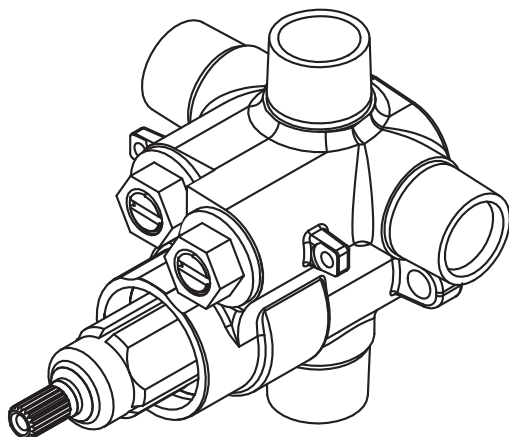

PHYLTRICH®

Defining Luxury Since 1959



INSTALLATION INSTRUCTIONS FOR

1/2 Mini Thermostatic Valve 1-115

- w/ VOLUME CONTROL 1-116
- w/ (TWO) 1/2" VOLUME CONTROL 1-138
 - w/ 3 Way Diverter 1-117
 - w/ 2 Way Diverter 1-132

GENERAL CHARACTERISTICS

WE RECOMMEND THAT ALL PLUMBING PRODUCTS BE INSTALLED BY A LICENSED PROFESSIONAL

IMPORTANT: Thoroughly read instructions before installation.

WARNING:

IF THIS VALVE IS INSTALLED UPSIDE-DOWN A REVERSE CARTRIDGE IS NOT AVAILABLE. CONSEQUENTLY, VALVE MUST BE REMOVED AND REINSTALLED RIGHT-SIDE UP.

- The valve is designed with two outlets for ease of installation, but are not intended to be used concurrently with each other. Using both outlets will reduce the performance of the valve.

VALVE SPECIFICATION

Recommended supply pressure = **20 to 80 psi (1,38-5,52 bar)**

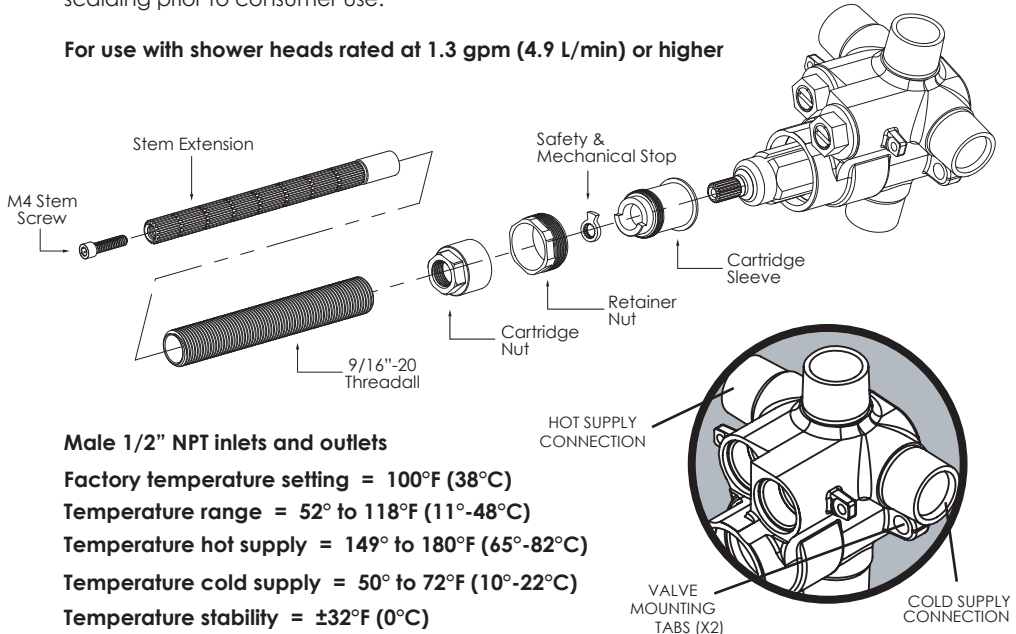
Recommended hot water supply temperature = **120° to 140°F (48°-60°C)**

Operating pressures between **hot and cold supplies** should vary no more than **30 psi (2,07 bar)**. If water pressure exceeds **70 psi (4,83 bar)**, install a pressure reducing valve.

Ensure the mixing valve is in compliance with local plumbing codes when setting the temperature on the water heater.

It is the installer's responsibility to verify **correct temperature setting** to prevent any risk of scalding prior to consumer use.

For use with shower heads rated at 1.3 gpm (4.9 L/min) or higher



Male 1/2" NPT inlets and outlets

Factory temperature setting = 100°F (38°C)

Temperature range = 52° to 118°F (11°-48°C)

Temperature hot supply = 149° to 180°F (65°-82°C)

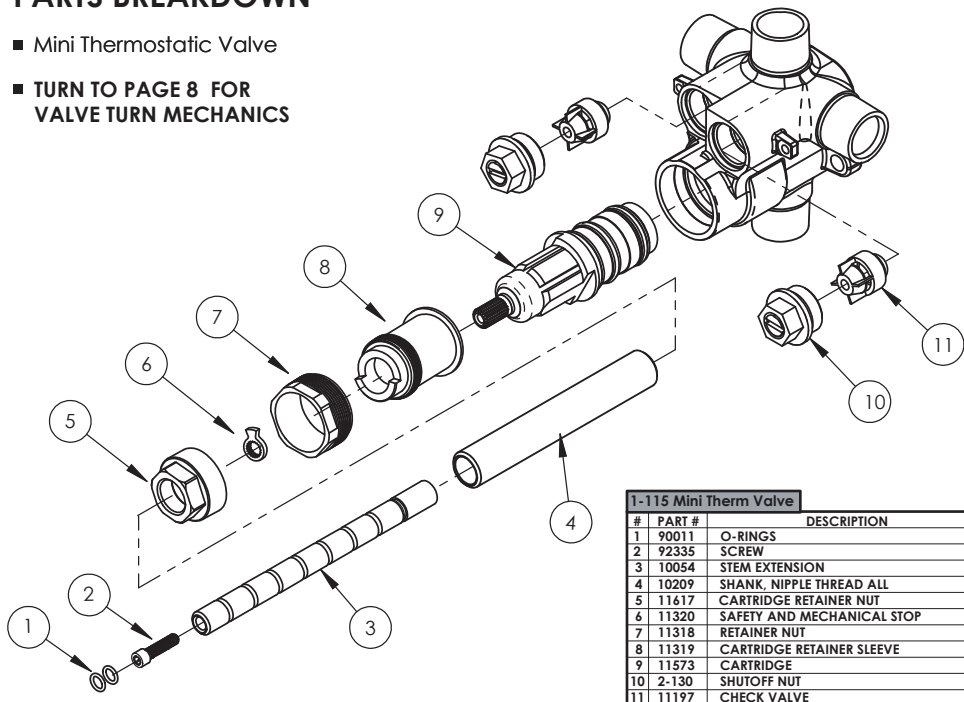
Temperature cold supply = 50° to 72°F (10°-22°C)

Temperature stability = ±32°F (0°C)

PARTS BREAKDOWN

■ Mini Thermostatic Valve

■ **TURN TO PAGE 8 FOR VALVE TURN MECHANICS**

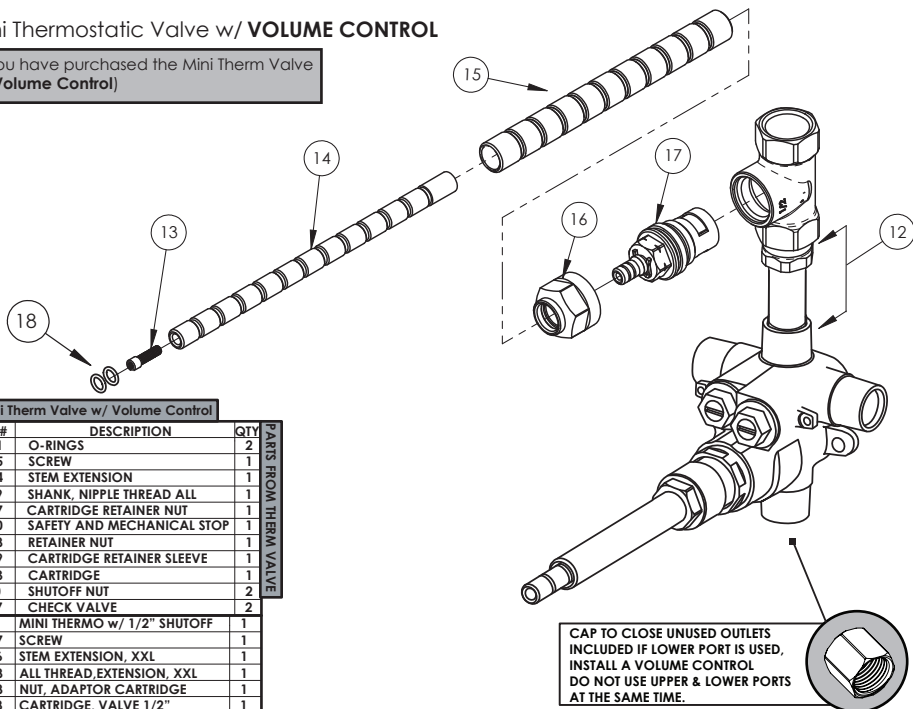


1-115 Mini Therm Valve

#	PART #	DESCRIPTION	QTY
1	90011	O-RINGS	2
2	92335	SCREW	1
3	10054	STEM EXTENSION	1
4	10209	SHANK, NIPPLE THREAD ALL	1
5	11617	CARTRIDGE RETAINER NUT	1
6	11320	SAFETY AND MECHANICAL STOP	1
7	11318	RETAINER NUT	1
8	11319	CARTRIDGE RETAINER SLEEVE	1
9	11573	CARTRIDGE	1
10	2-130	SHUTOFF NUT	2
11	11197	CHECK VALVE	2

■ Mini Thermostatic Valve w/ **VOLUME CONTROL**

(If you have purchased the Mini Therm Valve w/ Volume Control)



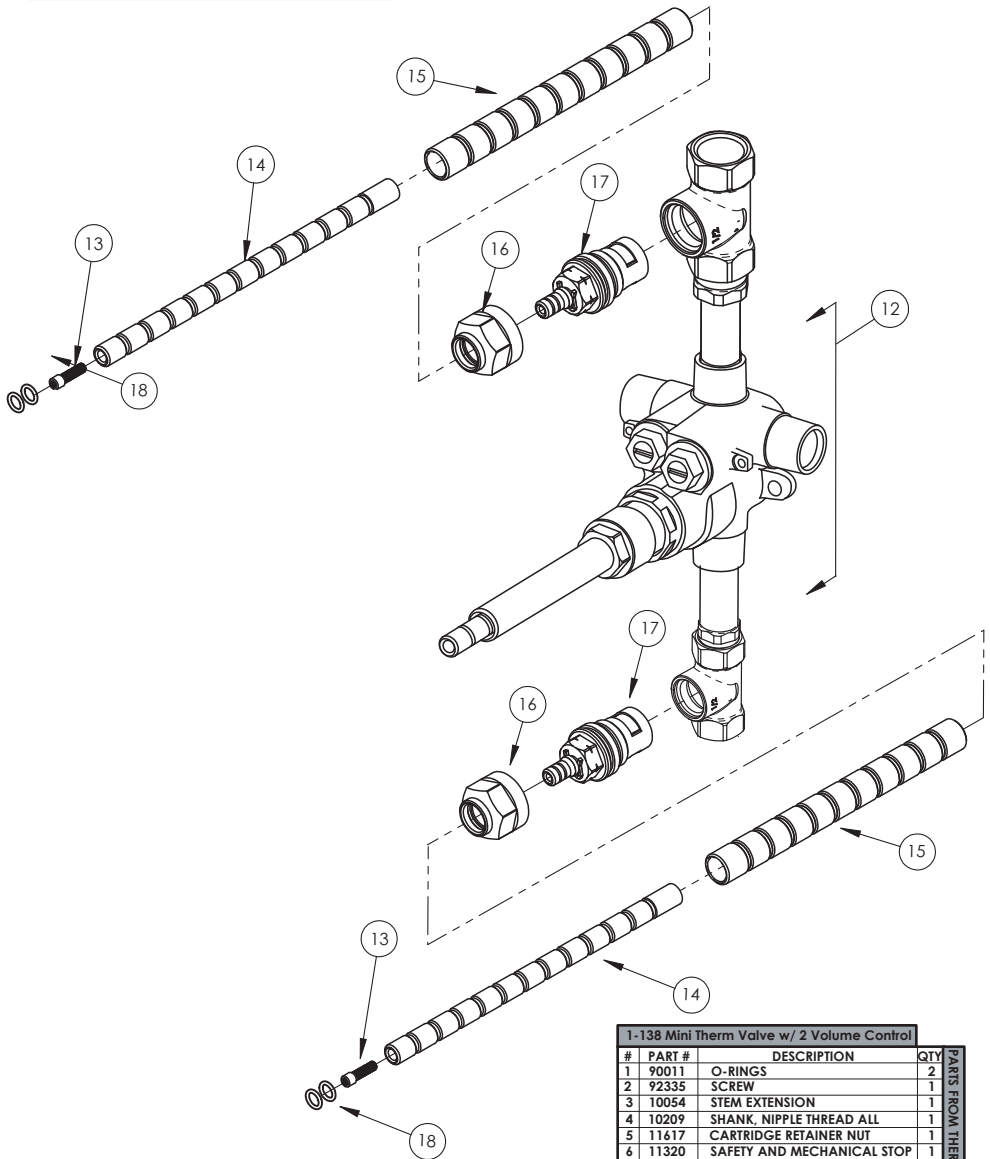
1-116 Mini Therm Valve w/ Volume Control

#	PART #	DESCRIPTION	QTY
1	90011	O-RINGS	2
2	92335	SCREW	1
3	10054	STEM EXTENSION	1
4	10209	SHANK, NIPPLE THREAD ALL	1
5	11617	CARTRIDGE RETAINER NUT	1
6	11320	SAFETY AND MECHANICAL STOP	1
7	11318	RETAINER NUT	1
8	11319	CARTRIDGE RETAINER SLEEVE	1
9	11573	CARTRIDGE	1
10	2-130	SHUTOFF NUT	2
11	11197	CHECK VALVE	2
12	2-131	MINI THERMO w/ 1/2" SHUTOFF	1
13	92157	SCREW	1
14	11416	STEM EXTENSION, XXL	1
15	11498	ALL THREAD, EXTENSION, XXL	1
16	10058	NUT, ADAPTOR CARTRIDGE	1
17	10258	CARTRIDGE, VALVE 1/2"	1
18	90011	O-RING	2

CAP TO CLOSE UNUSED OUTLETS INCLUDED IF LOWER PORT IS USED, INSTALL A VOLUME CONTROL DO NOT USE UPPER & LOWER PORTS AT THE SAME TIME.

■ Mini Thermostatic Valve w/ 2 VOLUME CONTROL

(If you have purchased the Mini Therm Valve w/ TWO Volume Control)

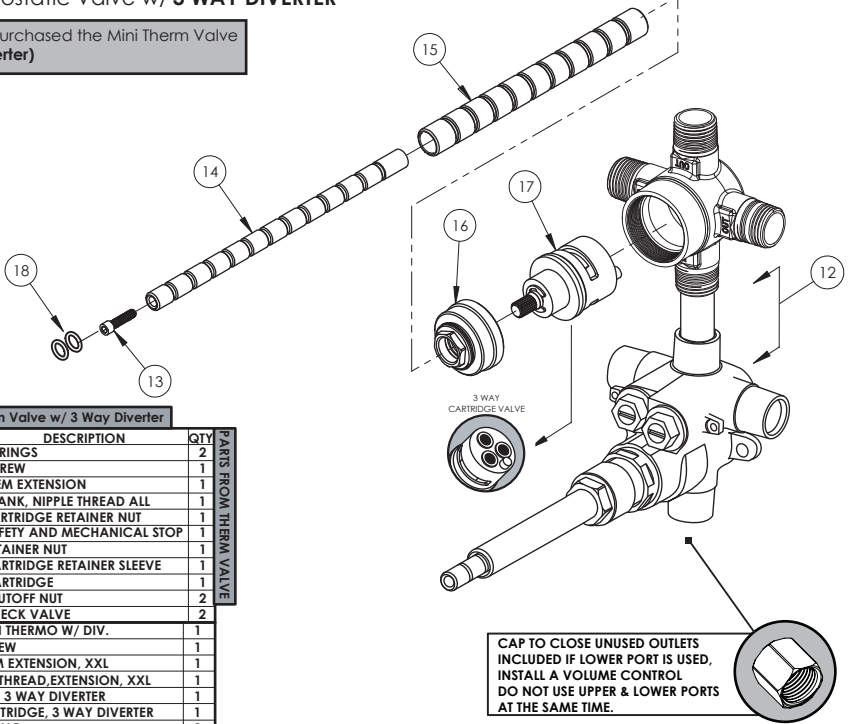


1-138 Mini Therm Valve w/ 2 Volume Control			
#	PART #	DESCRIPTION	QTY
1	90011	O-RINGS	2
2	92335	SCREW	1
3	10054	STEM EXTENSION	1
4	10209	SHANK, NIPPLE THREAD ALL	1
5	11617	CARTRIDGE RETAINER NUT	1
6	11320	SAFETY AND MECHANICAL STOP	1
7	11318	RETAINER NUT	1
8	11319	CARTRIDGE RETAINER SLEEVE	1
9	11573	CARTRIDGE	1
10	2-130	SHUTOFF NUT	2
11	11197	CHECK VALVE	2
12	2-273	MINI THERMO w/ 1/2" SHUTOFF	1
13	92157	SCREW	2
14	11416	STEM EXTENSION, XXL	2
15	11498	ALL THREAD, EXTENSION, XXL	2
16	10058	NUT, ADAPTOR CARTRIDGE	2
17	10258	CARTRIDGE, VALVE 1/2"	2
18	90011	O-RING	4

PARTS FROM THERM VALVE

■ Mini Thermostatic Valve w/ 3 WAY DIVERTER

(If you have purchased the Mini Therm Valve w/ 3 Way Diverter)



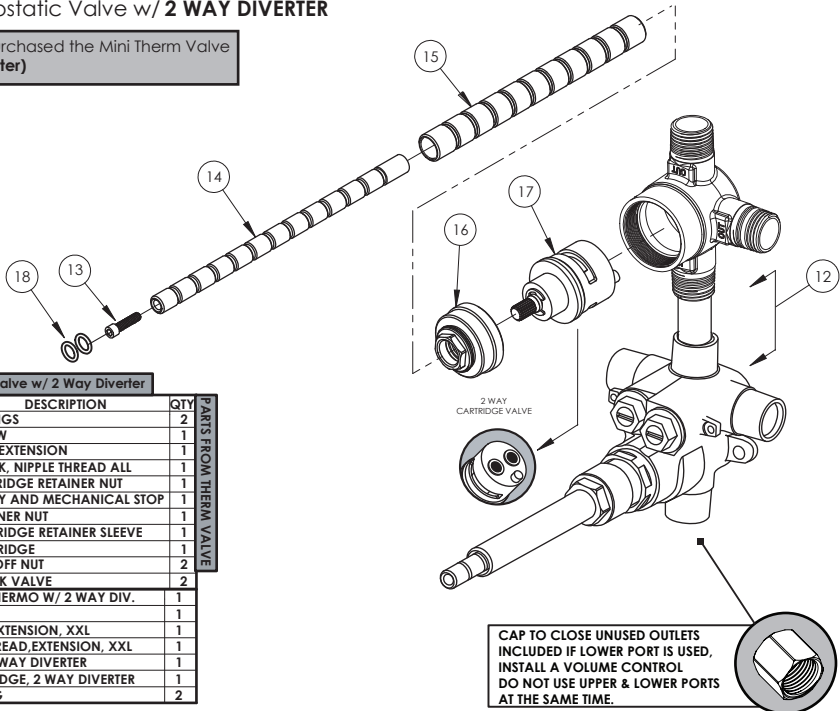
1-117 Mini Therm Valve w/ 3 Way Diverter

#	PART #	DESCRIPTION	QTY	PARTS FROM THERM VALVE
1	90011	O-RINGS	2	
2	92335	SCREW	1	
3	10054	STEM EXTENSION	1	
4	10209	SHANK, NIPPLE THREAD ALL	1	
5	11617	CARTRIDGE RETAINER NUT	1	
6	11320	SAFETY AND MECHANICAL STOP	1	
7	11318	RETAINER NUT	1	
8	11319	CARTRIDGE RETAINER SLEEVE	1	
9	11573	CARTRIDGE	1	
10	2-130	SHUTOFF NUT	2	
11	11197	CHECK VALVE	2	
12	2-242	MINI THERMO W/ DIV.	1	
13	92157	SCREW	1	
14	11416	STEM EXTENSION, XXL	1	
15	11498	ALL THREAD, EXTENSION, XXL	1	
16	10349	NUT, 3 WAY DIVERTER	1	
17	11297	CARTRIDGE, 3 WAY DIVERTER	1	
18	90011	O-RING	2	

CAP TO CLOSE UNUSED OUTLETS INCLUDED IF LOWER PORT IS USED, INSTALL A VOLUME CONTROL DO NOT USE UPPER & LOWER PORTS AT THE SAME TIME.

■ Mini Thermostatic Valve w/ 2 WAY DIVERTER

(If you have purchased the Mini Therm Valve w/ 2 Way Diverter)



1-132 Mini Therm Valve w/ 2 Way Diverter

#	PART #	DESCRIPTION	QTY	PARTS FROM THERM VALVE
1	90011	O-RINGS	2	
2	92335	SCREW	1	
3	10054	STEM EXTENSION	1	
4	10209	SHANK, NIPPLE THREAD ALL	1	
5	11617	CARTRIDGE RETAINER NUT	1	
6	11320	SAFETY AND MECHANICAL STOP	1	
7	11318	RETAINER NUT	1	
8	11319	CARTRIDGE RETAINER SLEEVE	1	
9	11573	CARTRIDGE	1	
10	2-130	SHUTOFF NUT	2	
11	11197	CHECK VALVE	2	
12	2-274	MINI THERMO W/ 2 WAY DIV.	1	
13	92157	SCREW	1	
14	11416	STEM EXTENSION, XXL	1	
15	11498	ALL THREAD, EXTENSION, XXL	1	
16	10349	NUT, 3 WAY DIVERTER	1	
17	11567	CARTRIDGE, 2 WAY DIVERTER	1	
18	90011	O-RING	2	

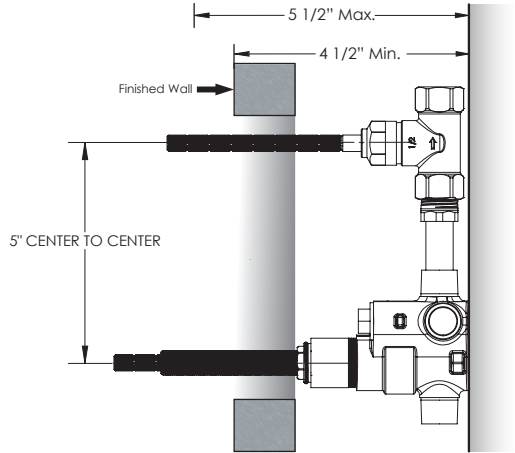
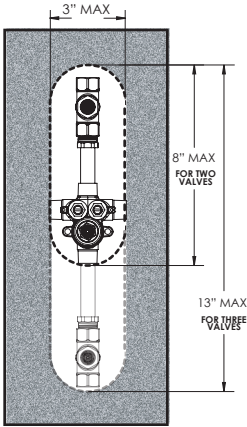
CAP TO CLOSE UNUSED OUTLETS INCLUDED IF LOWER PORT IS USED, INSTALL A VOLUME CONTROL DO NOT USE UPPER & LOWER PORTS AT THE SAME TIME.

ROUGH IN DIMENSIONS / ROUGH IN VALVE TO FRAME

(All dimensions shown are to the nearest 1/16")

Once the desired location has been determined, install a **cross support beam to wall studs**. Ensure to level the **valve & secure to the cross support**. The valve should be level horizontally, vertically, & parallel to finished wall.

- 3" x 8" Opening for finished wall for 2 valves
- 3" x 13" for 3 valves

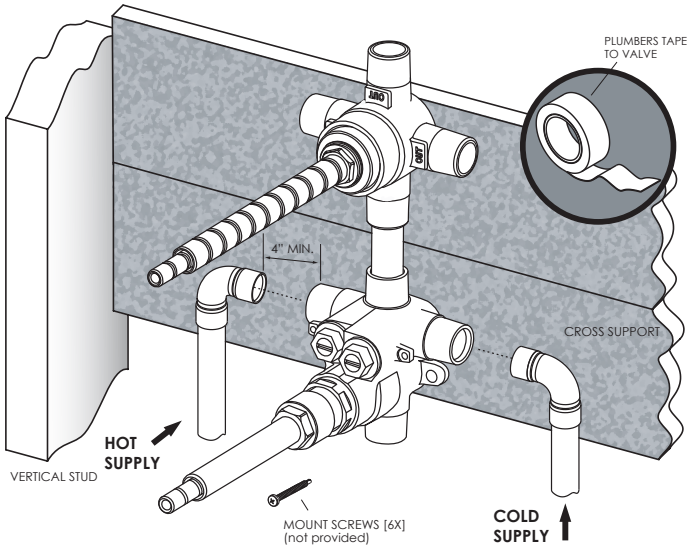


Pre-assemble fittings before attaching to cross support. Attach the "COLD" Inlet to **Cold Supply** & "HOT" Inlet to **Hot Supply** using copper supply lines.

Thoroughly flush supply lines to remove any debris prior to installation to prevent damage & malfunction of thermostatic cartridge.

IMPORTANT:

- Use **plumber's tape** or thread sealant to all threaded port joints & attach to valve. All soldering/brazing of fittings shall be performed a minimum of 4" away from valve.



WARNING:
DO NOT APPLY HEAT DIRECTLY TO THE VALVE AS THIS MAY DAMAGE RUBBER & PLASTIC SEALS & WILL AVOID WARRANTY. TURN ON WATER SUPPLIES TO VALVE & CHECK FOR LEAKS

MAINTENANCE

THERMOSTATIC CARTRIDGE

Carefully remove the trim and plate and place in a safe location for the time being. Use a flat head screwdriver to shut off the water supply to the cartridge by turning the temporary shutoff screws clockwise until screw stops. Ensure to close both the hot and cold sides of the water supplies. Remove extensions to gain access to the cartridge nut. Unscrew the cartridge nut using a 11/16" plumbers wrench or adjustable wrench, if possible.

Gently pull the cartridge out of the housing body (rotating cartridge while pulling may assist in removing). Clean the cartridge by rinsing it under running water to remove any possible debris. Wipe cartridge and housing seat clean and apply a thin film of NON-PETROLEUM GREASE to o-rings.

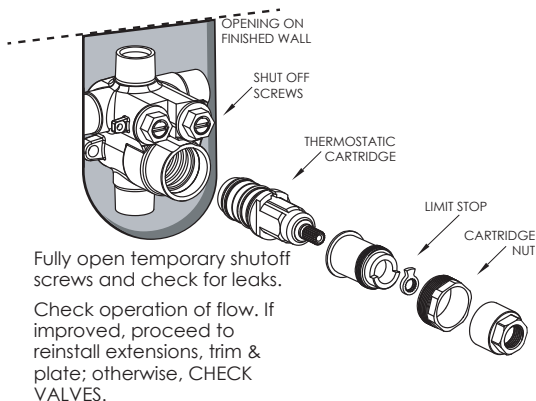
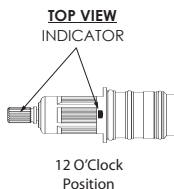
NOTE: Do NOT use oil based lubricants as this may cause the o-rings to dry out over time and crack.

How to calibrate temperature:

To limit the amount of HOT water allowed to mix with cold water, use a 4" long flat blade screw driver to remove the stem. Remove the limit safety stop and rotate the stem counterclockwise till the desired maximum temperature is found. The maximum temperature is factory set at 120°F. Once the desired temperature is set, reinstall the safety stop at the maximum position. Proceed installing the stem and trim.

Carefully install the cartridge back into the housing body and tighten nut to 10 ft-lbs (13,56 nm).

ATTENTION: Ensure the INDICATOR NOTCH on cartridge and GREEN LINE on stem are orientated at the 12 O'Clock position. The Temperature stop must be in the 12 O'Clock position.



CHECK VALVES

Shut off water supply at main or upstream from valve body. Remove check valve nut with a 5/8" (16mm) socket wrench from the body.

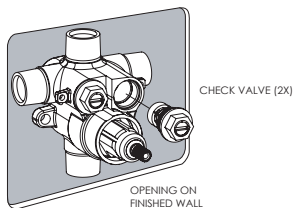
If check valve needs replacement, forcefully remove check valve w/ needle nose pliers. Wipe check valve and housing seat clean and apply a thin film of NON-PETROLEUM GREASE to o-rings. **Install new check valves by pressing them in evenly & ensuring check valve snaps into place.**

NOTE: Do NOT use oil based lubricants as this may cause o-rings to dry out over time and crack.

Tighten check valves to 10 ft-lbs (13,56 nm).

Reinstate water supply from upstream and check for leaks.

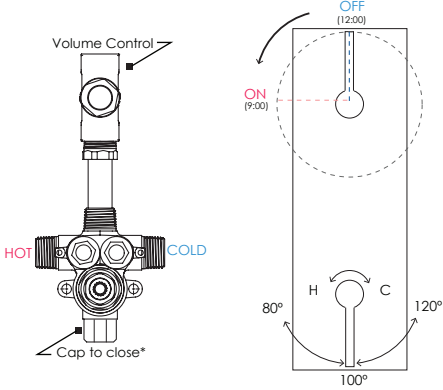
Check operation of flow. If improved, proceed to reinstall extensions, trim, & plate; otherwise, see PARTS BREAKOUT for any replacement parts needed.



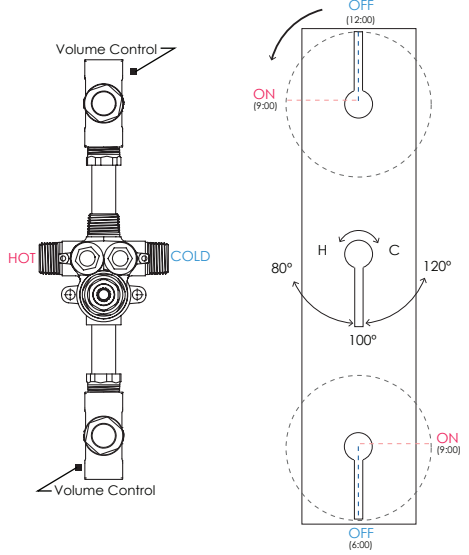
VALVE TURN MECHANICS

RECOMMEND INSTALLING FUNCTIONALITY AS SHOW BELOW,
1, 2 & 3 CONSEQUENTIALLY.

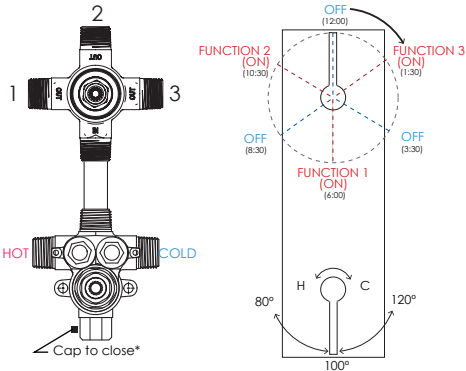
1-116 THERMOSTATIC VALVE W/ VOLUME CONTROL



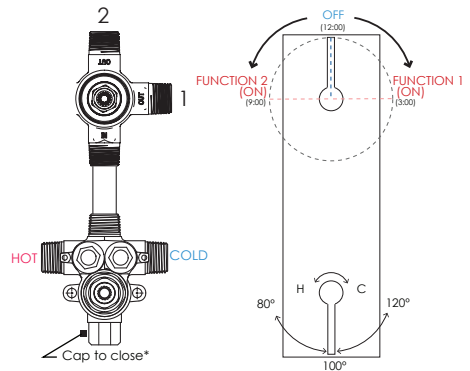
1-138 THERMOSTATIC VALVE W/ VOLUME CONTROL



1-117 THERMOSTATIC VALVE W/ VOLUME CONTROL



1-132 THERMOSTATIC VALVE W/ VOLUME CONTROL



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