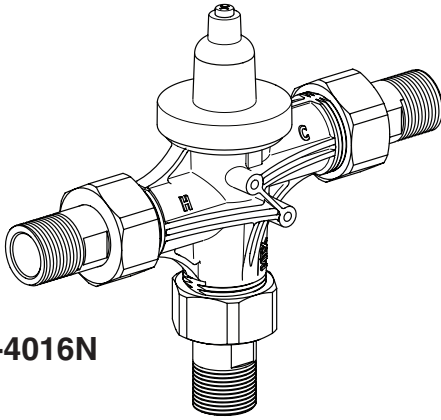
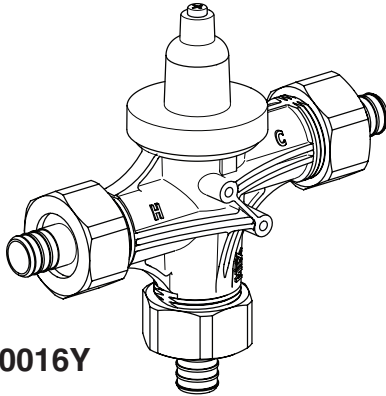


# Installation

**S59-4016N**



**S59-40016Y**



ASSE 1017, 1069, 1070 &cUPC certified



## S59-4016 Series Navigator® Thermostatic Mixing Valve

**S59-4016D ½" NPT/Sweat Connections**

**S59-4016X ½" PEX Connections**

**S59-4016N ¾" NPT Connections**

**S59-4016S ¾" Sweat Connections**

**S59-4016Y ¾" PEX Connections**

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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



## WARNING

Failure to comply with proper installation and maintenance instructions could contribute to the 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 1069 or 1070. This valve does not provide protection from pipe freezing.

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

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.

## NOTICE

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.

## IMPORTANT

Read this entire installation manual to ensure proper installation. When finished with the installation, file this manual with the owner or maintenance department. Compliance and conformity to local codes and ordinances is the responsibility of the installer.

Consult local building and plumbing codes prior to installation. Should these codes differ from the information in the Manual, follow the local codes. Inquire with governing authorities for additional local requirements.

Separate parts from packaging and make sure all parts are accounted for before discarding packaging material. If any parts are missing, do not begin installation until you obtain the missing parts.

Product warranties may be found under "Products" on our web site at [bradleycorp.com](http://bradleycorp.com).

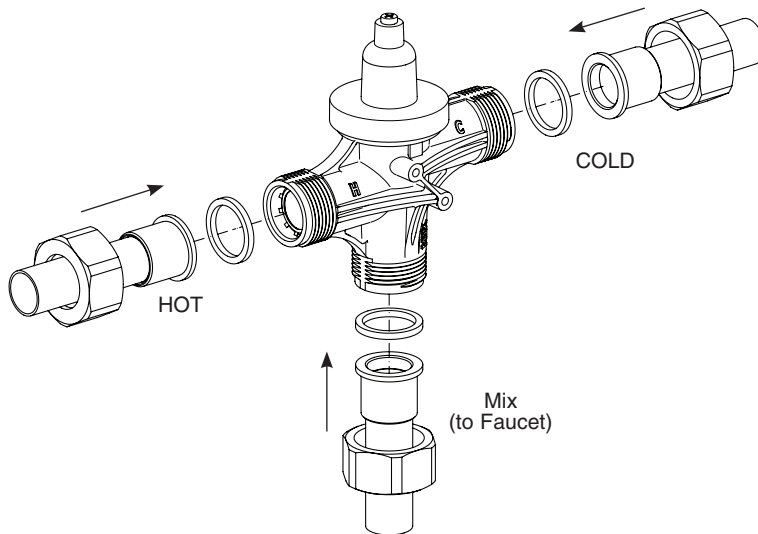
## Supplies Required

- 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



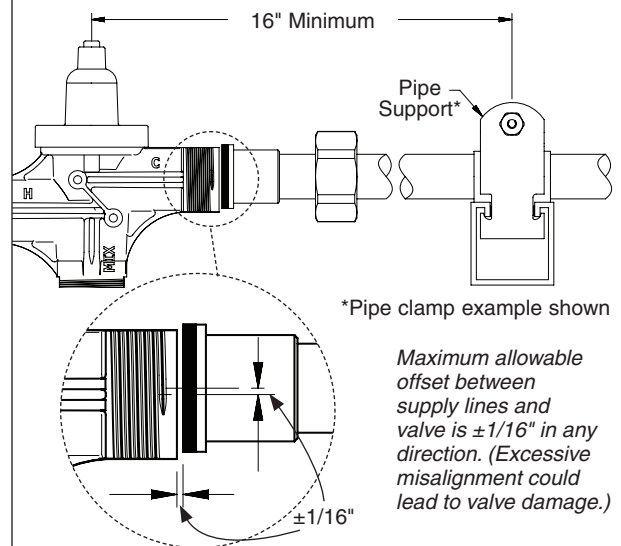
**DO NOT** overtighten unions.



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



Pipe supports must be placed a minimum of 16" away from valve.



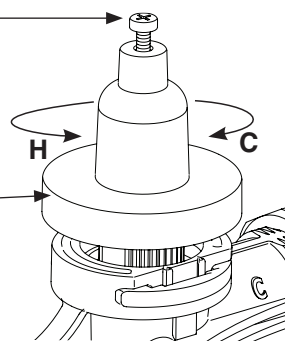
### 2 Adjust Temperature with Water Running

**A**

Loosen Cap Screw about 1/4" (4-6 turns) and lift up cover (do not remove).

**B**

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.



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.

### 3 Test Unit

#### IMPORTANT! DO NOT skip this step!

Shut the hot water inlet off by closing hot water 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.

Shut the cold water inlet off by closing the cold water inlet valve. While the cold water supply is off, check to make sure that the hot water flow has shut down. If hot water has shut down, fully reopen cold water supply.

## Thermostatic Mixing Valve Troubleshooting

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

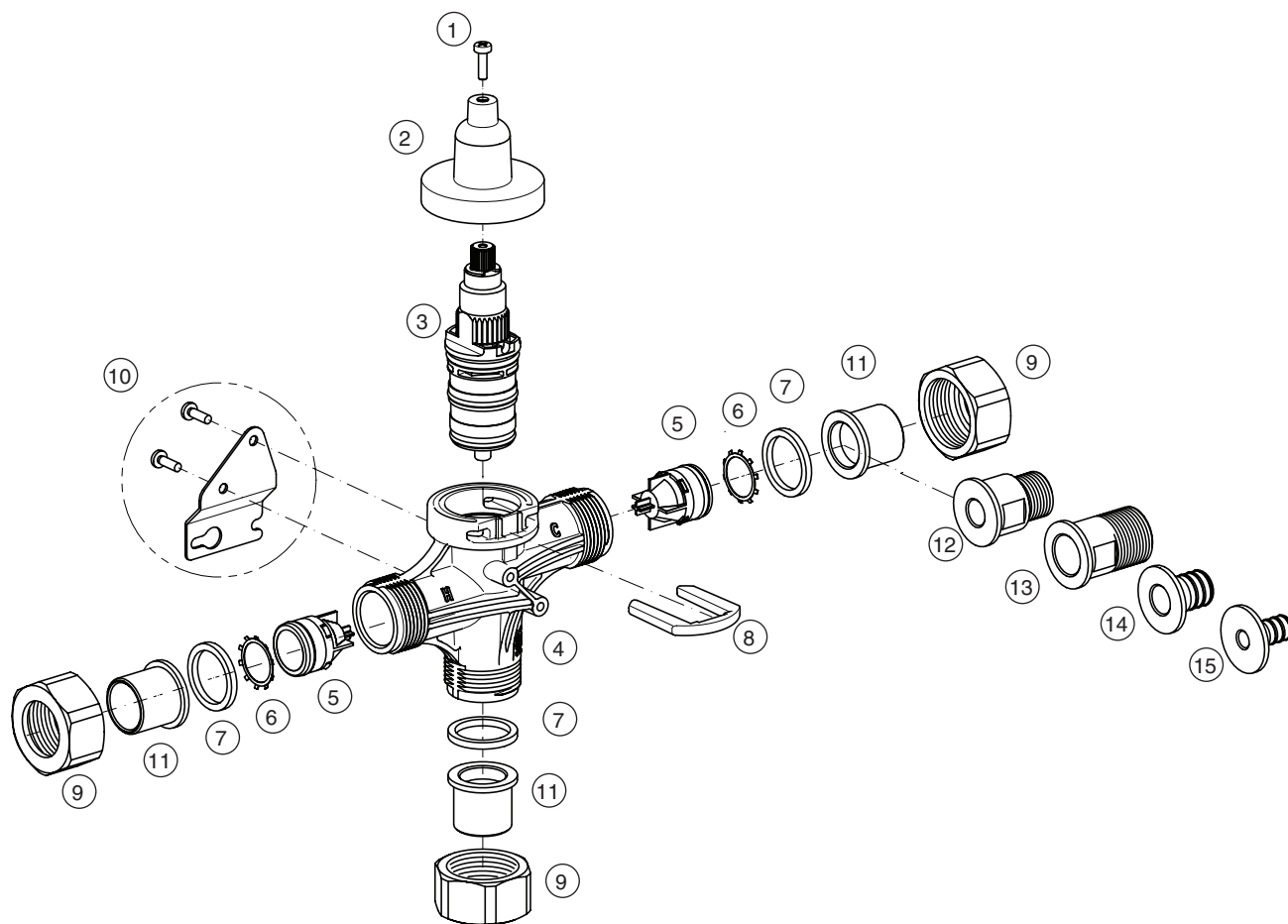
- If stop valves are used, make sure that they are fully open.
- Make sure that the hot and cold inlet pipes are connected properly, and that there are no cross-connections or leaking stop valves.
- Check the hot water heater output to make sure that it is at least 10° F above the set temperature.



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

Problem	Cause	Solution
<b>External leaks.</b>	Damaged cartridge or O-rings.	Replace cartridge with part number 269-2000S
<b>Improper water temperature or temperature fluctuation.</b>	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.
<b>Limited water flow.</b>	Dirt and debris have built up in the valve or strainer.	<ol style="list-style-type: none"> <li>1. Check to make sure both hot and cold supplies are connected to the Navigator mixing valve and that they have water flow.</li> <li>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.</li> </ol>

## Assembly of Components



## Parts List

Item	Part No.	Description	Quantity				
			S59-4016D	S59-4016X	S59-4016N	S59-4016S	S59-4016Y
1	160-499	Cap Screw	1	1	1	1	1
2	107-607	Cover	1	1	1	1	1
3	269-2000S	Thermostatic Cartridge	1	1	1	1	1
4	118-323	Valve Body	1	1	1	1	1
5	198-015	Check Valve*	2	2	2	2	2
6	132-055	Retaining Ring*	2	2	2	2	2
7	125-001CP	Rubber Washer	3	3	3	3	3
8	146-081	U-Clip	1	1	1	1	1
9	110-245	Tailpiece Nut	3	3	3	3	3
10	S45-2456	Mounting Bracket Kit (optional)	1	1	1	1	1
11	129-067	¾" Sweat Tailpiece	-	-	-	3	-
12	129-068	½" NPT/Sweat Tailpiece	3	-	-	-	-
13	129-066	¾" NPT Tailpiece	-	-	3	-	-
14	129-070	¾" PEX Tailpiece	-	-	-	-	3
15	129-069	½" PEX Tailpiece	-	3	-	-	-

\* Included with Prepack S65-380