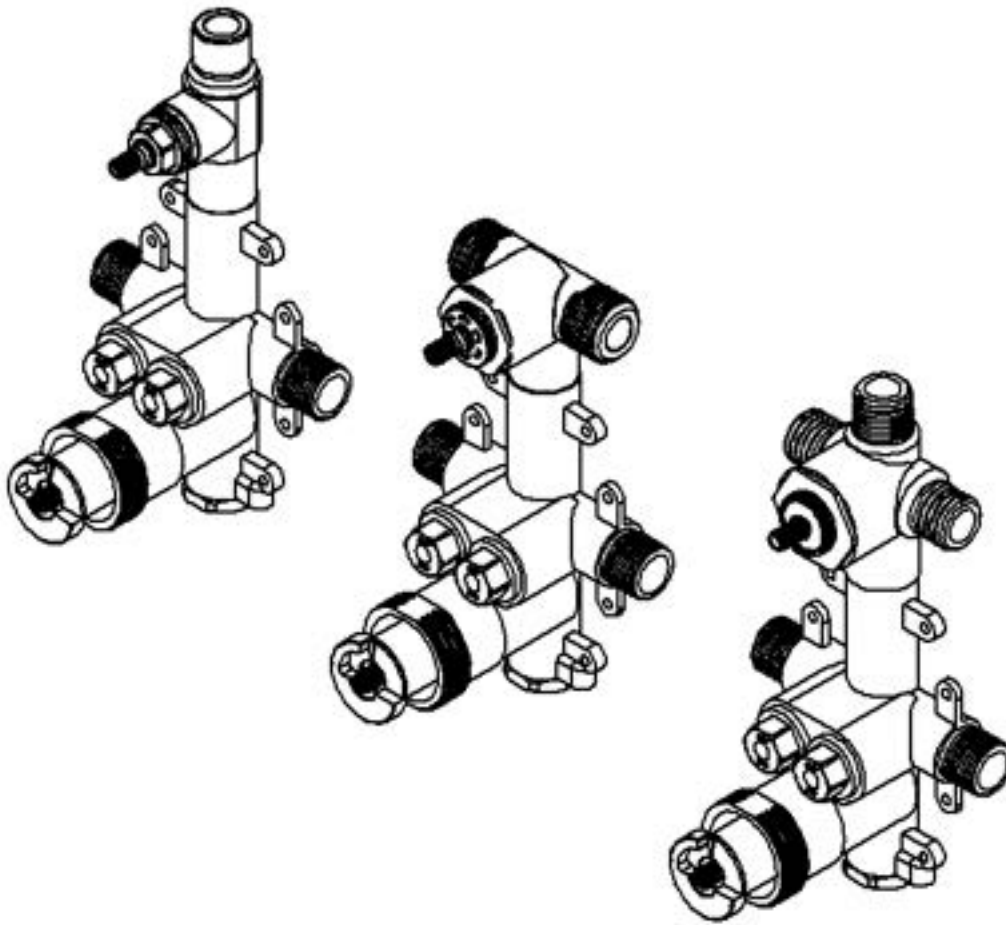


SANTEC

FLUID IMAGINATION



Rough 1/2 " Thermostatic Installation Instruction

TH-9010-SINGLE OUTLET 1/2" THERMOSTATIC VALVE
TH-9210-2-WAY DIVERTER NON-SHARED FUNCTION
TH-9212-2-WAY DIVERTER SHARED FUNCTION
TH-9310-3-WAY DIVERTER NON-SHARED FUNCTION
TH-9313-3-WAY DIVERTER SHARED FUNCTION

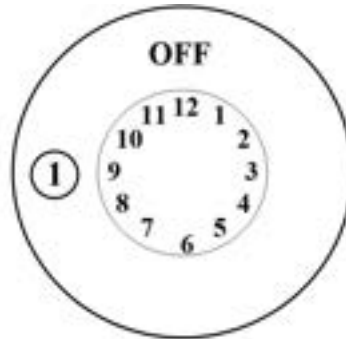
KEEPTHISINSTRUCTIONBOOKLETFORFUTUREREFERENCE

SANTEC has the right to make necessary design changes when applicable.
*Illustration may not depict actual products.

TH-9010

ROUGH 1/2" Thermostatic valve with volume control

- 6 GPM
- Male 1/2" NPT inlets/outlets
- Service stops
- Anti-scaled valve
- CALGreen compliant

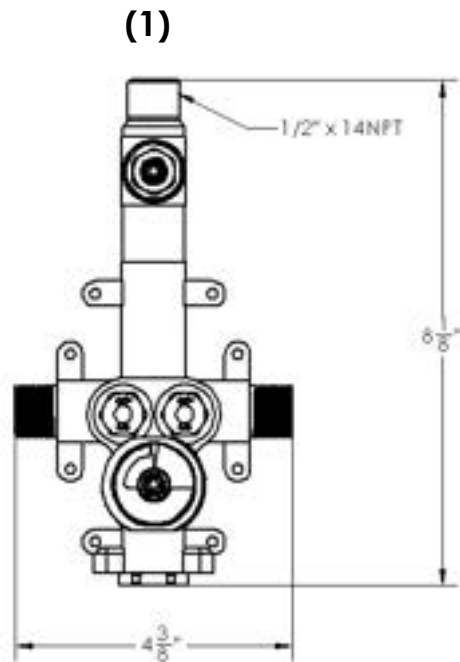
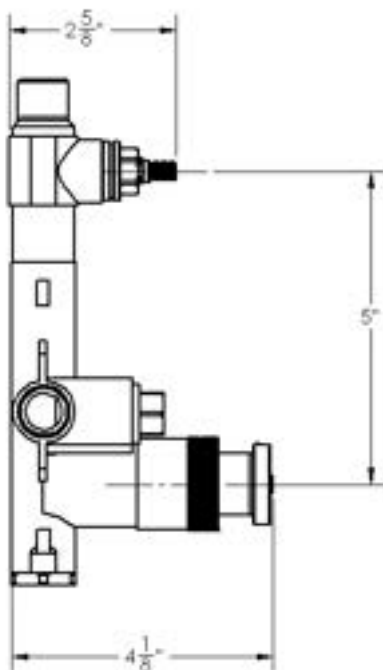
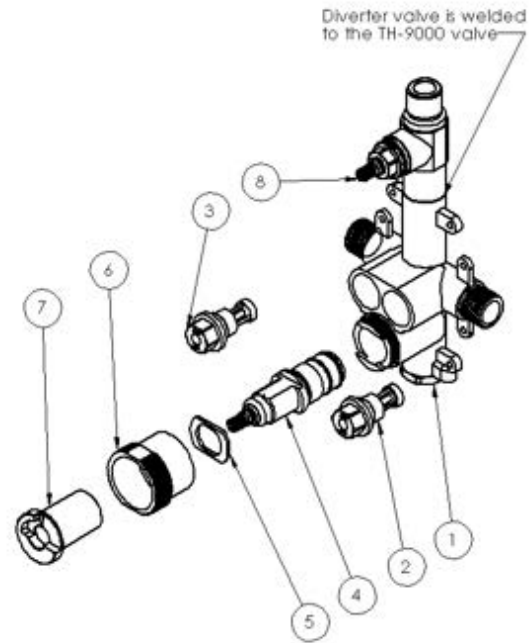


- "1" opens TOP outlet.



TH-9010

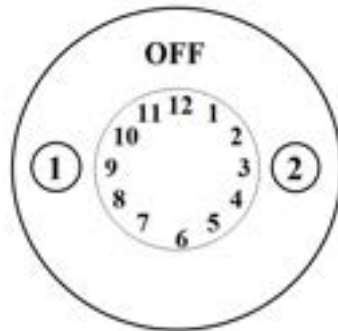
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TH-9000	1/2" THERMOSTATIC VALVE	1
2	TH-7000X-C	CHECK VALVE COLD	1
3	TH-7000X-H	CHECK VALVE HOT	1
4	TH040	THERMOSTATIC CARTRIDGE	1
5	TH041	CARTRIDGE LOCK FOR TH	1
6	TH042	CARTRIDGE RETAINER SLEEVE	1
7	TH-7000-3	Plastic Temperature Restrictor	1
8	ST1WAY10	Volume Control Valve	1



TH-9210

ROUGH (Non-Shared function) 1/2" Thermostatic valve with volume control and 2-way diverter

- 6 GPM
- Male 1/2" NPT inlets/outlets
- Service stops
- Anti-scaled valve
- Non-shared function (CALGreen compliant)

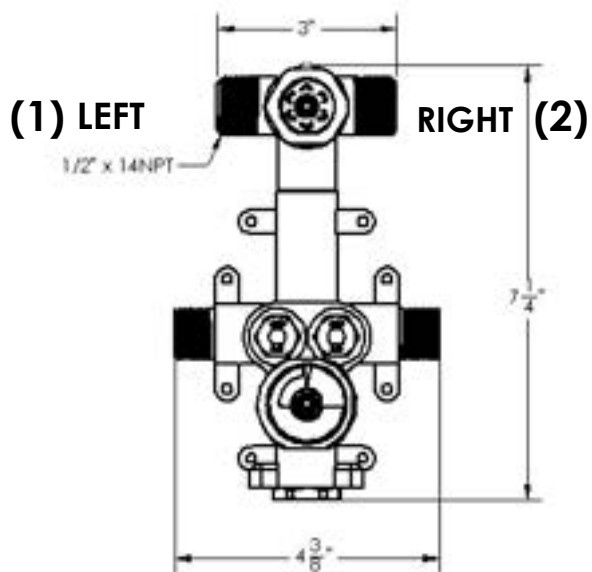
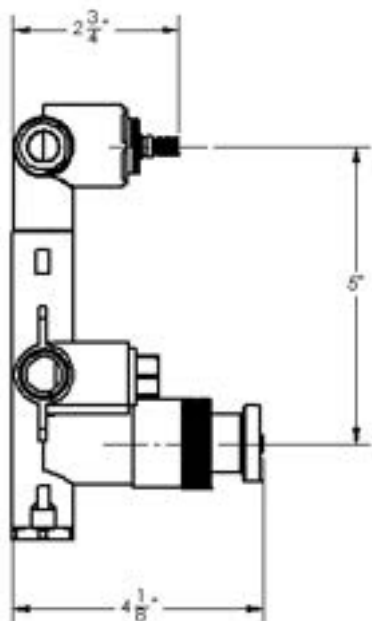
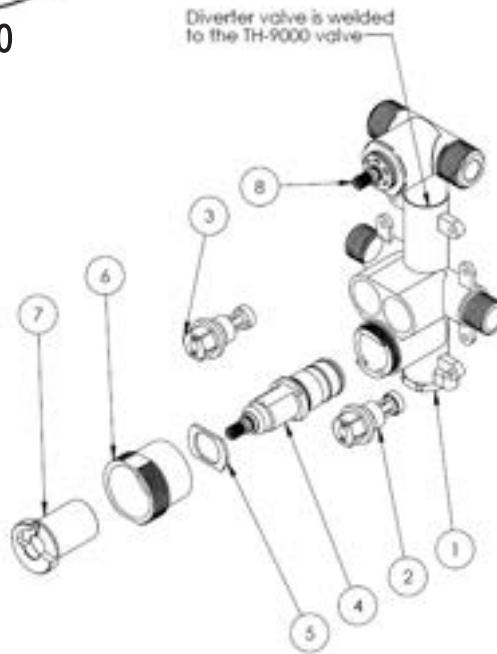


- "1" opens LEFT outlet. - "2" opens RIGHT outlet.

TH-9210



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TH-9000	1/2" THERMOSTATIC VALVE	1
2	TH-7000X-C	CHECK VALVE COLD	1
3	TH-7000X-H	CHECK VALVE HOT	1
4	TH040	THERMOSTATIC CARTRIDGE	1
5	TH041	CARTRIDGE LOCK FOR TH	1
6	TH042	CARTRIDGE RETAINER SLEEVE	1
7	TH-7000-3	Plastic Temperature Restrictor	1
8	ST2WAY25	2-WAY DIVERTER VALVE NON-SHARED	1

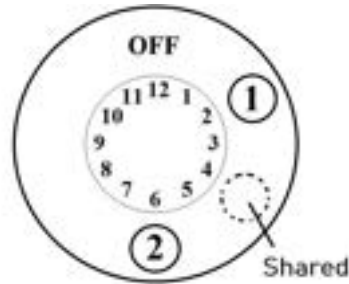


TH-9212

ROUGH (Shared function)

1/2" Thermostatic valve with volume control and 2-way diverter

- 6 GPM
- Male 1/2" NPT inlets/outlets
- Service stops
- Anti-scaled valve
- Shared function (CALGreen compliant)



TH-9212

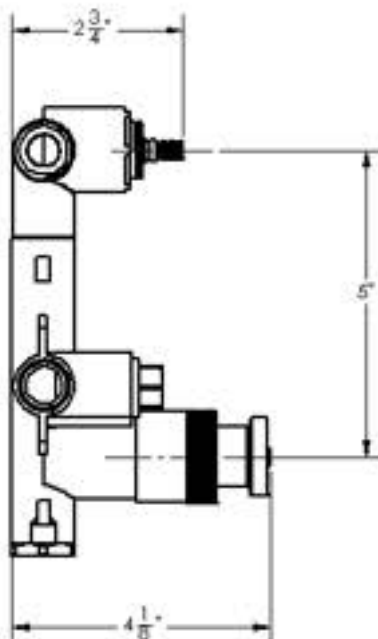
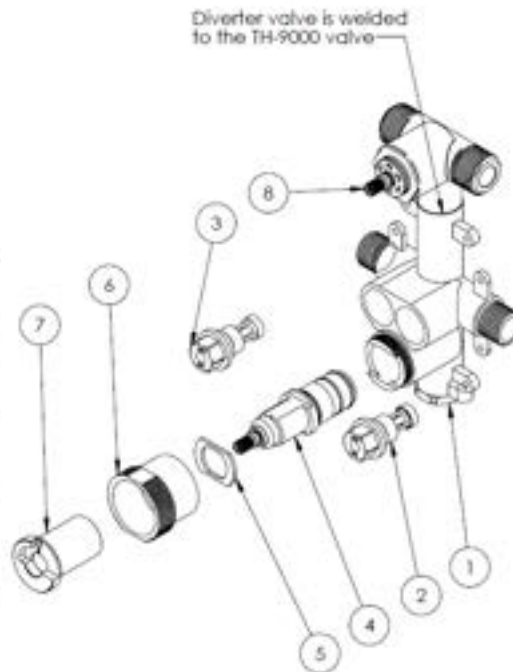
- "1" opens LEFT outlet.

- Shared Function between outlet "1" and "2".

- "2" opens RIGHT outlet.

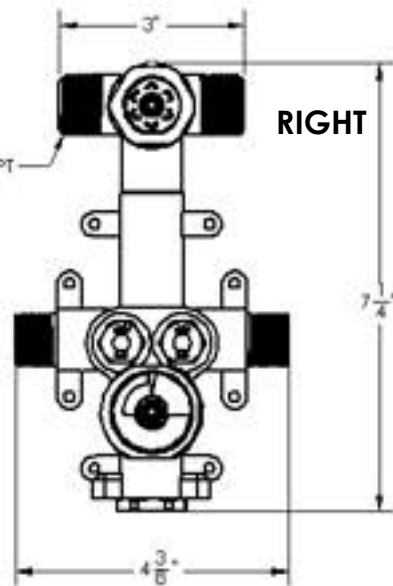


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TH-9000	1/2" THERMOSTATIC VALVE	1
2	TH-7000X-C	CHECK VALVE COLD	1
3	TH-7000X-H	CHECK VALVE HOT	1
4	TH040	THERMOSTATIC CARTRIDGE	1
5	TH041	CARTRIDGE LOCK FOR TH	1
6	TH042	CARTRIDGE RETAINER SLEEVE	1
7	TH-7000-3	Plastic Temperature Restrictor	1
8	ST2WAY35	2-WAY DIVERTER VALVE SHARED	1



(1) LEFT (2) RIGHT

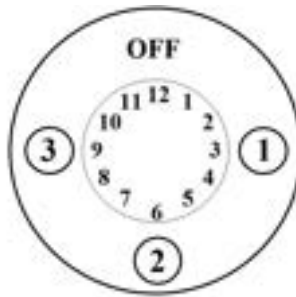
1/2" x 14NPT



TH-9310

ROUGH (Non-Shared function) 1/2" Thermostatic valve with volume control and 3-way diverter

- 6 GPM
- Male 1/2" NPT inlets/outlets
- Service stops
- Anti-scaled valve
- Non-shared function (CALGreen compliant)

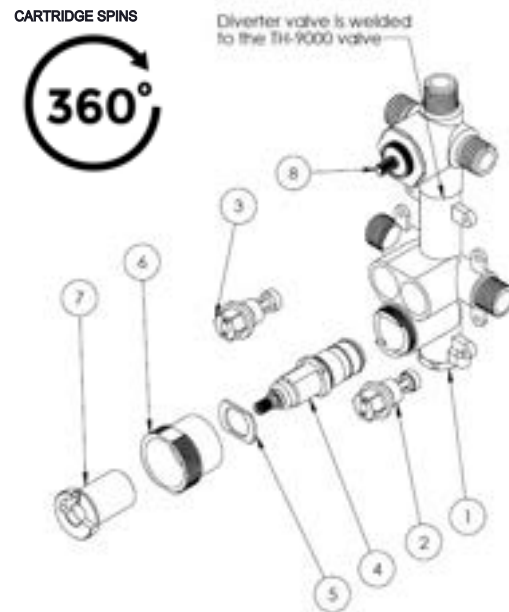


TH-9310

- "1" opens LEFT outlet - "2"
opens TOP outlet - "3" opens
RIGHT outlet

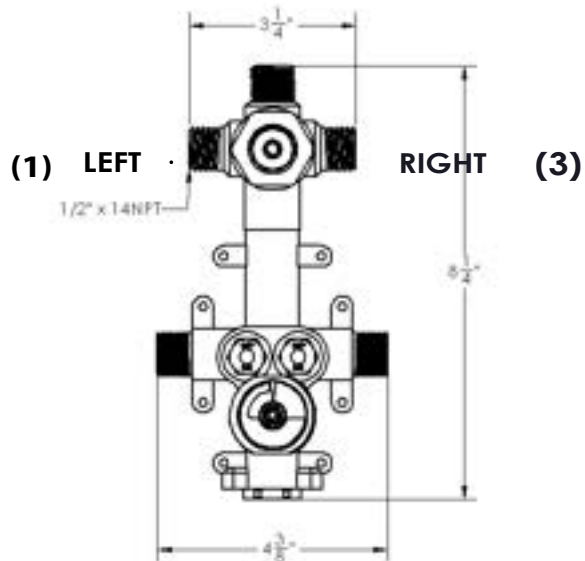
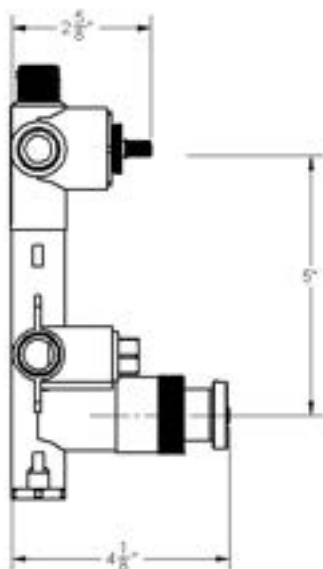


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TH-9000	1/2" THERMOSTATIC VALVE	1
2	TH-7000X-C	CHECK VALVE COLD	1
3	TH-7000X-H	CHECK VALVE HOT	1
4	TH040	THERMOSTATIC CARTRIDGE	1
5	TH041	CARTRIDGE LOCK FOR TH	1
6	TH042	CARTRIDGE RETAINER SLEEVE	1
7	TH-7000-3	Plastic Temperature Restrictor	1
8	ST3WAY25	3-WAY DIV VALVE NON-SHARED	1



(2)

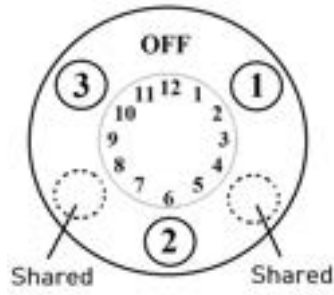
TOP



TH-9313

ROUGH (Shared function) 1/2" Thermostatic valve with volume control and 3-way diverter

- 6 GPM
- Male 1/2" NPT inlets/outlets
- Service stops
- Anti-scaled valve
- Shared function (CALGreen compliant)



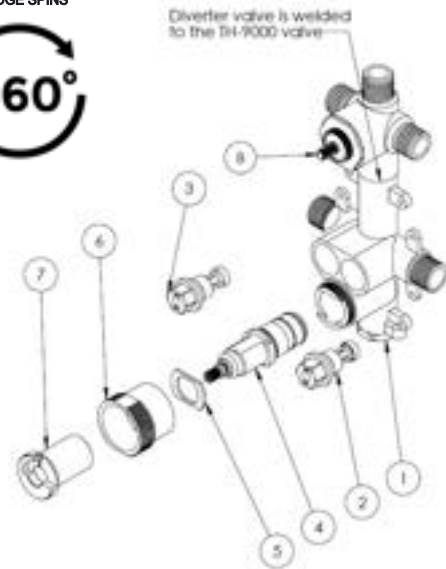
- "1" opens LEFT outlet
- Shared Function between "1" and "2" outlet
- "2" opens TOP outlet
- Shared Function between "2" and "3" outlet
- "3" opens RIGHT outlet

TH-9313

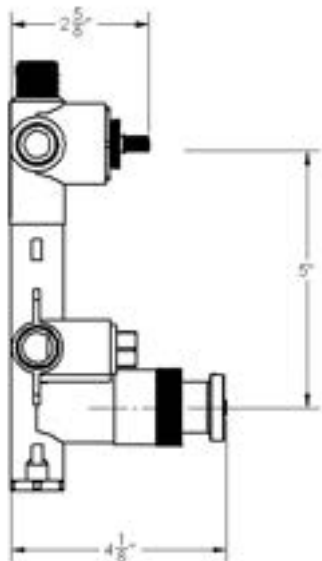


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	TH-9000	1/2" THERMOSTATIC VALVE	1
2	TH-7000X-C	CHECK VALVE COLD	1
3	TH-7000X-H	CHECK VALVE HOT	1
4	TH040	THERMOSTATIC CARTRIDGE	1
5	TH041	CARTRIDGE LOCK FOR TH	1
6	TH042	CARTRIDGE RETAINER SLEEVE	1
7	TH-7000-3	Plastic Temperature Restrictor	1
8	ST3WAY35	3-WAY DIV VALVE SHARED	1

CARTRIDGE SPINS

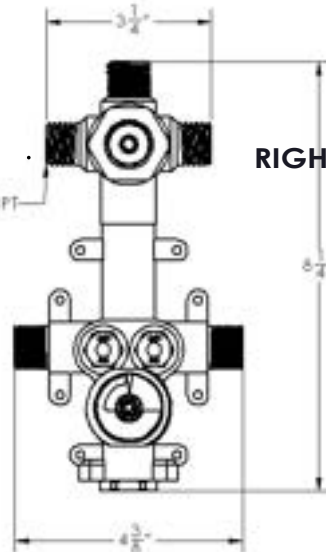


(2)
TOP



(1) LEFT

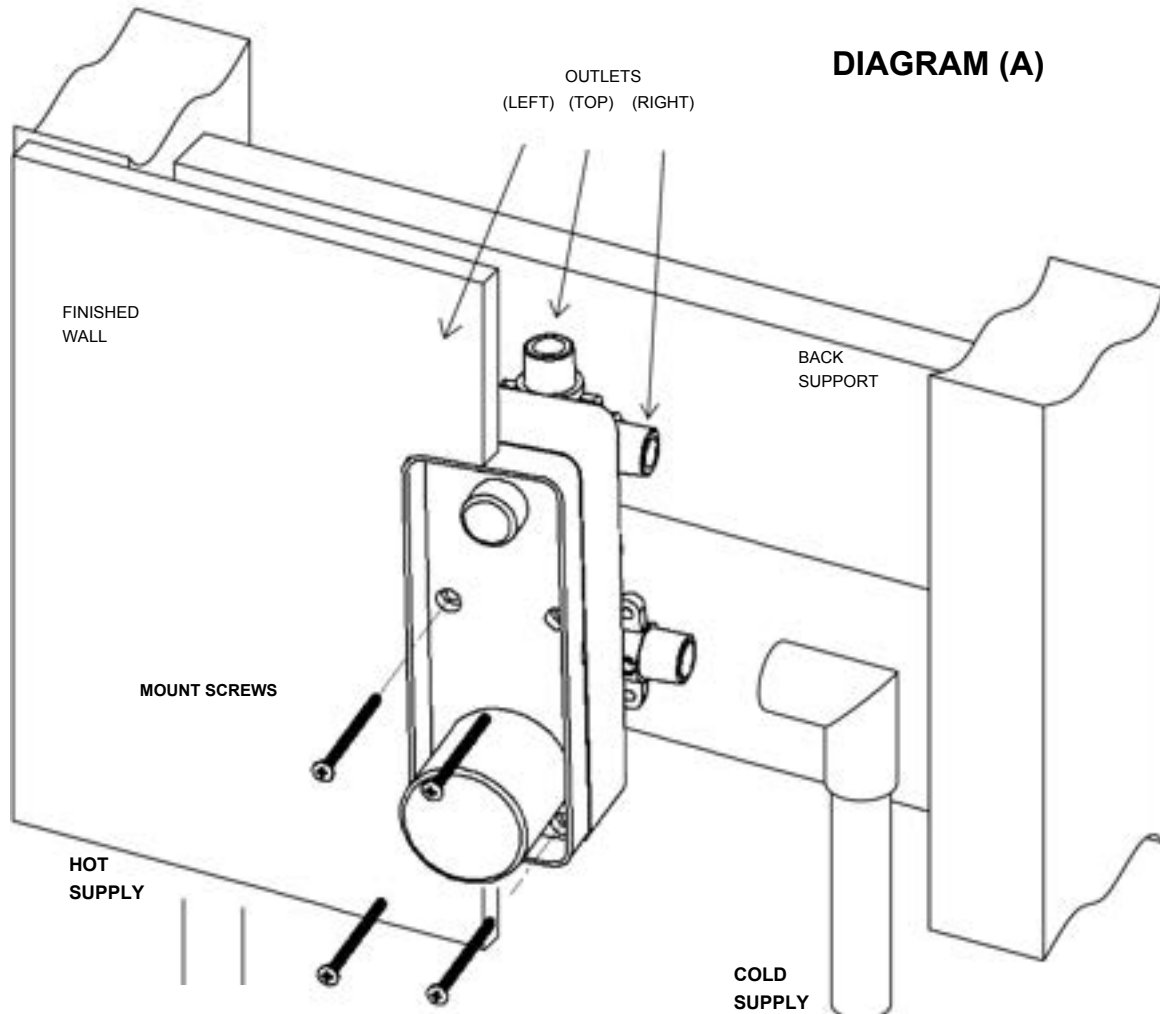
1/2" x 14NPT



RIGHT

(3)

INSTALLATION INSTRUCTIONS



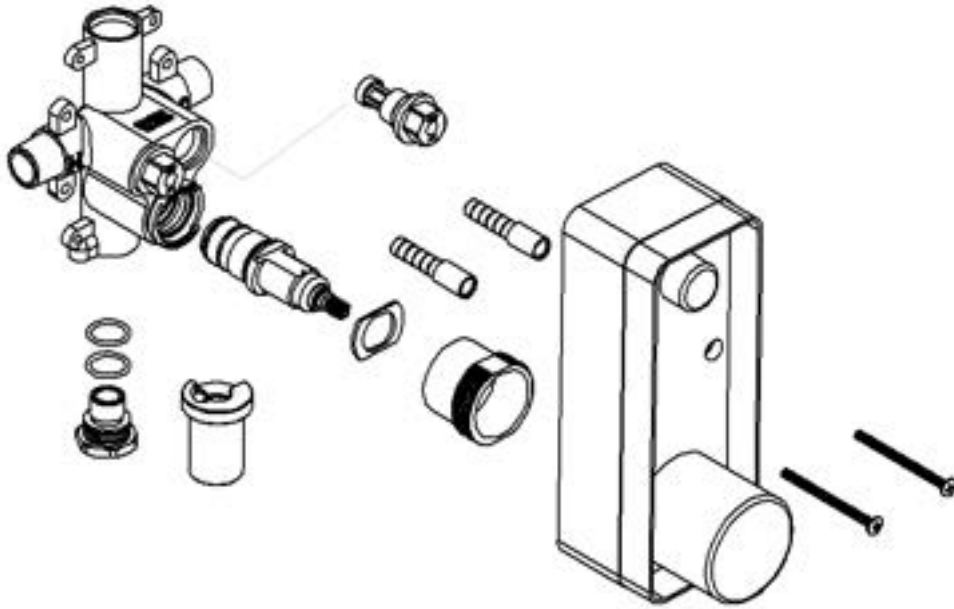
Warning: Failure to follow these instructions, or improper operation, may damage the valve and void the warranty.

- Make sure the water supplies are off.
- Remove all the trim items (plate, handle, and flange) before installation.
- Determine where the finished wall will be. This measurement is necessary to accurately plumb in the valve.
- Install valve into the wall making sure the MIN/MAX sticker in the mud guard is flushed with the finished wall (See Diagram A)
- Secure the valve firmly against the studs, align the valve horizontally, vertically, and parallel to the wall.
- Make sure to flush or raise grouting on the tiled wall surface.

Note: It is critical to completely flush the lines of all dirt and debris prior to installing the valve to the supply lines.

Note: Do not solder the connections between the pipes and valve body, as you may damage the non-metallic parts in the valve.

- Connect the **HOT** water supply to the left inlet of the valve and **COLD** supply to the right inlet of the valve.
- Connect the outlet pipe to shower connections and to any optional devices.
- Test for proper function before closing walls. Do this by pressurizing both **HOT** and **COLD** lines.



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

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 cartridge 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.

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