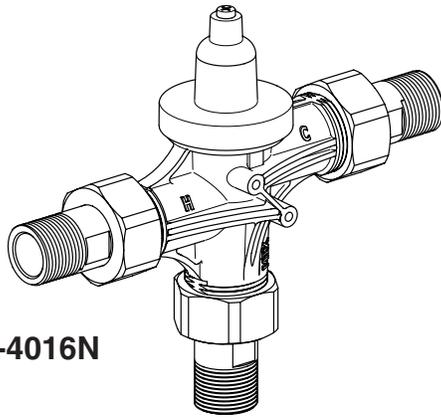
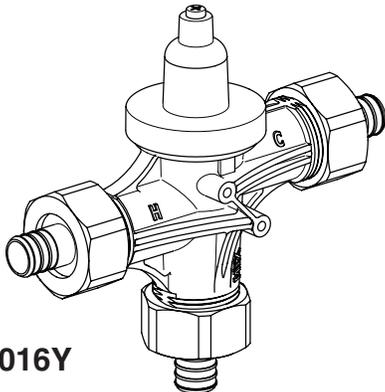


Installation



S59-4016N



S59-4016Y

S59-4016 Series Navigator® Thermostatic Mixing Valve

S59-4016D 1/2" NPT/Sweat Connections

S59-4016X 1/2" PEX Connections

S59-4016N 3/4" NPT Connections

S59-4016S 3/4" Sweat Connections

S59-4016Y 3/4" PEX Connections

S59-4016EX 1/2" Expansion PEX
Connections

S59-4016EY 3/4" Expansion PEX
Connections



Temperature Range: 59 – 140°F

Maximum Pressure: 125 PSIG

Inlet Temperature, Hot: 120 – 180°F

Inlet Temperature, Cold: 33 – 80°F

Minimum Temperature Differential (from valve set point): 10°F

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Read the instructions in this manual before beginning installation. Save these instructions and refer to them for inspection, maintenance and troubleshooting information.

For questions regarding the operation, installation or maintenance of this product, visit bradleycorp.com or call 800.BRADLEY (800.272.3539).

Product warranties and parts information may also be found under "Resources" on our website at bradleycorp.com.



Safety Information

To ensure proper operation:

Installation

Failure to comply with proper installation and maintenance instructions could contribute to a valve failure resulting in severe bodily injury including scalding, chilling and/or death depending upon system water pressure changes and/or supply water temperature changes.

Use this thermostatic mixing valve in accordance with ASSE standard 1017, ASSE standard 1069 or ASSE standard 1070.

When installed in accordance with ASSE standard 1017, the valve is designed to be installed at or near the boiler or water heater. When installed as an ASSE 1017 valve, the valve does not function as an ASSE 1016, ASSE 1069 or ASSE 1070 valve.

When installed in accordance with ASSE standard 1069, the valve is intended to control the water temperature to individual or multiple fixtures where the user does not have final temperature control. When installed as an ASSE 1069 valve, the valve does not function as an ASSE 1016, ASSE 1017 or ASSE1070 valve.

When installed in accordance with ASSE standard 1070, the valve is designed to be installed at fixtures such as sinks, bidets, lavatories and bathtubs. When installed as an ASSE 1070 valve, the valve does not function as an ASSE 1016, ASSE 1017 or ASSE 1069 valve.

This valve should not be used where ASSE standard 1016 devices are required.

This valve does not provide protection from pipe freezing.

Installation of this system must be completed by a qualified plumber in compliance with all national and local codes. Compliance and conformity to local codes and ordinances is the responsibility of the installer. Should these codes differ from the information in the manual, follow the local codes. Inquire with governing authorities for additional local requirements.

Inspection

Regular checking and cleaning of the valve's internal components and check stops is necessary for maximum life and proper product function. Periodic inspection and yearly maintenance by a licensed contractor is required. Corrosive water conditions and/or unauthorized adjustments or repairs could render the valve ineffective for its intended service. Frequency of cleaning and inspection depends upon local water conditions.

Output temperature of the valve must be checked and adjusted at initial installation and on a quarterly basis.

Water Temperature

Final temperature adjustment is the responsibility of the installer.

Supplies Required

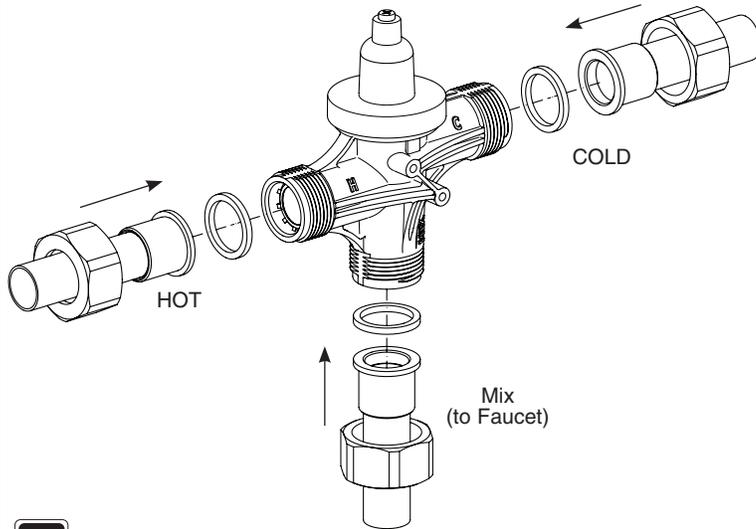
- Shut-off on the outlet if tempered water is supplied to a remote location
- Shut-off on the inlets/supplies
- (2) #10 fasteners (and wall anchors, if necessary) for wall bracket

Tools Required

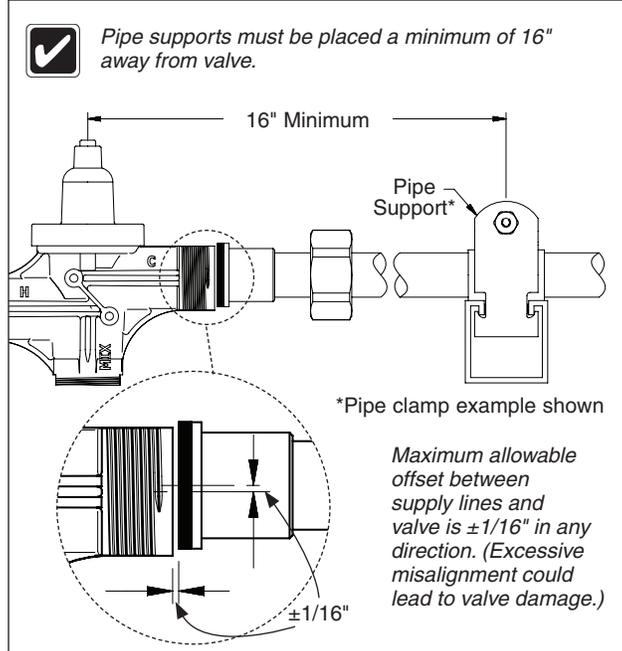
- Adjustable Wrench
- Phillips-Head Screwdriver

1 Connect Supply Lines

⚠ WARNING Make sure that all water supply lines have been flushed and then completely turned off before beginning installation. Debris in supply lines can cause valves to malfunction.



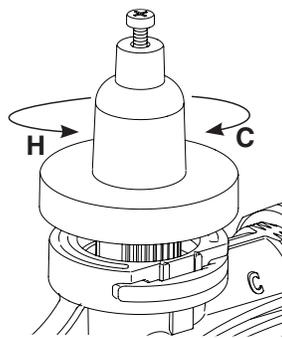
- DO NOT overtighten unions.
- DO NOT solder with inlet and outlet tubes attached to the valve. Excessive heat will damage the rubber and plastic components of the valve.



2 Adjust Temperature with Water Running

⚠ CAUTION 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.

1. Loosen Cap Screw about 1/4" (4-6 turns) and lift up cover (do not remove).
2. Using cover, turn cartridge gently until desired water temperature is reached. Do not turn past stops as this may damage unit. Push cover down and tighten screw.



3 Test Unit



DO NOT SKIP THIS STEP!!!

1. Shut the hot water inlet off by closing hot water inlet valve.
2. While the hot water supply is turned off, check to make sure the cold water flow is reduced.
3. If the cold water is reduced properly, reopen the hot water supply.
4. Shut the cold water inlet off by closing the cold water inlet valve.
5. While the cold water supply is off, check to make sure that the hot water flow has shut down.
6. If hot water has shut down, fully reopen cold water supply.

Thermostatic Mixing Valve Troubleshooting

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

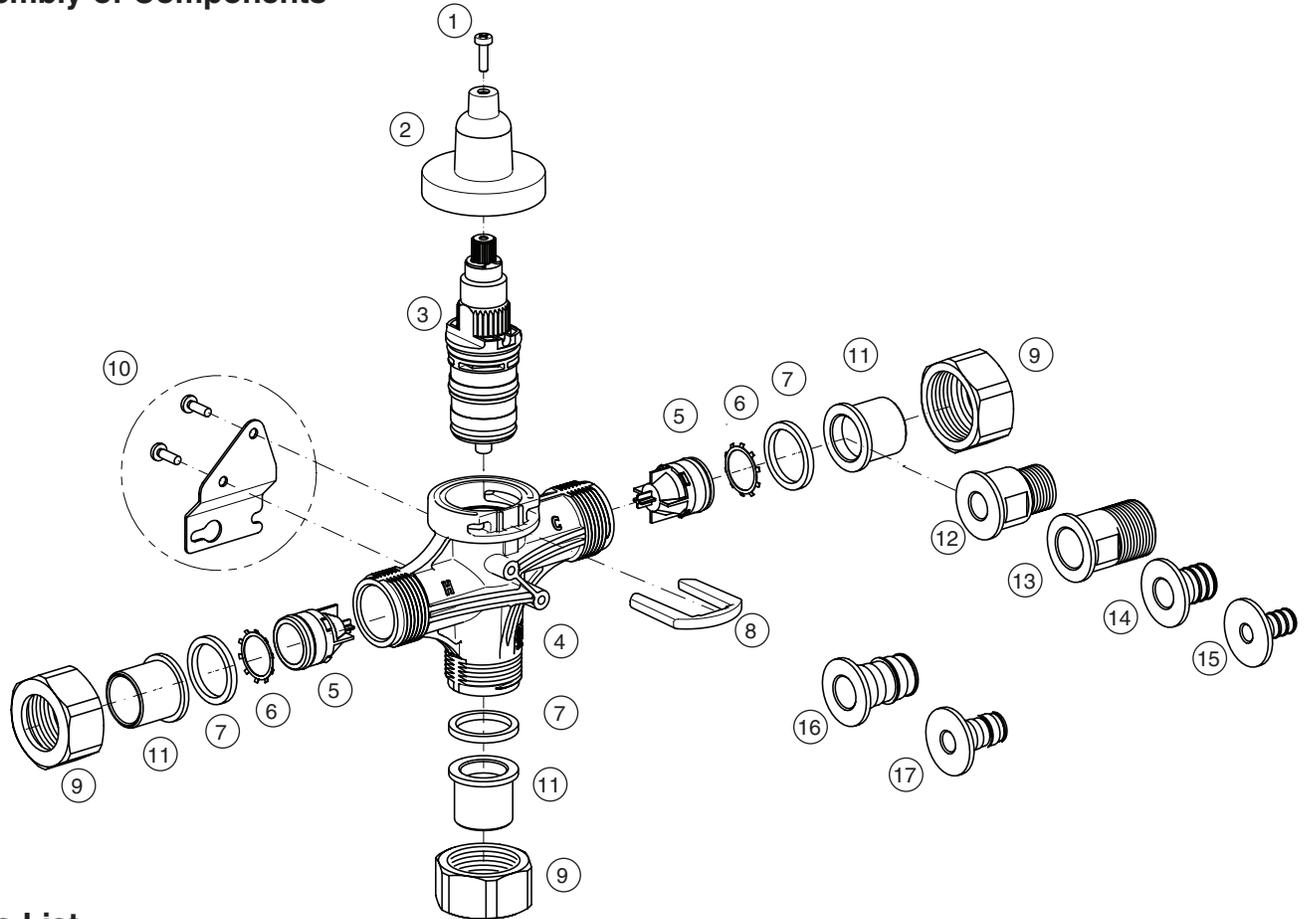
- If stop valves are used, make sure that they are fully open.
- Make sure that the hot and cold inlet pipes are connected properly, and that there are no cross-connections or leaking stop valves.
- Check the hot water heater output to make sure that it is at least 10° F above the set temperature.



Close the appropriate shut-off valves prior to disassembly and reopen the valves after inspection and repair is complete.

Problem	Cause	Solution
External leaks.	Damaged cartridge or O-rings.	Replace cartridge with part number 269-2000S
Improper water temperature or temperature fluctuation.	Hot water supply is not 10° above desired set point.	Increase hot water supply temperature
	Valve temperature is not properly set.	Adjust the temperature as shown on page 2 step 2.
Limited water flow.	Dirt and debris have built up in the valve or strainer.	<ol style="list-style-type: none"> 1. Check to make sure both hot and cold supplies are connected to the Navigator mixing valve and that they have water flow. 2. Remove cover and U-clip. Remove the cartridge and clean the strainer. It is not required to grease cartridge, however if desired, use silicone grease only. Do not use grease on check valves.

Assembly of Components



Parts List

Item	Part No.	Description	Quantity						
			S59-4016D	S59-4016X	S59-4016N	S59-4016S	S59-4016Y	S59-4016EX	S59-4016EY
1	160-499	Cap Screw	1	1	1	1	1	1	1
2	107-607	Cover	1	1	1	1	1	1	1
3	269-2000S	Thermostatic Cartridge	1	1	1	1	1	1	1
4	118-323	Valve Body	1	1	1	1	1	1	1
5	198-015	Check Valve*	2	2	2	2	2	2	2
6	132-055	Retaining Ring*	2	2	2	2	2	2	2
7	125-001CP	Rubber Washer	3	3	3	3	3	3	3
8	146-081	U-Clip	1	1	1	1	1	1	1
9	110-245	Tailpiece Nut	3	3	3	3	3	3	3
10	S45-2456	Mounting Bracket Kit (optional)	1	1	1	1	1	1	1
11	129-067	3/4" Sweat Tailpiece	-	-	-	3	-	-	-
12	129-068	1/2" NPT/Sweat Tailpiece	3	-	-	-	-	-	-
13	129-066	3/4" NPT Tailpiece	-	-	3	-	-	-	-
14	129-070	3/4" PEX Tailpiece	-	-	-	-	3	-	-
15	129-069	1/2" PEX Tailpiece	-	3	-	-	-	-	-
16	129-071	1/2" Expansion PEX Tailpiece	-	-	-	-	-	3	-
17	129-072	3/4" Expansion PEX Tailpiece	-	-	-	-	-	-	3

* Included with Prepack S65-380