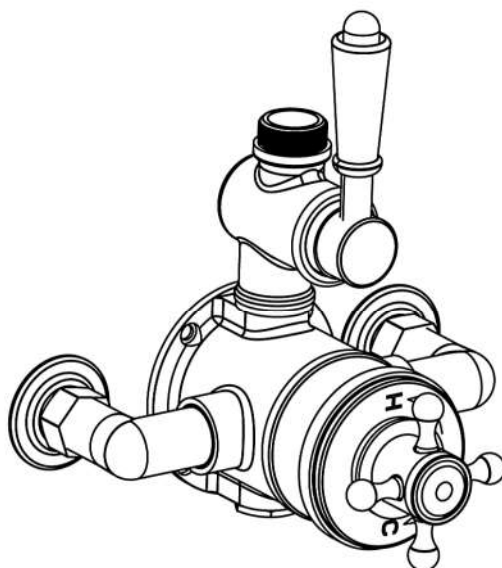


INSTALLATION INSTRUCTIONS

Eastbrook

Eastbrook Road, Gloucester GL4 3DB
Technical Helpline: 01452 317890
email: technical@eastbrookco.com



Important

- We recommend that this product is installed by a qualified professional contractor. Such as a plumber who is certified by NVQ (National Vocational Qualification) or SNVQ (Scottish National Vocational Qualification) Level 3.
- Please check this product immediately to ensure that it has not been damaged and is complete. Before installation, please make sure this product is the correct model and you have all the parts required for installation and using.
- This valve is a mixing device and therefore requires the water supplies to be reasonably balanced, otherwise we recommend a pressure reducing valve to be fitted.
- Please flush the water system to ensure that no metal swarf, solder, and other impurities can enter the valves.
- Turn off water supply before commencing work, this should be done at the isolating valves of inlet feeds if fitted or main stopcock.
- Please Read these instructions carefully and keep it for future reference.

Working pressure and temperature

Conditions of use for Type 2 valves

	High Pressure	Low Pressure
Maximum Static Pressure - Bar	10	10
Flow Pressure, Hot & Cold - Bar	0.5 to 5	0.1 to 1
Hot Supply Temperature - ° C	55 to 65	55 to 65
Cold Supply Temperature - ° C	Equal to or Less than 25°	Equal to or Less than 25°

NOTE: Valves operating outside these conditions cannot be guaranteed by the Scheme to operate as Type 2 valves. If a water supply is fed by gravity then the supply pressure should be verified to ensure the conditions of use are appropriate for the valve.

Plumbing Recommendations

- An independent hot and cold water supply pipe is required for the shower system including valve. Do not pipe off ring main. Please follow the installation diagrams and instructions.
- For low-pressure shower system, the recommended pipe work from both water tank and cylinder should be at least 22mm.
- Please always install pump before shower valve inlet where a pump is required.
- Designation of use HP-S, LP-S, HP-W, LP-W, HP-B, LP-B, HP-T, LP-T

Dimension

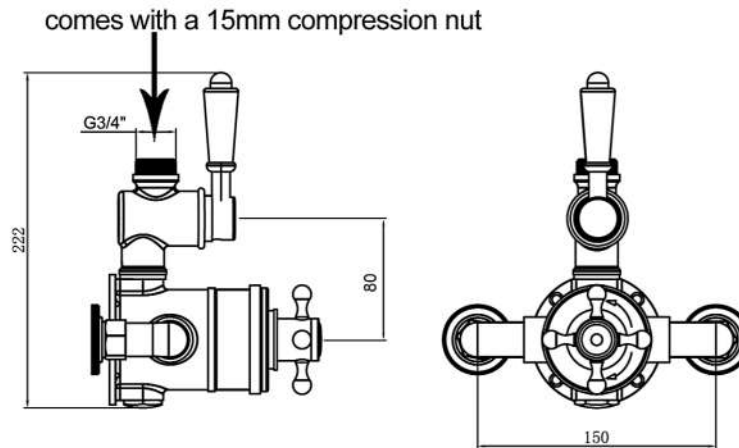
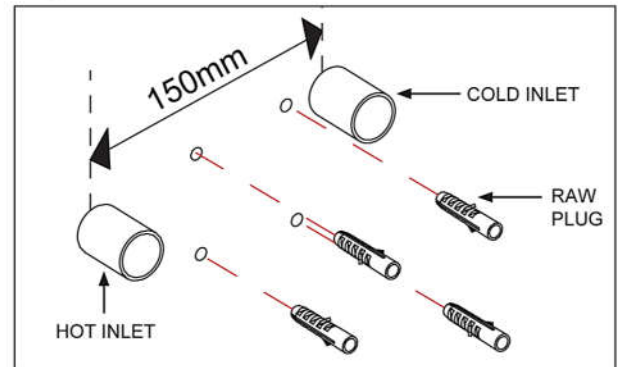
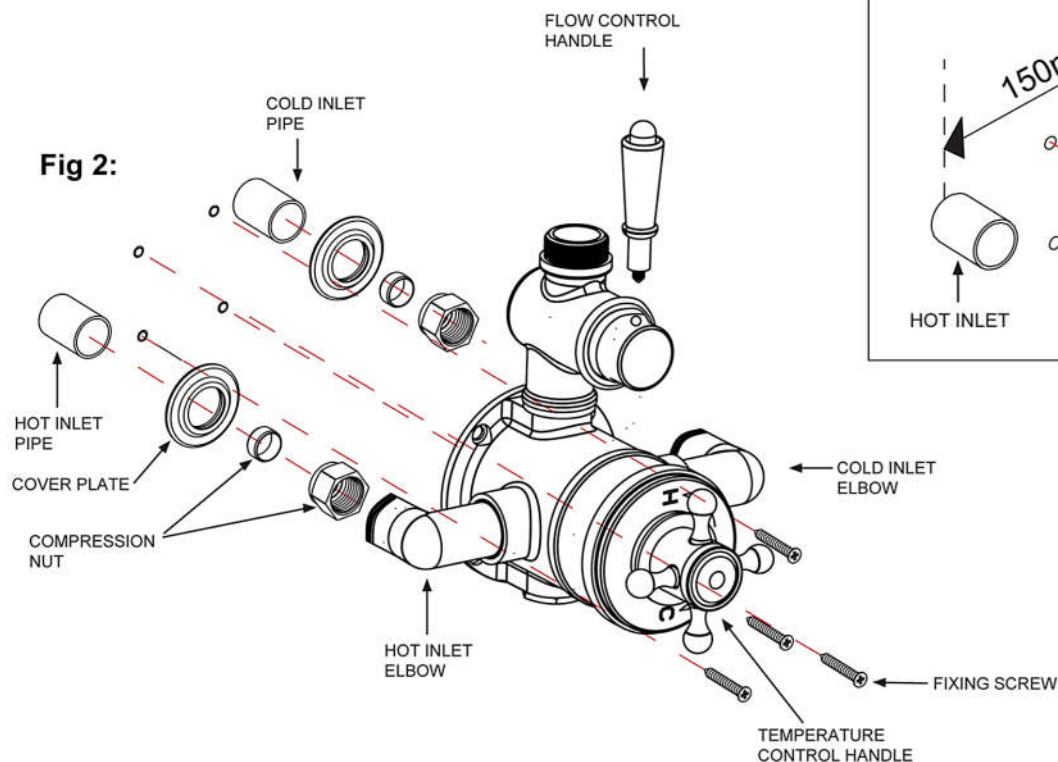


Fig 1:

Installation

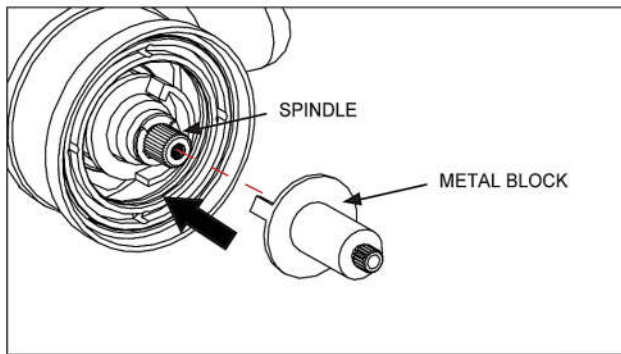


The installation of thermostatic mixing valves must comply with the requirements of the Water Supply (Water Fittings) Regulations 1999. The thermostatic mixing valve will be installed in such a position that maintenance of the TMV and its valves and the commissioning and testing of the TMV can be undertaken.

The fitting of isolation valves is required as close as is practicable to the water supply inlets of the thermostatic mixing valve

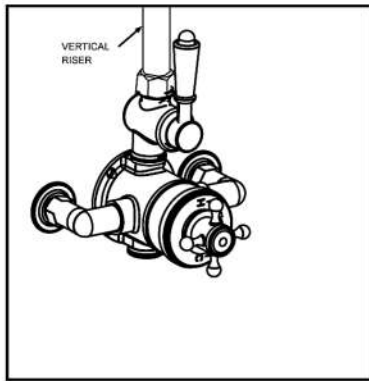
The valve should be installed in accordance with the water bye-laws. For further details refer to the latest copy of Water Bye-laws guide or your local water authority.

1. Prepare the water supply pipes (hot on the left and cold on the right) at the identified height with a width of 150mm centres.
2. Make the ends of pipes 20-25mm out from the face of wall.
3. Remove the compression nuts and the plates from the inlet elbows of valve.
4. Put the back plate onto the wall and mark the position of 4 holes.
5. Drill 4X8mm holes on the wall to a depth of 45mm and insert wall plugs.
6. Fix the back plate and valve to the wall with the supplied screws.
7. Slide the cover plates under the compression nuts and position each pipe with the cover plate against the wall.
8. Push the valve over the inlet pipes.
9. Tighten the two compression nuts on both inlets.



- A) Temporarily refit the metal block until it just engages on the splines of the spindle.
- B) Turn on the water.
- C) Slowly turn the metal block in the required direction until the discharge temperature is achieved.
- D) Remove the metal block when finished.

Options



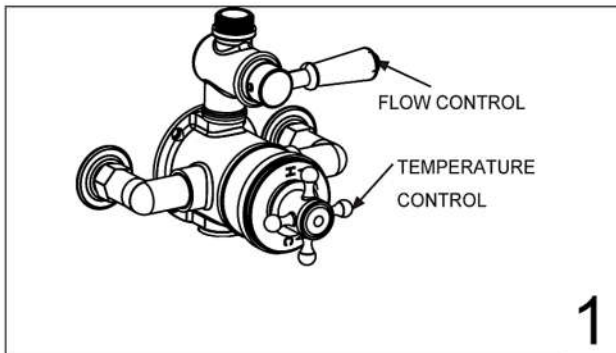
Note: The mixed water temperature at the terminal fitting must never exceed 46°C

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 shall be carried out.

Temperature Setting

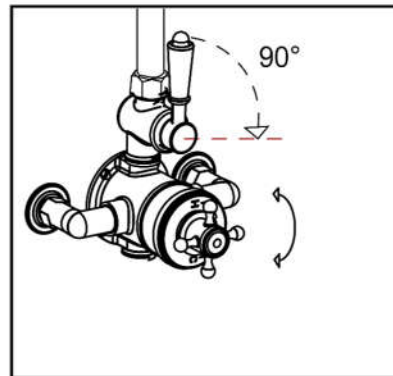
The temperature control handles on this product are factory set and should require no adjustment.

However, if for any reason the handles and/or the cartridge is removed it is important the following procedure is followed.



- A) Turn flow control handle to maximum flow position, and temperature control handle anti-clockwise until it contacts the internal limit stop.
- B) Allow the water temperature to stabilize around 3 minutes and check the temperature by thermometer.
- C) Proceed if temperature is not 42°C.

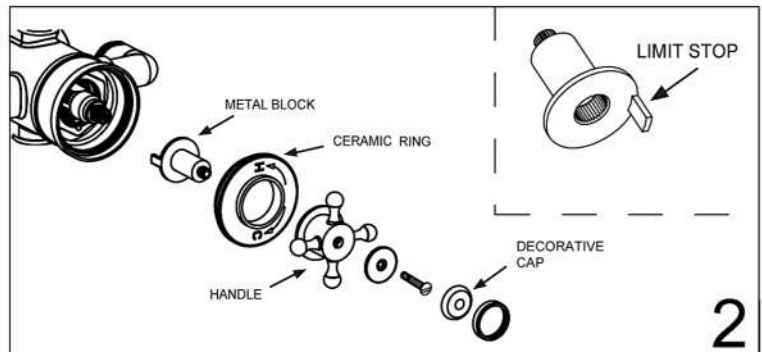
Operation



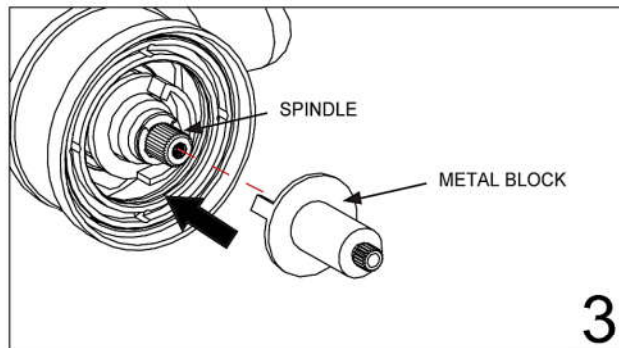
- A) Without rotating the temperature spindle, replace the metal block so that limit stop inside metal block up to the right hand side of the limit stop on the plastic block.
- B) Refit and tighten the cartridge cap and screw.
Refit and tighten the decorative cap.

1. Turn the water flow control handle to increase/decrease the water flow and turn on/off.
2. Turn the temperature control handle to increase/decrease the water.
3. The temperature control knob is pre-set the auto stop at 42°C to avoid scalding.

However, if for any reason the setting is removed it is important to follow "Temperature Setting" procedure to reset.



- A) Turn off the water
- B) Unscrew the decorative cap on the temperature control handle.
- C) Unscrew and remove the handle.
- D) Unscrew and remove the cartridge cap.
- E) Pull off the metal block with limit stop on the backside.



- A) Temporarily refit the metal block until it just engages on the splines of the spindle.
- B) Turn on the water.
- C) Slowly turn the metal block in the required direction until the discharge temperature is achieved.
- D) Remove the metal block when finished.
- E) 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 ($\pm 2^\circ\text{C}$ 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.

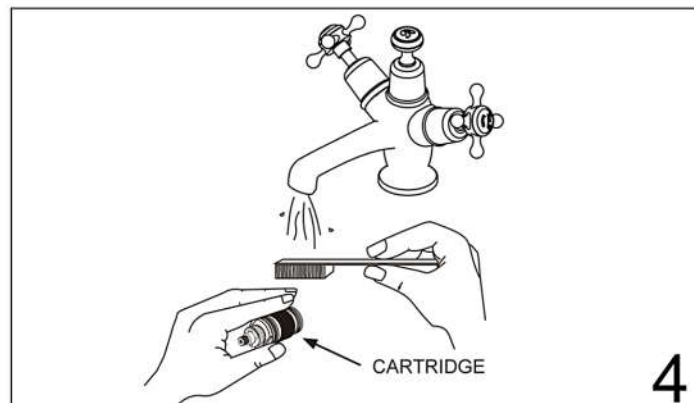
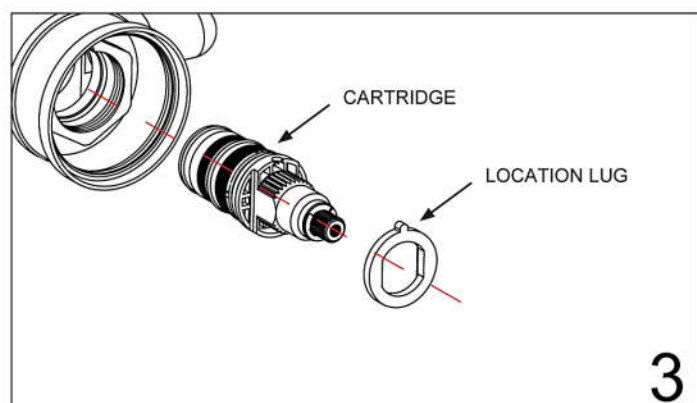
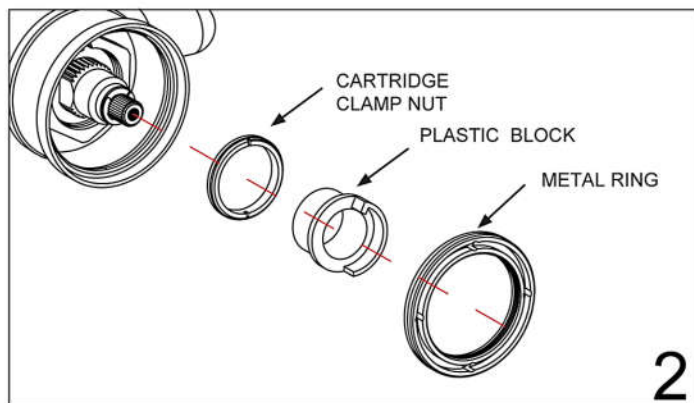
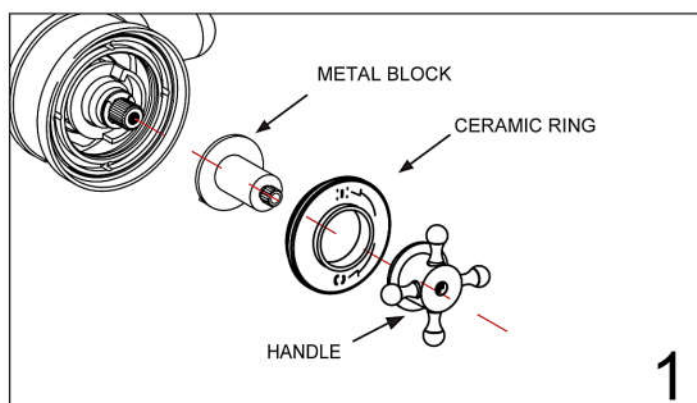
- A) Without rotating the temperature spindle, replace the metal block so that limit stop inside metal block up to the right hand side of the limit stop on the plastic block.
- B) Refit and tighten the cartridge cap and screw. Refit and tighten the decorative cap.

Maintenance (Thermostatic Cartridge)

* After a long time usage of thermostatic valve, there will be some waste debris from the water pipe on and around the thermostatic cartridge, which will affect the flow and sensitivity of automatic temperature adjustment. Please take out the thermostatic cartridge, and clean the cartridge strainer.

* To avoid damage, please remove all chrome parts before any maintenance takes place.

- A) Remove the cartridge cap, ceramic ring and metal block (See Fig. 1)
 - B) Remove the metal ring, plastic block and cartridge clamp nut (See Fig. 2)
 - C) Pull out the cartridge together with location lug (See Fig. 3)
 - D) Wash the cartridge with clean running water, dry and lightly grease the seals (only use silicone grease). (See Fig. 4)
 - E) Replace the cartridge and make sure it back to the primary position.
- * Cartridge Type: "SP32" is the spare part number of thermostatic cartridge.



Commissioning notes for Thermostatic Mixing Valves

It is important that incoming water supplies conform to the requirements specified for pressure and temperature. Assure that supply water conditions satisfy any guidance information for the control of bacteria and that the designation of the supplied valve suits the application. Do not continue commissioning until supplies are correct and stable considering variation caused by other service users.

Use a calibrated thermometer for testing incoming and mixed water.

1. Record temperature of the incoming hot and cold supply.
2. Record temperature of mixed discharge at maximum draw off rate.
3. Record temperature of mixed discharge at minimum draw off rate.
4. Isolate the cold water supply and measure the mixed water temperature as the cold water failure device reacts. This should deviate by no more than + 2°C of the initial maximum set point. Restore the cold supply and measure the stabilised mixed water temperature. This must not deviate by more than + / - 2°C of the initial set recorded result. Record these findings.
5. Record the measuring equipment used for the measurements.

The above records must be retained and updated during the service life of the TMV.

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 the 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 manufacturers' instructions.

Trouble Shooting

1. Output water temperature does not correspond with temperature set

Cause: Thermostat has not been adjusted base on the existing home water system

Remedy: Adjust the thermostat , refer to "Temperature Setting" procedure.

Cause: Hot Water temperature too low.

Remedy: Adjuster the water heater , increase hot water temperature to 65?

2. Crossflow, cold water being forced into hot water pipe, or vice versa, when valve is closed

Cause: Non-return valves dirty or leaking

Remedy: Clean the non-return valves or exchange if necessary

3. Very low flow or no flow

Cause: Supply pressure inadequate

Remedy: Check hot and cold feeds . If a pump has been installed, please check to see if the pump is working.
(the valve will shut down if either the cold or hot water supply fails)

4. Water will not run hot enough when first installed

Cause: Wrong maximum temperature setting

Remedy: Adjust the maximum temperature , refer to "Temperature Setting" procedure.

Cleaning

We do NOT recommend you use any household cleaners to clean the product. Because these cleaners change substance or formula too frequently. So product should be always cleaned only with soapy water and rinsing with clean water and drying with soft cloth.