

**Note:**

- During sweating of inlet lines do not overheat casting. Overheating may cause damage to internal mechanisms and void the manufacturer’s warranty as well as increase the risk of scalding.
- Do not use plumber’s putty, chemical cleaners or any product with ammonia on any of the brass components. This will cause the finish to tarnish and void the warranty. A non-corrosive 100% silicone is recommended.

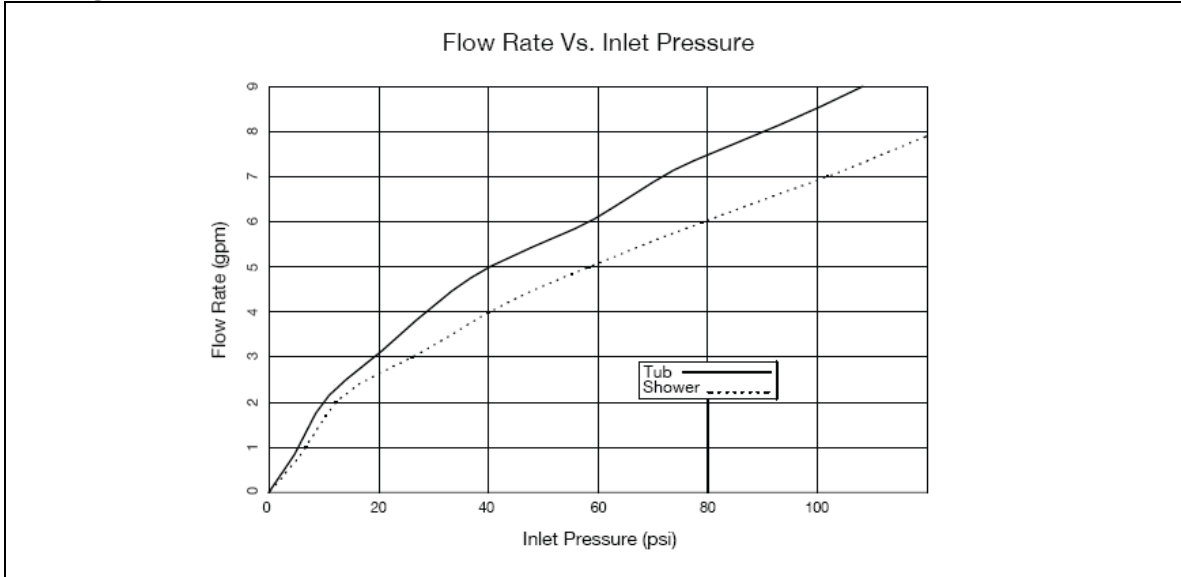
**Features:**

- Diaphragm cartridge maintains water temperature within  $\pm 2^\circ\text{F}$
- Compensates for water pressure fluctuations preventing scalding

**Specifications:**

Operating pressure is 20 PSI to 145 PSI  
 Temperature range is 50°F to 180°F  
 All inlets and outlets are 1/2” IPS

**Diagram 1**



**Diagram 2**

Specification from Finished Wall to Tip of Broached Stem

Series Name	Measurement
Ashland	3 1/4"

Note: When fitting handle trim it may be necessary to shorten broach stem and/ or threaded nipple to eliminate gap between handle and escutcheon.

1. Flush the lines of all dirt and debris. Failure to completely flush the lines will cause valve failure and will void the manufacturer's warranty.
2. Position valve in wall with the shower outlet marked "S" up and the tub outlet marked "T" down. Refer to *diagram 2* for proper installation depth.  
**Note:** Protective cover (mud guard) may be removed to ensure proper installation depth but must be replaced on valve for plastering and/or tiling. Diameter of wall cut-out hole around valve is 6 ¼".
3. Test pipe joints and inspect for any possible leaks, pressuring both the hot and cold inlets, before attaching the outer trim components.
4. For back to back installations or where the hot and cold water supplies are reversed, turn off the hot/cold water supplies and then simply take out the cartridge, rotate it 180° and re-insert.
5. Install decorative trim. Fit faceplate onto valve.  
**Note:** for tub/shower valves with diverter, screw diverter knob onto diverter stem.
6. Insert handle trim onto stem broach so that escutcheon rests against faceplate and slight clearance is left for handle to rotate freely.  
**Note:** When fitting handle it may be necessary to shorten broach stem and/or threaded nipple to eliminate gap between handle and escutcheon.

**Shower head with hand shower installation**

1. Choose your primary function device (i.e. where you want the water to first come out of when turning on the valve).
2. Pipe the bottom outlet marked "T" to this device
3. Pipe the secondary function device to the top outlet marked "S"

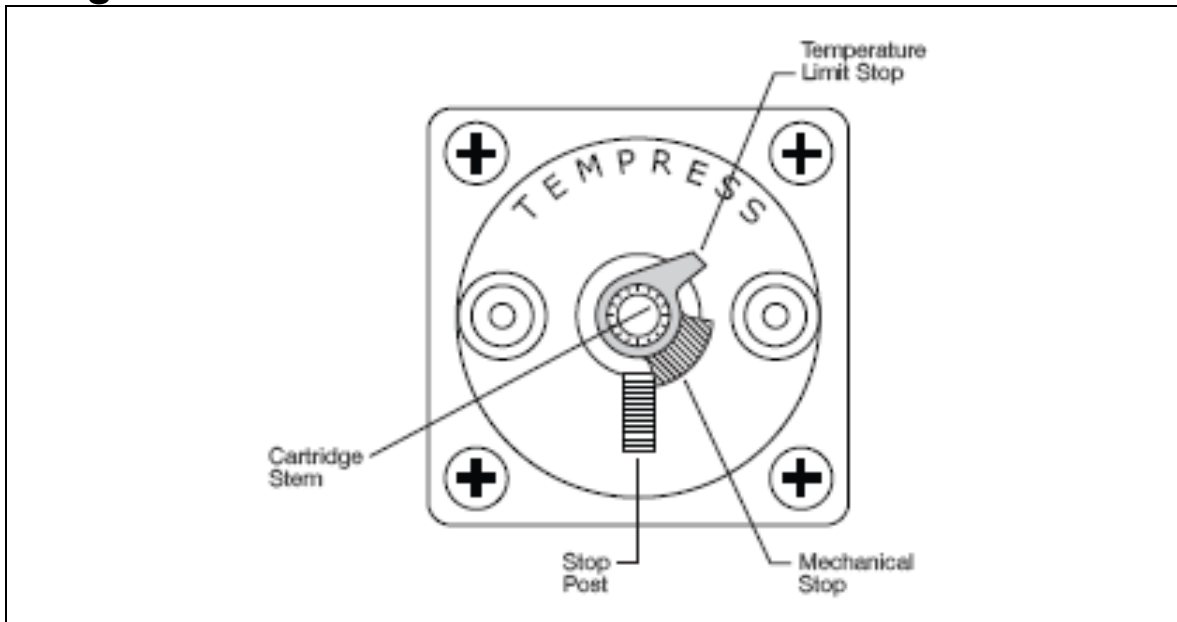
**Note:** The "S" outlet must have a maximum outlet volume of no more than 2.5 GPM.

**Adjusting the Temperature Range:**

The temperature limit stop is set at the factory in a neutral position. This device can be adjusted to limit the maximum temperature of water delivered by the valve.

1. Remove all decorative trim.
2. Rotate the cartridge stem fully clockwise to the closed position so that the mechanical stop rests against right side of the stop post.
3. Remove stem broach by inserting a long narrow Phillips head screw driver into the center of the broach and unscrewing screw.
4. Lift off temperature limit stop.
5. Rotate cartridge stem counter clockwise to desired maximum temperature. Place temperature limit stop on cartridge stem against the left side of the stop post.
6. Rotate the cartridge stem fully clockwise to close valve.
7. Reinstall stem broach with screw onto cartridge stem.
8. Reinstall trim

Diagram 3

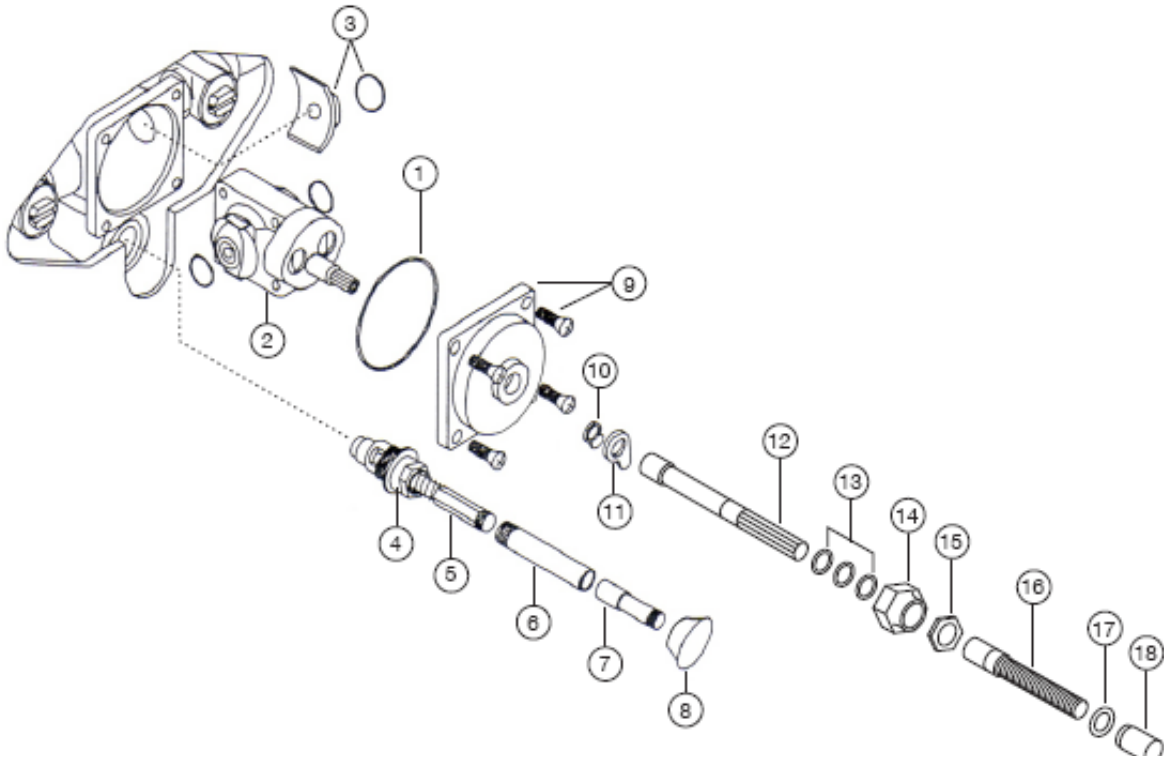


### Troubleshooting

Malfunction	Cause	Remedy
Shower control opening through hot	Hot and cold water supplies have been connected in reverse	Rotate cartridge
Tub filler or shower head drips after shutting off the valve	Water remains in the shower piping column (this is normal)  Incorrect setting of the mechanical stop against the stop post causing a partially opened cartridge  Cartridge inlet o-rings or the filter insert o-rings are faulty	Allow approximately 3-5 minutes to drain column. <b>Do not stop dripping by applying excessive force when closing the valve.</b>  Reset the mechanical stop as described in "Adjusting the temperature range"  Check the o-rings on the cartridge inlets and the filter inserts for cuts or damage and replace if necessary.
Shower insufficiently hot	Incorrect setting of the temperature limit stop	Reset the temperature limit stop as described in "Adjusting the temperature range"
No flow of hot or cold water	Either the hot or cold side is not fully pressurized  Debris in the inlet filter and/or cartridge and/or check valves	Be sure check valves are both fully open and system is fully pressurized. Remove filter inserts and filters, cartridge, and check valves, and remove any

		debris.
Valve body too deep into wall	The measured rough in or finished wall surface is incorrect	Install the proper extension kit: SS-EXT70 for shower valve SS-EXT80 for tub/shower valve with diverter (need to specify finish)

## Diagram 4



1	O-Ring	10	Mechanical stop
2	Pressure balance cartridge	11	Temperature limit stop
3	Filter insert and filter	12	Stem broach
4	Diverter cartridge	13	Spacer
5	Diverter link	14	Hex nut
6	Diverter sleeve	15	Flat hex nut
7	Diverter stem	16	Threaded nipple
8	Diverter knob	17	Knurled flat plate nut
9	Valve cover and 4 screws	18	Stem protector tube insert

For technical support, please call 1-888-779-5176

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