

matki | SWADLING

2700/2720 THERMOSTATIC SHOWER VALVE

INSTALLATION

FOR MODEL
INVINCIBLE
2700 1 OUTLET
2720 2 OUTLETS

PARTS LIST



Before disposing of the carton and or commencing installation, please check all parts to ascertain that none are missing and they are all undamaged. No claim for missing parts will be accepted once the packing carton has been disposed of and or installation has commenced.

In case of query contact your Stockist with details of model number, finish and serial number.

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IMPORTANT

**Please read complete installation instructions before fitting.
Specification. TMV2 valve for use with High and Low Pressure**

Condition of use for type 2 valve	High Pressure	Low Pressure
Maximum static pressure - Bar	10 Bar	10 Bar
Flow pressure Hot and Cold - Bar	0.5 to 5.0	0.1 to 1
Hot Supply Temperature °C	55 to 65	55 to 65
Cold Supply Temperature °C	Equal to or less than 25 °C	Equal to or less than 25 °C

Valves operating outside these conditions cannot be guaranteed by the Scheme to operate as Type 2 valves.

For Dynamic flow pressures above 6 bar fit pressure reducers.

Maximum Dynamic flow pressure ratio between hot & cold inlet supplies = 5:1
Optimum performance is achieved when hot and cold inlet pressures are nominally balanced to within 10% of each other.

The shower mixer can accept temporary elevated temperatures to 85°C without damage.
Hot water storage temperatures should be maintained between 60-65°C.

Recommended outlet temperatures

44°C for bath fill see notes below

41°C for showers

41°C for washbasins

38°C for bidets

Mixed water temperatures must never exceed 46°C. The maximum mixed water temperature can be 2°C above the recommended maximum set outlet temperatures.

Note.

46°C is the maximum mixed water for a bath tap. The maximum temperature takes account of the allowable temperature tolerances inherent in thermostatic mixing valves and temperature losses in metal baths. It is not a safe bathing temperature for adults or children.

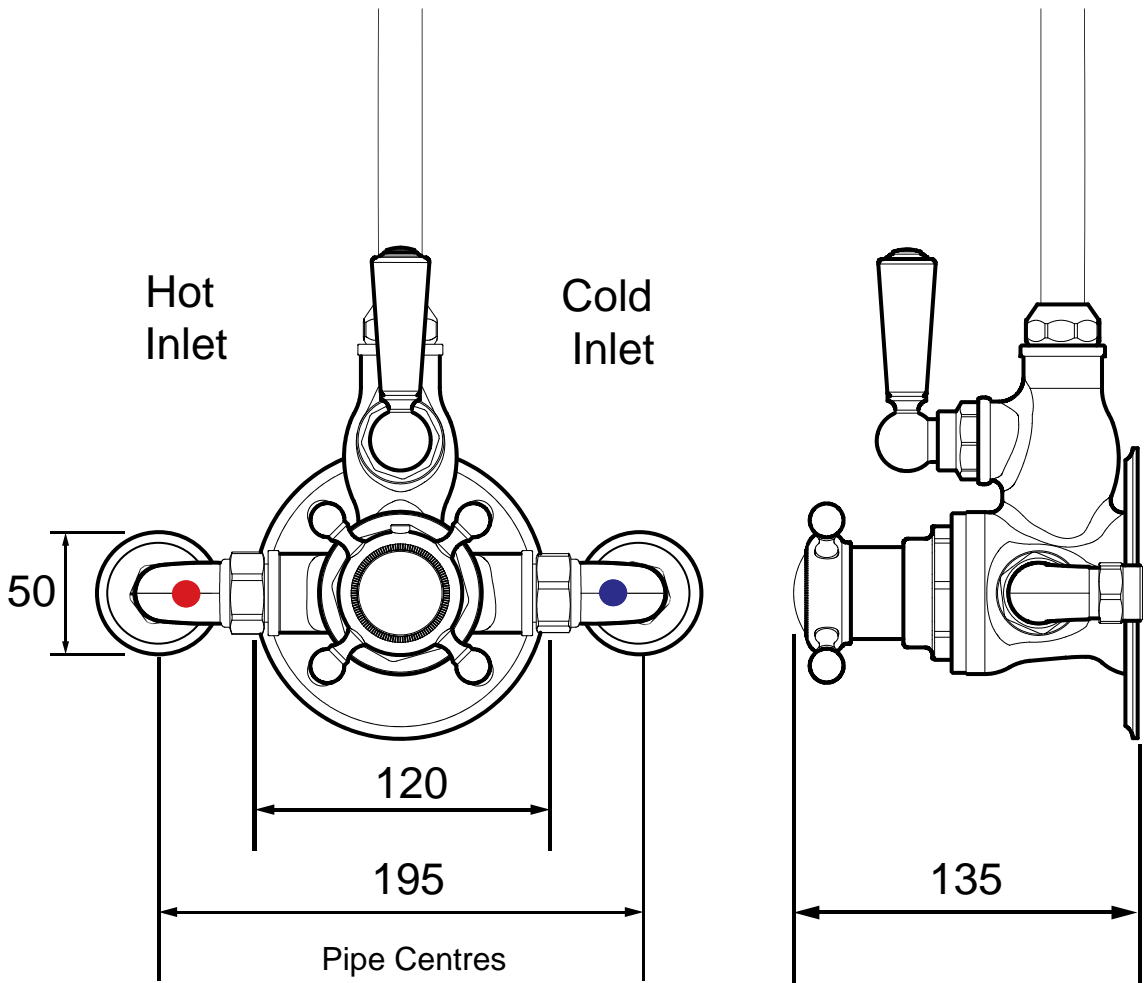
The British Burns Association recommends 37 to 37.5°C as a comfortable bathing temperature for children. In premises covered by Care Standards Act 2000, the maximum mixed water outlet temperature is 43°C.

The thermostatic mixing valve must be installed in such a position that maintenance of the TMV and its valves and the commissioning and testing of the TMV can be undertaken.
SEE SETTING TEMPERATURE - Commissioning notes.

The valve is suitable for all water systems including Gravity fed, Pumped Systems, Combination Boilers, Condensing Boilers, Mains Pressure fed Systems.
However if used in low pressure gravity feed installations to maximize flow rates use 22mm pipe work reducing to 15mm close to the inlets for the HOT and COLD supplies.

Fit isolation valves as close as is practicable to both the HOT and COLD inlet supplies.

DIMENSIONS

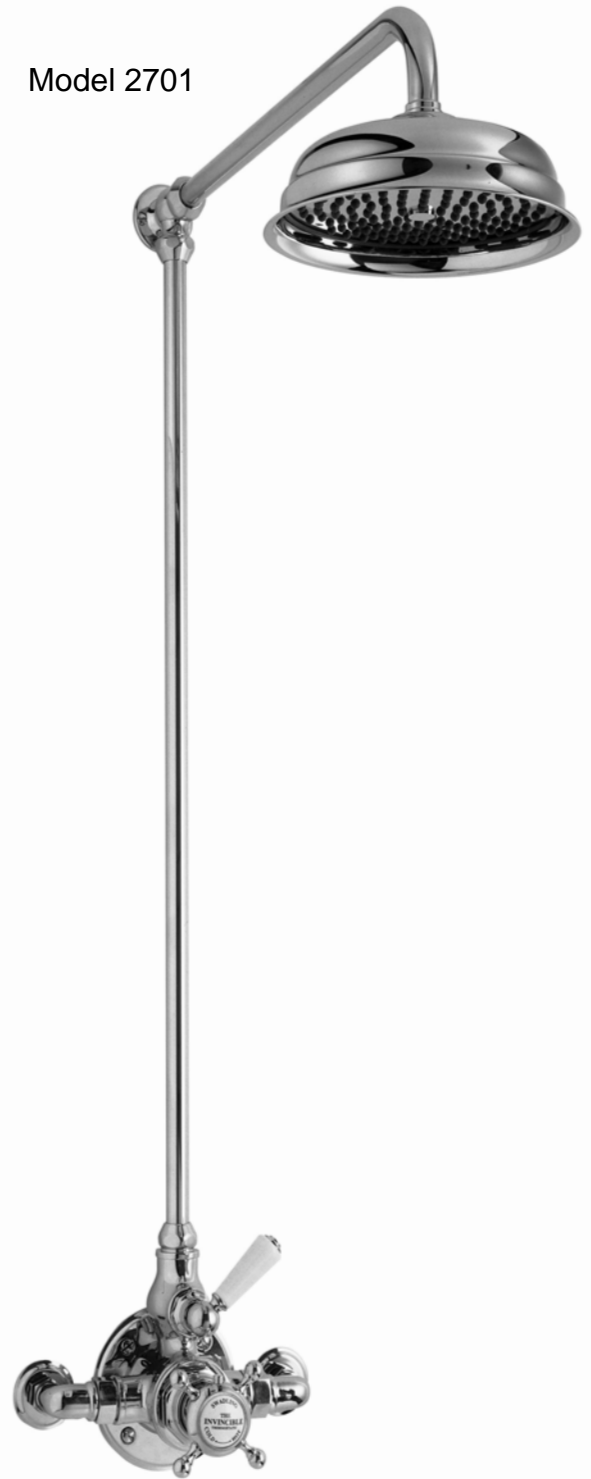


CONFIGURATION

Model 2725



Model 2701



The thermostatic valve is suitable for use with all water systems up to a maximum operating pressure of 6.0 bar. We recommend fitting pressure reducing valves for pressures above 6.0 bar.

The thermostatic valve has one or two outlets, the outlet(s) are controlled by (a) flow cartridge(s).

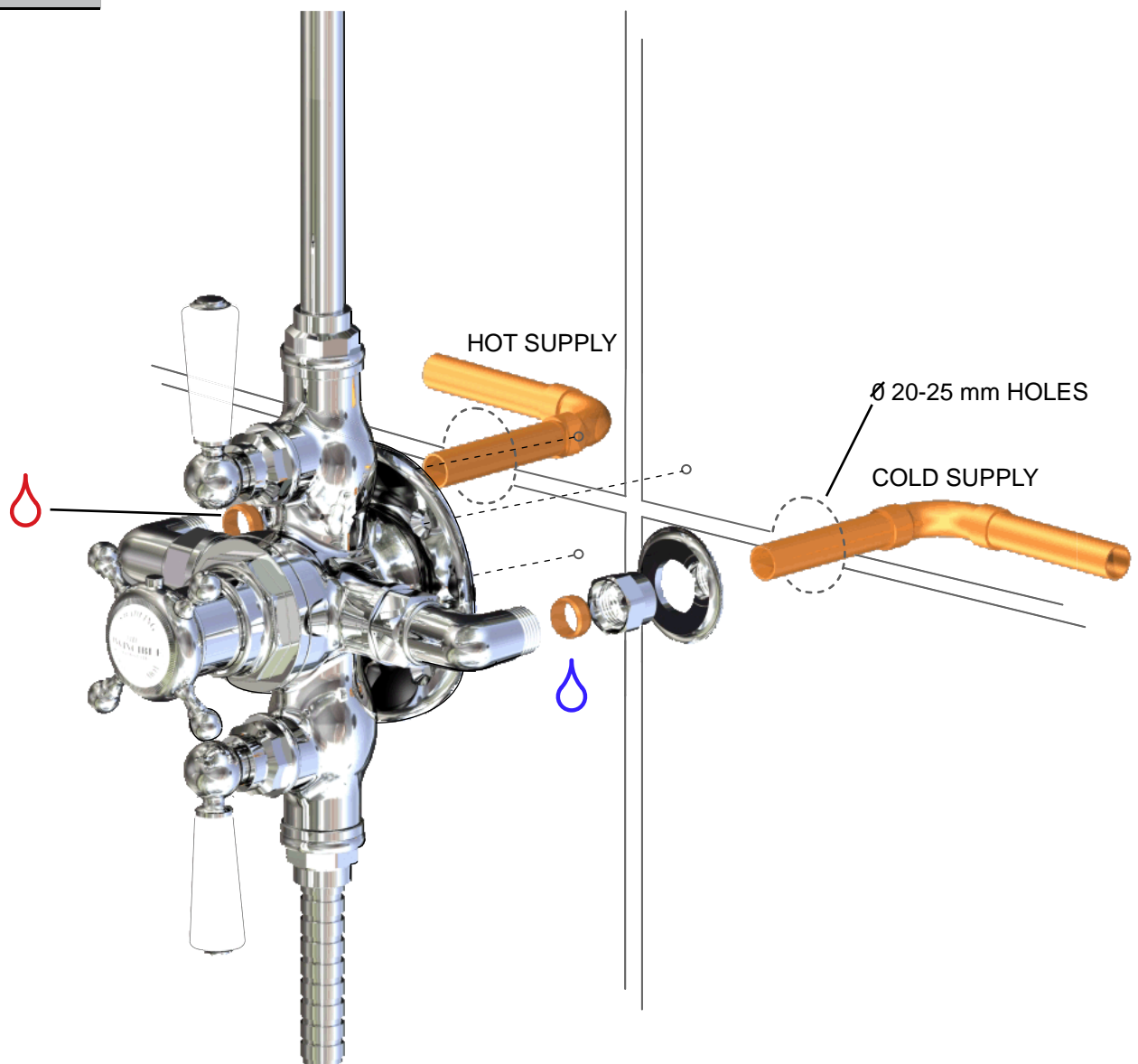
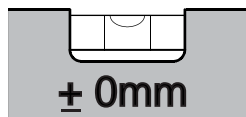
The Hot & Cold feeds are marked on the rear of the mounting plate.

HOT is on the left and **Cold** supply is on the right.

Note, please ensure the twin outlet valve is correct way round.

Ensure all pipework is flushed through before connecting the valve.

INSTALLATION



Remove the dust covers from the inlets and outlets and discard.

The thermostatic valve must be installed with the Hot feed on the left and Cold feed on the right (check valve orientation 2720).

Consideration must be given to fix the valve at a suitable showering height, 860mm from centreline of feeds to under side of shower rose.

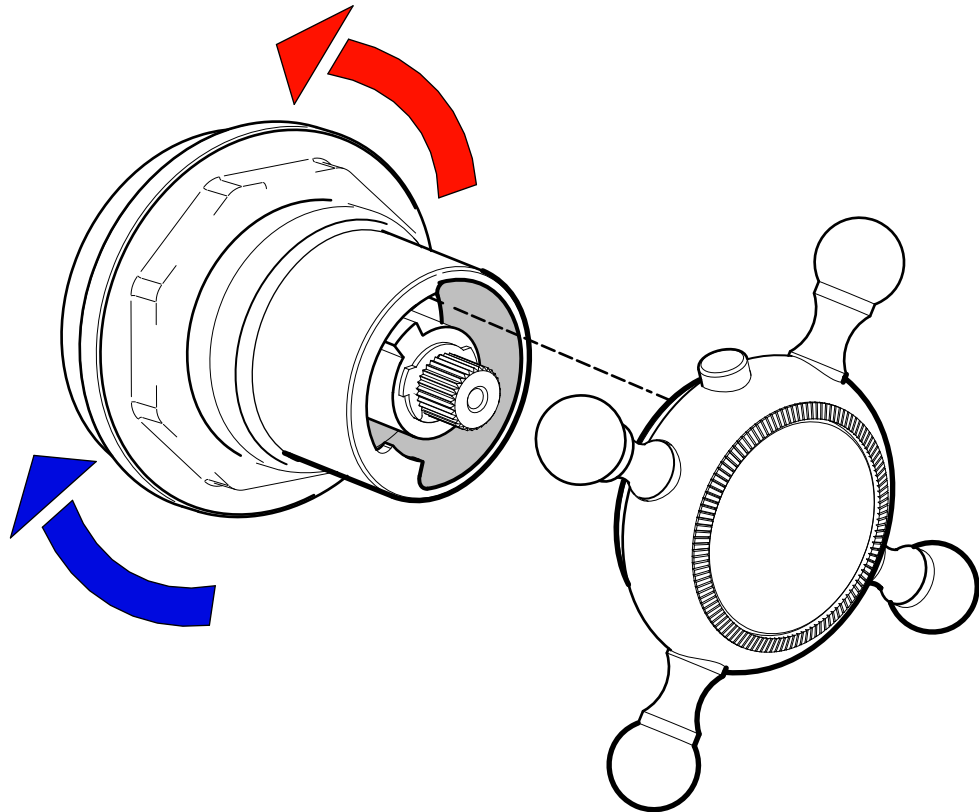
The Inlets are 15mm compression.

Flush all pipework before connecting the valve.

Turn on the hot and cold supplies and test all connections for water tightness.

SETTING THE TEMPERATURE

INVINCIBLE



Using the control knob rotate the thermostatic spindle anticlockwise to set the maximum hot water temperature. The recommended maximum should not exceed **41°C**. Then line up the screw head on the back of the control knob with the first stop on the stop ring, push the control knob onto the spline and tighten the grub screw. The temperature override button can be used to increase the temperature for bath fill installations.

See **IMPORTANT** if using as a bath filler and the recommended maximum temperature for bath fill installations.

Commissioning notes for Thermostatic Mixing Valves.

Please check the following:

- 1.The designation of the thermostatic mixing valve matches the application.
- 2.The supply pressures are within the valve operating range.
- 3.The supply temperatures are within the valve operating range.
- 4.Isolating valves are fitted.

If all these conditions are met set the temperature as per installation instructions.

It is a requirement that all TMV2 approved valves shall be verified against the original set temperature results once a year. When commissioning/testing is due the following performance checks should be done.

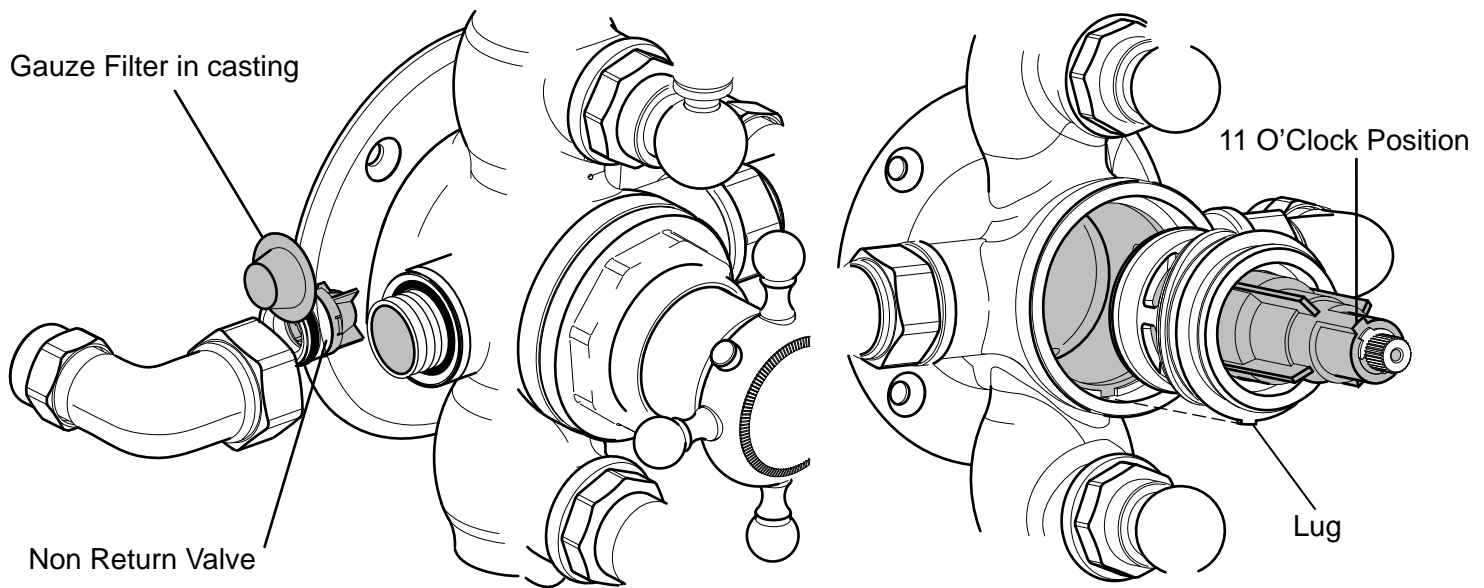
Measure the mixed water temperature at the outlet. Carry out the cold water supply isolation test by isolating the cold water supply to the TMV, wait for five seconds if water is still flowing check that the temperature is below 46°C. If there is no significant change to the set outlet temperature (+/- 2°C or less change from the original settings) and the fail-safe shut off is functioning, then the valve is working correctly and no further service work is required.

Notes

If there is a residual flow during the commissioning or the annual verification (cold water supply isolation test) then this is acceptable providing the temperature of the water seeping from the valve is no more than 2°C above the designated maximum mixed water outlet temperature setting of the valve. Temperature readings should be taken at normal flow rate after allowing for the system to stabilise. The sensing part of the thermometer probe must be fully submerged in the water that is to be tested. Any TMV that has been adjusted or serviced must be re-commissioned and re-tested in accordance with the installation instructions. The installation of the thermostatic mixing valve must comply with the requirements of the Water Supply (Water Fittings) Regulations 1999.

TROUBLE SHOOTING / MAINTENANCE

IMPORTANT. Before commencing maintenance on the shower isolate the hot and cold supplies. When maintenance is complete ensure the shower valve is checked and fully commissioned before use.



1. Fault, After installation shower only runs Hot or Cold and will not mix.

Hot & Cold supplies are plumbed the wrong way around. To remove the thermostatic cartridge, undo the 52mm AF clamp nut and pull the cartridge out (use the temperature knob to aid removal) reinstall the thermostatic cartridge after rotating 180 with the lug pointing at 12 o'clock. (See illustration above).

2. Fault, Shower will not run hot enough when first installed.

Maximum temperature needs adjusting, see **SETTING THE TEMPERATURE.**

3. Fault, Cold water tracking through the valve into the hot water system.

Check and clean the non return valve cartridges and gauze filters located under the non return valves. (See illustration above).

4. Fault, Shower will not run hot when first installed. See SETTING THE TEMPERATURE.

Check hot water supply from boiler is at specified temperature. See **IMPORTANT.**

5. Fault, Shower only runs cold or lukewarm when first installed.

Thermostatic cartridge may have debris trapped in the cold side. Clean thermostatic cartridge.

6. Fault, Very low flow or no flow (gravity fed installations).

Check the hot & cold feeds (The valve will shut down if either the hot or cold supply fails). Very low water pressure or blocked filters/blocked pipe work.

7. Fault, very low flow or no flow (pump fed installations).

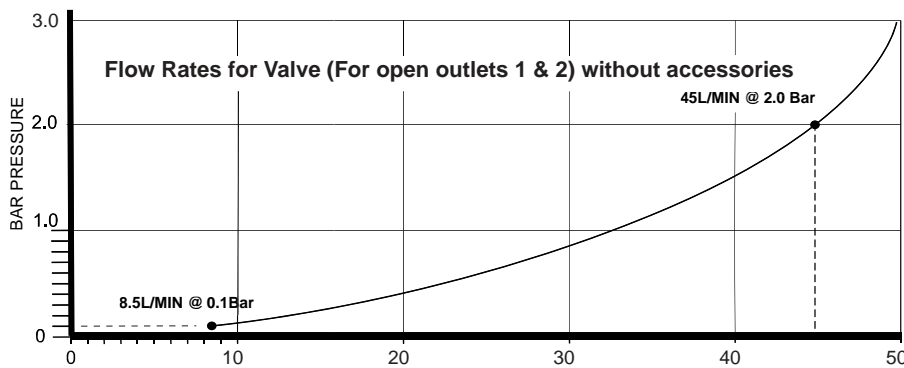
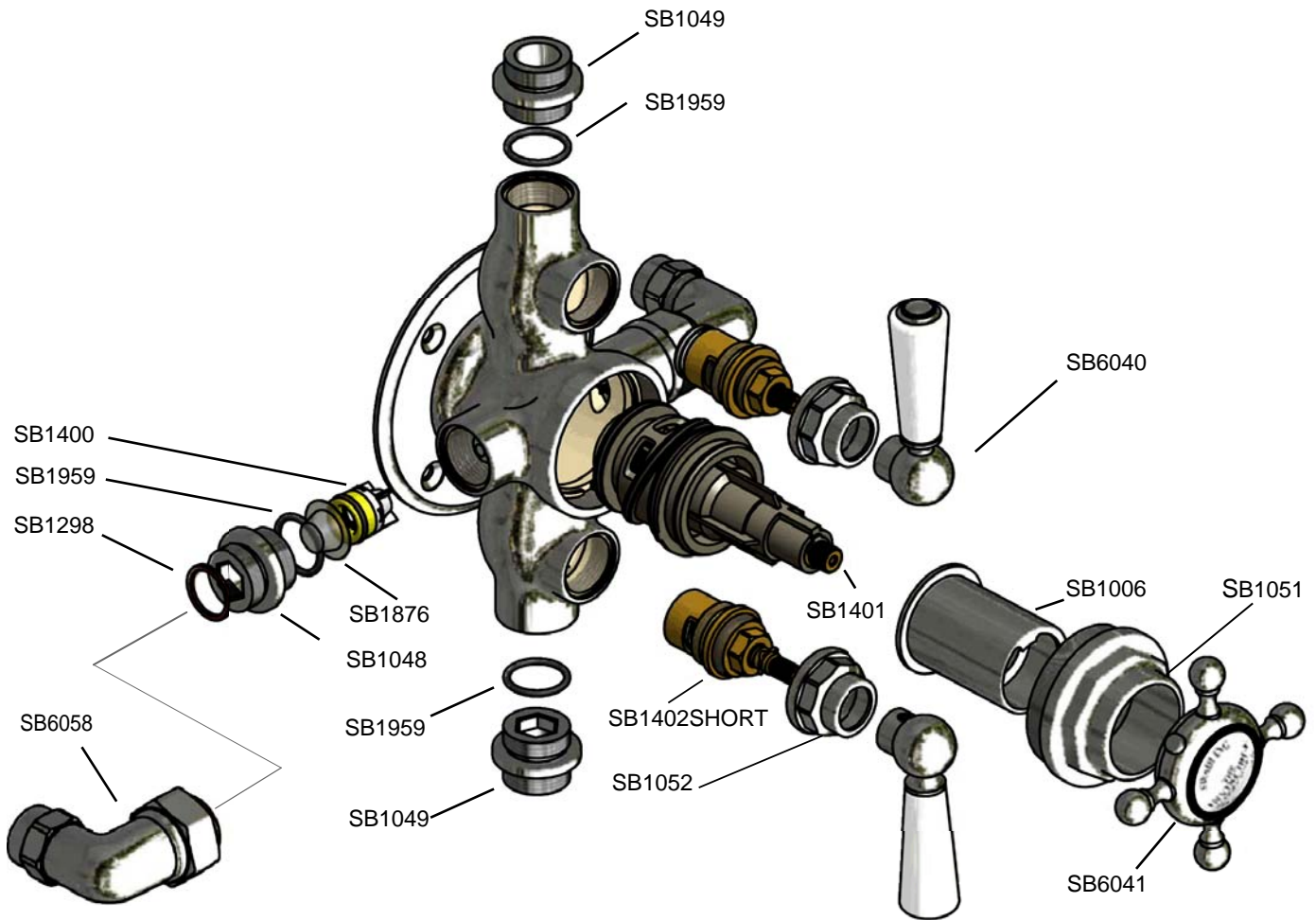
Flow rate may be insufficient to activate booster pump flow switches, check pump requirements.

8. Fault, Vibration or hammering.

Dynamic water pressure ratio between hot and cold inlets greater than 5:1 maximum. For optimum performance the inlet pressures should be balanced to within 10% of each other. Check for loose pipework.

PARTS LIST

2720 INVINCIBLE THERMOSTATIC VALVE, DOUBLE OUTLET



Flow Rate (Litre/Min) Swadling accessories.	0.1 bar	1.0 bar	2.0 bar	3.0 bar	4.0 bar
MODEL 2701 with EC 180mm deluge Rose	8	22	26	29	34
MODEL 2703 with Titan Multi-function Rose		13	15	19	22
MODEL 2724/2728 Bath Shower Mixer Bath Fill / Handshower	8 / 6	23 / 18	27 / 23	29 / 27	
MODEL 2725 with EC 180mm Rose & SF handshower	8 / 6	22 / 18	26 / 23	29 / 27	
MODEL 2727 with EC 180mm Rose & Titan MF handshower	8 / -	22 / 13	26 / 15	29 / 19	34 / 22

Important: care of your product.

The controls and body should be maintained by wiping with a soft, damp, clean cloth then polished with a dry duster. **NO** abrasive powder, detergents or polishes should be used. Cleaner containing alcohol, acid or corrosive chemicals should not be used. Note, some household bleaches and denture cleaners can damage plated surfaces and if splashed onto a fitting should be immediately washed off with cold water. If these instructions are followed the fitting will give many years of satisfactory use. We have a policy of continuous improvement and reserve the right to change the specification without notice.

Guarantee - The Shower Mixer Valve is guaranteed for a period of 5 years (Gold and Nickel finish 2 years) against defects of materials and workmanship from date of purchase, subject to correct installation, maintenance and use according to these instructions. Please retain proof of purchase. During the guarantee period parts will be replaced or repaired at our option. No labour costs will be reimbursed unless prior agreement has been obtained from Matki Swadling in writing. This guarantee is offered as extra benefit and does not affect your statutory rights as a consumer in anyway whatsoever.