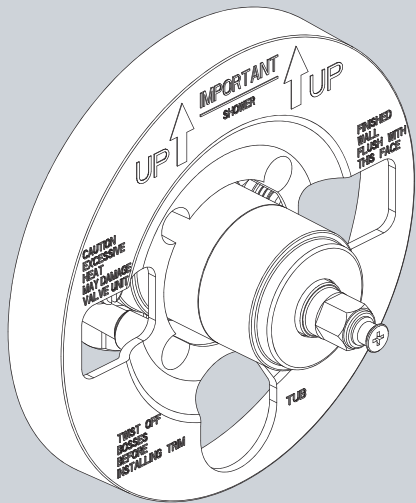


## INSTRUCTIONS FOR MODELS

### SM-12000 Valve Installation



#### NEED HELP?

For additional assistance or service please contact:

**SPEAKMAN**® Company  
400 Anchor Mill Road  
New Castle, DE 19720

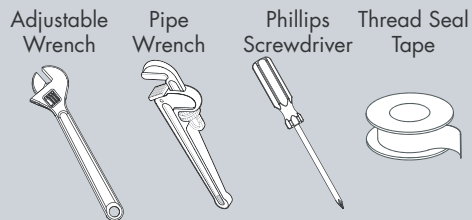
800-537-2107

customerservice@speakman.com

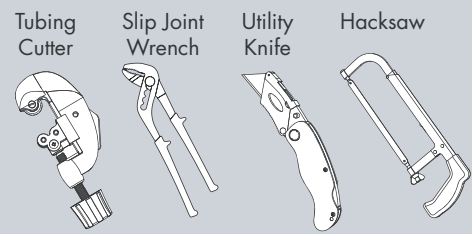
www.speakman.com

92-CPV-12000-02

## TOOLS AND SUPPLIES



#### HELPFUL TOOLS & SUPPLIES:



### IMPORTANT

- Be sure to read instructions thoroughly before beginning installation.
- Be sure to have properly adjusted the Temperature Limiting Stop (TLS) as outlined in this Installation Manual.
- Inspect all connections after installation of valve.
- This valve has an operating range of 20-80 Psi.
- This valve is designed to be used in conjunction with a shower-head rated at 1.75 gpm (6.6 L/min) or higher flow rate.

#### SAFETY TIPS

Cover your drain to prevent loss of parts. Be sure to wear eye protection while cutting pipe.

#### MAINTENANCE

Your new Shower/Bath Valve is designed for years of trouble-free performance. Keep it looking new by cleaning it periodically with a soft cloth. The use of harsh chemicals and abrasives on any of the Speakman custom finish products may damage the finish and void the product warranty. Please be sure to only use approved cleaners. Please contact Speakman for any clarification of acceptable cleaners.

#### WARRANTY

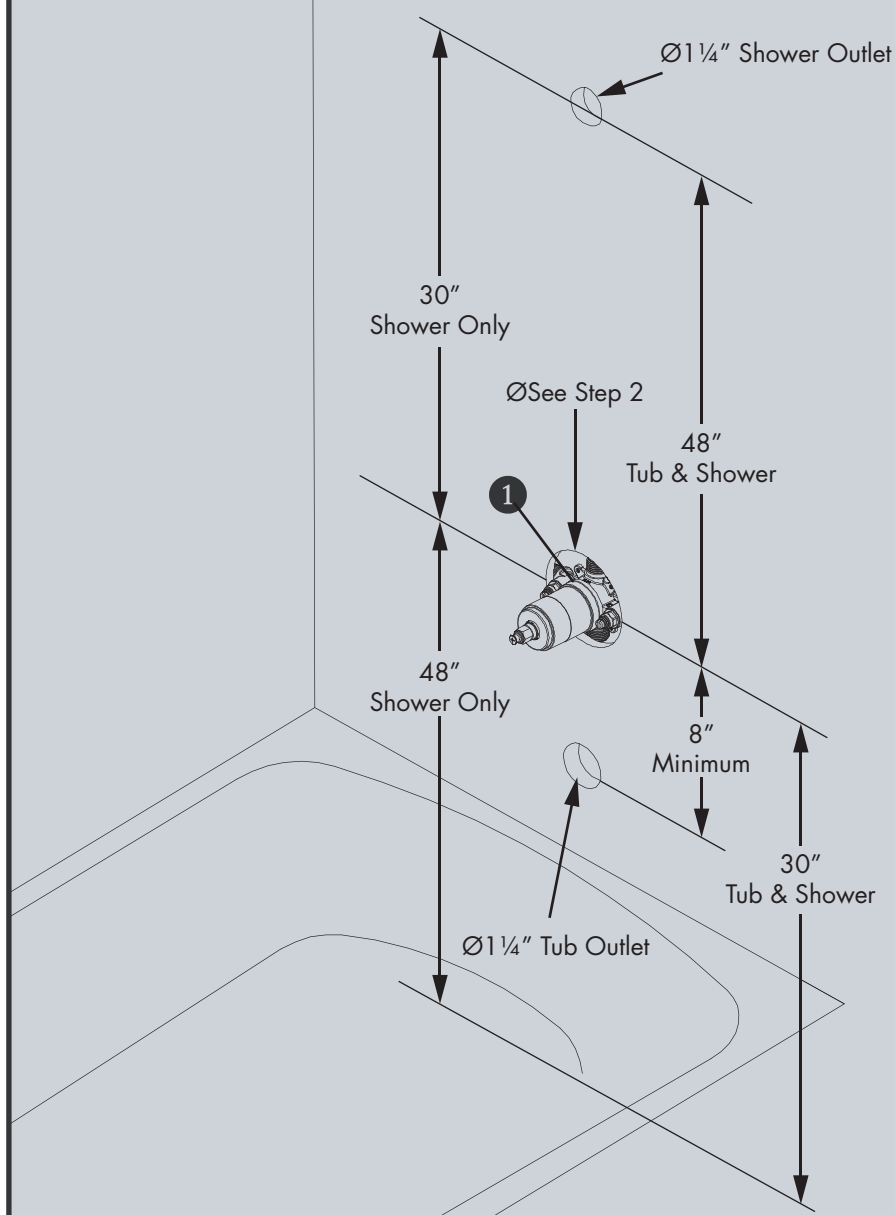
Additional warranty information can be found at: [www.speakman.com](http://www.speakman.com)

**1** Shut off the water supply to the tub and shower. Verify that the hole sizes and positions in the wall are correct:

**A.** The shower and tub spout outlet holes should be 1 1/4" diameter.

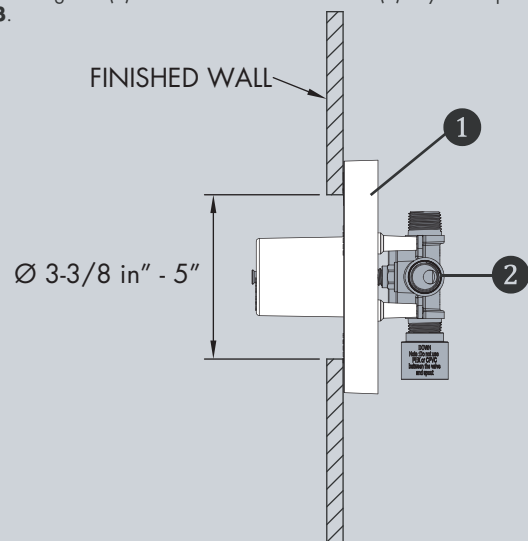
**B.** To determine the Valve access hole size, see **STEP 2A** and **STEP 2B**.

**C.** The recommended valve depth to the finished wall is 1 1/2" minimum to 2 1/2" maximum. Position the valve body (1) correctly in the wall with the "UP" pointing up. The 8" minimum from the valve body to the tub spout is required for proper operation.



## 2A THIN WALL INSTALLATION

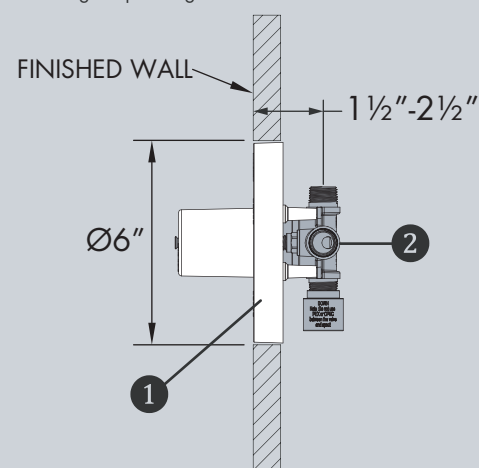
"Thin Walls" are usually built up with materials such as a fiberglass tub surround and will be the main source of support for the valve. The plaster guard (1) remains attached to the valve (2). If you are performing a "Thin Wall" installation, proceed to **STEP 3**.



**NOTE:** Be sure to position the body (2) correctly in the wall, with the markings "UP" facing upward.

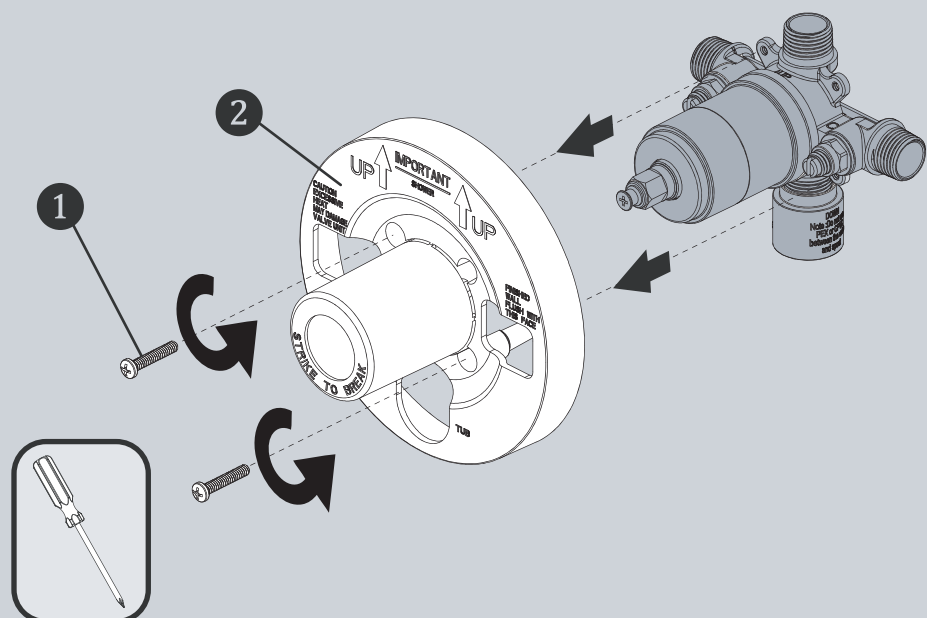
## 2B THICK WALL INSTALLATION

"Thick Walls" are usually built up with materials such as cement board, drywall, tile, etc. The plaster guard (1) is positioned so that it is flush with the finished wall. This ensures that the valve will be at the correct position to accept the trim. The depth for valve body (2) in wall is measured from center of Valve inlets to finished wall surface. The accepted depth distance is 1 1/2" - 2 1/2". When the depth distance is 1 1/2" - 2", there will be interference between the plaster guard and escutcheon, we suggest removing the plaster guard after the wall installation.

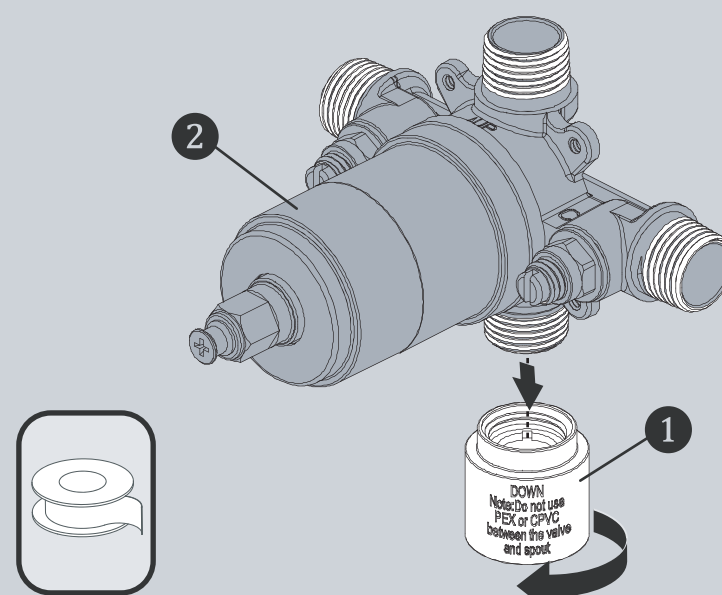


**NOTE:** Be sure to position the body (2) correctly in the wall, with the markings "UP" facing upward.

**3** Unscrew the screws (1), and remove the plaster guard (2).

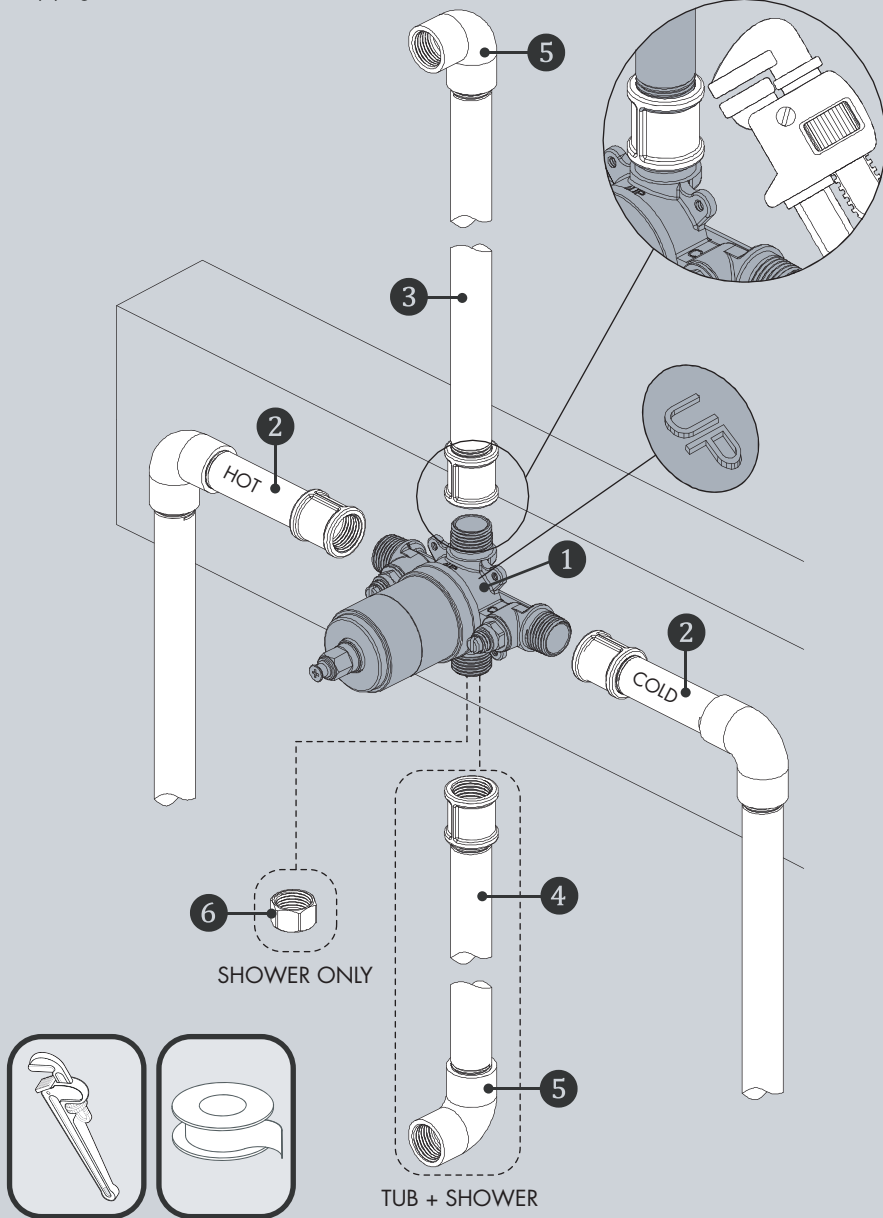


**4** Remove the protective cap (1) from the valve body (2). If you are performing a pipe fitting installation, wrap thread sealant tape (not included) around the pipe threads in a clockwise direction.



## 5 PIPE FITTING INSTALLATION

Connect the hot and cold water supply lines (2), not included, the shower outlet pipe (3), not included, and tub outlet pipe (4), not included, by threading them into the valve body (1) in a clockwise direction. Tighten the pipes to the valve body (1) with a pipe wrench (not included). Connect the pipe elbows (5), not included, to the end of the shower outlet and tub outlet pipes. If performing a shower only installation, install plug cap (6) in place of tub outlet piping.

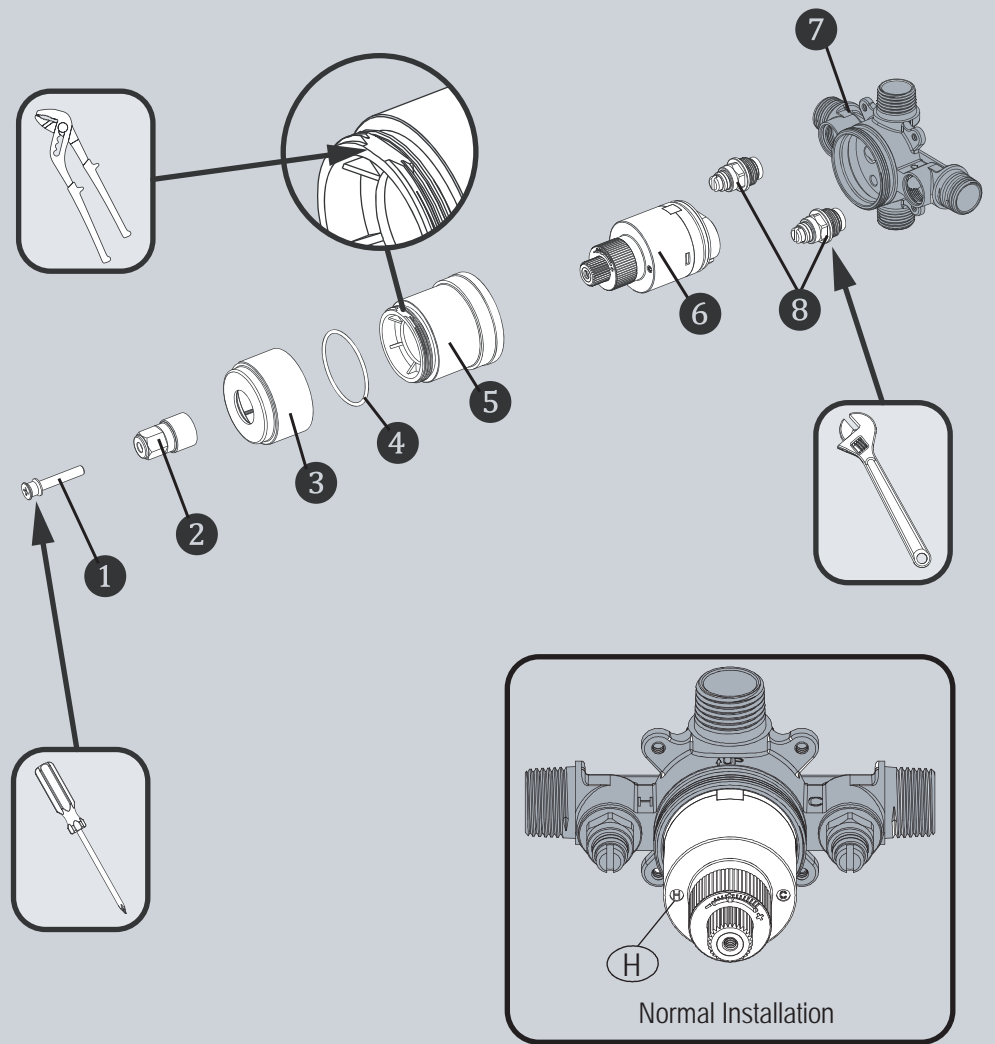


**NOTE:** The hot water supply lines go into the H inlet, and the cold water supply lines go into the C inlet. Do not use PEX or CPVC between the valve and spout.

## 6 COPPER SWEAT INSTALLATION

When performing a Copper Sweat installation, it is recommended that you remove the Valve Cartridge (6), and Valve Stops (8) to prevent damage during soldering. Remove Screw (1), Inverter (2), Sleeve (3), and O-Ring (4). Use Slip Joint Wrench on the machined flats of Bonnet (5) to unthread the Bonnet (5) from Valve Body (7). Remove Valve Cartridge (6) from Valve Body (7). Unthread and remove Valve Stops (8) using Adjustable Wrench or Socket Wrench.

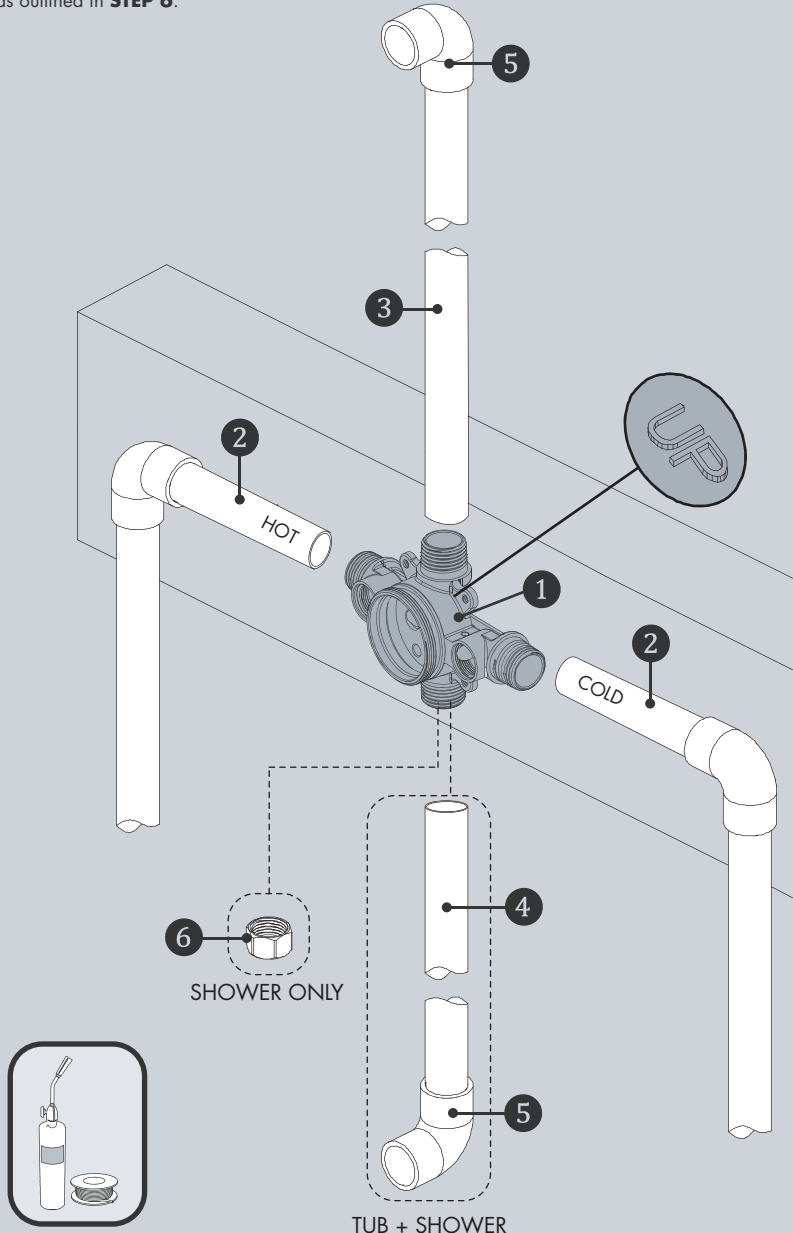
After soldering (**STEP 7**) is completed, Install the Valve Cartridge (6), making sure that the key is fully engaged with the slot in the Valve Body (7), with the "H" marking to the left side as shown below. Slide Bonnet (5) over the cartridge and thread onto the Valve Body (7). Tighten securely with Slip Joint Wrench on the machined flats of the Bonnet (5). Final torque should be 88-106 IN\*LBS. Take care to not over tighten connection or damage may occur. Reassemble O-Ring (4), Sleeve (3), Inverter (2) and Screw (1). Reinstall Valve Stops (8) and wrench tighten to 70-106 IN\*LBS.



**NOTE:** Never install the valve body upside down!

## 7 COPPER SWEAT FITTING INSTALLATION

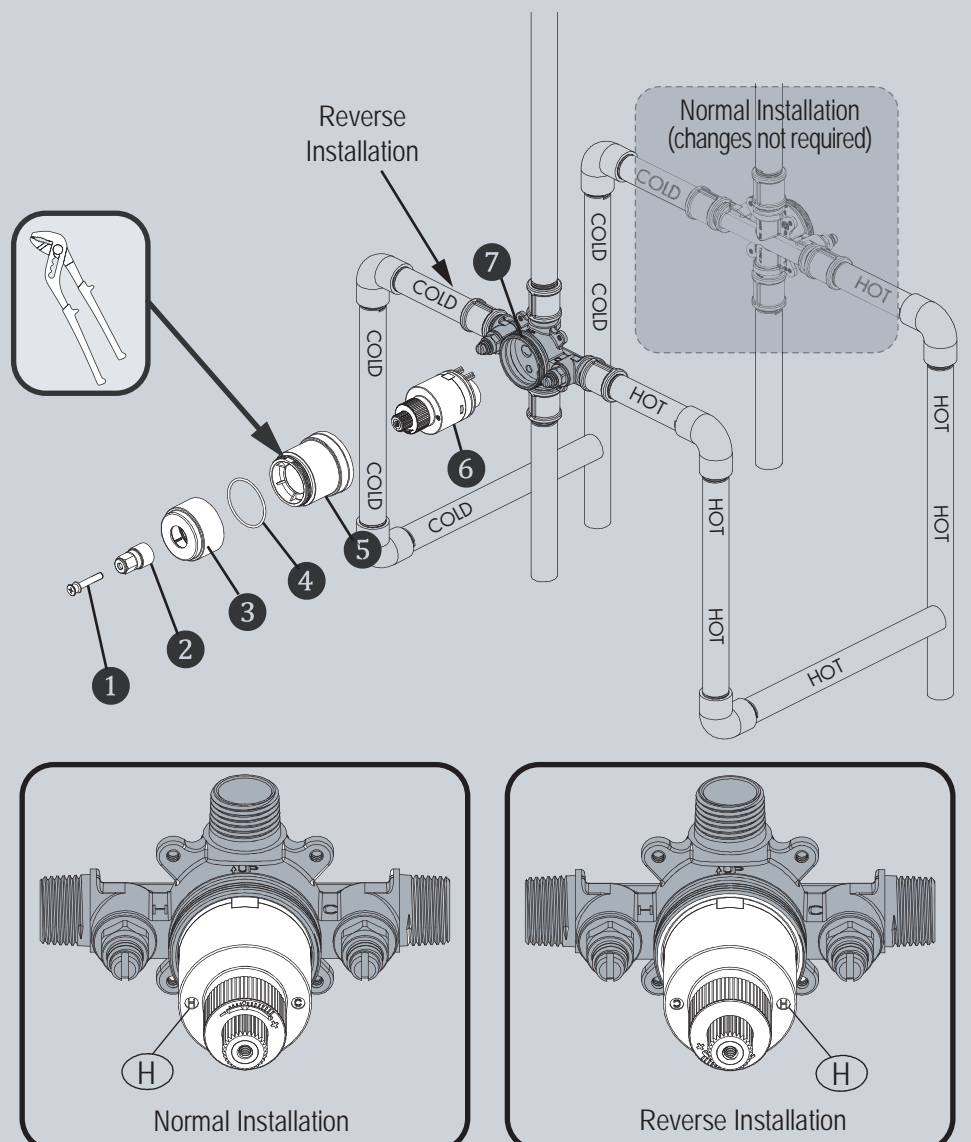
Connect the hot and cold water supply lines (2), not included, the shower outlet pipe (3), not included, and tub outlet pipe (4), not included, by soldering them into the valve body (1). Connect the pipe elbows (5), not included, to the end of the shower outlet and tub outlet pipes. If performing a shower only installation, install plug cap (6) in place of tub outlet piping. Verify that all connections are soldered. Reassemble Valve components as outlined in **STEP 6**.



**NOTE:** The hot water supply lines go into the H inlet, and the cold water supply lines go into the C inlet. Do not use PEX or CPVC between the valve and spout.

## 8 BACK TO BACK INSTALLATION

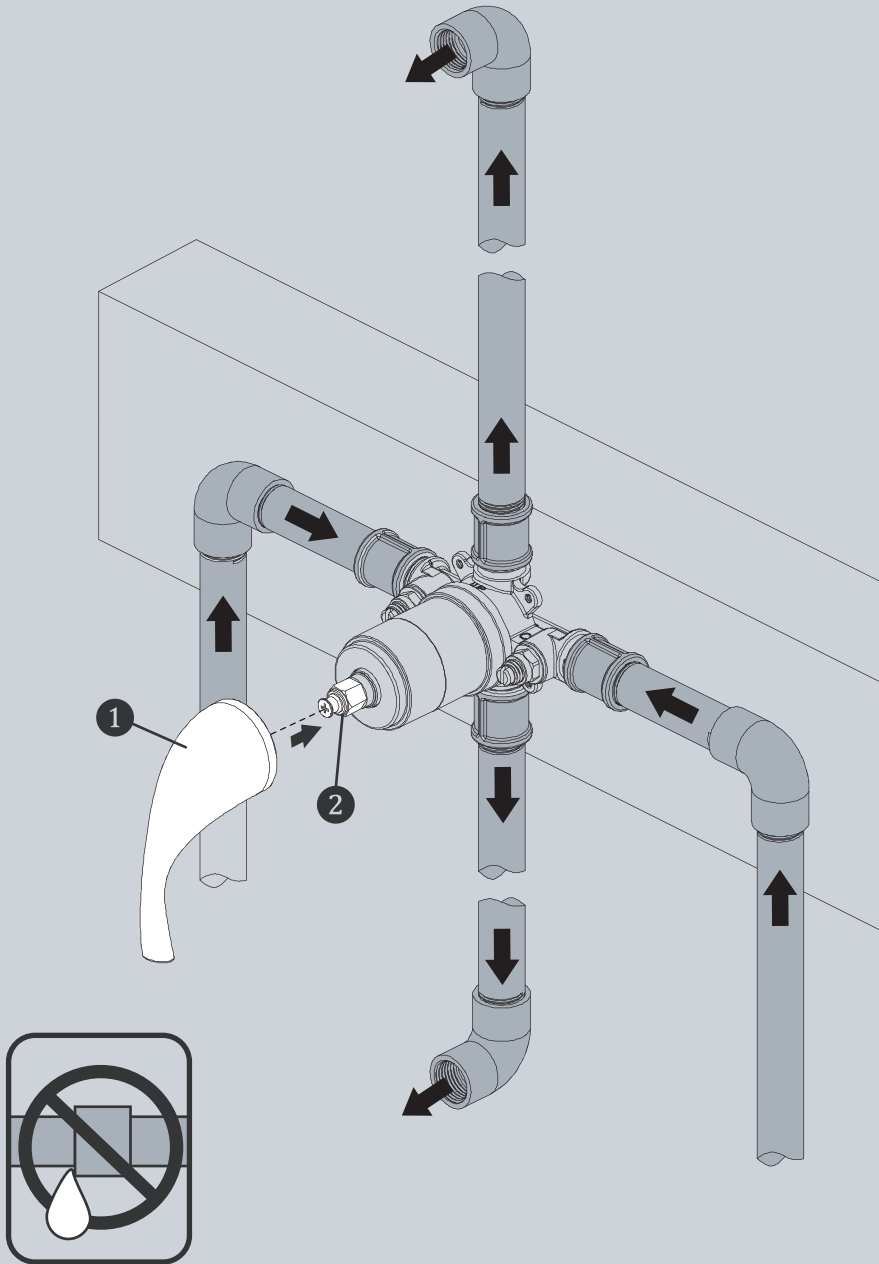
If you are not making a reverse or back to back installation, skip this step, and continue with **STEP 9**. If the HOT and COLD inlets are reversed (HOT on right and COLD on left), disassemble Valve components as outlined in **STEP 6**. Remove and rotate cartridge (6) 180° so "H" appears on the right. Install the Valve Cartridge (6) making sure that the key is fully engaged with the slot in the Valve Body (7). Slide Bonnet (5) over the cartridge and thread onto the body. Tighten securely with Slip Joint Wrench on the machined flats of the Bonnet (5). Final torque should be 88-106 IN\*LBS. Take care to not over tighten connection or damage may occur. Reassemble O-Ring (4), Sleeve (3), Inverter (2) and Screw (1).



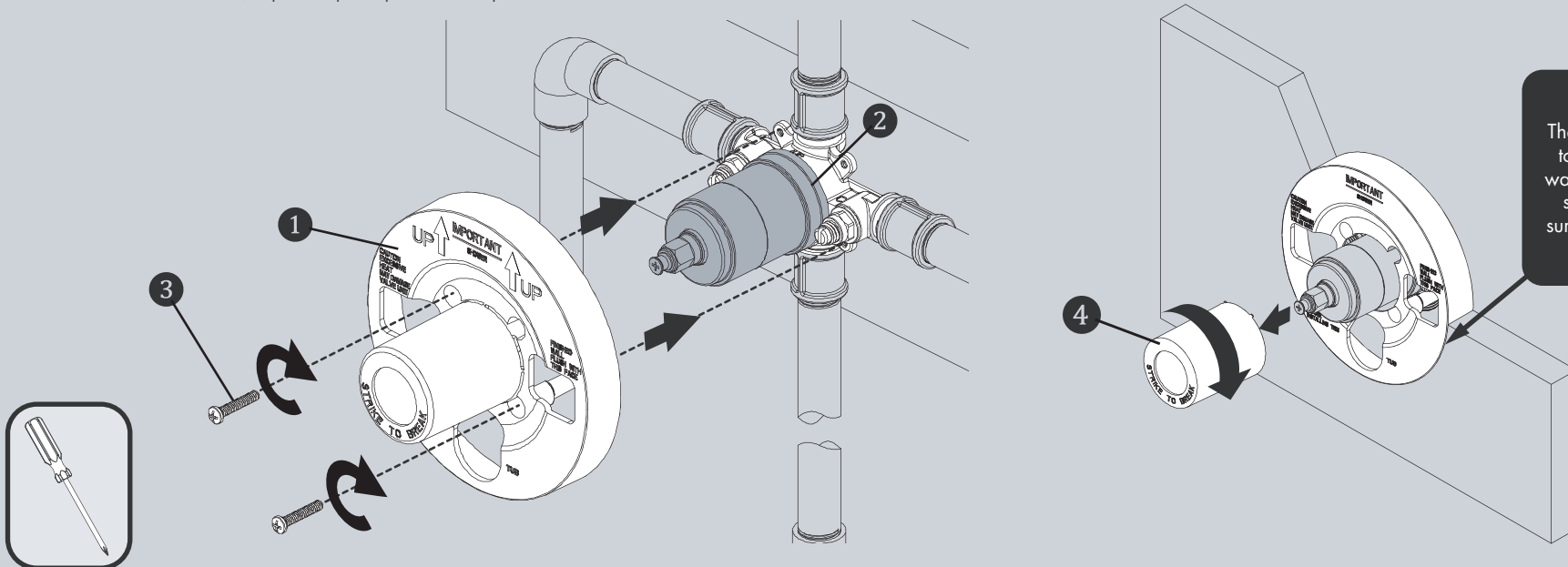
**NOTE:** Never install the valve body upside down!

## 9 FLUSHING THE WATER OUTLETS AND CHECKING FOR LEAKS

Place the handle (1) on the valve body (2) inverter and turn the handle (1) to the full on mixed position. Turn on the hot and cold water supply lines and allow the water to flow from the outlets for one minute, or until all foreign matter has been flushed out. Check for leaks. Shut off the water at the valve and supply lines. Remove the handle (1).

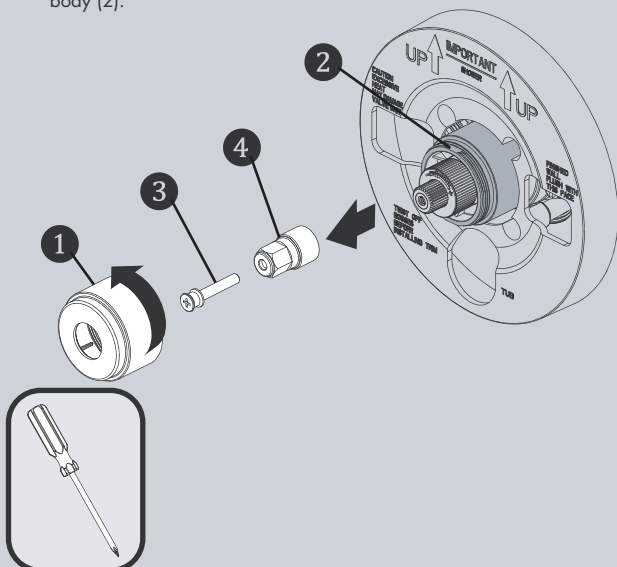


**10** Place the plaster guard (1) onto the body (2) and secure with the screws (3). NOTE: Be sure to position the plaster guard (1) correctly onto the body (2), with the markings "SHOWER" facing upward. Remove the plastic cap (4) from the valve body (2) by twisting the cap in a clockwise direction when the depth distance which is measured from center of shower outlet to finished wall surface is 2" to 2½". If the depth distance which is measured from center of shower outlet to finished wall surface is 1½" to 2", skip this step and proceed to Step 9.

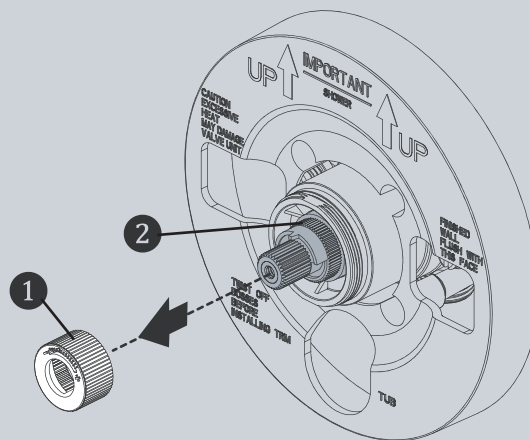


## ADJUSTING THE TEMPERATURE LIMIT STOP (TLS)

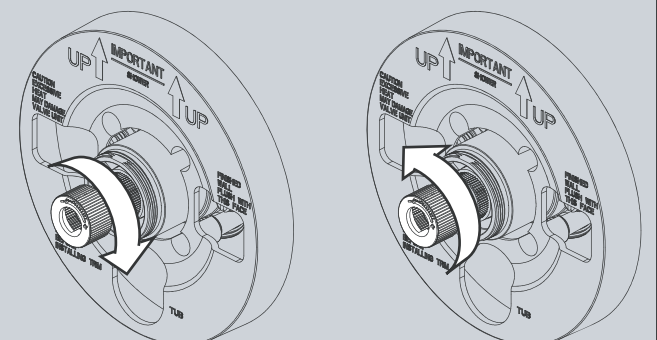
**11** Unscrew the sleeve (1) from the valve body (2). Unscrew the screw (3) from the inverter (4), and then remove the inverter (4), from the valve body (2).



**12** Remove the red limit stop ring (1) from the cartridge assembly (2).



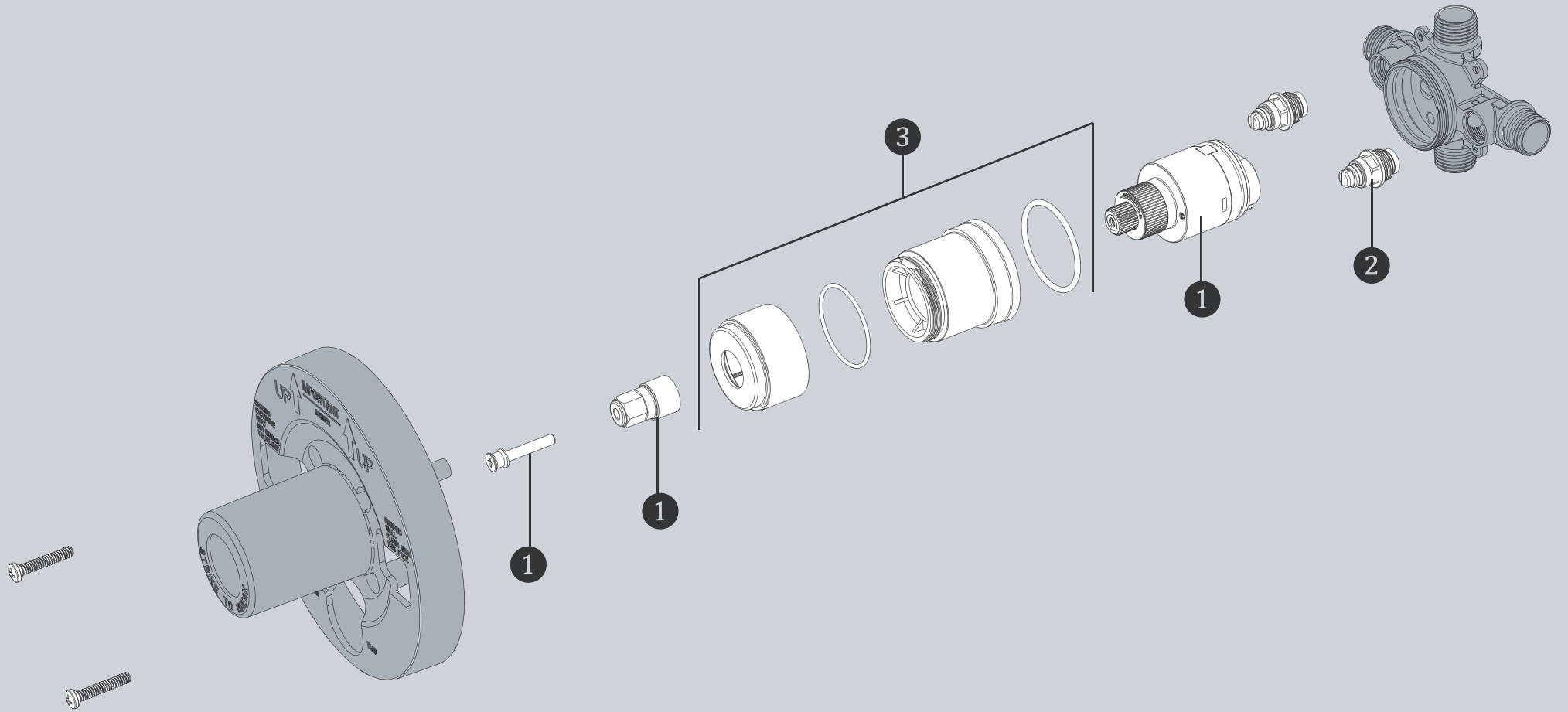
**13** ADJUSTING THE TEMPERATURE LIMITER  
For colder water, adjust the temperature limiter in a clockwise direction. For hotter water, adjust the temperature limiter in a counter clockwise direction. When finished, reinstall the inverter, screw, and sleeve.



FOR COLDER WATER

FOR HOTTER WATER

NOTE: A thermometer can be held in the running water to aid in reaching the desired water temperature.



ITEM NO.	PART NO.	DESCRIPTION
1	RPG05-34937	Cartridge Assembly (Cartridge, Insert, Insert Screw)
2	RPG50-21029	Stop Assembly
3	RPG05-34932	Bonnet Assembly (Bonnet, Bonnet Cap, Top O-ring, Bottom O-ring)

SM-12000 VALVE ROUGH-IN DIAGRAM

NOTES:

COMPLIANCE:

ASME A112.18.1/CSA B 125.1  
ASSE 1016

CONNECTIONS:

- Inlet: 1/2" NPT Male  
1/2" Copper Sweat
- Outlets: 1/2" NPT Male  
1/2" Copper Sweat

Contractor to supply necessary inlet connections.

