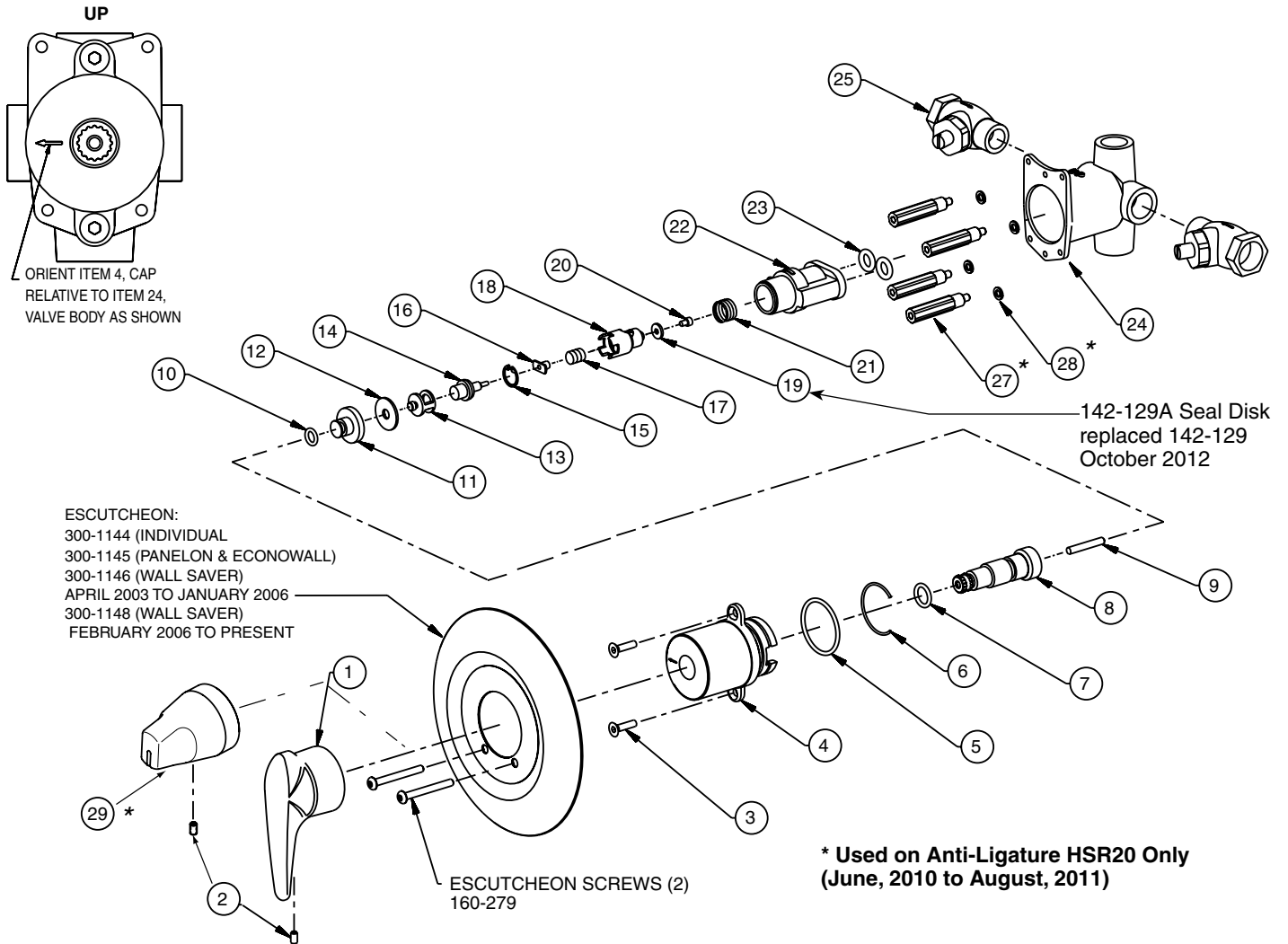


Thermostatic Mixing Valve — Model S59-2005 (April, 2003 to Present)

For Individual, Econo-Wall, Wall Saver and Panelon Showers



To adjust the valve's temperature to other than the factory preset, follow the procedures outlined below.

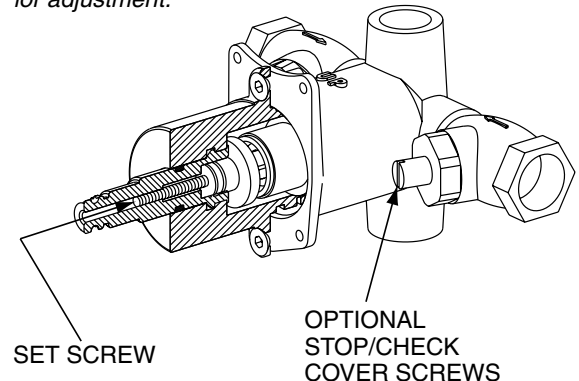
1. Turn on the water and let it run until 2.5 – 4 GPM is flowing through the valve.
2. Remove the shower valve handle and handle screw to expose the set screw inside the valve stem.
3. Using a 3/32" hex-head Allen key, turn the set screw **counterclockwise** to **increase** the temperature or **clockwise** to **decrease** the temperature.
4. When the adjustment is complete, replace the handle and turn off the water.

NOTES: When replacing the double face seals, lubricate the top face with a small amount of lubricant when reassembling.

When assembling the valve cap into valve body, use lubricant on 125-154 O-ring to prevent twisting of O-ring.

If lubricant is not available, a slight film of soap may be used.

NOTE: The maximum temperature for this valve has been set to approximately 110° F with an incoming hot water temperature of 140° F. This maximum temperature may need to be adjusted based on the installation conditions or application. See Figure below for adjustment.



Valve Shown with Handle and Escutcheon Removed for Clarity

Thermostatic Mixing Valve — Model S59-2005 (April, 2003 to Present) For Individual, Econo-Wall, Wall Saver and Panelon Showers

Parts List

Item	Part No.	Description	Assembly	Thermostat Kit	Piston/Liner	O-Ring/Seat Kit
				S65-257	Kit S65-253	S65-252
				Quantity		
1	128-163	Handle	1	—	—	—
2	160-226	Set Screw 10-24 x 5/16	1	—	—	—
3	160-225	Flat Screw 10-24 x 3/4	2	—	—	—
4	107-519	Cap, TMV-Shower	1	—	—	—
5	125-154	O-Ring	1	1	—	1
6	153-427	Retainer, Shower TMV	1	—	—	—
7	125-001CD	O-Ring	1	—	—	1
8	120-152	Stem, Shower TMV	1	—	—	—
9	160-408	Set Screw 10-24 x 1-1/4	1	—	—	—
10	125-001CM	O-Ring	1	—	—	1
11	153-404	Holder-Shutoff Disk	1	—	—	1
12	142-112	Disk-Shutoff	1	—	—	1
13	153-406	Retainer-Shutoff Disk	1	—	—	1
14	S39-413	Thermostat	1	1	—	—
15	132-044	Retaining Ring	1	—	1	—
16	153-405	Retainer-Overheat Spring	1	—	1	—
17	135-085	Spring	1	—	1	—
18	119-245	Piston	1	—	1	—
19	142-129A	Seal Disk - Hot	1	—	1	—
20	160-407	Screw 6-32 x 3/16	1	—	1	—
21	135-074	Spring	1	—	1	—
22	144-065	Liner, TMV-Shower	1	—	1	—
23	125-155	O-Ring	2	—	2	2
24	118-144	Valve Body	1	—	—	—
25	S27-102	Stops (Optional)	2	—	—	—
26	300-0402	Foam Rim Seal (not shown)	1	—	—	—
27	153-462	Anti-Ligature Spacer	4	—	—	—
28	142-002BT	Lock Washer	4	—	—	—
29	128-179	Anti-Ligature Handle	1	—	—	—

Complete Valve Replacement/Retrofit Kit:

S65-254 Individual and Econowall Showers

S65-254A Panelon

S65-254B Wall Saver

NOTE: Above part numbers contain all parts necessary to replace/retrofit one station only. Customer must order proper amount of kits; example: Three S65-254 kits required for a 3W Econo-Wall Shower.

Thermostatic Mixing Valve — Model S59-2005 (April,2003 to Present)

For Individual, Econo-Wall, Wall Saver and Panelon Showers

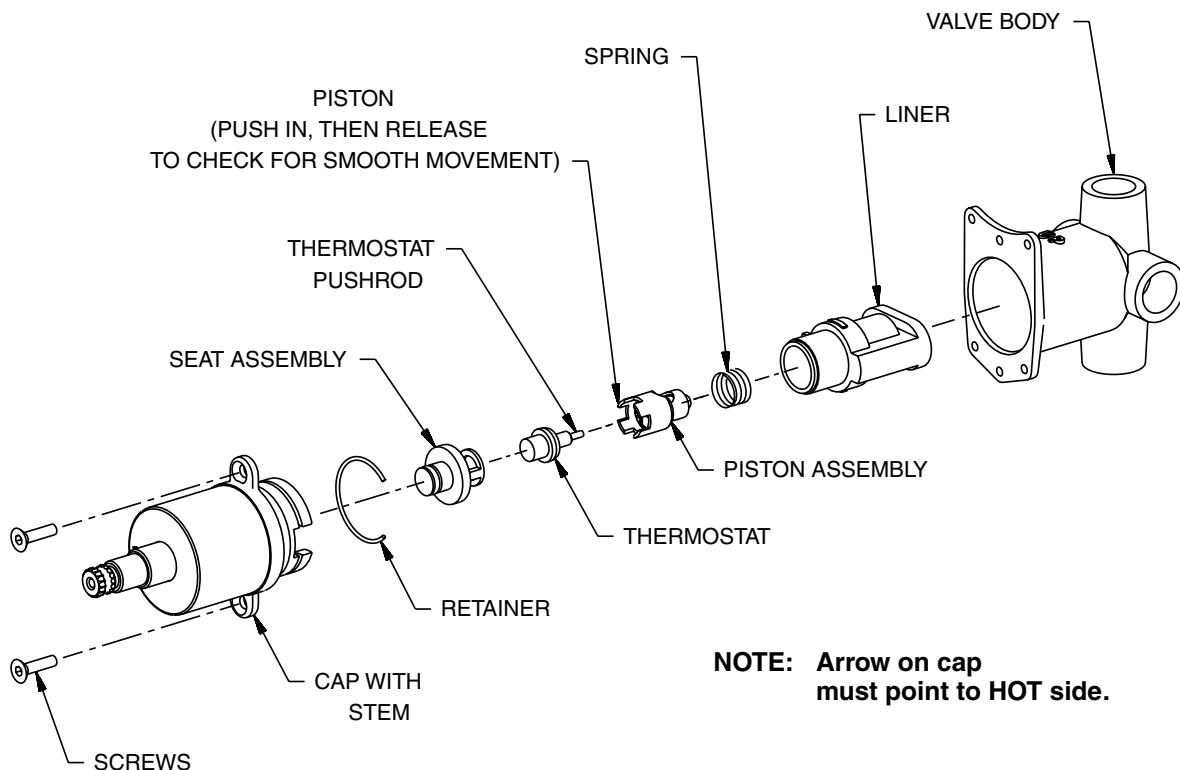
Thermostatic Mixing Valve Maintenance

For maximum efficiency, your thermostatic mixing valve requires a minimum amount of maintenance. Follow the procedures outlined below to achieve highest performance.

Check the Piston for Smooth Movement

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

1. Remove the handle and escutcheon to expose the valve assembly.
2. Loosen the two screws that hold the valve assembly in the valve body.
3. Remove the valve assembly.
4. Gently pry the retainer off the valve assembly. This will separate the cap and liner exposing other components.
5. Disassemble components as shown below.
6. Push in on the piston with your finger (the piston should move freely). If the movement is not as it should be, the piston and liner assembly needs to be cleaned.
 - 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 liner).
7. Reassemble the valve assembly in reverse manner.
8. If, after a thorough cleaning, the piston does not move freely, the piston/liner assembly must be replaced. Order a new Piston/Liner Assembly as specified in the parts list.



Thermostatic Mixing Valve — Model S59-2005 (April, 2003 to Present)

For Individual, Econo-Wall, Wall Saver and Panelon Showers

Thermostatic Mixing Valve Maintenance continued . . .

Check the thermostat for proper operation

To check the valve's thermostat for proper operation, follow the procedure outlined below.

1. At room temperature (80° F or less), remove the valve assembly from the valve body as outlined in the previous section detailing piston movement.
2. Place the thermostat into a small container filled with 115° water. The thermostat's pushrod should pop out of the thermostat approximately 1/10".
3. If the pushrod does not pop out, the thermostat must be replaced (it cannot be repaired). Order a new thermostat kit as specified in the parts list.

Thermostatic Mixing Valve Troubleshooting

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

- *if optional stop/check valves are used, make sure that they are fully open and that all inlet and outlet shut-off valves are 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 15° 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	Cause	Solution
Limited water flow	The optional stop/check sections of the valve do not move freely.	Dirt and debris have collected on the stop/check valve seat limiting the movement of the stop/checks. The stop/checks should be disassembled and cleaned. The components may be brushed with a small wire brush to remove debris. If the optional stop/check valves need to be replaced, contact your Bradley representative and ask for Stop/Check Valve (part number S27-102).
External leaks in the system	Either the NPT joints or O-rings have been damaged.	Replace the NPT joints and/or O-rings where necessary. For replacement of the O-rings, order the O-ring/Seat kit as specified in the included parts list.
Improper water temperature or temperature fluctuation	Thermostat is slowly failing or not working at all.	See "Check the thermostat for proper operation" and follow the step-by-step procedure.
	Valve temperature is not properly set.	See "Adjusting the temperature" found on 215-1369-28 (1 of 4) and follow the step-by-step procedure.
	Inlet supply line to the mixing valve is being shared by other pieces of equipment that are used only periodically, such as laundry appliances or washdown stations. It may reduce the inlet pressure to the mixing valve to less than 3 PSI. The supply line size may not be large enough to supply both the valve and the other appliances.	Enlarge the supply line size, reconfigure the supply line or regulate the supply usage.