

THERMIXER®

Thermostatic Mixing Valve

INSTALLATION, OPERATION AND SERVICE INSTRUCTIONS

Installation

It is the installer's responsibility to read and follow the installation and maintenance instructions including making the necessary adjustments (including limit stop) to the device. Installation shall be in accordance with State and Local Codes.

Thoroughly flush all piping prior to installing Thermixer. Thermixer can be installed in any position, as long as Hot supply is connected to the "H" side of the valve and the Cold supply is connected to the "C" side of the valve.

NOTE: Checks (Suffix CK) are recommended to prevent bypass when a Thermixer is installed with a downstream shut-off device.

Operation

For under sink application, adjust Thermixer with 50% of the fixtures fully operational. This will insure proper operating temperatures upon demand. Valve must be flowing when setting temperature.

Prior to adjustment of valve to selected temperature, cycle unit through the maximum and minimum temperatures by turning the temperature selections handle (TMX-128) counter clockwise and then clockwise. Perform three complete cycles prior to setting desired output temperature. This will increase the efficiency of the unit by stimulating the thermal motor.

Maintenance

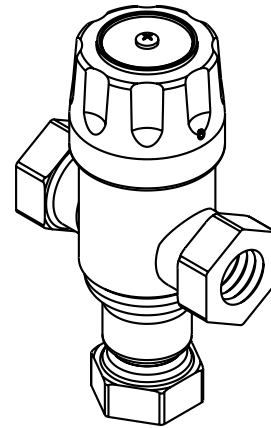
Thermixer must be kept clean and free from deposits and any foreign matter buildup that may be present in many water systems. Inspect within 30 days of initial installation or operation. If inspection determines that your water system causes deposits and foreign matter build-up monthly, then valve should be cleaned monthly as follows. Remove piston (TMX-135) and soak in any acceptable de-liming agent (or regular household vinegar). Wash off deposits and replace piston. Clean more frequently if your system so demands. Insure checks and check stops (if applicable) are properly maintained to promote proper operation of the valve.

Piston Removal and Replacement

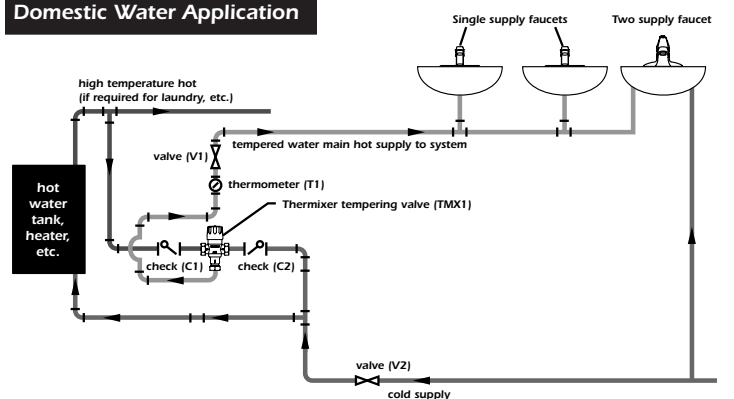
Thermixer is designed so that the valve does not have to be removed from piping for service. For complete service of the valve use repair kit TMX-145 or TMX-146. To remove piston, shut off water supplies to valve and turn handle counterclockwise until travel is stopped. Once valve is completely opened, loosen set screw (TMX-140) and remove handle screw (TMX-139). Remove handle (TMX-128) to expose Thermixer spindle and cap. Loosen cap (TMX-112) by turning counterclockwise until cap separates from body. Remove piston (TMX-135) by gripping holes on top surface of piston and pulling straight out. Care should be taken not to scratch the very top surface of piston and **DO NOT pull on stainless steel rod in center of piston**. Damaging top surface of piston or to thermal motor will degrade performance of valve.

Once piston is removed, separate spring from piston assembly and unscrew thermal motor (TMX-120). Clean as mentioned in maintenance section above.

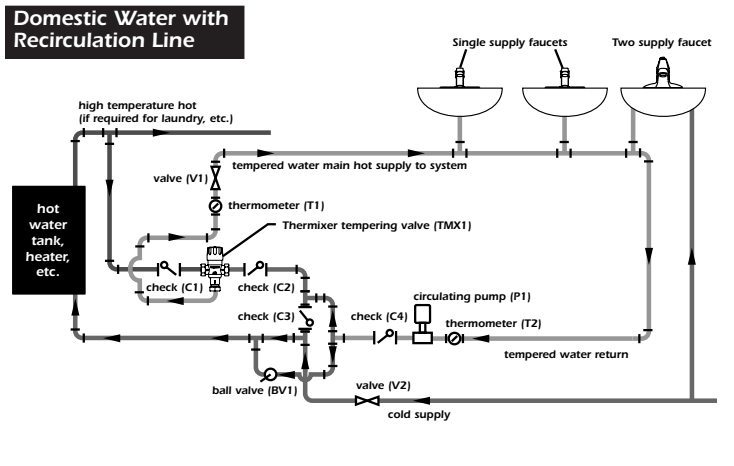
Replace and lubricate (w/ petroleum base lubricant) piston



Domestic Water Application



Domestic Water with Recirculation Line



O-ring prior to installation into valve.

Screw thermal motor into threaded portion of piston and re-attach return spring. Place the piston assembly back into body and reinstall cap. Cap must be fully seated on casting body to insure proper control of valve assembly.

Place handle back on spindle spline and secure with handle screw (TMX-139). Tighten set screw in side of handle.

Turn on water supplies to valve and adjust temperature. See operation instructions above.

- TMX-112 Cap
- TMX-120 Thermal motor
- TMX-139 Screw
- TMX-128 Handle
- TMX-133 O-ring
- TMX-134 O-ring
- TMX-135 Piston
- TMX-137 Retaining ring
- TMX-140 Set screw
- TMX-143 Conical spring
- TMX-187 Spindle Assembly

Repair Kits:

- TMX-145 Thermal motor replacement kit consists of:
TMX-120, TMX-133,
TMX-134
- TMX-146 Complete control assembly replacement kit consists of:
TMX-145, TMX-135,
TMX-143

Performance Data

Inlet Water Temperatures:

Hot Inlet Range: 120°F - 180°F (48.8°C - 82.2°C)

Cold Inlet Range: 40°F - 80°F (4.4°C - 26.6°C)

Temperature Control Range:

85°F - 160°F (29.1°C - 71.1°C)

Maximum Working Pressure:

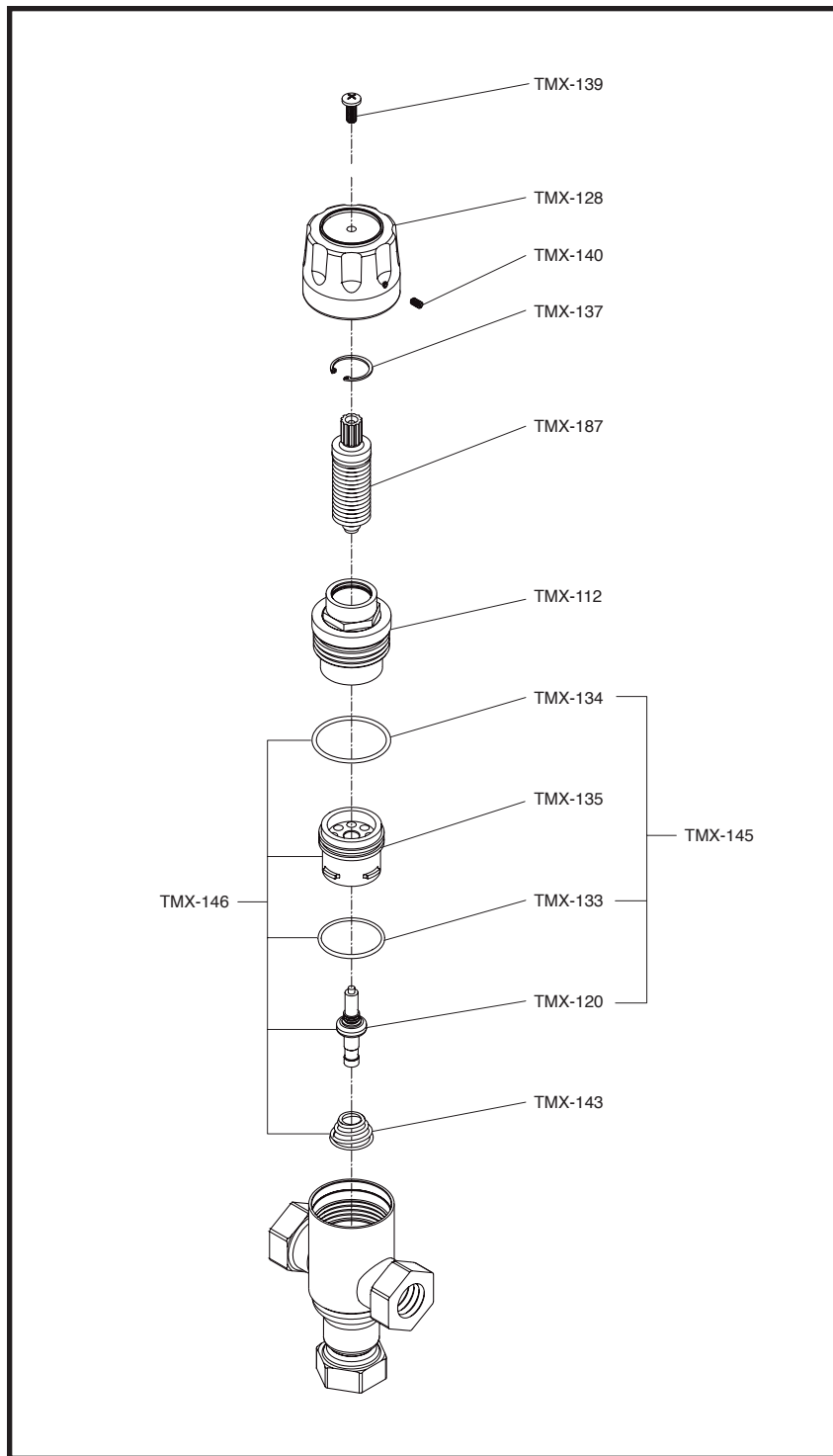
125 psi (862 kPa)

Minimum Supply Pressure:

30 psi (207 kPa)

Inlet to Outlet Temperature Differential:

10°F (5.55°C)



Limited Warranty

Symmons Industries, Inc. warrants to the original user of this product that for a period of five years from the date of installation of the product, any defective product will be exchanged or reconditioned (at our option) free of charge. Return the defective product (prepaid) to Symmons Industries, Inc., 31 Brooks Drive, Braintree, Massachusetts 02184. There are no other express warranties on this product and ALL WARRANTIES OF MERCHANTABILITY AND WARRANTIES AS TO FITNESS FOR A PARTICULAR PURPOSE AND ANY OTHER IMPLIED WARRANTIES ARE LIMITED TO A

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