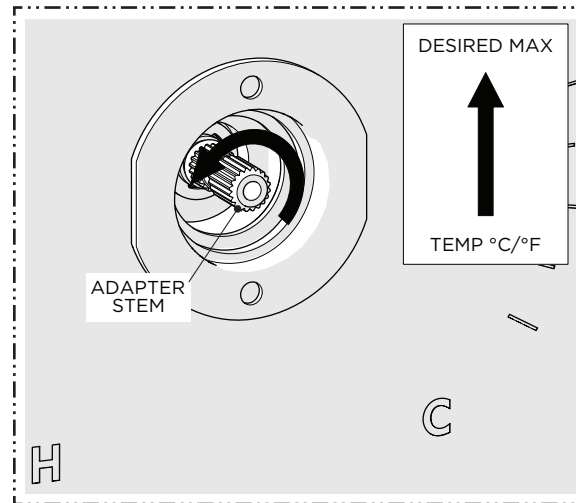
20. Open a VOLUME CONTROL and slowly rotate the ADAPTER STEM clockwise to attain full cold then rotate it counterclockwise to attain full hot. Verify that a full range of temperatures exists.

NOTE: It's approximately 2 complete rotations.

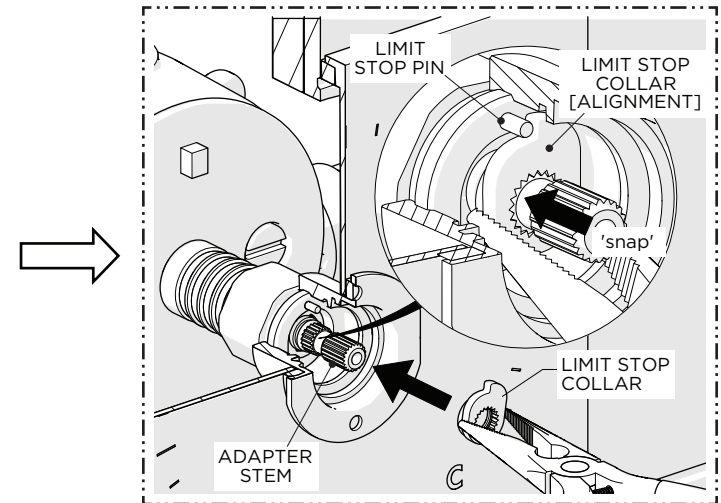


19. Firmly holding the TRIM PLATE against the finished wall, thread and securely tighten the TRIM CONNECTORS and CONNECTOR & ADAPTER ASSEMBLY onto the THREADED TUBES.

NOTE: ROTATING THE ADAPTER STEM WILL HELP PROPERLY ALIGN IT WITH THE SQUARE TUBE.



21. With water running, rotate the ADAPTER STEM to adjust the temperature to the **maximum** desired bathing temperature, verified with a thermometer, then turn the water off and make sure **NOT** to change this setting.



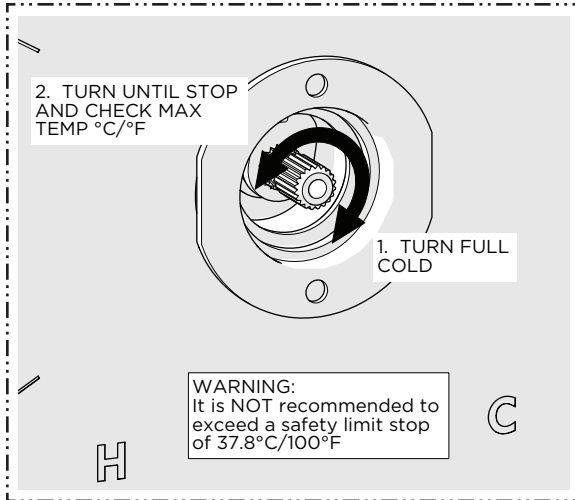
22. Slide the LIMIT STOP COLLAR back onto the ADAPTER STEM making sure to properly align it with the LIMIT STOP PIN and pressing down firmly.

NOTE: Pressing down firmly on the COLLAR will engage the O-RING and prevent it from sliding off the STEM.

WATERWORKS

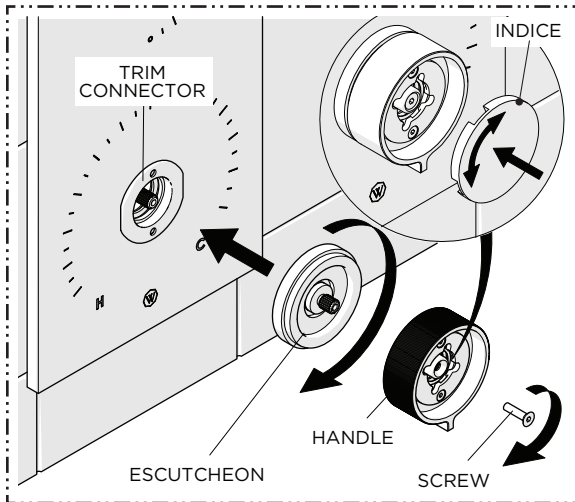
INSTALLATION GUIDELINES

STYLE No. BTH64A, BTH64B, BTH64D, BTH65C
Bond Integrated Thermostatic and Dual Volume Control
Trim with Knob Handles



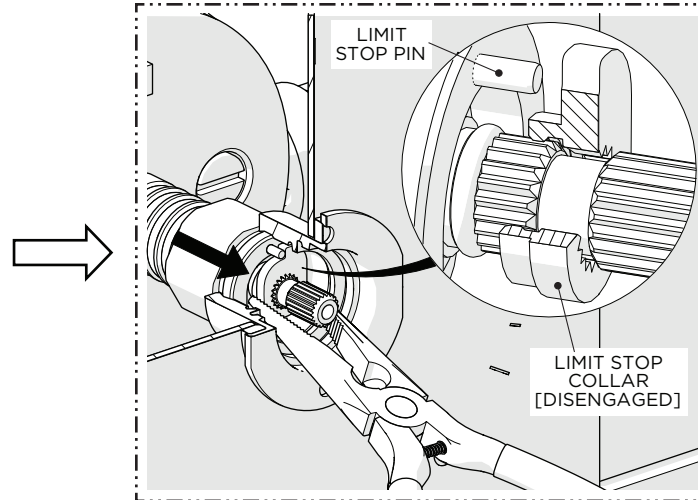
23. Turn the ADAPTER STEM clockwise to full cold then counterclockwise until it stops and verify the **maximum** desired bathing temperature set in the previous step.

WARNING: It is NOT recommended to exceed a safety limit stop of 37.8°C/100°F.



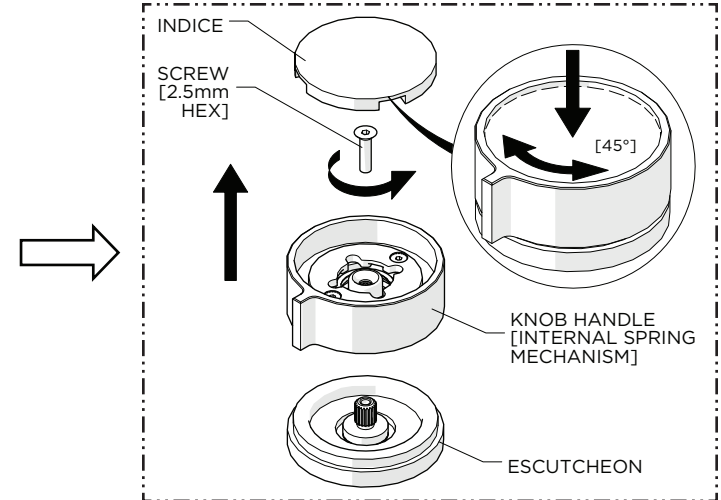
26. Fully thread the ESCUTCHEON into the TRIM CONNECTOR, place the HANDLE onto the ESCUTCHEON, thread and securely tighten the SCREW, and re-attach the INDICE.

➤ **REPEAT FOR THE REMAINING HANDLES AND FINISH THE INSTALLATION.**



If the maximum bathing temperature IS NOT CORRECT OR needs to be adjusted:

24. Slightly pull the LIMIT STOP COLLAR forward so it does not hit the PIN and **REPEAT** steps 20 through 23 to re-calibrate the temperature setting.



25. Remove the INDICE, center SCREW and KNOB HANDLE from the ESCUTCHEON. Do **NOT** remove the internal SPRING.

NOTE: To remove the INDICE push down on and rotate it 45° then release.