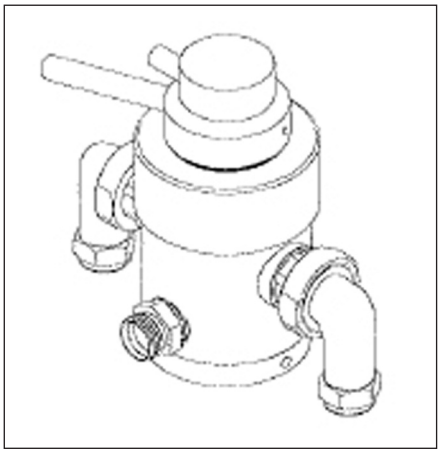
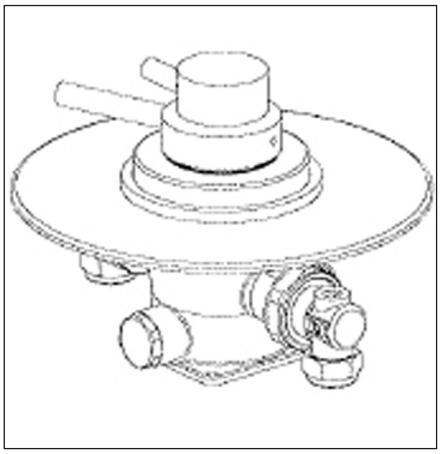
INSTALLATION INSTRUCTIONS

EXPOSED DUAL VALVE



CONCEALED DUAL VALVE



INTRODUCTION

This guide provides instruction for the installation, operation and maintenance of Exposed and Concealed shower valves.

These shower valves must be installed in accordance with the Water Supply (Water Fittings) Regulations 1999 and in accordance with the BuildCert TMV2 scheme.

OPERATING CONDITIONS OF USE

Before installation, the operating conditions of use must be checked. The table below contains details of the necessary conditions of operation. If your water supply cannot meet these conditions, then the valve cannot be guaranteed to operate as a Type 2 TMV2 certified shower valve. This valve is suitable for use in both low pressure (BS 1287) and high pressure (BS 1111) operating conditions.

Unbalanced Water Supply

Valves must always be operated within either the range for BS 1287 or BS1111 as described in the table below. Valves cannot operate effectively where a hot or cold pressure system crosses the boundaries of the two ranges. In addition, the maximum ratio of unbalanced hot or cold water pressures for the valves to operate effectively is 5:1. Hot or cold pressure must be reduced or boosted so as to work within the required range.

Maximum Water Pressure

These valves are suitable for use with all water supply systems up to a maximum of 4.0 bar. Operating pressures above 4.0 bar will require the installation of pressure reducing valves.

	Low Pressure BS1287	**High Pressure BS1111**
MAX Static (BAR)	10	10
Flow Pressure (BAR) Hot and Cold	0.1-1.0	0.1-4.0
Hot Supply (^{0}C)	55-65	55-65
Cold Supply (^{0}C)	MAX 25	MAX 25
Mixed Water (^{0}C)	MAX 44	MAX 44

VALVE INSTALLATION GUIDELINES & COMPLIANCE

The valve must be installed so that it is readily accessible for commissioning and maintenance in accordance with the TMV2 scheme. The exposed dual valve must be installed with isolation valves on both the hot and cold water systems as close as possible to the valve; so as to allow the valve to be commissioned and tested correctly. The concealed valve has isolation valves fitted to the inlet elbows. The valve is supplied with integral strainers on the hot and cold water supplies therefore in-line strainers should not be required. The valve is fitted with integral check valve cartridges which command the water supply, therefore the thermostatic valve is protected against cross-flow due to unbalanced line pressures as required by the Water Supply (Water Fittings) Regulations 1999.

TESTING

It is recommended showers do not exceed 44^{0}C. The valve temperature should never exceed 46^{0}C. After commissioning, carry out the cold failure test to ensure the valve is operating correctly and check the valve after installation to ensure it operates at the correct outlet temperature.

TESTING METHOD

The valve should be tested to ensure correct operation at commissioning and thereafter at stated intervals decided by the user but never at greater than 12 monthly intervals. The testing will only require a normal thermometer with a scale greater than 65^{0}C. The temperature sensitive element of the thermometer should always be fully inserted into the water flow.

1. Measure the mixed water temperature.

2. Carry out a cold fail/safe shut-off test by using the isolation valve to shut off the water to the cold supply. Wait 5 seconds, if water is still flowing check that the water temperature is below 44^{0}C. The flow should stop or reduce to a trickle.

3. Open the cold water isolation valve and measure mixed water temperature. If there is no significant change from the original settings and fail/safe shut off is functioning, the valve is working correctly and no further service is required. If the outlet temperature has drifted by more than 2^{0}C,or if the fail/safe function does not work, a full service or re-commissioning is required.

We recommend that in these circumstances you contact a plumber for advice as servicing should only be undertaken by a competent person.

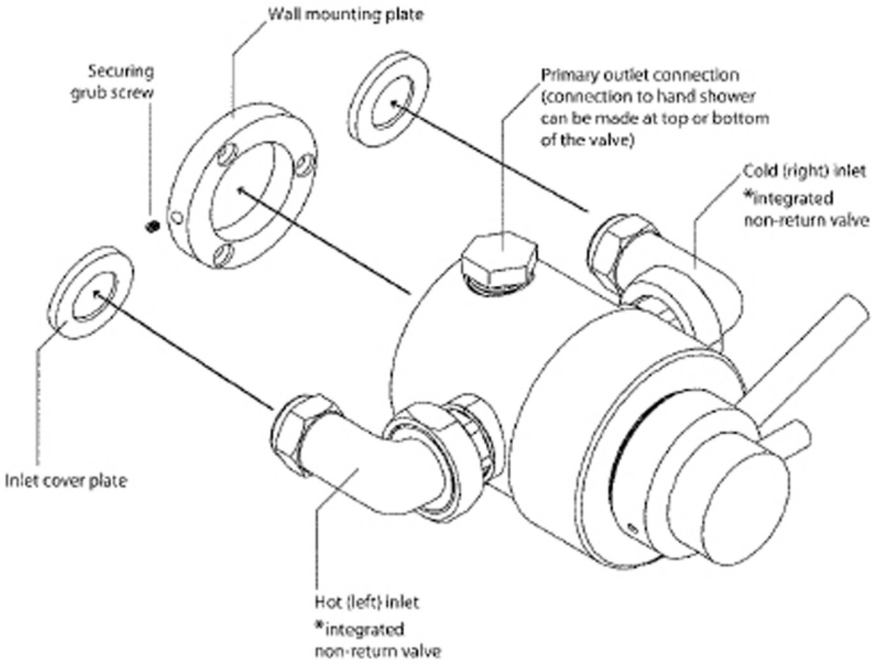
WATER SUPPLY - (WATER FITTINGS) REGULATIONS 1999

This valve complies with the requirements of the above Regulations and installation should be carried out in strict compliance with them.

COMMISSIONING

Most problems associated with the operation of thermostatic shower valves are caused by debris in the new pipe work getting into the thermostat. These problems are easily avoided by thoroughly flushing the pipe work BEFORE the shower valve is fitted.

MOUNTING EXPOSED SHOWER VALVE



1. The valve body is designed to suit pipe work with centres of 152mm.

2. Determine the mounting position for the shower valve using the wall mounting plate as a guide for the fixing hole position.

3. Mount the wall mounting plate onto the wall using the screw fittings supplied.

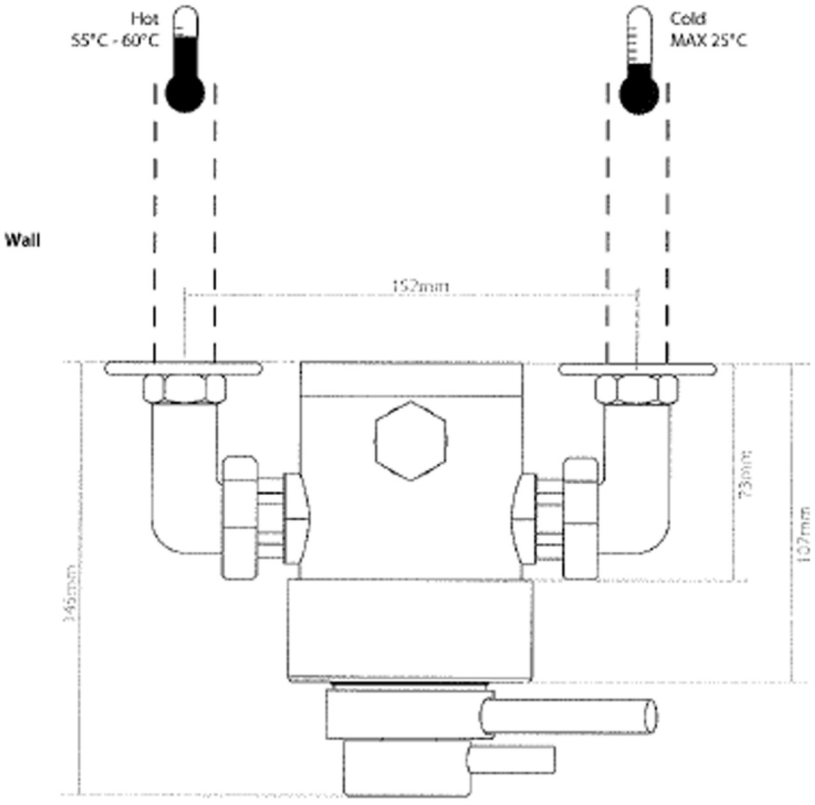
4. Ensure pipe work is flushed out before connecting the valve.

5. Attach the valve body to the secured wall mounting plate via the grub screws at the wall plate side. See below. Ensure the valve is mounted so that the inlets meet up with the correct hot and cold pipe work.

The valve is manufactured to suit water supplies that have the hot on the left and cold on the right when looking from the front. If your existing pipework is 'hot on right, cold on the left', the valve can be rotated through 180 degrees. The outlet connection and blanking plug can be reversed to give top or bottom outlet as required. Failure to connect to the correct inlet will cause the valve to malfunction.

6. When the valve is securely mounted to the wall, make the plumbing connections to the inlets using the compression fittings (to fit 15mm pipe). Ensure the 2 inlet collars provided are used to cover over the holes in the tiles around the exposed pipe work.

7. You are now ready to connect the control handles and auxiliary products eg. shower head, slide rail kit.

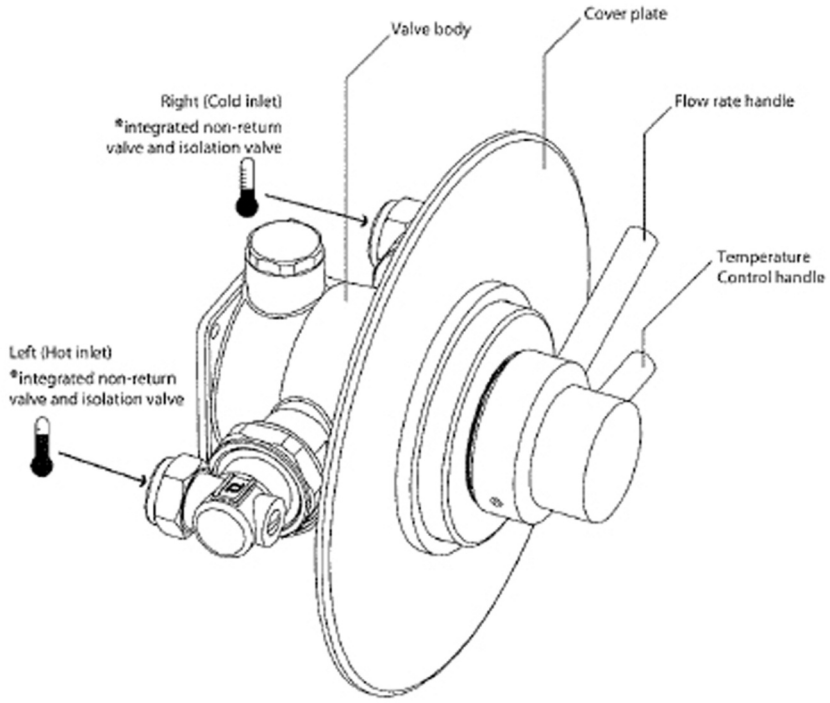


MOUNTING CONCEALED SHOWER VALVE

1. Ensure pipe work is flushed out before connecting the valve.

2. Determine the mounting position for the shower valve. By rotating the elbows, pipe work can be mounted to the inlets from the top, bottom and rear.

3. The valve body is supplied with flat faced unions and isolation valves on the inlet elbows which allow the inlet elbows to be removed and installed separately prior to installation of the valve body. Flat faced unions also allow for easy removal of the valve for maintenance and inspection.



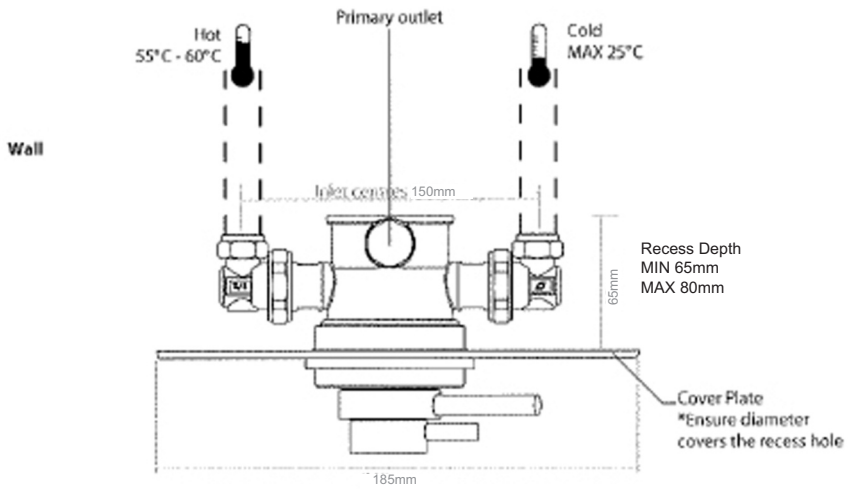
4. Ensure the valve is mounted to the correct depth from the finished wall surface. Make sure there is adequate clearance from the front to access all components and that the cover plate will cover the finished recess.

5. Mount the shower valve into the prepared recess in the wall using the mounting lugs on the back of the valve body (see below). Ensure the valve is mounted so that the inlets meet up with the correct hot and cold pipe work. The valve is manufactured to suit, water supplies that have the hot on the left and cold on the right when looking from the front. If your existing pipe work is 'hot on right, cold on the left' the valve can be rotated through 180 degrees. The outlet connection and blanking plug can be reversed to give top or bottom outlet as required. Failure to connect the correct inlet will cause the valve to malfunction.

6 When the valve is securely mounted, if not already done so - make the plumbing connections to the inlets using the compression fittings (to fit 15mm pipe). Ensure all connections made are secure and watertight.

7. Connect the pipe work for your auxiliary products to the valve primary outlet connection.

8. You are now ready to connect the cover plate and control handle (see over page).



ASSEMBLY OF COVER PLATE - CONCEALED VALVE ONLY

9. If not already assembled, the trim o-ring must be assembled into the recess on the inside of the cover plate trim.

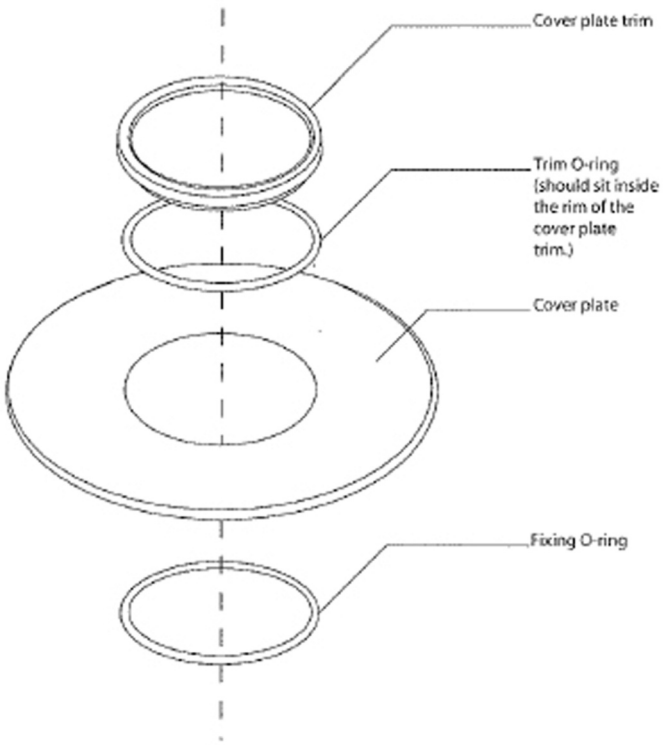
10. Push the trim ring through the hole in the cover plate.

11. Fix the cover plate trim to the cover using the fixing o-ring.

12. With the cover plate and the trim ring firmly attached together, the cover plate can be slid over the body of the shower valve (see below).

13. Before assembling the cover plate, ensure isolation valves in the elbows of the shower valve are open. Ensure all testing of pipe work and installation is carried out.

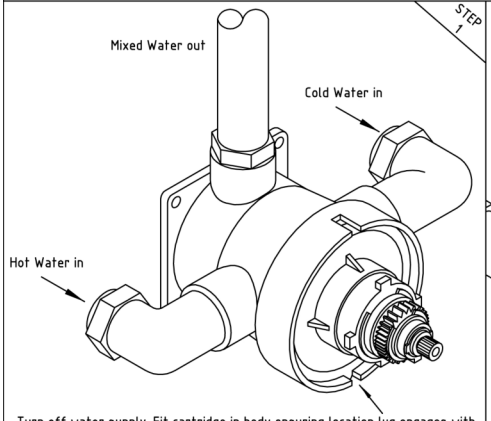
14. Apply a small bead of silicone behind the cover plate and slide back against the wall.



FLOW CONTROL HANDLE SETTING
V 2 23/06/09

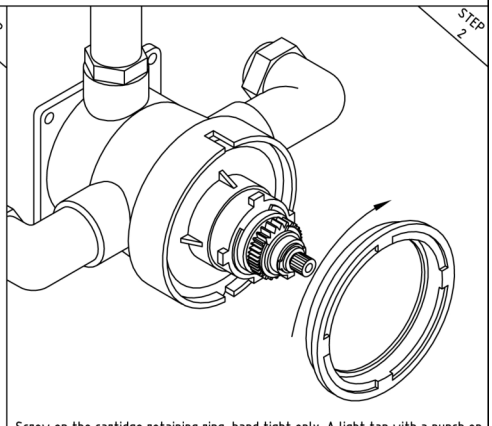
The control handles on this product are factory set and should require no adjustment. However, if for any reason the handles and/or the mixing cartridge is removed it is <u>important</u> the following procedure is employed to ensure trouble-free use.

STEP 1



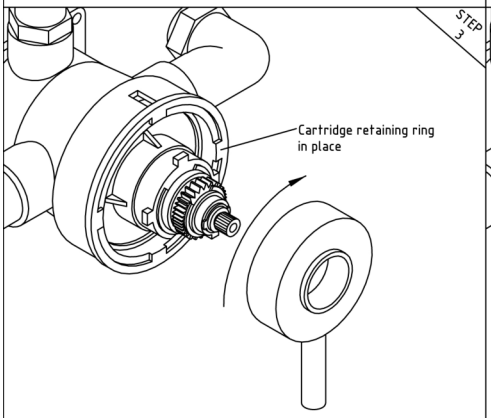
Turn off water supply. Fit cartridge in body ensuring location lug engages with lower slot on body. Push the cartridge firmly into the body as far as it will go.

STEP 2



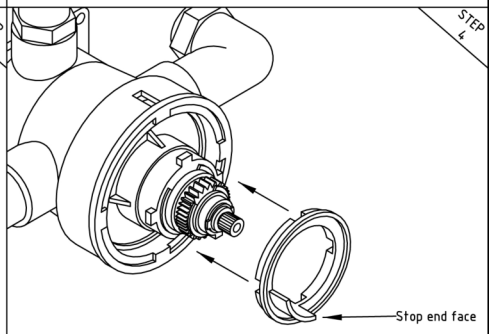
Screw on the cartidge retaining ring, hand tight only. A light tap with a punch on one of the ring projections will ensure the ring remains tight.

STEP 3



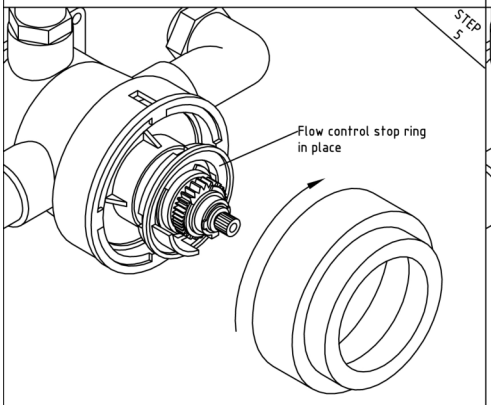
Turn on water supply. Place flow control handle over large spline and slowly turn clockwise until water flow stops (DO NOT OVER TIGHTEN) then remove handle.

STEP 4



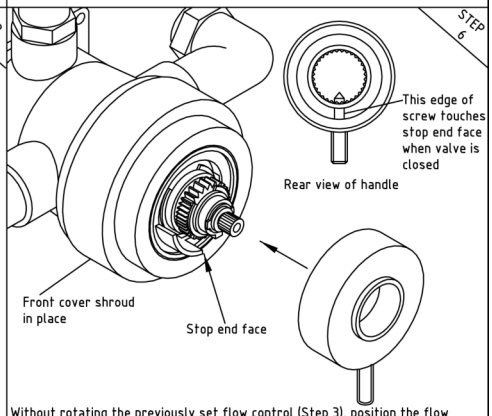
Fit the flow control stop ring over the four lugs on the front of the cartridge, with the stop end face in the desired position (normally at bottom vertical).

STEP 5



Screw the front cover shroud onto the cartridge retaining ring, as far as it will go, ensuring the flow control stop ring is firmly held in position.
Note: To ease installation hold the stop ring in place with open long nose pliers.

STEP 6

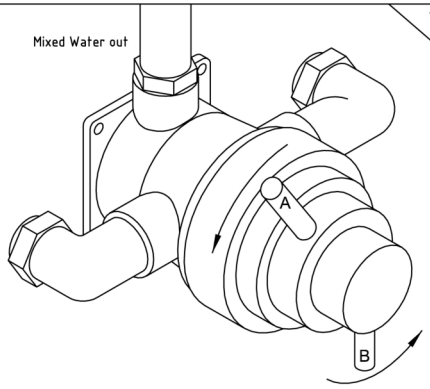


Without rotating the previously set flow control (Step 3), position the flow control handle over the large spline so that the edge of the screw is adjacent to the stop end face. Tighten the screw on to the spline and fit decorative lever.

TEMPERATURE CALIBRATION
V2 24/06/09

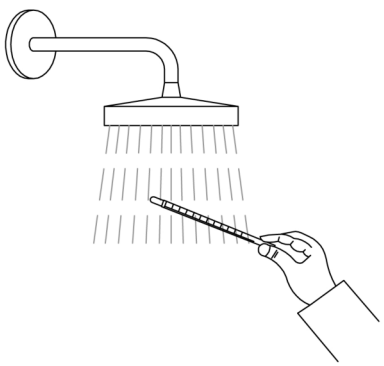
The control handles on this product are factory set and should require no adjustment. However, if for any reason the handles and/or the mixing cartridge is removed it is important the following procedure is employed to ensure trouble-free use.

STEP 1



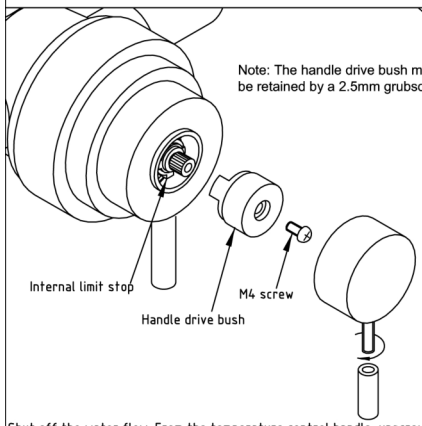
Turn flow control A anti-clockwise to maximum flow position, and temperature control B anti-clockwise until it contacts the internal limit stop.

STEP 2



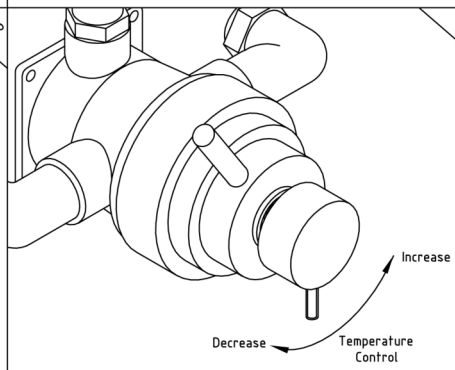
Allow water temperature to stabilise (about 3 minutes) and check temperature. Proceed to Step 3 if temperature is NOT 43°C.

STEP 3



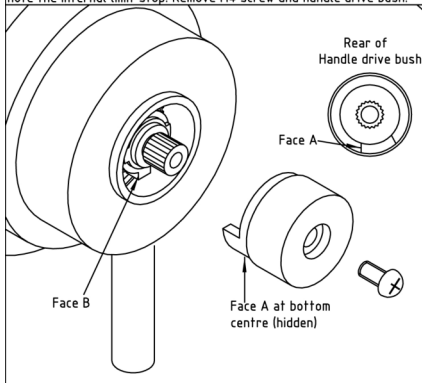
Shut off the water flow. From the temperature control handle, unscrew the decorative lever and slacken the locking screw below it. Pull off the handle and note the internal limit stop. Remove M4 screw and handle drive bush.

STEP 4



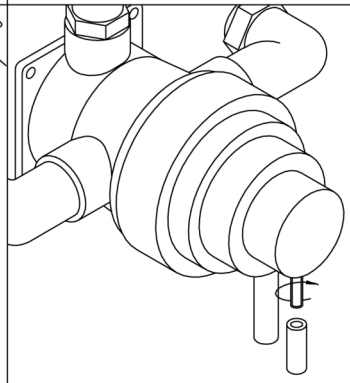
Refit the handle drive bush into the handle by means of the screw in the side of the handle.Turn on the water flow. Refit the temperature control handle assembly until it just engages the spline of the spindle. Slowly turn the handle in the required direction until the discharge temperature is achieved. Remove the handle when finished.

STEP 5



Remove the handle drive bush from the handle itself. Without rotating the temperature spindle, replace the handle drive bush on it so that Face A is directly adjacent to Face B on the spindle. Retain with M4 screw.

STEP 6



Refit the temperature control handle, tighten the side screw on to handle drive bush and fit the decorative lever.

TROUBLE-SHOOTING

Problem	Solution
After installation shower only runs HOT or COLD and will not mix	Hot & cold supplies are plumbed the wrong way round. Remove the thermostatic cartridge, please see temperature calibration instructions on page 8.
Shower will not run hot enough when first installed	Maximum temperature needs adjusting, see temperature setting guide.
Cold water running through the valve into the hot water system	Check and clean the check valve cartridges and filters located under the check valves.

MAINTENANCE

If required, removal and cleaning of the thermostatic cartridge can be carried out by removing flow and temperature handles and the cartridge fixing bolt (take note of the orientation of the cartridge). The cartridge can be pulled from the housing and cleaned using cold running water. Before re-installing, dry the o-ring seals on the cartridge body and lightly grease using a silicone grease only.

Important: Before commencing work, ensure that the hot and cold water is isolated and turn the flow handle to the fully open (on) position. This will prevent damage to the cartridge upon removal of the cartridge fixing bolt.

AFTERCARE INSTRUCTIONS

Whilst this item has a high quality durable finish, it should nevertheless be treated with care. Surfaces should be cleaned using only a soft damp cloth and clean water, and dried using a soft cotton cloth. Bath/shower cleaning products, even non-scratch ones could damage the surface.

Customer Helpline:

01282 446789