# **Guarantee & Registration**

#### Guarantee

All products are manufactured to the highest standards and 5-year guarantee covers any defect in manufacture.

Any part found to be defective during the above guarantee period will be replaced without charge providing that the product has been installed in accordance with our instructions, used as intended and maintained/serviced as recommended.

In the unlikely event that any problems are encountered with this product's performance on installation, you must obtain guidance/authorisation from our Customer Service Department before any remedial action is taken and be able to supply proof and date of purchase.

The guarantee excludes damage caused by accident, misuse or neglect and does not cover the following:

- Those components subject to wear and tear such as 'O' rings and washers etc.
- Damage caused by faulty installation,
- Damage caused by any waterborne debris,
- Damage caused by improper cleaning products,
- Damage caused by the use of non-Bristan parts,
- The product being used for a purpose other than intended.

The company reserves the right, in the event of a claim not covered by the guarantee, to charge the claimant for parts and labour at current rates. This guarantee is given in addition to and does not affect your statutory rights.

In the interests of continuous product development we reserve the right to alter the specification as necessary.

## Registration

To register your product with us please complete and return the enclosed registration card.

# PRODUCT CODE: PM SQSHU C

# TELEPHONE HELP LINE! +44 (0) 870 4425553

Bristan Ltd Lagrange Lichfield Road Industrial Estate Tamworth Staffordshire B79 7XD A Masco Company

Web-Tel-Fax-Emailwww.bristan.com +44 (0) 870 4425556 +44 (0) 870 4425554 enquire@bristan.com

(FI PM SQSHU) (REV.D1) (AJ)



# Prism Sequential Thermostatic Shower Surface Mounted With Adjustable Riser

# Fitting Instructions



Before starting any installation project please consider:

Prior to drilling into walls, check there are no hidden electrical wires, cables or water supply pipes with the aid of an electronic detector. If you use power tools do not forget:

- Wear eye protection
- Unplug equipment after use

Please keep these instructions for future reference and the request of replacement parts

800355/A



#### INTRODUCTION

Your Bristan single control shower fitting is a thermostatic mixer incorporating a wax capsule thermostat to ensure constant showering temperatures.

This valve has been designed to comply with BS EN 1111:1999 and BS EN 1287:1999, manufactured to the highest quality standards and is a 'Water Regulations Advisory Scheme' approved product.

These instructions are for your guidance to a safe and successful installation and should be left with the user.

The valve is supplied with the hot inlet on the left and the cold inlet on the right when viewed from the front. The hot supply must be connected to the inlet port marked 'H'.

Please read these instructions carefully, and ensure the shower valve is installed to Local Water Authority regulations. If in doubt, contact a registered plumber or the Secretary of Institute of Plumbing, address as follows -

Institute of Plumbing 64 Station Lane Hornchurch Essex Rm12 6NB

Tel: 01708 472791

#### SITE REQUIREMENTS

To ensure the correct operation of your shower mixing valve it is important to fully understand your site installation. This thermostatic mixing valve will suit the following -

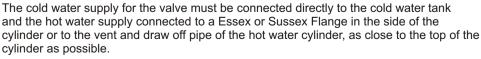
> HIGH PRESSURE LOW PRESSURE MAINS PRESSURE PUMPED PRESSURE **UNEQUAL PRESSURE GRAVITY PRESSURE**

The shower mixing valve may require slight adjustment depending on your site installation the following may apply.

#### **GRAVITY FED**

Fig A shows a typical layout. The distance between the bottom of the cold water tank and the shower head must be a minimum of 1 meter (0.1 bar).

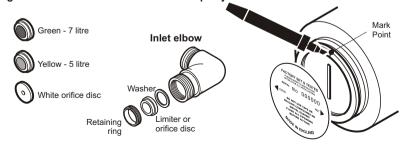
The cold water supply for the valve must be connected directly to the cold water tank and the hot water supply connected to a Essex or Sussex Flange in the side of the cylinder as possible.



Supply System		Flow Limiter		
Cold Supply	Hot Supply	Cold	Hot	Comments
0.1 to 1.0 bar	0.1 to 1.0 bar	No	No	Maximum pressure loss ratio 5:1
1 to 5 bar or Pumped	1 to 5 bar or Pumped	Green (7 litre)	Yellow (5 litre)	# Use arrangement for pumped system
Mains 1.5 to 10 bar	Gravity 0.1 to 0.2 bar	White Disc	No	
	Gravity 0.2 to 0.5 bar	Green (7 litre)	No	
	Gravity above 0.5 bar	Green (7 litre)	Yellow (5 litre)	
	Unvented Mains/ Mains Pressurised			
	Instantaneous Gas Water Heater	Green (7 litre)	*Yellow (5 litre)	**Open Bottom Cap ½ turn anti-clockwise
	***Instantaneous Electric Water Heater	Green (7 litre)	No	**Open Bottom Cap ½ turn anti-clockwise
	Any Vented (open outlet) heater gas/electric. Eg electric shower	DO NOT USED WITH MIXER VALVE- THIS WOULD BE EXTREMELY DANGEROUS		

- Limiters can be fitted if water economy is required.
- Yellow (5 litre) limiter may not be necessary on some gas heaters.
- The bottom cap is factory set at 3/4 turn from fully closed position.
- IMPORTANT! It is a requirement of Instantaneous Electric Water Heaters that a stable flow of water passes through the heater. This requirement can be satisfied by using a flow stabiliser (960060) fitted prior to the heater and should be adjusted to give a temperature of between 45-50°C from the heater.

### Fitting limiter or orifice disc and Bottom Cap adjustment



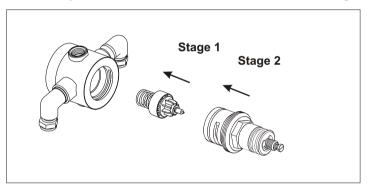
Remove wall bracket from mixing valve (see Installation). Peel off label to reveal Bottom Cap, with a marker pen, mark a point in-line with slot. Turn extra anticlockwise ½ (180°) turn using a screw driver.

#### **CLEANING AND LUBRICATION**

- 1) Soak all metal parts in descalent, wash off in clean water.
- 2) Examine all seals and replace if necessary.
- Use silicon based grease on all seals (light smear only). A maintenance kit is available, which contains all seals and grease from your local stockist or Manufacturer.

#### **RE-ASSEMBLY**

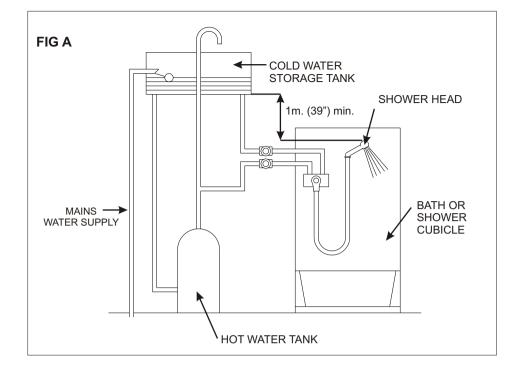
- 1) Place the spring in the bottom of the piston assembly, then place the thermostat in the top.
- 2) Screw the cartridge back into the shower valve and fully tighten.
- 3) Re-assembly the valve head work in reverse order of dismantling.



#### **GENERAL FAULT DIAGNOSIS**

If your Thermostatic Mixing Valve fails to operate either immediately upon installation or after a period of time, the following points should be checked;

- 1) Isolate supplies and ensure that both hot and cold supplies are reaching the valve body. You may need to dis-connect supply pipes to ensure this.
- 2) Ensure that there is no debris between the faces of the piston and it's mating faces, the bottom of the valve body and the cartridge.
- 3) Check that the valve has been installed correctly in accordance of its particular feed system (i.e use of flow limiters where necessary).
- 4)Check that the hot water temperature source is sufficient; preferred minimum of 60°C.



The above installation is recommened for most showers, if however your cold supply is mains pressure then the following will be required;

#### MAINS COLD SUPPLY

- A) \*Hot supply between 1 to 4 metres (0.1-0.4 bar)
   Mains cold supply up to 10 bar.
   \*Fit 7 litre (green) limiter into cold inlet elbow only.
- B) \*Hot supply above 5 metre (0.5 bar)
  Mains cold supply up to 10 bar.

  \*Fit 5 litre (yellow) limiter into hot inlet elbow.

  \*Fit 7 litre (green) limiter into cold inlet elbow.

#### UNVENTED SYSTEM

Fit 5 litre (yellow) limiter into hot inlet elbow. Fit 7 litre (green) limiter into cold inlet elbow.

This will give a shower outlet of about 10litres/min. (2.2 gallons per min). (Cold supply to shower from same source as hot).



#### **INSTANTANEOUS GAS WATER HEATER & COMBINATION BOILER (UNVENTED)**

The hot supply from the heater is to be connected to the hot inlet elbow and cold inlet elbow connected to the cold supply. Fit 7 litre flow limiter (as supplied) into the cold inlet elbow

#### **INSTANTANEOUS (NON STORAGE)**

7-9kw Electric Water Heaters (Unvented)

This will require a 5 litre (yellow) flow limiter as supplied into Cold outlet only.

IMPORTANT - It is a requirement of Instantaneous Electric Water Heaters that a stable flow of water passes through the heater.

This requirement can be satisfied by using a Gummers Flow Stabilizer and should be adjusted to give a temperature of between 45 & 50°C from the heater.

Flow Stabilizers should be fitted prior to the heater.

#### **PUMPED SHOWERS**

Your Thermostatic shower is also ideal for power shower installation and can be matched to most makes of booster pump. For further information contact your local stockist.

#### WATER REGULATIONS

When connecting a mixing valve to gravity hot supply and mains cold water, current regulations will apply.

"Shower installation in all respects must meet with the requirement of Water Regulations". If in doubt you should contact your local Water Authority for advice or a registered member of the Institute of Plumbers Tel: 0170 847 2791 for a list of your nearest plumbers.

#### **SPECIFICATION**

Inlet Connections: 15 mm compression, with 150mm between centres.

Water Pressures: Min. 0.1 bar - Max. 5 bar - Max. Pressure ratio 5:1

(Maximum differential between the hot and cold pressures should not exceed 5:1 ratio)

Maximum Outlet Temp: Factory set to 41c (can be re-set to suit site conditions).

#### HOT AND COLD SUPPLY TEMPERATURE

Minimum recommended Hot: 60c Maximum Hot Supply: 80c Maxium Cold Supply: 25c

Note: The inlet hot water temperature must be at least 10c above the required blend temperature.

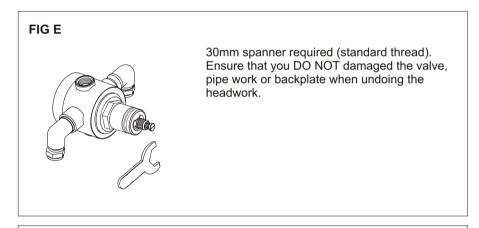
#### SERVICE/MAINTENANCE

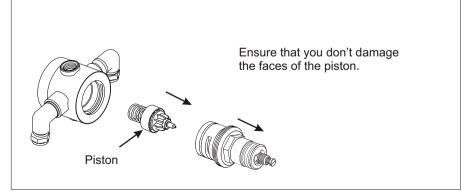
If your Thermostatic Mixing Valve fails to operate it could be the result of incorrect installation. Please refer to installation and sit requirements.

If the valve has operated correctly for a time, but no longer performs acceptably, it may

require servicing/cleaning. Proceed as follows:

- 1) isolate hot and cold supplies.
- 2) Remove the headwork assembly and spline adaptor if applicable
- 3) For concealed models, you can remove the concealing surround by inserting a thin blade at the back of the plate and rotating the blade round the back, you can then proceed to pull the plate off the valve.
- 4) Unscrew the cartridge (standard right hand thread).
- 5) Remove the thermostat, distributor assembly and spring.
- 6) Remove all visible 'o' rings and washers from the body.







#### **CONCEALED MOUNTING**

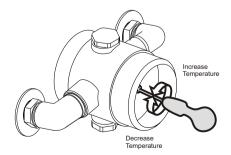
It is essential that when installing a concealed mixing valve, full access to the valve can be achieved for servicing purposes. Isolating valves are recommended on concealed models for ease of access if servicing is required.

Rear access to the mixing valve is always preferred wherever possible (e.g... an airing cupboard or panelled walls), as this removes the need to disturb any tiling or decorating features at the front of the valve.

#### **MAXIMUM TEMPERATURE SETTING**

The maximum mixed water temperature should be limited to ensure no undesirable temperature is obtained. If necessary adjust as follows -

- 1) Turn the lever/knob anti-clockwise to the maximum flow/temperature position.
- 2) Remove the knob using allen key to expose spindle. Remove spindle sealing screw, (it is normal for water to flow through the hole).
- 3) Using a small flat screwdriver through the head of the cartridge, turn the adjusting screw to alter the temperature.
- Once correct temperature is achieved, replace sealing screw ensuring O ring is attached, check for leaks.
- 5) Re-fit knob.
  - ☐ Turn the adjusting screw clockwise for cooler temperature.
  - ☐ Turn the adjusting screw anti-clockwise for warmer temperature.



#### INSTALLATION

#### GENERAL

- 1) Before commencing it is advisable to install isolating valves on both hot and cold supplies for flushing out and servicing purpose.
- 2) It is important that both supply pipes are flushed before connecting mixing valves to ensure no pipe/plumbing debris enters the mixing valve.
- 3) A simple way of flushing out the pipes is to fit the outlet adaptor to the pipe and secure with the compression nut and olive, fit the hose to the adaptor and flush out pipes to the waste.
- 4) Please ensure filters are fitted correctly. Failure to do so may invalidate your warranty.
- 5) In hard water areas the mixing valve may require more frequent cleaning and servicing.

#### PIPE POSITION

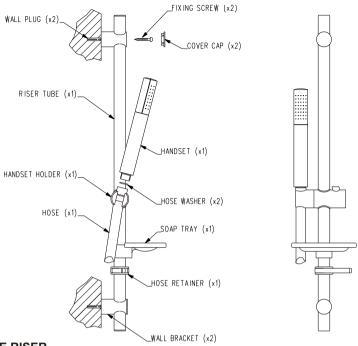
Before mounting the valve to the wall, the position for the pipe work should be decided. Three inlet positions - top, bottom and rear are possible simply by rotating the elbows in the valve body (only on exposed versions). With the elbow screwed fully against the valve body it can be unscrewed a maximum of 1.5 turns to allow for lateral tolerance.

#### **EXPOSED MOUNTING**

- 1) Use the backplate as a template for the fixing holes.
- 2) Drill and plug the wall to suit, screws are provided.
- 3) Fit the grubscrew loosely to the backplate and secure the backplate to the wall.
- 4) Locate the valve body to the wall and lock with the grubscrew. Fit the outlet adaptor to the valve exchange with the blanking plug for top outlet.
- 5) Connect the inlet pipes to the valve with compression fittings, please ensure the hot supply is connected to the inlet port 'H'.



#### KIT INSTALLATION



#### **ADJUSTABLE RISER**

Please note:- Make sure the adjustable riser is close enough to the shower valve so that the handset will be able to reach the handset holder when connected to the valve and hose.



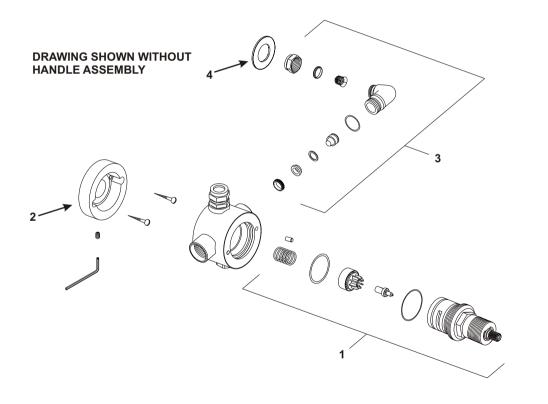
(See safety note) Establish the position and orientation of the adjustable riser, measure the required centres of the wall brackets and mark onto the wall in the required position.

- 2) Drill hole to suit wall plugs (if required) for the top bracket only. Attach the top bracket and riser tube to the wall using the fixing screw. Use the riser tube to check the position of the bottom bracket is correct and the riser will be square.
- 3) Once happy with the marking for the second hole drill and attach the bottom bracket and riser tube to the wall ensuring the handset holder, soap dish and hose retainer are in position. Use the cover caps to conceal the fixing screw.
- 4) Attach the hose to the shower valve using a hose washer after feeding it through the hose retainer. And finally attach the handset using the final hose washer.

#### **VALVE ASSEMBLY**

Exploded diagram showing valve components and their spare kits codes.

REF NUMBER	DECRIPTION	PART NUMBER
1	COMPLETE CARTRIDGE ASSEMBLY	SK1500-2 (L - LEVER TYPE)
2	BACKPLATE	220019
3	COMPLETE ELBOW ASSEMBLY	SKINLET-3
4	WALL COVER PLATE	220039



Please note all diagrams are for reference only and may differ in appearance of purchased product.

