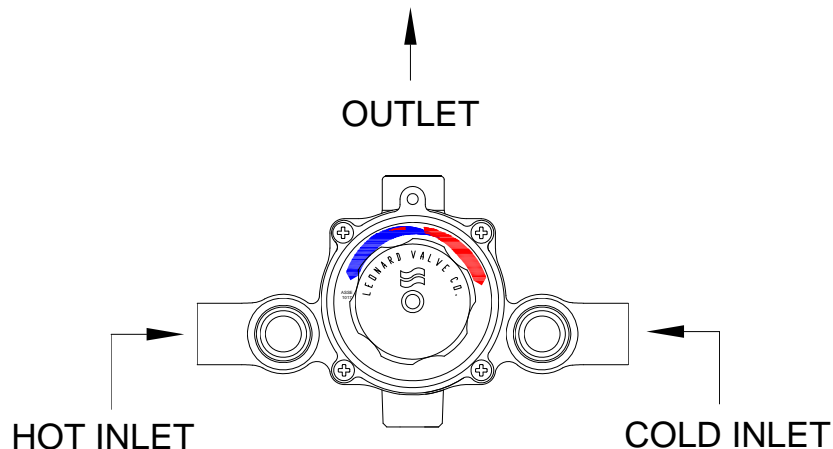


INSTALLATION ADJUSTMENT SERVICE TYPE TM-26, TM-26-LF

IMPORTANT! Provide valve serial number (stamped on cover of valve) when ordering parts!!
Valve manufactured after July 2007 starting with serial # TM26272



INSTALLATION

1. Valve should be installed at a location where it can easily be cleaned, adjusted or repaired.
2. Connect the hot water and cold water as shown above.
3. Valve has integral checkstops, for ease of servicing.
4. A shutoff valve must be installed on the outlet pipe. Type TM valves do not have a built-in shutoff.
5. Use solder or pipe cement sparingly. Supply pipes should be flushed before the valve is connected. Flush outlet pipe and valve as soon as it is connected.

Maximum Operating Pressure 125PSI (860 KPA) for Hot and Cold Water.

CAUTION

All thermostatic water mixing valves have limitations. They will not provide the desired accuracy outside of their flow capacity range. Consult the capacity chart on page 6. Minimum flow must be no less than as shown.

REMEMBER! THIS IS A CONTROL SYSTEM WHICH MUST BE CLEANED AND MAINTAINED ON A REGULAR BASIS (SEE MAINTENANCE GUIDE AND RECORD MGR-1000).

1360 Elmwood Avenue, Cranston, RI 02910 USA
Phone: 401.461.1200 Fax: 401.941.5310
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Web Site: <http://www.leonardvalve.com>

ADJUSTMENT AND SERVICE

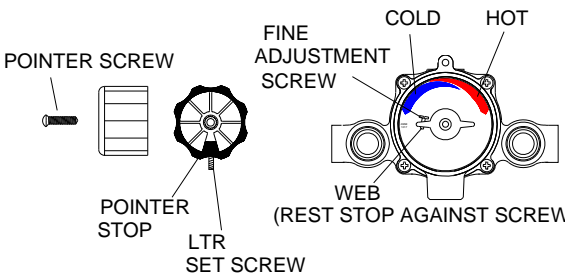
Leonard Type TM Thermostatic Water Mixing Valves are simple in design and may be easily cleaned, adjusted and repaired. If the installation is accessible, servicing may be completed without disconnecting the valve.

NOTE: Thermostatic Water Mixing Valves are REGULATING mechanisms, which must be regularly maintained to provide best performance. Frequency of cleaning depends on quality of local water conditions and usage. (See Maintenance Guide and Record MGR-1000).

WARNING

This mixing valve is equipped with an adjustable high temperature limit stop factory set at approximately 120°F (49°C) with an incoming hot water supply temperature of 150°F (65.5°C). If the hot water supply temperature of the job is greater than 150°F (65.5°C), the valves when turned to full HOT will deliver water in excess of 120°F (49°C) and the limit stops **MUST BE RESET BY THE INSTALLER!**

TO RESET ADJUSTABLE HIGH TEMPERATURE LIMIT STOP:

 <ol style="list-style-type: none">1. Loosen LTR Set Screw, remove POINTER SCREW.2. Adjust POINTER to maximum desired temperature.3. Remove POINTER, replace POINTER on spline rod with STOP (which is cast into the underside on the pointer), resting against the BOTTOM side of the WEB on the FINE ADJUSTMENT SCREW.4. If fine adjustment is needed, adjust FINE ADJUSTMENT SCREW on the cover, loosen for hotter or tighten for cooler temperature.5. Replace POINTER and check temperature, if set to desired temperature replace POINTER SCREW, and tighten LTR SET SCREW.6. The new maximum temperature has now been set. Test this temperature by holding a thermometer under the flow of water to be certain it is as desired. <p>* LIMIT STOP MUST BE RESET AND RECHECKED EACH TIME HANDLE IS REMOVED.</p>	<h2>WARNING</h2> <p>WARNING! This Thermostatic Mixing Valve has an adjustable high temperature limit stop which, must be checked. If temperature is too high, the installer MUST RESET this stop immediately. Always check the temperature of the mixed water when the lever handle is turned to full HOT. Excessively hot water is DANGEROUS AND MAY CAUSE SCALDING!</p> <p>The high temperature limit stop is factory set at approximately 120°F (49°C) with an incoming hot water supply temperature of 150°F (65°C). If the incoming hot water on the job is higher than 150°F (65°C), the valve when turned to full hot will deliver water in excess of 120°F (49°C) and the high temperature limit stop MUST BE RESET BY THE INSTALLER.</p>
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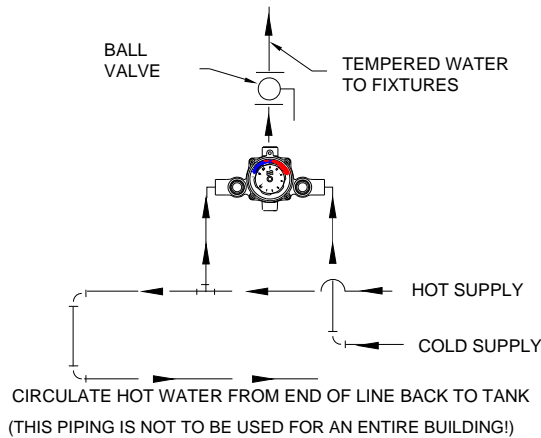
Check for significant variations in outlet flow. Thermostatic valves will NOT provide the desired accuracy outside of their flow capacity range. Minimum flows must be no less than shown (see Flow Capacities, page 6).

If installed on a recirculated hot water system, make certain the valve is piped according to Leonard Required Piping Method #2 (see page 4).

REMEMBER! THIS IS A CONTROL DEVICE WHICH MUST BE CLEANED AND MAINTAINED ON A REGULAR BASIS. (SEE MAINTENANCE GUIDE AND RECORD, MGR-1000).

REQUIRED METHODS OF PIPING TM VALVES (RECIRCULATED HOT WATER SYSTEMS)

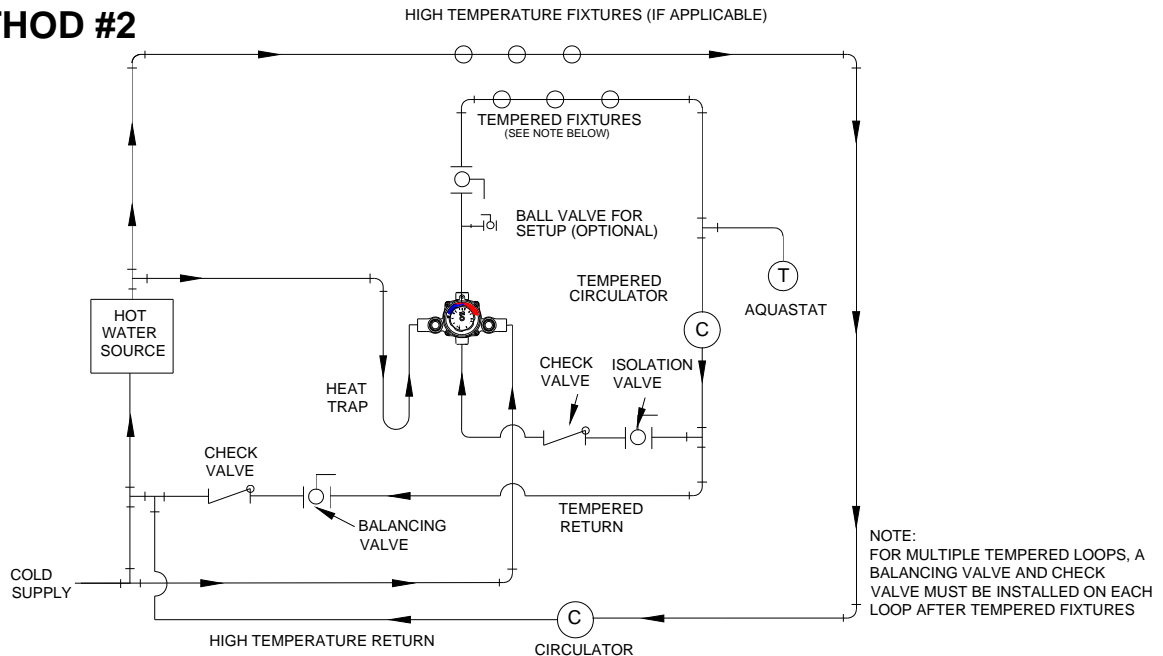
METHOD #1



METHOD #1

Required when hot water supply is to be circulated to a master mixer or individual thermostatic mixing valves which are a substantial distance from the hot water source. It is used primarily in a building with several risers, with tempered water in each riser controlled by a separate master mixer. **NOTE:** The engineer must determine maximum distance which can be run, i.e. maximum allowable time for hot water to reach user with one shower head operating, based upon code requirements and/or good practice.

METHOD #2



METHOD #2 setup INSTRUCTIONS

Before any attempt is made to adjust this system, be sure the temperature of the hot water at the source is properly set and maintained.

1. **Be sure system is piped in accordance with Method #2.**
2. **Shut off circulator.**
3. **Open enough fixtures to flow 2 TO 4 GPM.**
4. **Set mixing valve to the desired temperature, (note Warning Tag attached to the pointer of the valve).**
5. **Shut off all fixtures. Note: At this point, be sure NO water is being drawn through any fixture until the temperature in the recirculated line has been set.**
6. **Open the balancing valve approximately 1/2 way and start the circulator. Make sure no water is being drawn.**
7. **Observe the temperature until it stabilizes.**
8. **Close the ball valve slightly if the temperature is too hot, or open if it is too cold and again let the temperature stabilize. Repeat until the desired recirculated temperature is set.**

INSTRUCTIONS FOR DISMANTLING VALVE (DWG. 1)

1. Shut off hot and cold supplies to valve.
2. Remove four Cover Screws M20-2C to release entire thermostatic control assembly.

WHEN RE-ASSEMBLING VALVE, insert Cover Gasket M20-3C in base. Lubricate TM28-6B O'Rings before re-inserting assembly.

After installing new parts, it will may be necessary to reset high temperature limit. See instructions "TO RESET ADJUSTABLE HIGH TEMPERATURE LIMIT STOP" (page 2).

TO REMOVE BRIDGE ASSEMBLY (DWG. 2)

Remove MU-10B Pointer Rod Nut, remove TM28-1-8B Bridge Assembly from pointer rod.

Failure to properly blend the water may be caused by a sticking condition in the TGM-1/28 Port Sleeve Assembly. The Thimble should slide freely on the Port Sleeve.

Clean with a **NON-CORROSIVE CLEANING AGENT AND SOFT CLOTH**. **DO NOT USE ABRASIVES**, then wash parts thoroughly.

To reassemble, replace Bridge Assembly on pointer rod. Driving ball on Thimble **MUST** engage hole in coil bracket. Replace pointer rod nut.

DO NOT apply grease or lubricants to the TGM-1/28 Port Sleeve Assembly.

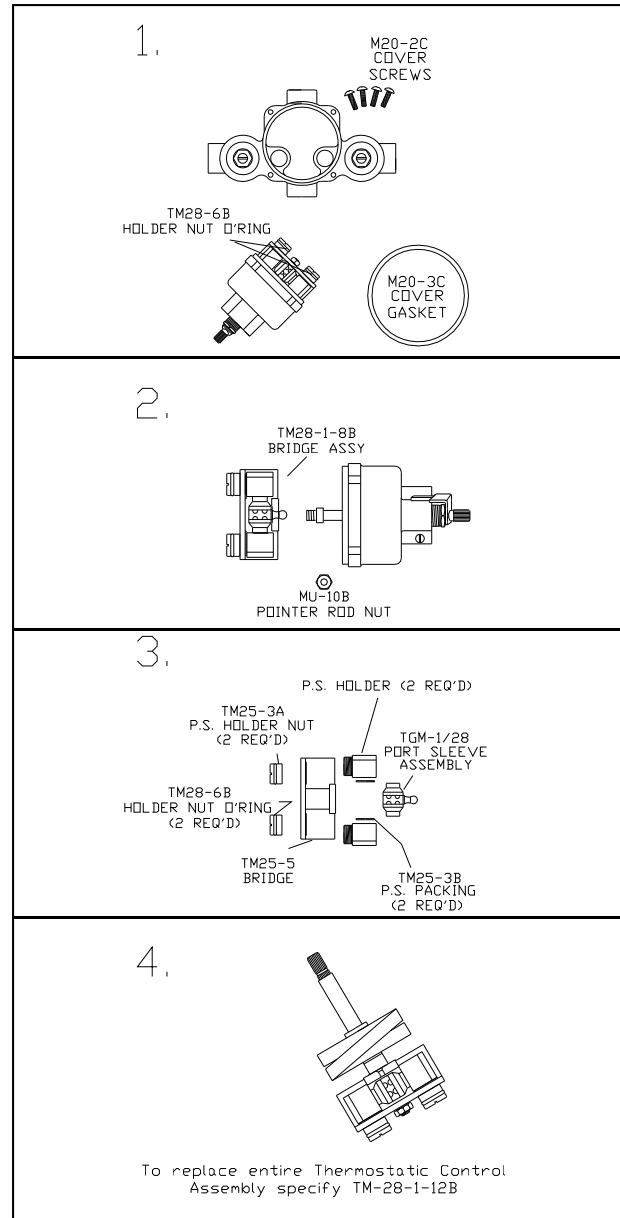
TO DISASSEMBLE BRIDGE ASSEMBLY (DWG. 3)

Remove TM25-3A Holder Nuts using a screwdriver in the slots provided. Clean or replace TGM-1/28 Port Sleeve Assembly following instructions above. When reassembling, check TM-25-3B port sleeve packings and replace if necessary.

TO CLEAN OR REPLACE THERMOSTAT GROUP

Loosen gland nut. Push rod through cover. **BE CAREFUL NOT TO PULL THERMOSTAT COIL OUT OF SHAPE**.

To clean, if a deposit has collected on the thermostat group, brush in a non-corrosive cleaning solution. Rinse in clean water and replace in cover with parts as shown.

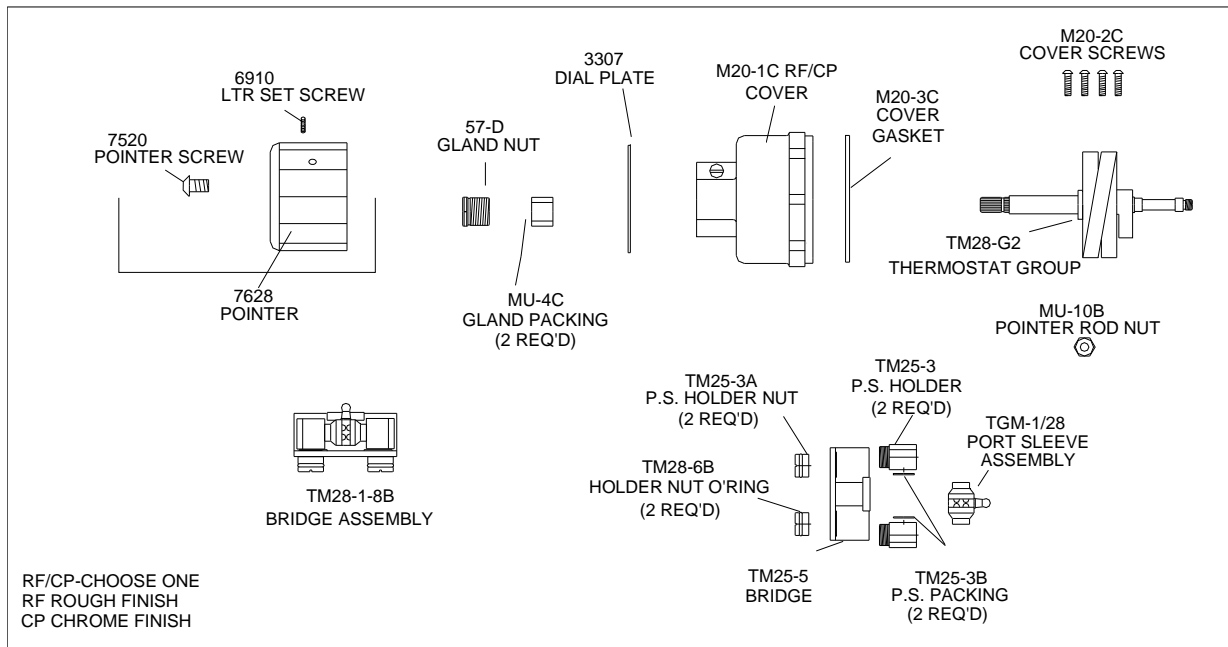


TROUBLESHOOTING INSTRUCTIONS

PACKINGS & GASKETS	<ol style="list-style-type: none"> 1. Leak at pointer rod. 2. Leak between valve cover and base. 	PARTS REQUIRED: KIT#1/26 (PACKINGS & GASKETS)
PORT SLEEVE ASSEMBLY	<ol style="list-style-type: none"> 3. Valve delivers either all hot or all cold water, or will not mix consistently. 	KIT#R/28 (REBUILDING KIT) OR TM-28-1-8B BRIDGE ASSEMBLY
THERMOSTAT GROUP	<ol style="list-style-type: none"> 4. After cleaning or replacing port sleeve assembly, valve will not hold temperature. 	KIT#R/28 (REBUILDING KIT) OR TM28-G2 THERMOSTAT GROUP
CHECKSTOPS	<ol style="list-style-type: none"> 5. Hot water bypass into cold line. 6. Supplies cannot be shut off completely. 7. Leak at checkstop bonnet. 	KIT#4/M20 (CHECKSTOP KIT)

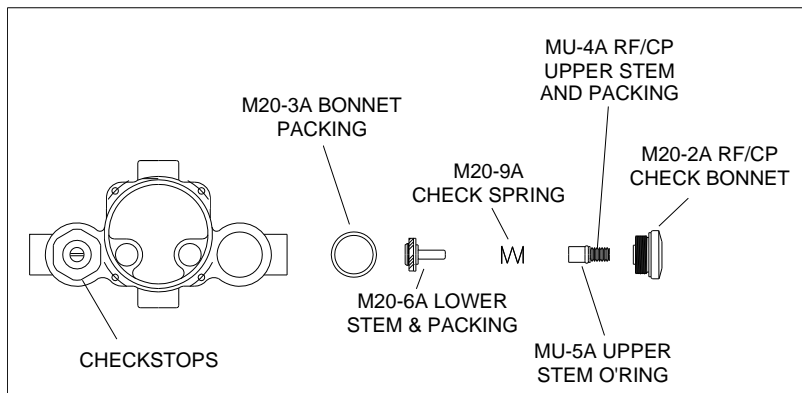
See page 5 for Parts Breakdowns

TM-26 VALVE PARTS

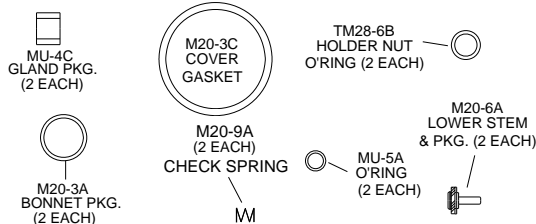


REPAIR KITS

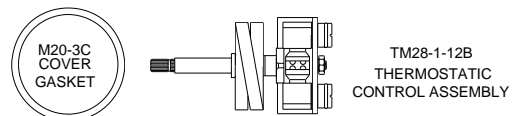
CHECKSTOP PARTS



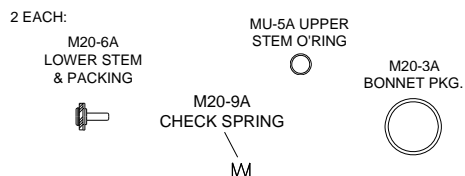
KIT 1/26 PACKINGS & GASKETS



KIT R/28 REBUILDING KIT



KIT 4/M20 CHECKSTOP KIT

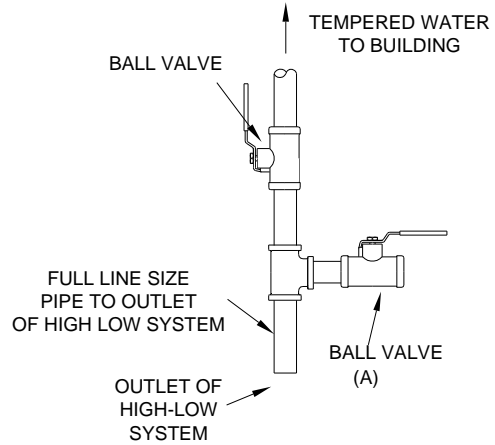


REMEMBER! THIS IS A CONTROL DEVICE WHICH MUST BE CLEANED AND MAINTAINED ON A REGULAR BASIS (SEE MAINTENANCE GUIDE AND RECORD).

NOTE: AFTER INSTALLING NEW PARTS IT WILL BE NECESSARY TO RESET THE ADJUSTABLE HIGH TEMPERATURE LIMIT STOP ON EACH VALVE (SEE PAGE 2).

**OPTIONAL OUTLET SETUP PIPING
(BY OTHERS)**

The addition of this piping arrangement (extra tee and ball valve) eliminates the need to turn showers on and off throughout the building at setup. The flows required in the setup instructions (page 3) are set by using Ball Valve A. (make sure main outlet ball valve is closed).



CAUTION! ALL THERMOSTATIC WATER MIXING VALVES AND SYSTEMS HAVE LIMITATIONS! THEY WILL NOT PROVIDE THE DESIRED PERFORMANCE OUTSIDE OF THEIR FLOW CAPACITY RANGE! CONSULT THE CAPACITY CHART BELOW AND OBSERVE MINIMUM FLOWS SHOWN.

FLOW CAPACITIES

MODEL	IN	OUT	MINIMUM FLOW (GPM)	SYSTEM PRESSURE DROP										PSI
				5	10	15	20	25	30	35	40	45	50	
			LMIN	.3	.7	1.0	1.4	1.7	2.1	2.4	2.8	3.1	3.4	BAR
TM-26	3/4"	3/4"	1.0	7	10	13	15	17	19	21	23	25	26	GPM
			3.7	26	38	49	57	64	72	80	87	95	98	LMIN
MAXIMUM FLOW CAPACITY														

LIMITED WARRANTY

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