



Installation Instructions

Rough-in Installation

Control valve assembly, piping			
and fittings (Note: Illustrations below			
show valve model without stops)			
Reference as required:	<u>Page</u>		
Visual guide	1		
Dimensions illustration			

1) Determine wall thickness

- Determine type of wall and wall thickness where valve will be mounted.
- Consider whether to use mounting plate by reviewing figure 2 below.
- Skip ahead to **Step 3** if mounting plate is not used.
- **2)** Attach valve mounting plate Seat mounting plate against valve assembly as illustrated in figure 1.



Figure 1 Mounting plate

- 3) Attach protective shield
- Reference figure 2 to determine whether shield is required.
- Attach protective shield by snap fitting over end of valve spindle.
- 4) Install piping, fittings and control valve Piping and fittings not supplied
- **Control Valve** Install through cutout hole in wall as specified in figure 2 below and dimension illustration on page 4.
- Showerhead (S on valve) Pipe from outlet port on valve marked S to showerhead mounting arm location.
- Hot & Cold Supply (H & C) Pipe hot water supply to valve inlet marked H and cold water supply to valve inlet marked C.
- Tub Spout (T on valve) Pipe from outlet port on valve marked T to tub spout.

Important! Do not substitute Tub Spout with restrictive fittings such as PEX, CPVC or outlet accessories such as a ledge spout, hose and spray that would subject the valve to excessive internal back pressure, otherwise operation will be compromised.

5) Remove protective shield

If protective shield was attached in **Step 3** then remove shield snap fitted over the end of valve spindle once valve is securely installed and wall finish work has been completed.

6) Adjust valve packing nut Reference figure 3 below

- Turn hot & cold supplies on. Valve will not operate unless both hot and cold water supply pressures are turned on.
- Place handle over end of *control spindle stem*.
- Adjust *packing nut* for positive frictional resistance as handle is rotated from shutoff position across adjustment range.



Figure 3 Valve adjustments



7) Flush system, check for leaks

- Turn valve to the warm position and run for a few minutes.
- If system is dirty, remove valve spindle in center of valve to ensure proper flushing. (See service instructions.)
- Check for leaks around valve assembly and all pipe fittings.

8) Set Temp Limit stop screw Reference page 2, figure 3

The temperature limit stop screw limits valve handle from being turned to maximum position resulting in excessive hot water discharge temperatures.



Warning: Failure to adjust *Temp Limit stop screw* properly may result in serious scalding.

- Place handle on *control spindle stem* and open valve to maximum desired temperature.
- Turn *Temp Limit* stop screw clockwise until it seats.

Note: Do not install positive shutoff devices on control valve outlet or devices that do not allow the valve to flow at least 1.5 gpm.

Trim Installation

1) Attach escutcheon mounting plate



2) Attach escutcheon



3) Attach dome cover



4) Attach handle



5) Attach showerhead



6) Attach tub spout



Tub-Shower Operation Control handle ON-OFF



Adjust water temperature



Care and Cleaning

Clean finished area using mild soap and water or a non-abrasive cleaner

and then quickly rinse. A nonabrasive wax may be used to preserve finish area.







Symmons	valve Bo	Valve Body Type		
Part Number	4000-BODY	4000-X-BODY	Description	
TA-4	\checkmark	\checkmark	HOT & COLD seat repair kit(optional tool p/n T-35A/B)	
TA-9	\checkmark	\checkmark	Control spindle washer repair kit	
TA-10	\checkmark	\checkmark	Control spindle(includes p/n TA-9 & T-16 components)	
T-12A	\checkmark	\checkmark	Cap assembly	
T-16	\checkmark	\checkmark	Cap washer repair kit	
T-35A/B	\checkmark	\checkmark	HOT seat removal tool, T-35A & COLD seat removal tool, T-35B	
T-52		\checkmark	Service stop spindle & retainer	
T-55C		\checkmark	Service stop spindle, retainer & removal tool	
T-108			Reverse seat & tool kit (valve HOT & COLD supply inputs are reversed)	

Trouble Shooting Chart

Problem	Cause	Solution	
Valve will not pass water.	Both hot and cold water supplies are not turned on.	Turn on both supplies. Valve will not operate unless both hot and cold water pressure is on.	
Valve leaks when shut off.	Hot and cold washers are worn or foreign matter (dirt, chips) is lodged between washers and seat surfaces.	 Replace washers using <i>control spindle</i> <i>washer repair kit</i>, p/n TA-9. Replace hot & cold seats using <i>hot/cold</i> <i>seat repair kit</i>, p/n TA-4. 	
Temperature control handle is turned from cold to hot (or hot back to cold) and volume from spout or head is not constant.	Pressure-balancing piston housed in spindle assembly is restricted from free movement by foreign matter.	 Open valve halfway, remove handle and tap spindle with plastic hammer. Check <i>water pressure balancing piston</i> in <i>control spindle</i>. See service instructions. Replace <i>control spindle</i>, p/n TA-10. 	
Valve delivers sufficient quantity of cold, but little hot, or the reverse.	Same as above	Same as above	
Temperature varies without moving handle.	Same as above	Same as above	
Valve delivery temperature reduces gradually during use; handle must be turned to hotter positions to maintain constant temperature.	Overdraw on hot water supply (i.e. running out of hot water).	Reduce maximum flow by using volume control adjustment on valve or showerhead. This will allow longer period of use before overdrawing hot water supply.	
Valve delivers hot water when initially opened. Water turns colder as handle is rotated in a counter-clockwise direction toward the hot position.	Valve is piped incorrectly (i.e. the hot supply is piped to the valve's cold inlet and the cold supply is piped to the hot inlet.)	If piping is accessible, correct connections to the valve. If piping is not accessible, order a <i>reverse seat and tool kit</i> , p/n T-108. Older installations may also require replacing the hot seat, <i>hot/cold seat repair kit</i> , p/n TA-4.	
 Service Instructions Removing control spindle assemble (Ref. parts assembly figure) Shut off water supply to valvand remove control valve handland dome cover. Remove escutcheon plate by first removing escutcheon screws. Turn valve's control spindle to have way position between minimum and maximum rotation. Important: Failure to do this can damage control spindle assembly 	 Install and tighten both seat 15 foot pounds of torque. Control spindle washer repair k Order p/n TA-9. Remove control spindle assemt Remove cold washer by hole spindle using valve handle unscrew cold washer retausing channel lock pliers. Remove hot washer by remove to the spindle using valve by remove to the spindle using valve by remove to the spindle using channel lock pliers. 	 do the following: (1) Tap the handle or stem end of the spindle against a solid object to free the piston. (2) Try soaking in household vinegar and repeat step (1). If unable to free piston, replac control spindle, p/n TA-10. 	
 Unscrew both <i>spindle cap</i> an <i>control spindle assembly.</i> Hot/Cold seat repair kit Order p/n TA-4, T-35A and T-35B. Installation requires both hot & col removal tools, p/n T-35A & T-35B. Remove <i>control spindle assembly</i> Remove both seats with remova tools. 	 d Checking water pressure balancing piston The perforated end of the conspindle assembly houses the way pressure-balancing piston which the heart of the valve. Remove control spindle assembly and lither for disking paisa Distancian Dist	vaterAfter the control spindle assemblych is(TA-10) is threaded back into the spindle cap assembly (T-12A)nbly.ensure control spindle is rotated 1/2istenturn clockwise from its maximum ouldouldcounter clockwise rotational	