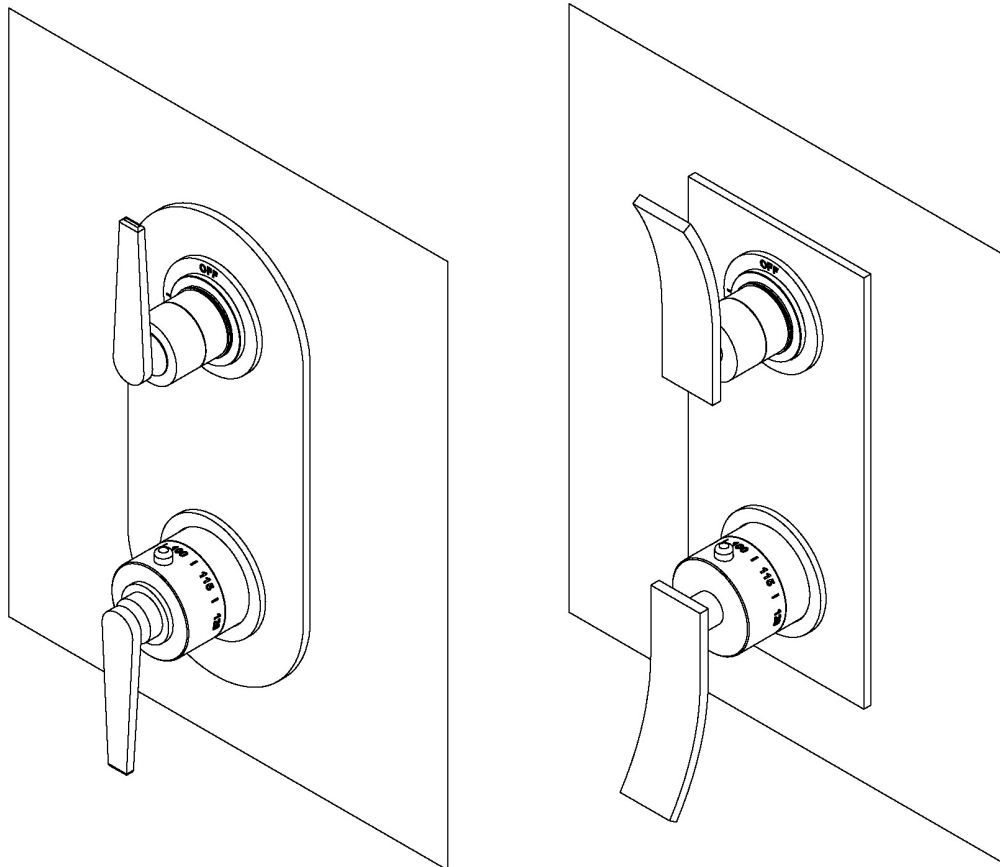


SANTEC

FLUID IMAGINATION



1/2 " Thermostatic Trim Installation Instruction

For: One-Way	TH-9010
Two-Way	TH9210/9212
Three-Way	TH-9310/9313

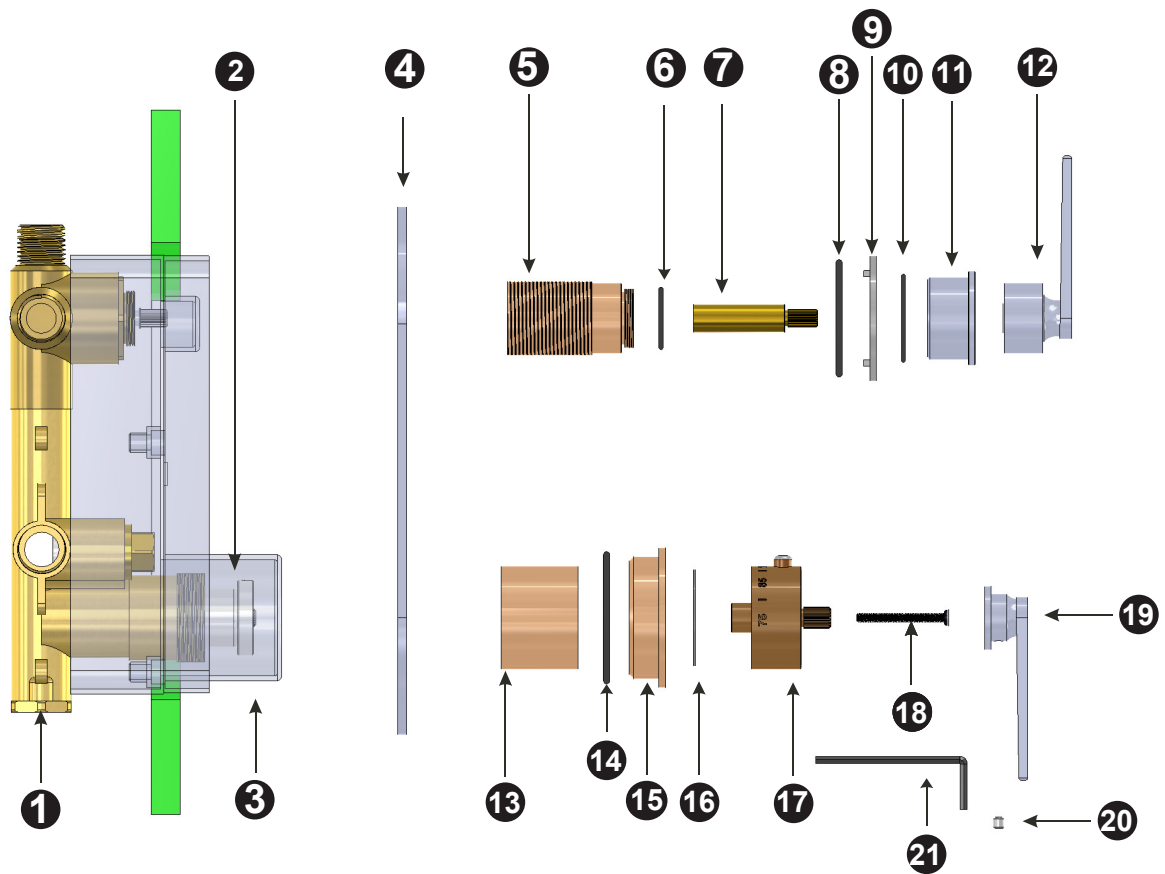
KEEP THIS INSTRUCTION BOOKLET FOR FUTURE REFERENCE

Important: Santec reserves the right to request additional documents before servicing warranty requests.

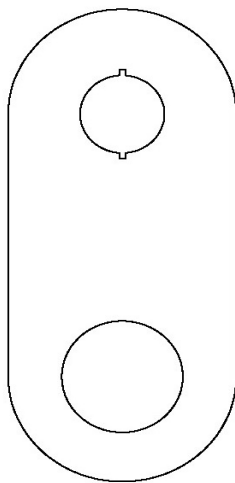
SANTEC has the right to make necessary design changes when applicable.

*Illustration may not depict actual products

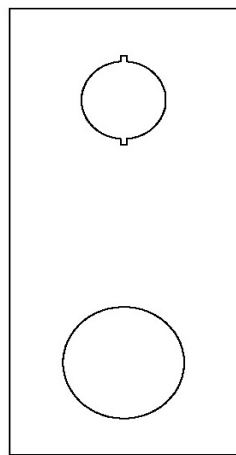
1/2" THERMOSTATIC VALVE AND TRIM



* Please specify the finish when ordering the part.



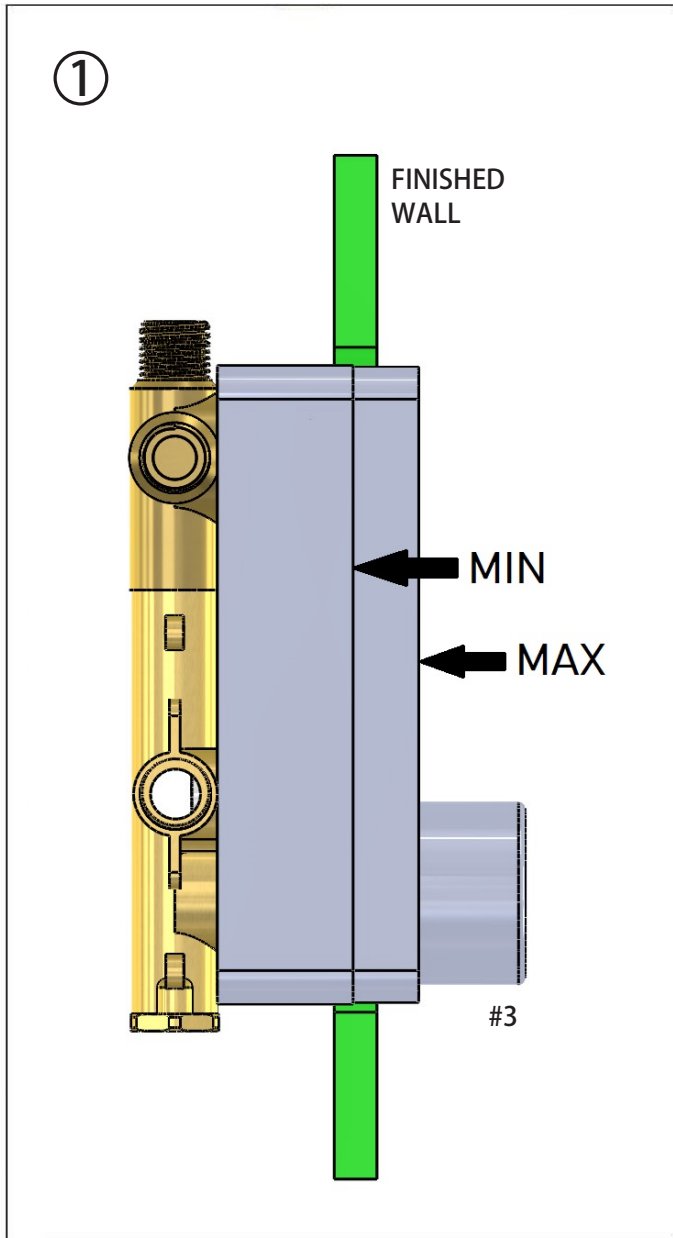
PH9794



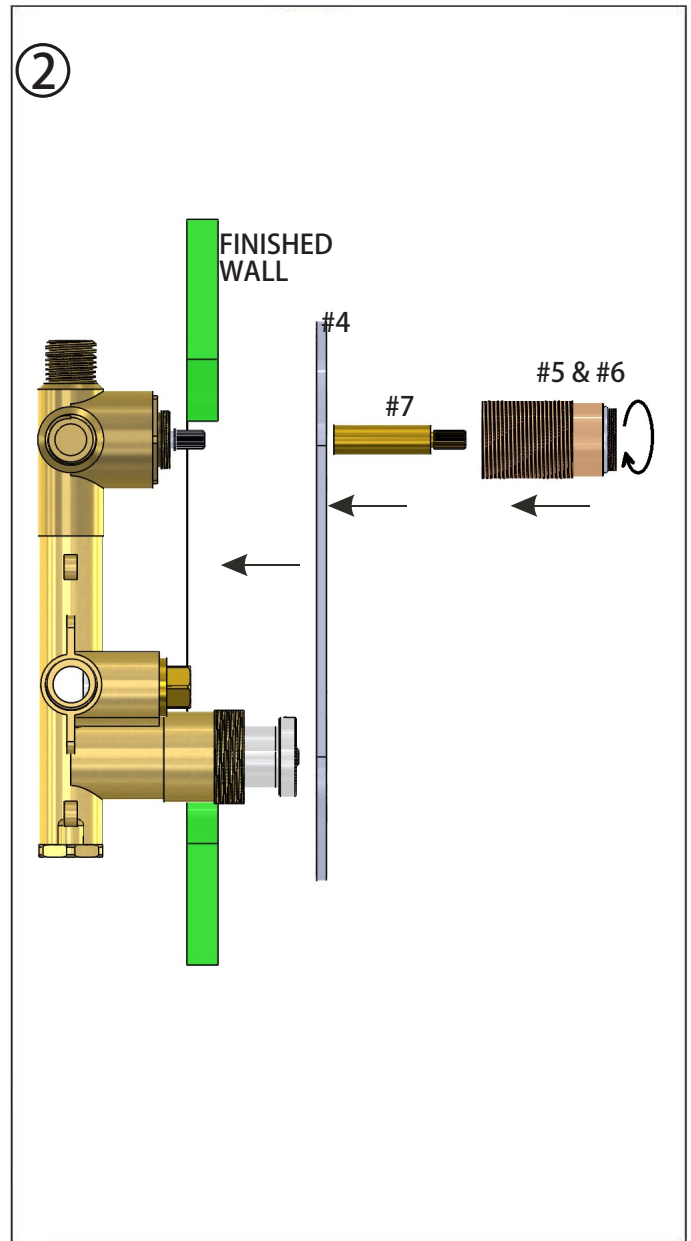
PH9795

	Part Description	Part #
1	Complete Thermostatic Valve	TH-9010/9210/9212/9310/9313
2	Temperature Restrictor	TH-7000-3
3	Mud Guard	TH-9000-1
4	Plate	PH9794, PH9795
5	Diverter Threaded Sleeve	PM-1179-2
6	Rubber O-Ring for Div. Threaded Sleeve	PM-502
7	Broach For Diverter Handle	SA255-2
8	Rubber O-Ring for Diverter Dial	PM-553
9	Diverter Dial	PH9700/9700-1/9701/9800
10	Rubber O-Ring for Diverter Lock Nut	PM-552
11	Diverter Lock Nut	P00018-2
12	On/Off Handle Assembly	-VARIES-
13	Thermostatic Threaded Sleeve	P00019
14	Rubber O-Ring for Thermostatic Lock Nut	PM-554
15	Thermostatic Lock Nut	P00018
16	Teflon Washer	PM-831
17	Thermostatic Dial	PH9731
18	Stem Screw with O-Ring	PM-5-4X-351-3
19	Thermostatic Handle	-VARIES-
20	Set Screw	PM-027
21	Allen Key	PM-033

INSTALLATION INSTRUCTIONS

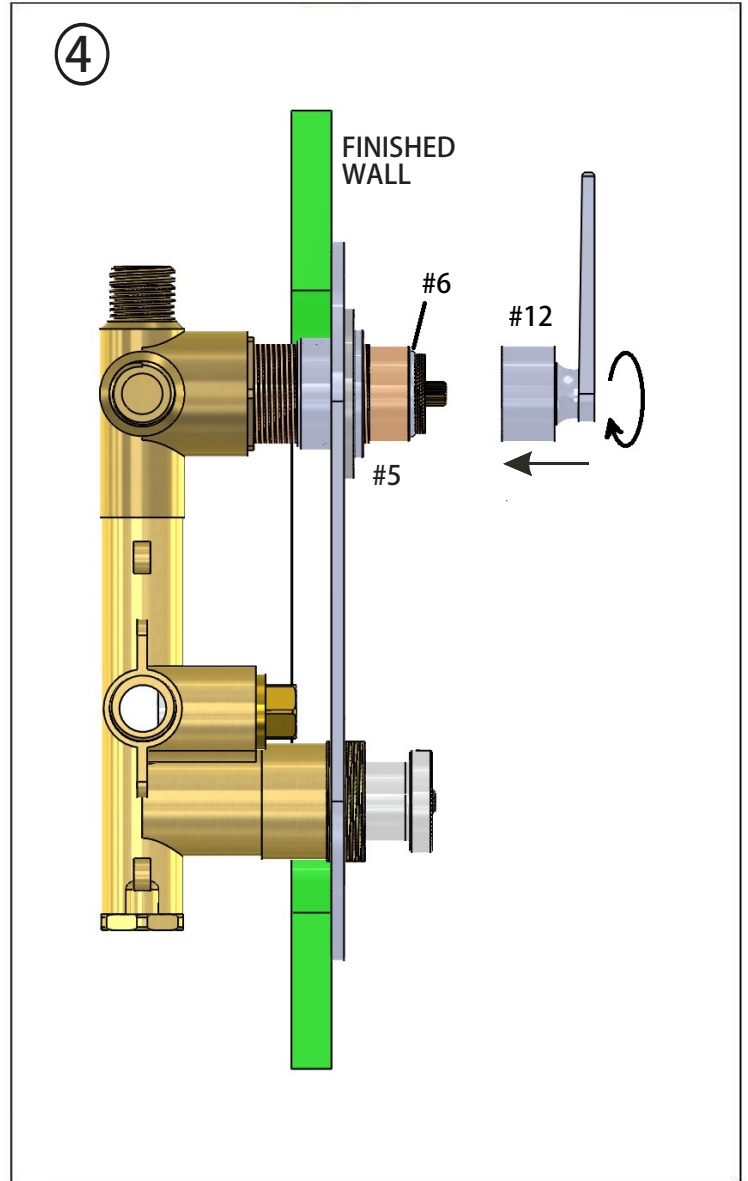
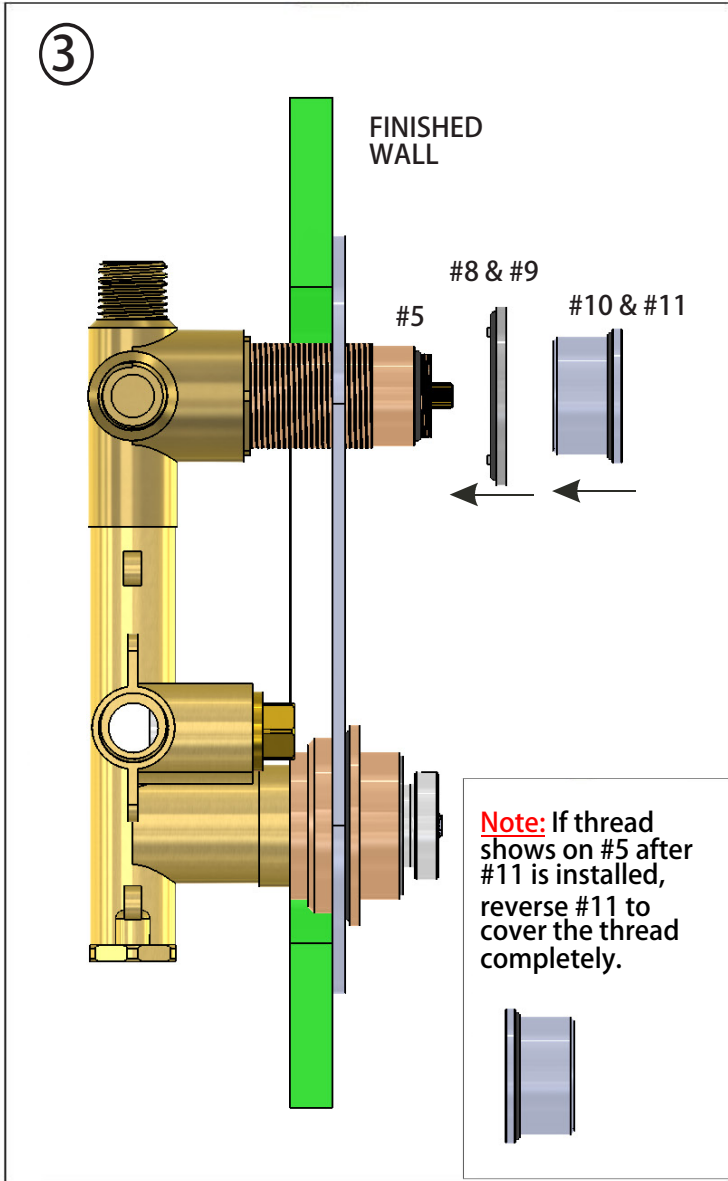


- Rough in the valve, lining the surface of the wall to the #3 Mudguard Min/Max line.



- Place #4 plate up against wall over valve.
- Insert the #7 broach for diverter handle onto the male broach of the diverter valve.
- Screw the #5 diverter threaded sleeve onto the diverter valve until it stops. #6 o-ring should be installed on top of the sleeve.

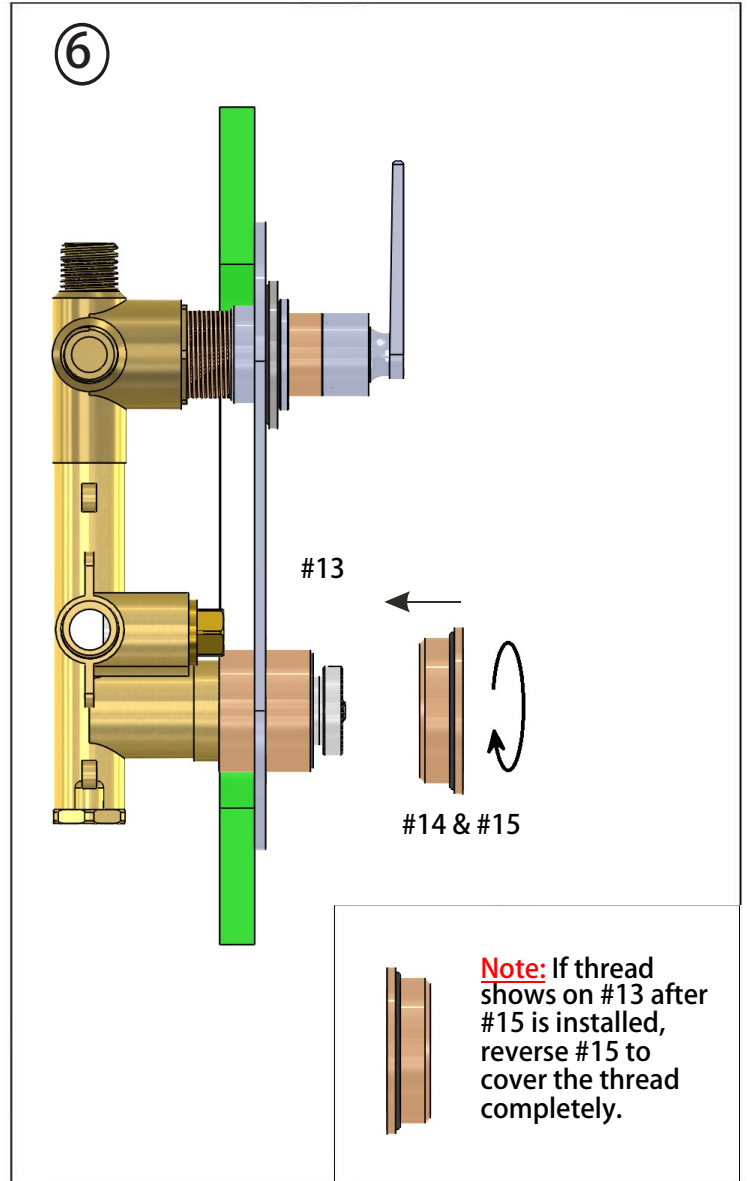
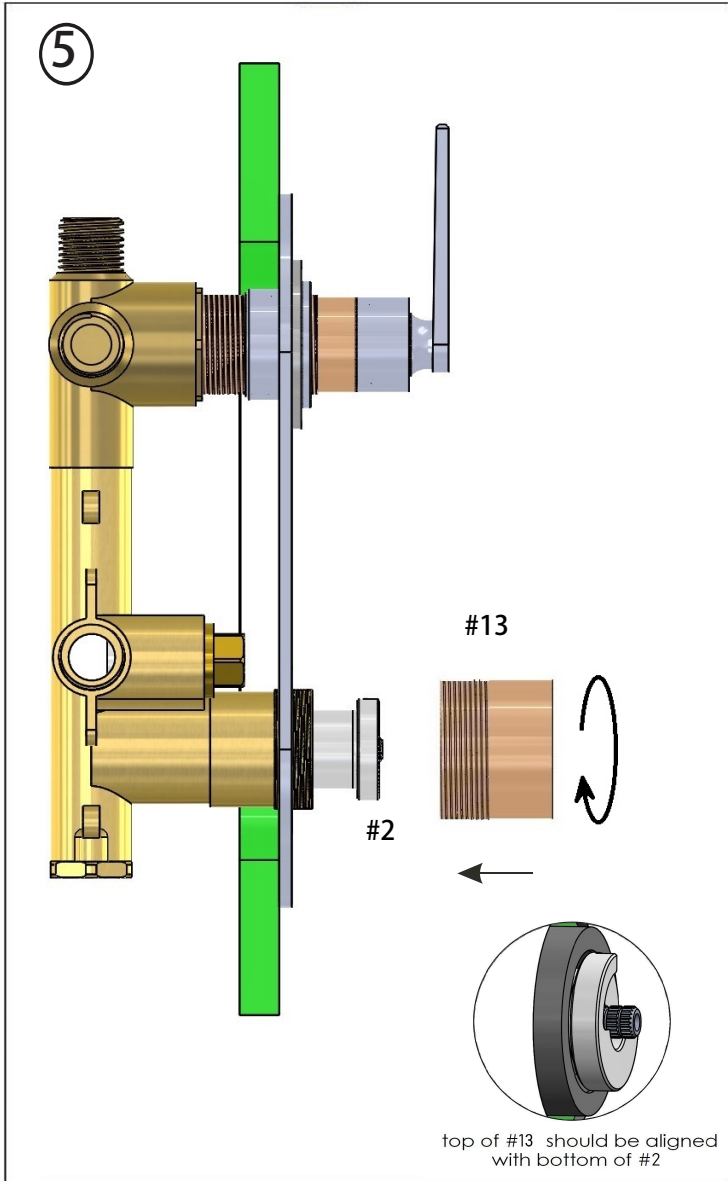
INSTALLATION INSTRUCTIONS



- Install #9 diverter dial (make sure the OFF position is in the 12 o'clock position). Make sure the #8 rubber o-ring is present.
- Hand tighten #11 diverter lock nut to #5 diverter threaded sleeve. Make sure #10 rubber o-ring is present, and make #11 diverter lock nut flushed against #9 diverter dial as much as possible (there may be a little gap in between due to the o-ring).

- Make sure the #6 rubber o-ring is present. It should be located between the base and threads of the diverter threaded sleeve.
- Hand tighten #12 ON/OFF handle assembly to #5 diverter threaded sleeve until it stops. Make sure lever is pointing to 12 o'clock position.

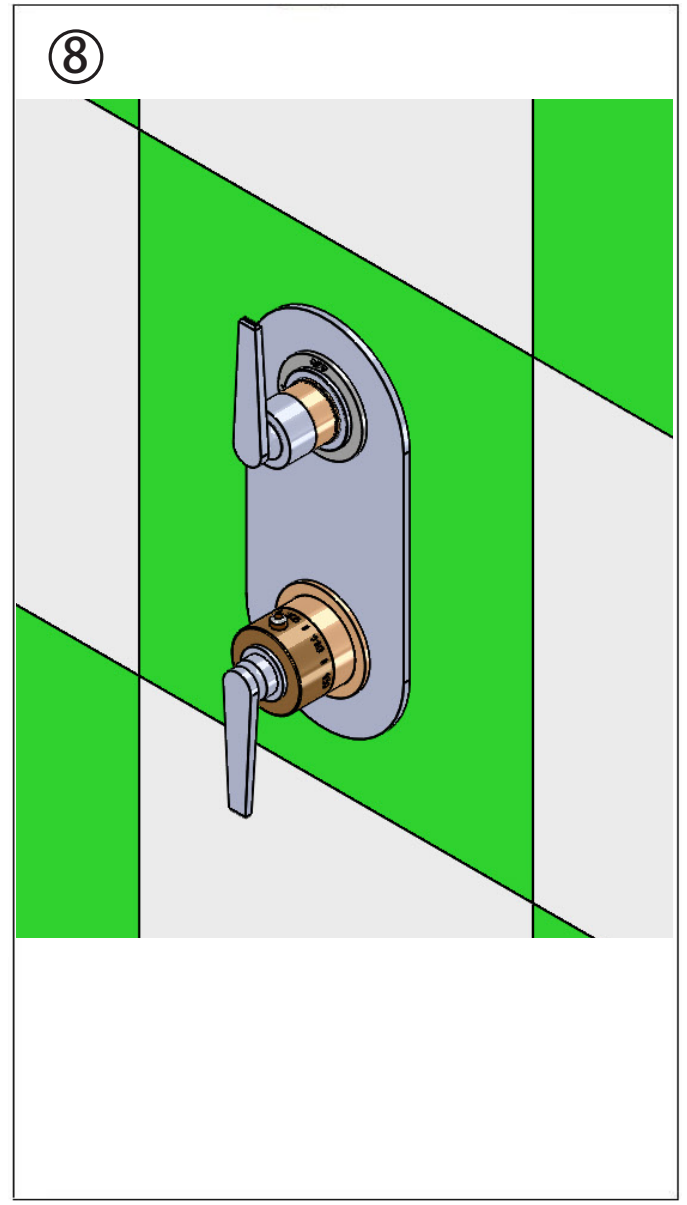
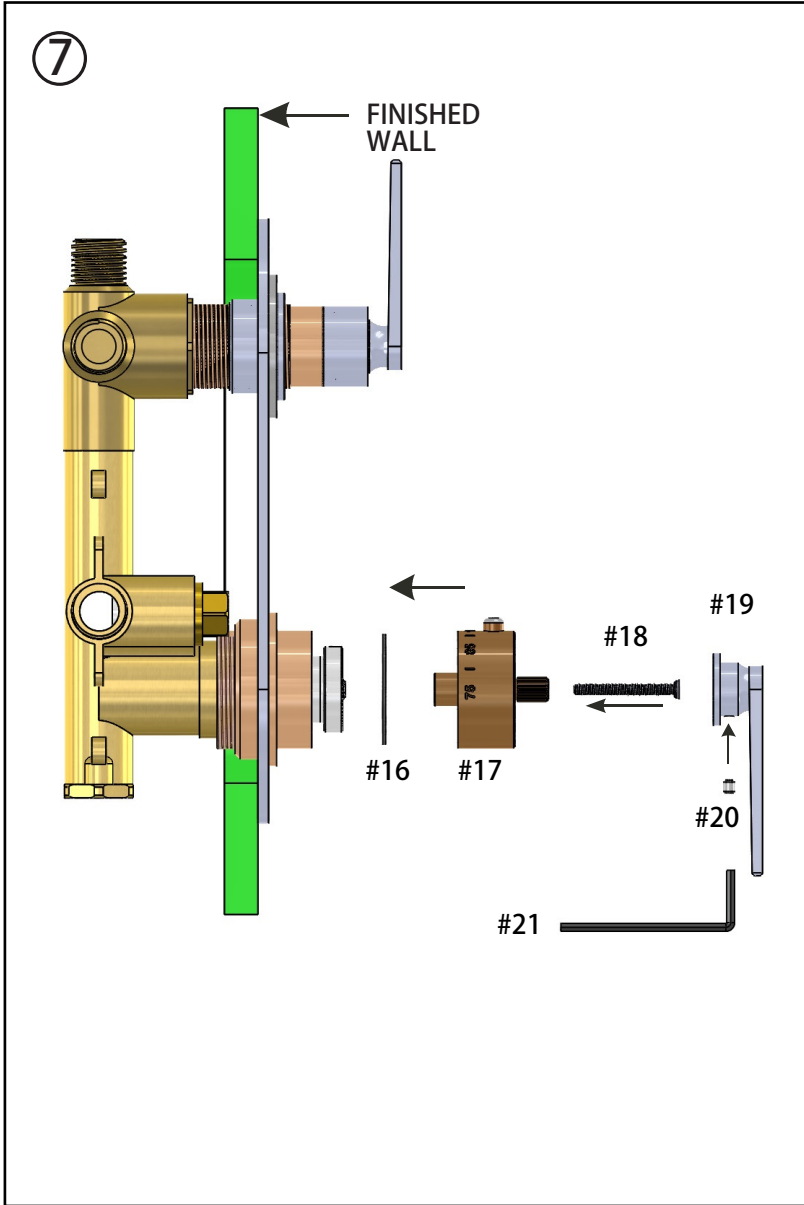
INSTALLATION INSTRUCTIONS



- Screw on #13 thermostatic threaded sleeve onto thermostatic valve. Tighten all the way. The top of #13 threaded sleeve should be aligned to the bottom of #2 temperature restrictor.

- Hand tighten #15 thermostatic lock nut to #13 thermostatic threaded sleeve. Make sure the #14 rubber o-ring is present, and make the #15 lock nut flushed against plate as much as possible (there may be a little gap in between due to the o-ring).

INSTALLATION INSTRUCTIONS



- Insert #16 teflon washer to bottom of #17 thermostatic dial.
- Insert #17 dial with the 100° text or push button pointing to the 12 o'clock position.
- Secure with #18 screw with o-ring. DO NOT OVER TIGHTEN.
- Assemble #19 thermostatic handle onto #17 dial and tighten with #20 set screw using #21 allen wrench. Make sure the lever is pointing to 6 o'clock position.

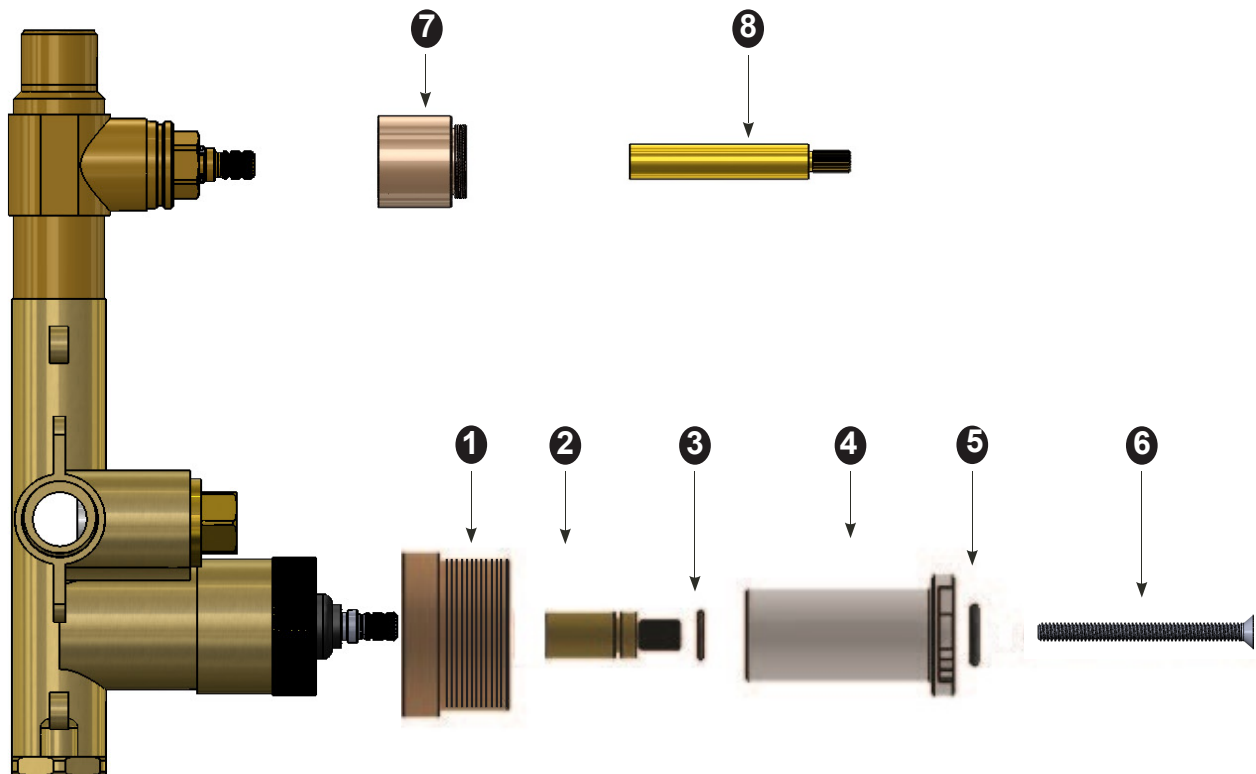
- The installation of the 1/2" Thermostatic Trim is finished.

1/2" THERMOSTATIC DIAL & VOLUME DIVERTER EXTENSION KIT (P00200)

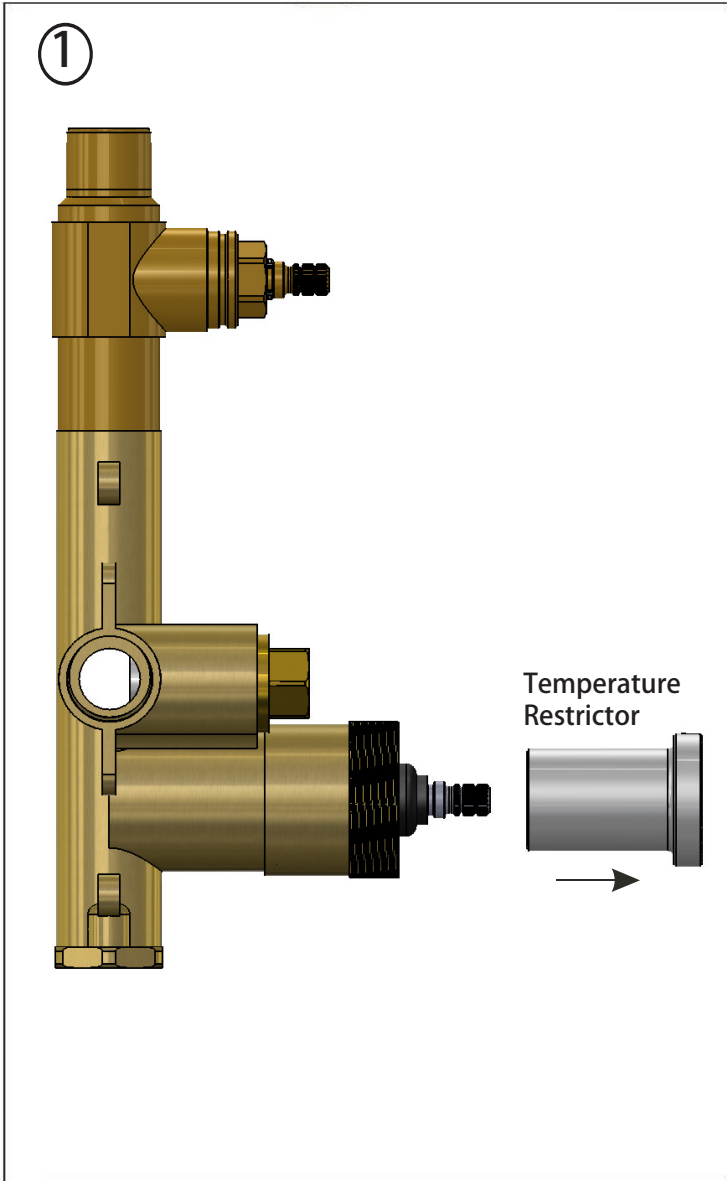
If the valve is roughed too far into the wall, please use the extension kit provided in the clear plastic bag. To install this kit, refer to the instructions on the next few pages.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	P00055-1	Threaded Sleeve Extension	1
2	SA255-1*	Broach for TH-7000 Extension Kit	1
3	PM-1215	O-Ring for SA255-1	1
4	TH-7000-2*	Plastic Temperature Restrictor for TH-7000 Extension Kit	1
5	PM-1216	O-ring for TH-7000-2	1
6	PM-5-4X-351-5*	Screw for TH-7000 Extension Kit	1
7	P00064	Diverter Sleeve Extension	1
8	SA256*	Diverter Broach for Extension Kit	1

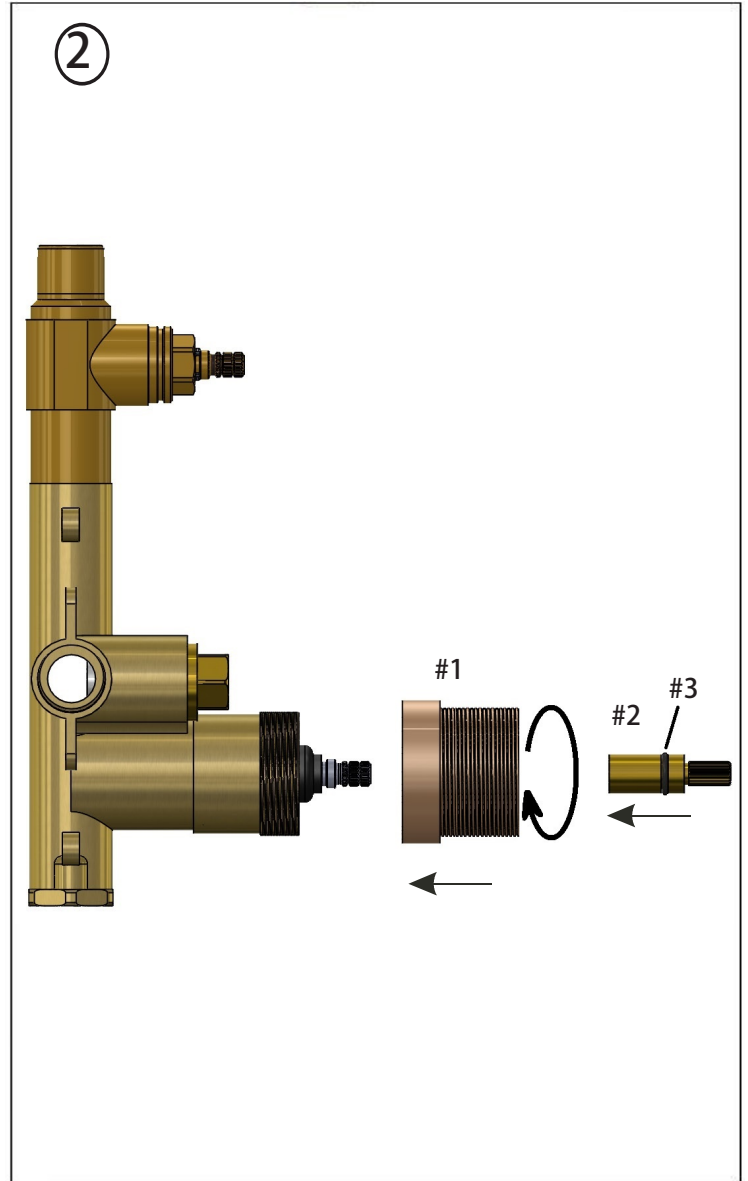
*-REPLACES-
TH-7000-3 FOR TH-7000-2
PM-5-4X-351-3 FOR PM-5-4X-351-5
SA255-2 FOR SA256



EXTENSION KIT INSTALLATION INSTRUCTIONS

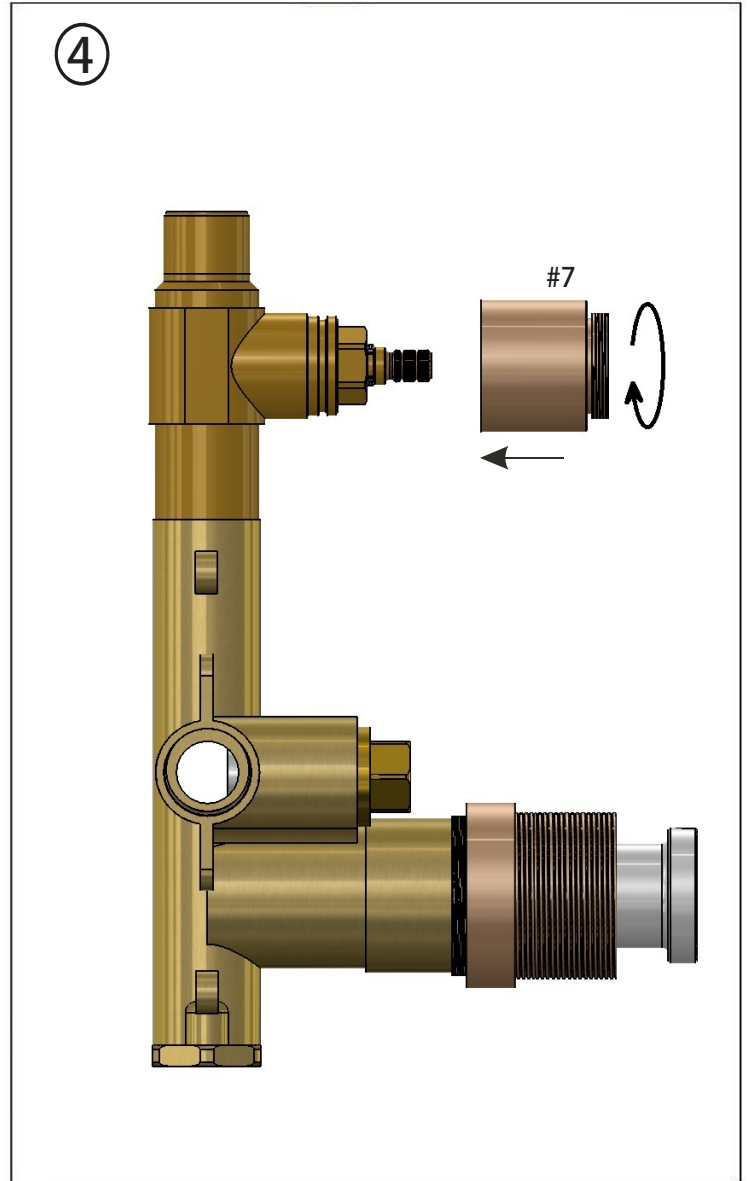
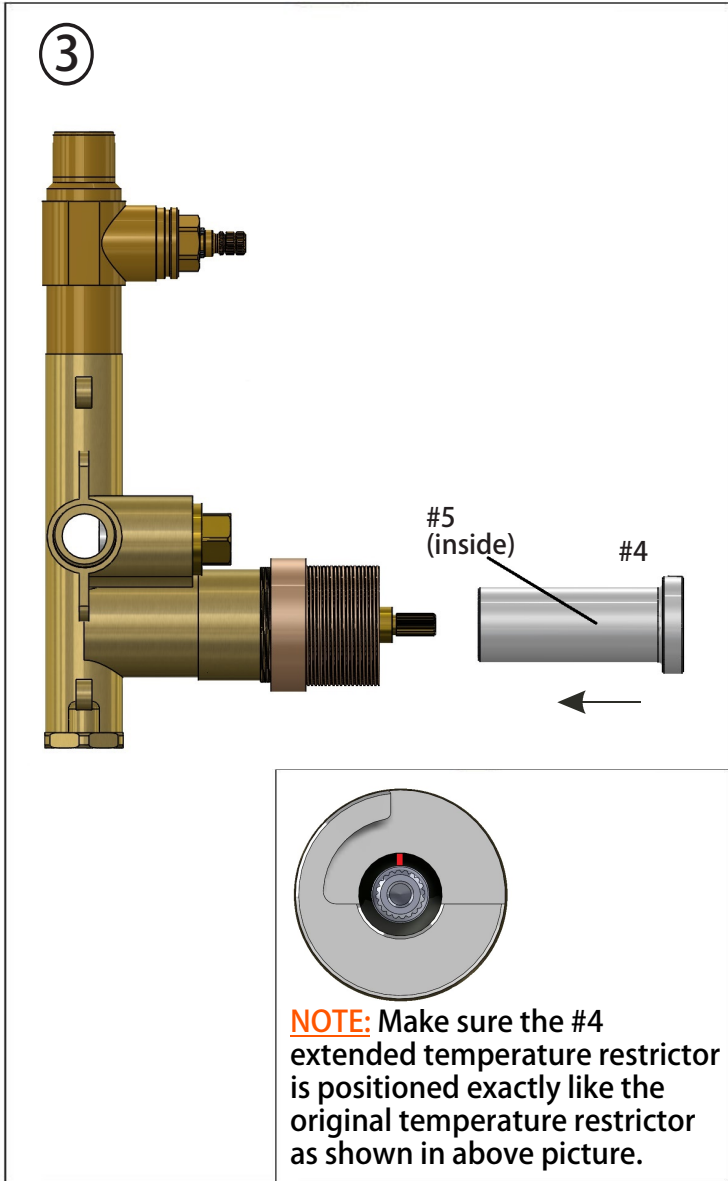


- Remove the temperature restrictor



- Screw on #1 threaded sleeve extension onto thermostatic valve. Tighten all the way.
- Insert #2 broach for extension kit onto the cartridge. An #3 o-ring should already be installed along the groove of the broach extension.

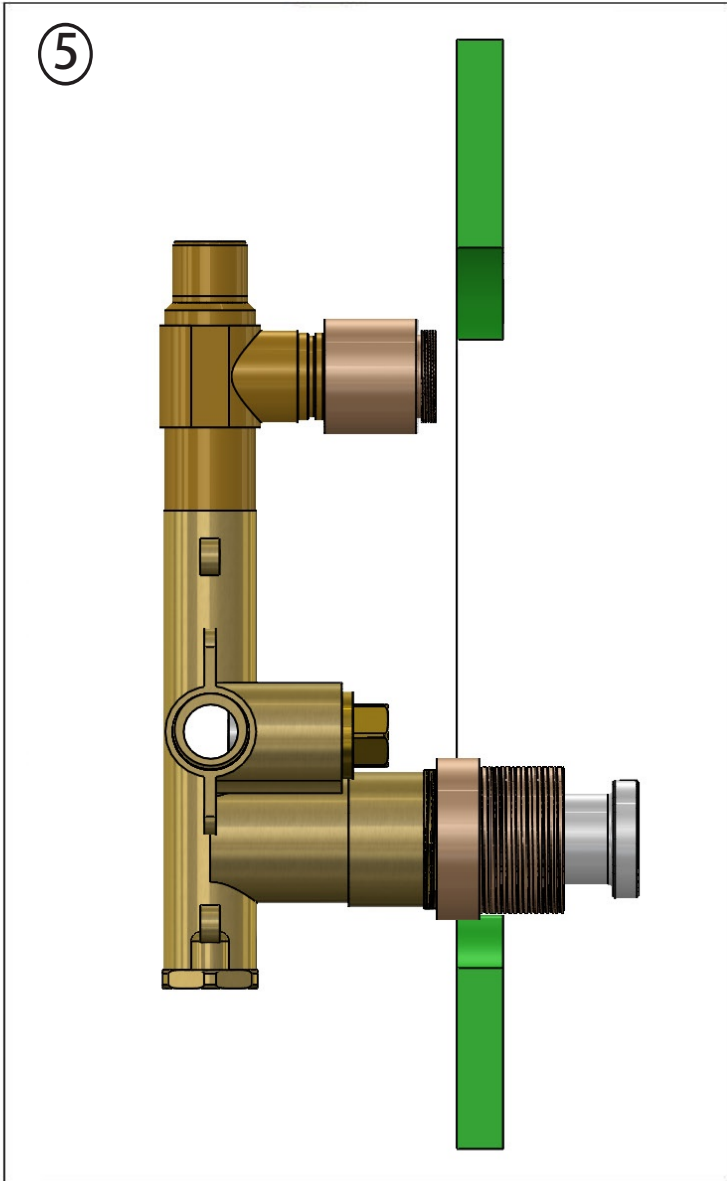
EXTENSION KIT INSTALLATION INSTRUCTIONS



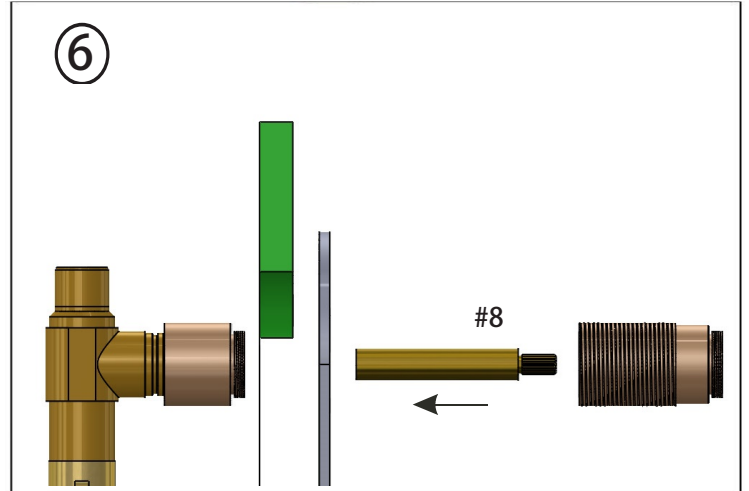
- Insert the #4 temperature restrictor for extension kit onto the cartridge. There should be a #5 o-ring installed inside the extended temperature restrictor.

- Screw on #7 diverter sleeve extension onto diverter valve. Tighten all the way.

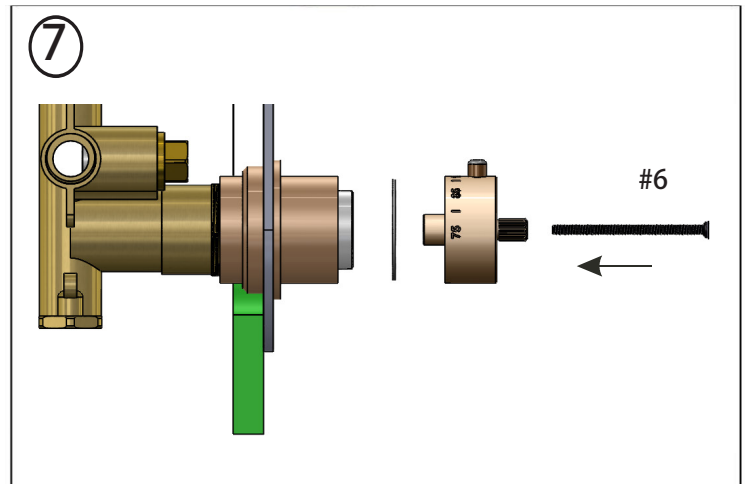
EXTENSION KIT INSTALLATION INSTRUCTIONS



- The thermostatic valve with the attached extensions is ready for installation. Refer back to step 1 on page 2 to begin installation.

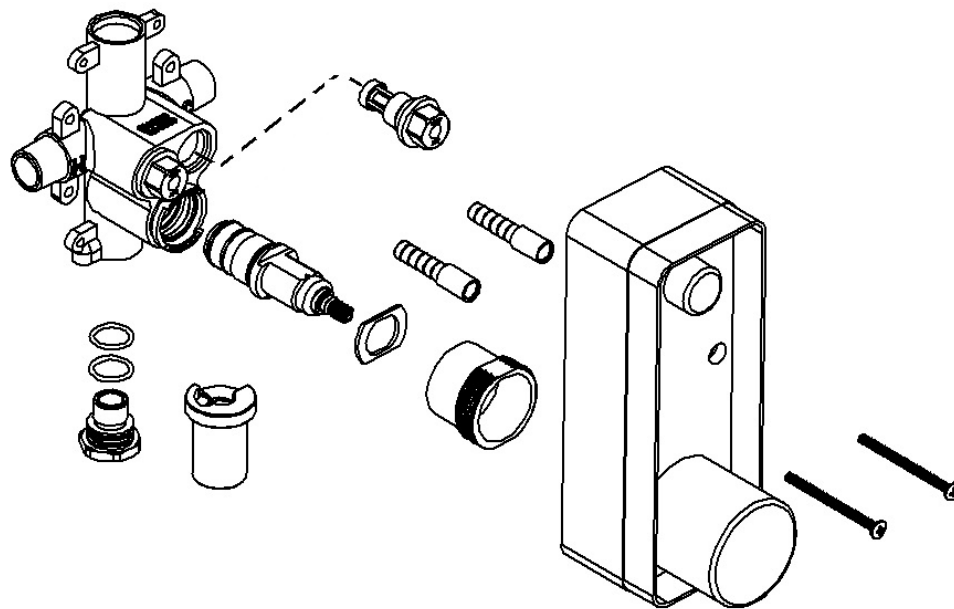


- On step 2 on page 2, swap the #7 broach for diverter handle to #8 diverter broach for extension kit. Resume to the next steps.



- On step 8 on page 5, swap the #18 screw with o-ring to #6 screw for extension kit. Resume to the next steps to complete installation.

MAINTENANCE



General characteristic

- Santec thermostatic valve is suitable for most water heater systems provided it is installed correctly
- Low pressure storage heaters are not recommended for this application

Note: Cartridge and #2 Temperature Restrictor have RED markings indicating the 100° mark should be aligned at the 12 o'clock position.

Cartridge Cleaning

After years of use, impurities and lime scale can restrict the water flow. To clean the cartridge, please follow these instructions:

- 1- Remove the handle screw, handle trim, trim plate screws, and trim plate.
- 2- Shut off the water line by turning the check valve shut off mechanism clockwise. Make sure that the both hot and cold sides are closed.
- 3- Remove the cartridge using a 30mm wrench.
- 4- Wash the filter under running water or soak it with vinegar or a descaling agent.
- 5- Reassemble the cartridge making sure that the red lines on the cartridge are aligned.
- 6- Open the check valve shut-off mechanism, turn on the water, and check water flow.
- 7- If the water flow is normal, reassemble the trims.