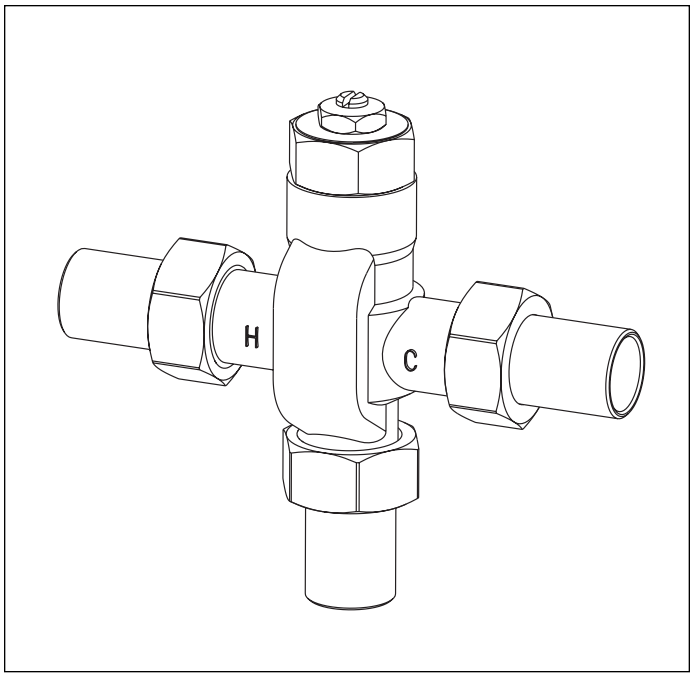


Installation Instructions

Thermostatic Mixing Valve for Sinks/Faucets

Model	Inlet Connection	Outlet Connection
S59-4015D	1/2" NPT/Sweat	1/2" NPT/Sweat
S59-4015N	3/4" NPT	3/4" NPT
S59-4015S	3/4" Sweat	3/4" Sweat

Temperature Range: 95–115°F

Maximum Pressure: 125 PSIG

Inlet Temperature, Hot: 120°– 180°F

Inlet Temperature, Cold: 33°– 80°F

Minimum Temperature Differential (from valve set point): 20°F

IMPORTANT

Installation and final temperature adjustment are the responsibility of the installer.

Table of Contents

Bradley Warranty Information

Product warranties may be found under “Product Information” on our website at www.bradleycorp.com

215-1545; EN 03-917

P.O. Box 309, Menomonee Falls, WI 53052-0309
Phone: 1-800-BRADLEY Fax: (262) 251-5817
http://www.bradleycorp.com

Pre-Installation Information

Overview

The Model S59-4015 Thermostatic Mixing Valve consists of a wax-filled thermal motor and a stainless steel piston control mechanism. The valve body and cap are constructed of bronze with replaceable corrosion-resistant components.

Supplies recommended for installation:

- Shut-off on the outlet if tempered water is supplied to a remote location
- Shut-off on the inlets/supplies

Tools required for installation and maintenance/troubleshooting:

- Adjustable wrench (for cap removal and to loosen locking nut)
- Needle-nose pliers (for piston removal)
- Blade screwdriver (for temperature adjustment)

Installation Instructions

NOTE: Flush the supply lines before beginning installation.

1. Install check valves into valve assembly as shown in Figure 1.

NOTE: Observe direction of arrow on check valve when assembling.

2. Slide tailpiece nuts over Hot and Cold supplies and valve outlet supply. See Figure 1.
3. Thread or solder tailpieces to Hot and Cold supplies and to valve outlet.

NOTE: Do not solder tailpieces when attached to the valve assembly or the valve may be damaged.

4. Insert filter washers into tailpiece for Hot and Cold supplies. Tighten tailpiece nuts onto valve body. See Figure 1.
5. Insert fiber washer between valve assembly and tailpiece on the valve outlet. Tighten tailpiece nut.
6. Pressurize the thermostatic mixing valve and check for pipe leaks.

*NOTE: This valve is **NOT** factory preset. Upon installation, the temperature of this valve must be checked and adjusted to ensure delivery of a safe water temperature. **Water in excess of 110°F (43°C) may cause scalding**.*

7. Check the temperature when approximately 1.0 GPM water flow is reached and adjust if necessary (the range of the valve is 95°F–115°F (35°C–43°C). To adjust the temperature, follow the procedure below:
   - Loosen temperature locking nut with wrench.
   - Using a blade screwdriver, turn the adjustment stem **counterclockwise** to **increase** the temperature or **clockwise** to **decrease** the temperature (Figure 1).
   - Once desired temperature has been reached, tighten lock nut to prevent change in temperature.
8. Shut the hot water inlet off by closing either the hot water check valve or inlet valve. While the hot water supply is turned off, check to make sure the cold water flow is reduced. If the cold water is reduced properly, reopen the hot water supply.
9. Shut the cold water inlet off by closing either the cold water check valve or inlet valve. While the cold water supply is off, check to make sure that the hot water flow has shut down.

Installation Instructions *continued . . .*

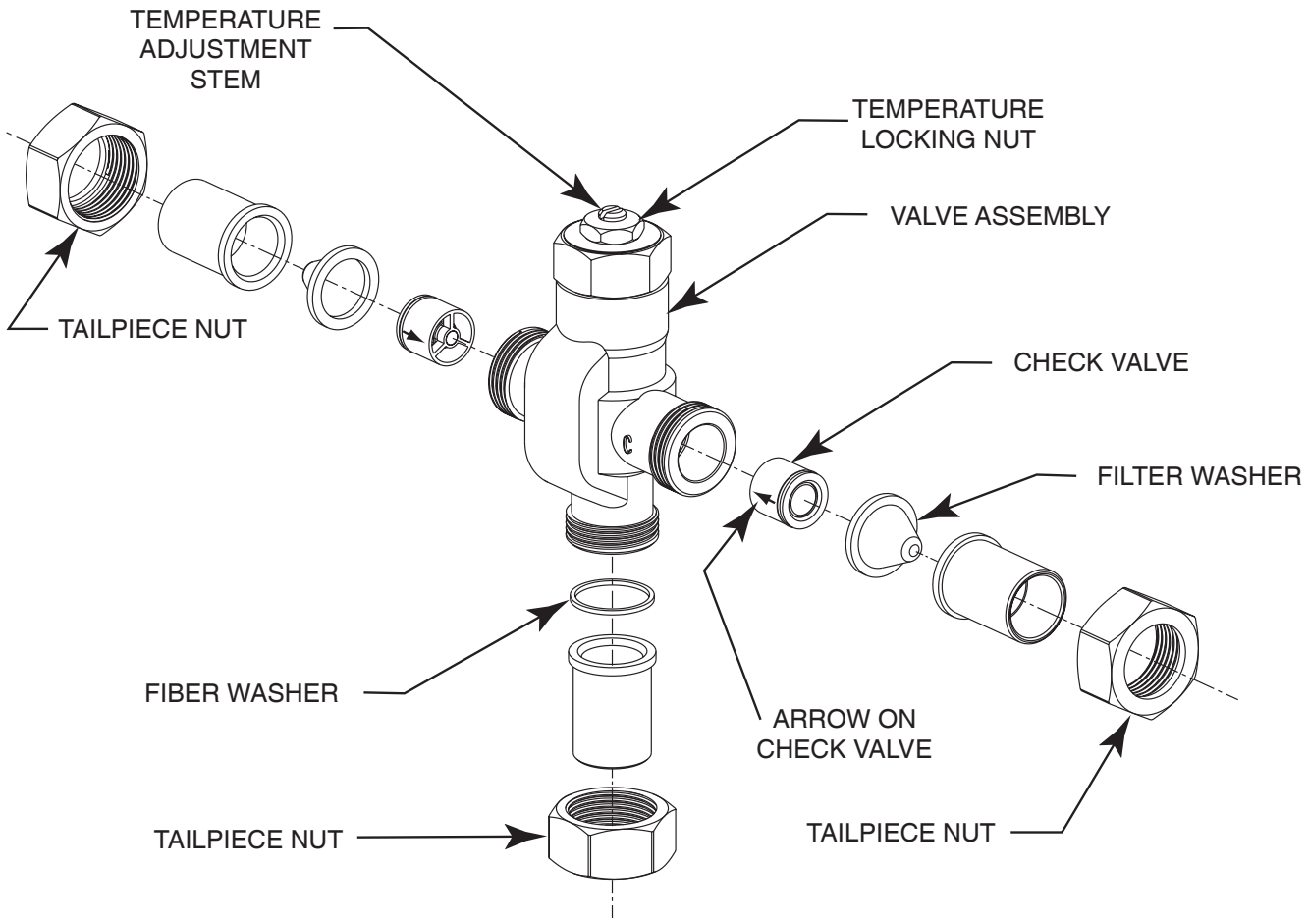


Figure 1

Thermostatic Mixing Valve Maintenance and Troubleshooting

NOTE: Before attempting to troubleshoot the valve or disassemble the components, check for the following conditions:

- *If stop/check valves are used, make sure that they are installed properly and fully open*
- *Make sure that the hot and cold inlet pipes are connected properly, and that there are no cross-connections or leaking stop/check valves*
- *check the hot water heater output to make sure that it is at least 20° F above the set temperature.*

Be sure to close the appropriate shut-off valves prior to disassembly of the valve and reopen the valves after inspection and repair is complete.

Problem: Limited water flow

Cause: Dirt and debris have built up in the valve.

Solution: Check the valve's piston for free and smooth movement, follow the procedures outlined below:

1. Remove the valve's cap and thermostat (see Figure 2 on Page 5).
2. Push down on the piston with your finger (the piston should move freely). If the movement is not as it should be, the piston needs to be cleaned. Follow the method outlined below for cleaning the piston and valve body:
   - Remove the thermostat.
   - Lift the piston out with a needle-nose pliers and remove the spring.
   - Any cleaner suitable for brass and stainless steel may be used (if cleaning with suitable cleaner is not sufficient to remove debris, a 400-grit sandpaper may be used to polish and hone the piston and valve body).
   - Snap spring into piston (will detent) and reassemble into the valve body.
   - Retest the piston.
3. If, after a thorough cleaning, the piston does not move freely, the piston must be replaced. Contact your Bradley representative and ask for Repair Kit (part number S65-268).

Problem: External leaks in the system

Cause: O-rings have been damaged.

Solution: Replace O-rings where necessary. For replacement of the O-rings, contact your Bradley representative and ask for Repair Kit (part number S65-268).

Problem: Improper water temperature or temperature fluctuation

Cause: Thermostat is slowly failing or not working at all.

Solution: "Check the thermostat for proper operation".

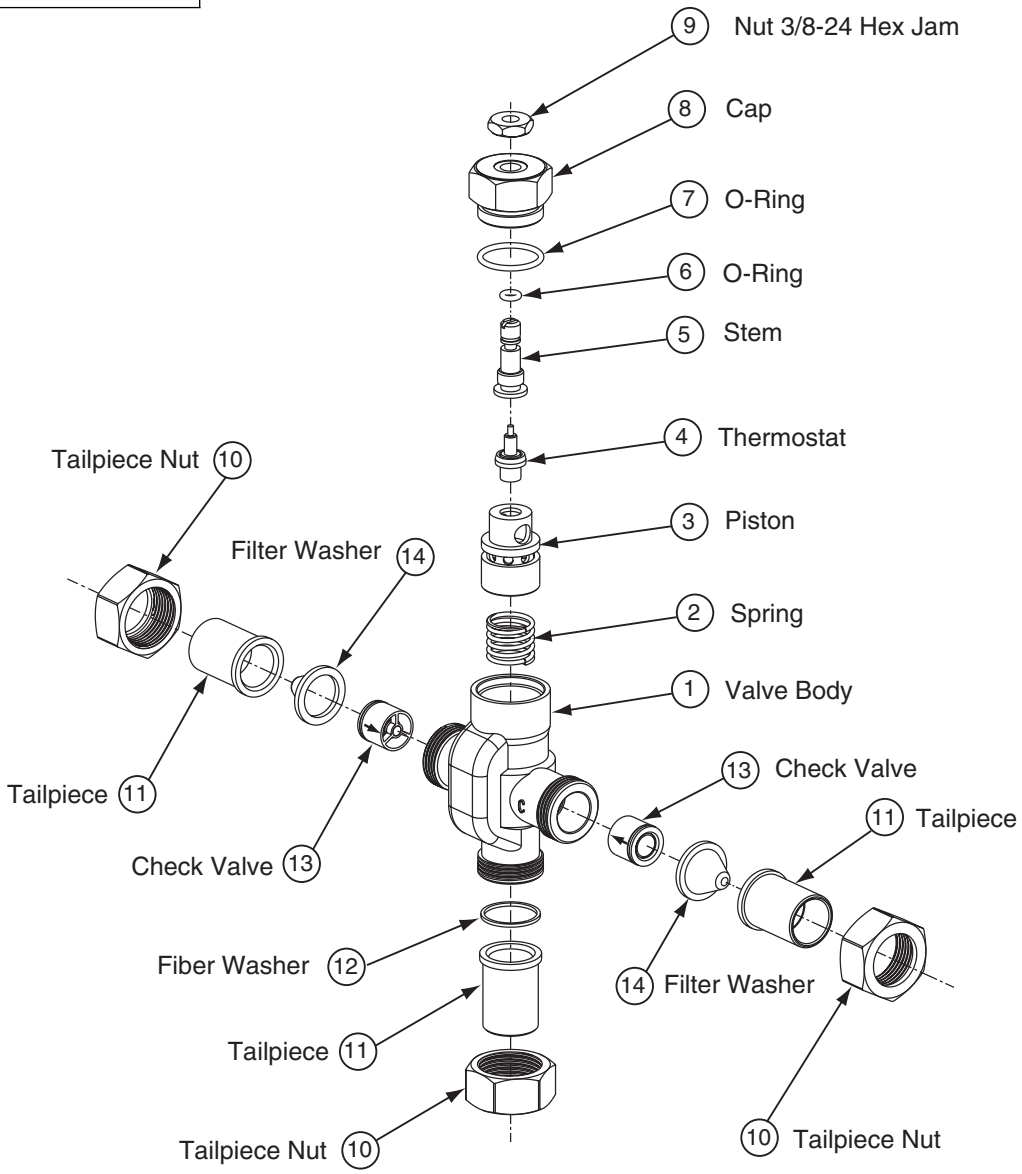
1. At room temperature (80° F or less) remove cap and thermostat.
2. Place thermostat into container with 115° F water. The pushrod should pop out of the thermostat approximately 1/10".
3. If thermostat pushrod does not pop out, the thermostat must be replaced. Contact your Bradley representative and ask for Repair Kit (part number S65-268).

Cause: Valve temperature is not properly set.

Solution: "Adjust the temperature" per Step 7 of Installation Instructions on page 2.

Parts List — Repair Kit S65-268

Item	Qty	Description
2	1	Spring
3	1	Piston
4	1	Thermostat
6	1	O-Ring
7	1	O-Ring



NOTE: Observe Direction of Check Valve Arrows when assembling.

Figure 2