MGI CONTROLS®
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TEMPFLOW® INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

MODEL TZV1 (1/2”) and TZV2 (3/4”) THERMOSTATIC ZONE VALVE

Federal Public Law 111-380 (No Lead)

Model TZV1-AA0
(Shown In 90° Configuration)

Model TZV1-AAG
(Shown In Straight Configuration)

NOTES TO THE INSTALLER:
1. Please leave this documentation with the owner of the fixture when finished.
2. Please read this entire booklet before beginning the installation.
3. Check your installation for compliance with plumbing and other applicable codes.

WARNING:

You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

FAILURE TO READ AND FOLLOW PROPER INSTALLATION AND MAINTENANCE INSTRUCTIONS MAY RESULT IN PRODUCT FAILURE WHICH CAN CAUSE PROPERTY DAMAGE, PERSONAL INJURY AND/OR DEATH.

MGI CONTROLS® is not responsible for damages resulting from improper installation and/or maintenance. Installation of this valve shall be in accordance with ***Uniform Plumbing Code***.

TO ENSURE ACCURATE AND RELIABLE OPERATION OF THIS PRODUCT, IT IS ESSENTIAL TO:

- Properly design the system to minimize pressure and temperature variations.
- Implement an annual maintenance program to ensure proper operation and temperature setting of valve(s).
- This valve is factory preset. However, it can be adjusted. It is the responsibility of the installer and or facility maintenance personnel to make sure valve outlet temperature is properly set.

SUPPLIES REQUIRED:

(Not provided by **MGI CONTROLS®**)

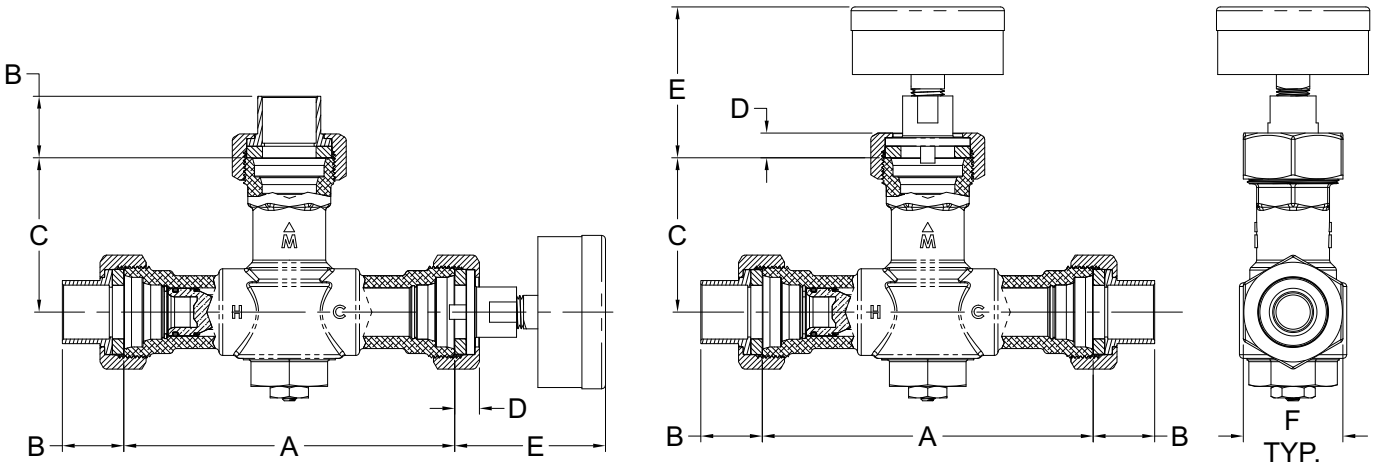
1. Teflon tape for sealing water connections.
2. Wrench and an Allen wrench.

IMPORTANT

- To ensure proper installation, review the Manual thoroughly to verify rough-ins before beginning any work.
- Installation and field adjustment are the responsibility of the installer.
- Maximum water pressure is 125 PSI (8.62 bars). Maximum inlet hot water temperature is 180°F (82°C). Temperature adjustment range* is 100°F - 160°F (38°C - 71°C). Valve assembly must be drained prior to being subjected to freezing temperatures. Valve includes integral check valves.

FOR TECHNICAL ASSISTANCE
1-(847)-604-4773

ROUGH-IN DIMENSIONS:



VALVE SIZE	ADAPTER	DIMENSION											
		A		B		C		D (CAPPED)		E		F	
TZV1	Sweat	5-3/8"	137mm	1"	25mm	2-1/2"	64mm	3/8"	41mm	2-1/2"	64mm	1-5/8"	41mm
	NPTF			7/8"	22mm								
	PEX-B			1"	25mm								
	CPVC			7/8"	22mm								
	Press Fit			1-1/4"	32mm								
	PEX-A			1-5/8"	41mm								
TZV2	Sweat	5-3/8"	137mm	1"	25mm	2-1/2"	64mm	3/8"	41mm	2-1/2"	64mm	1-5/8"	41mm
	NPTF			7/8"	22mm								
	PEX-B			1"	25mm								
	CPVC			1-1/8"	29mm								
	Press Fit			1-3/8"	35mm								
	PEX-A			1-7/8"	48mm								

NOTE;
ALL DIMENSIONS ARE IN INCHES (MM).

INSTALLATION: CU, CPVC & NPTF

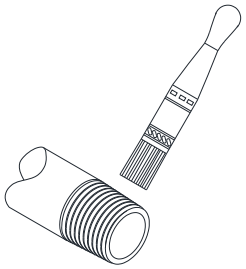
1. Determine flow orientation and locate the TZV ***1*** in a suitable place at the end of each zone on the return line to the water heater and accessible for servicing and adjusting.
2. Close off the port not being used with Gasket ***2***, Cap ***3***, and Brass Nut ***4***, as shown.
3. Thoroughly flush supplies.
4. Slide Brass Nut ***4***, onto supply and outlet Pipe Ends ***5***.
5. Insert Tubing Adapter ***6*** onto the end of the Tubing/Pipe Ends ***5***,
   A. For CU, sweat Adapter ***6*** to Pipe
   B. For CPVC, Glue Adapter ***6*** to end of tubing using appropriate PVC Pipe Cement.
   C. Using NSF Pipe Tape or Pipe Dope assemble NPTF adapter ***6*** onto pipe end ***5***.
6. Insert Gasket ***2*** between Valve body ***1*** and Adapter ***6*** then tighten Brass Nut ***4***.
7. Slowly turn on supplies, check for leaks and tighten as needed.

IMPORTANT

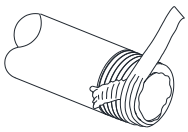
Ensure water to specific zone is turned off.

IMPORTANT

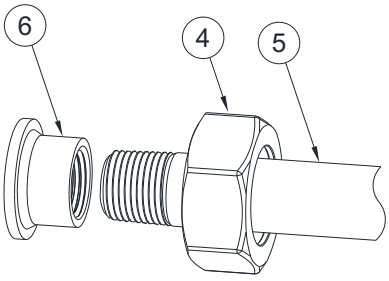
Upon completion of installation check all points of connection for leakage.



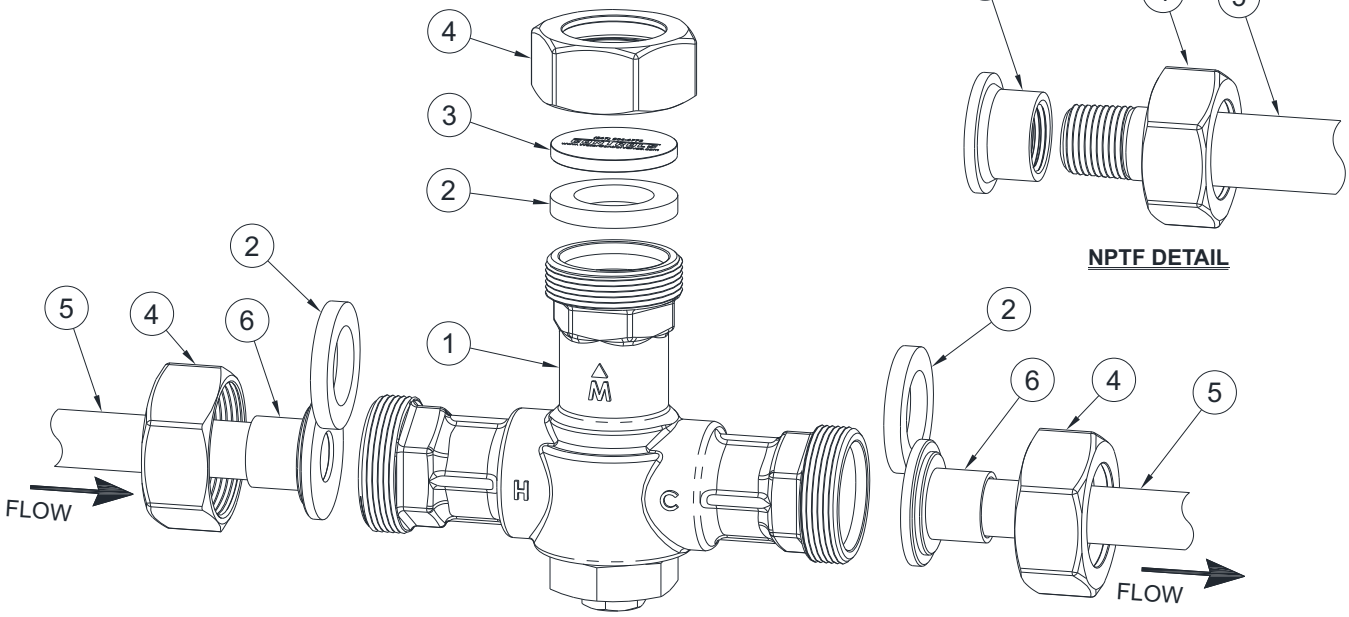
NSF THREAD SEALANT
"PIPE DOPE"



NSF THREAD
TAPE SEALANT



NPTF DETAIL



HORIZONTAL CONFIGURATION SHOWN

INSTALLATION: -PEX

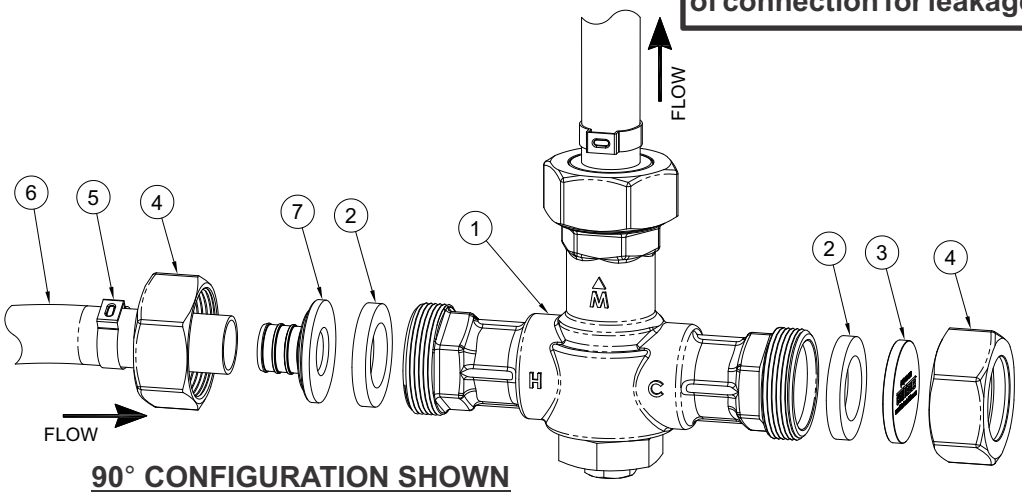
1. Determine flow orientation and locate the TZV ***1*** in a suitable place at the end of each zone on the return line to the water heater and accessible for servicing and adjusting.
2. Close off the port not being used with Gasket ***2***, Cap ***3***, and Brass Nut ***4***, as shown.
3. Thoroughly flush supplies.
4. Slide Brass Nut ***4*** and installer provided Gripper/Clamp ***5*** onto the end of Tubing ***6***.
5. Insert PEX Adapter ***7*** into Tubing ***6*** and tighten Crimp Gripper/Clamp ***5***.
6. Insert Gasket ***2*** between Valve body ***1*** and Adapter ***7*** then tighten Brass Nut ***4***.
7. Slowly turn on supplies, check for leaks and tighten as needed.

IMPORTANT

Ensure water to specific zone is turned off.

IMPORTANT

Upon completion of installation check all points of connection for leakage.

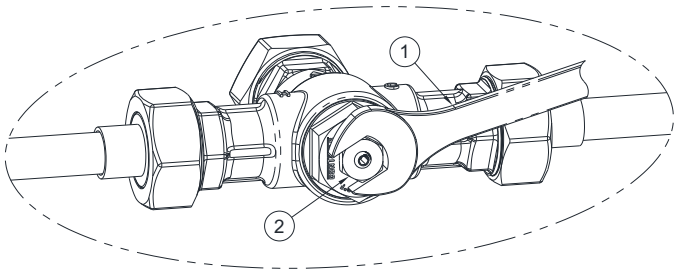


90° CONFIGURATION SHOWN

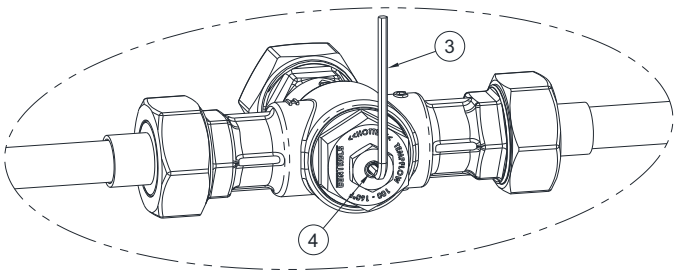
Overview Zone Valve(s): The TZV's are factory set to maintain a loop temperature of 110°F. Temperature adjustments can be made in approx. 5°F increments/decrements by rotating the TZV stem one full turn CCW or CW respectively. Be sure to allow enough time for the loop to change temperature and stabilize before readjusting. If recirculation pump deadheading is a concern, it is recommended to add a pump bypass valve or to manually adjust the TZV in the longest loop/zone to full hot. This can later be adjusted to a lower temperature as the system stabilizes and reaches an equilibrium point.

TEMPERATURE ADJUSTMENT:

1. Using 5/8" ***1*** Wrench loosen Locknut ***2***. ***Detail A***
2. Using an 1/8" Allen Wrench ***3***, turn Adjustment Stem ***4*** counter-clockwise for hotter or clockwise for colder outlet temperature. ***Detail B***
3. Tighten Locknut ***8*** to prevent any unauthorized or accidental temperature adjustment.

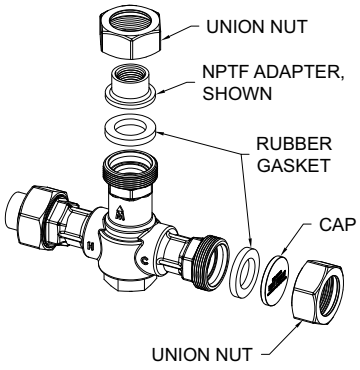


Detail - A



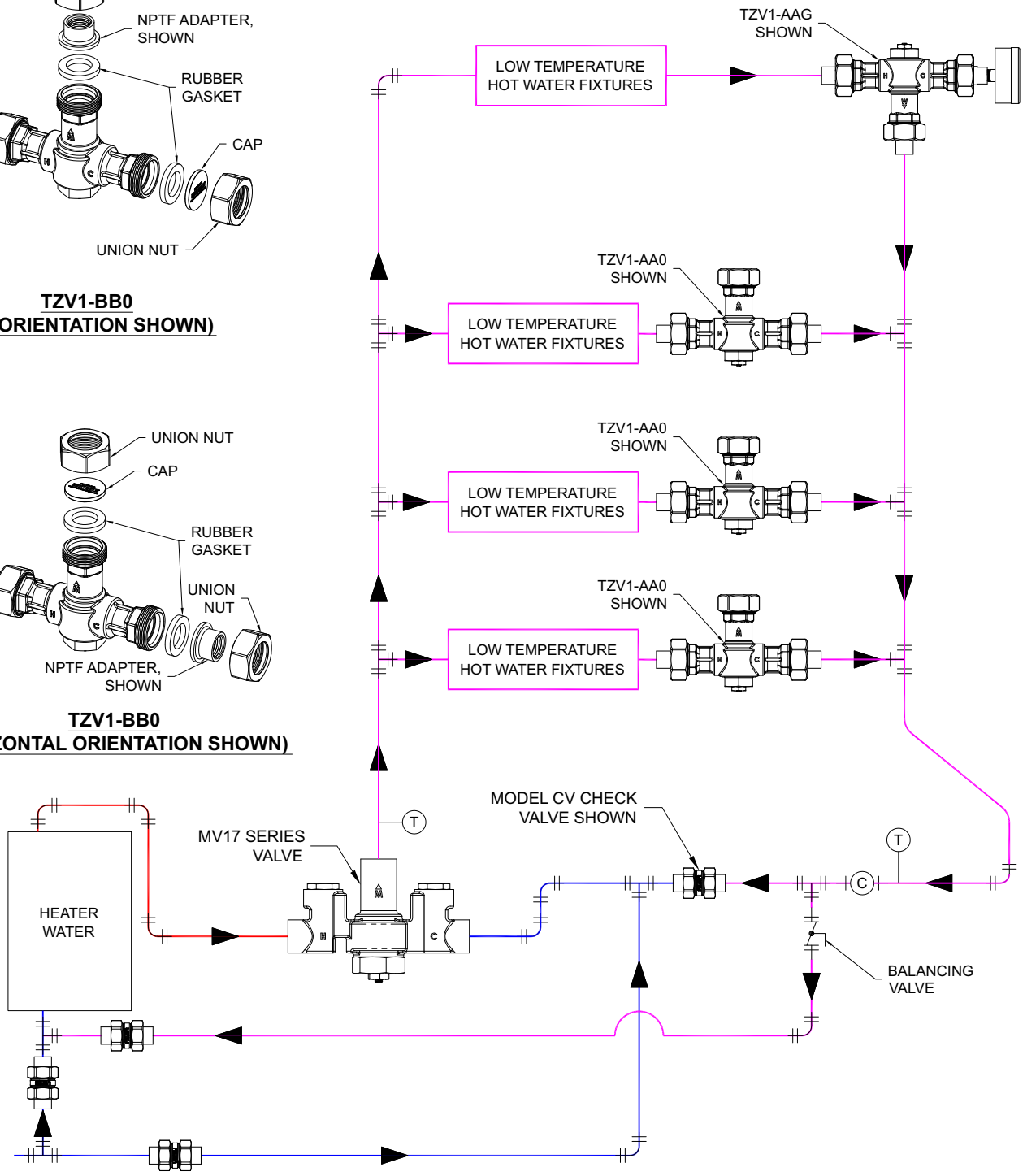
Detail - B

PIPING DETAILS:



TZV1-BB0
(90° ORIENTATION SHOWN)

TZV1-BB0
(HORIZONTAL ORIENTATION SHOWN)



TYPICAL PIPING DIAGRAM

CHECK VALVE	CIRCULATOR
BALANCING VALVE	FLOW DIRECTION
TEMP/PRESSURE GAUGE	