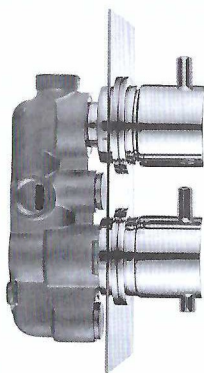
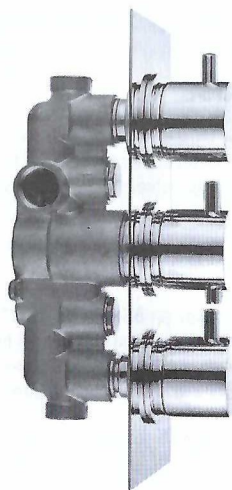


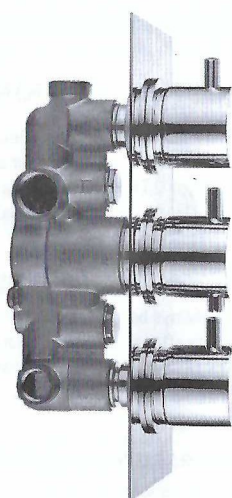
CONCEALED THERMOSTATIC SHOWER MIXER VALVE installation & aftercare instruction



2 knobs 1 way



3 knobs 2 way



3 knobs 3 way

PLEASE READ BEFORE INSTALLATION



Before installation begins please check contents for completeness and transit damage.

We recommend that these products are installed by a qualified plumber.

Before drilling walls check for hidden cables or pipework

It is good practice to flush pipework for a few minutes before installing taps to minimise the chances of debris blocking/damaging the valve.

INTRODUCTION

This guide provides instruction for the installation operation and maintenance of concealed dual and triple control Shower Valves. It is beyond the scope of this guide to provide detailed instructions for the installation of auxiliary products which may be attached to these 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 and 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.

Water pressure requirements

Minimum running water pressure: 0.5 bar.

Maximum running water pressure: 5 bar. Maximum static water pressure: 10 bar.

Water minimum flow rate

For your shower to perform well you should ensure that the pressure is as specified and a minimum flow of 5 litres per minute is available at both hot and cold inlets.

	Low Pressure BS1287	High Pressure BS1111
MAX Static (BAR)	10	10
Flow Pressure (BAR) Hot and Cold	0.1 - 1.0	0.1 - 5.0
Hot Supply (°C)	55 - 65	55 - 65
Cold Supply (°C)	MAX 25	MAX 25
Mixed Water (°C)	MAX 44	MAX 44

Care of your product

AFTER INSTALLATION

After installation we strongly recommend that the fitting be securely covered to prevent contamination or damage by any form of building materials such as paint, plaster, tile adhesive, grout or sealants until all building and finishing work is completed.

CLEANING

After use all finishes should be maintained by wiping with a soft, damp, clean cloth and then polished using a soft dry duster. NO abrasive powder, detergents or polishes should be used, cleansers containing alcohol, acid or corrosive chemicals should NOT be used.

NOTE

Some household bleaches and denture cleaners can damage plated or coloured finishes and if spilt on to a fitting should be washed off immediately with cold water.

If these instructions are followed we believe this fitting will give many years of satisfactory use.

GUARANTEE

All products are covered by a 10 year guarantee which covers any manufacturing defect. (Parts subject to wear and tear are excluded).

NOTE: The guarantee on the cartridges and valves is invalidated if damage is caused by waterborne debris.

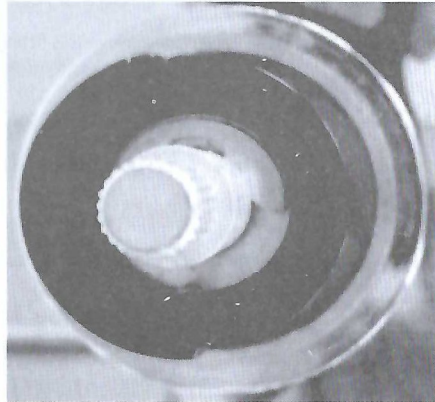
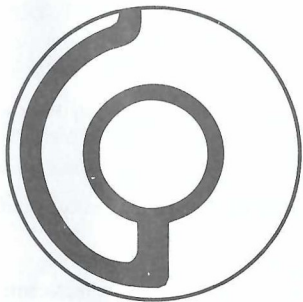
NOTE: All products must be installed in a manner providing access for servicing or replacement during the life of the product.

We have a policy of continuous improvement and reserve the right to change specifications without notice.

Please retain this document for future reference.

Commissioning

1. Fit the Flow Control Handle(s) securing them with the supplied screws and fit the chrome cover
2. Turn the top flow control handle anti-clockwise to start the water flow.
3. Ensure that the two red marks on the temperature control spindle are in line, this is the factory set 38°C position.
2. Turn the temperature spindle anti clockwise as far as possible, this is the maximum temperature position, when the outlet temperature is stable turn the temperature spindle so that the two red marks are in line. Confirm that the outlet temperature is approximately 38°C. If not adjust the temperature spindle clockwise for colder / anti-clockwise for hotter until the correct temperature is observed.
3. The temperature override position is now set.
4. Ensure that the STOP position on the temperature control ring is directly at the top, see below



4. Now fit the temperature control handle so that the temperature override button is pointing directly to the top centre of the valve.
Secure the handle with the supplied screw and fit the chrome cover.

Note - if the handles are required to be fitted in alternative orientations, then both the temperature control guide and the temperature control handle should be turned through 90, 180 or 270° in the same direction as each other

VALVE INSTALLATION GUIDELINES AND COMPLIANCE

The valve must be installed so that it is readily accessible for commissioning and maintenance in accordance with the TMV2 scheme. The 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 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 that showers do not exceed 44°C. The valve temperature should never exceed 46°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°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°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°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.

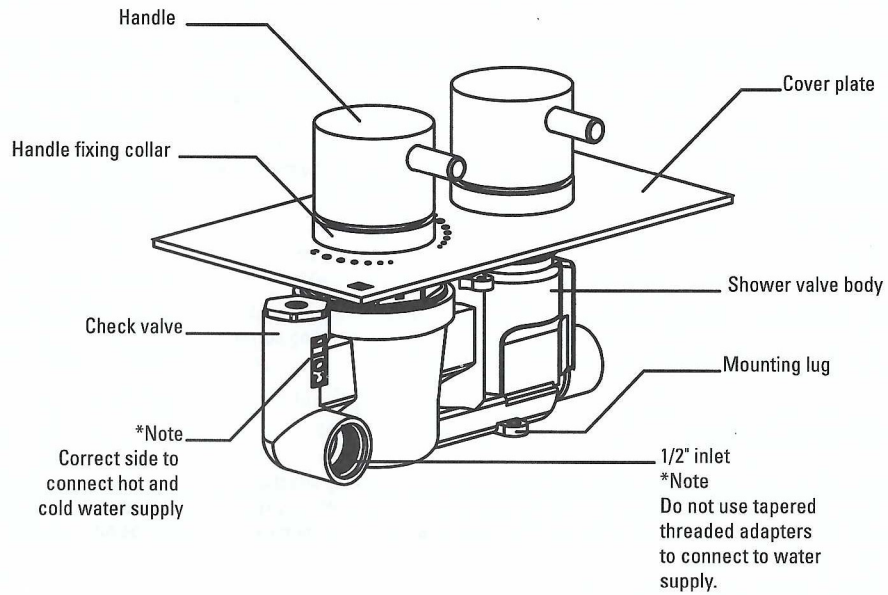
WATER SUPPLY - (WATER FITTINGS) REGULATIONS 1999

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

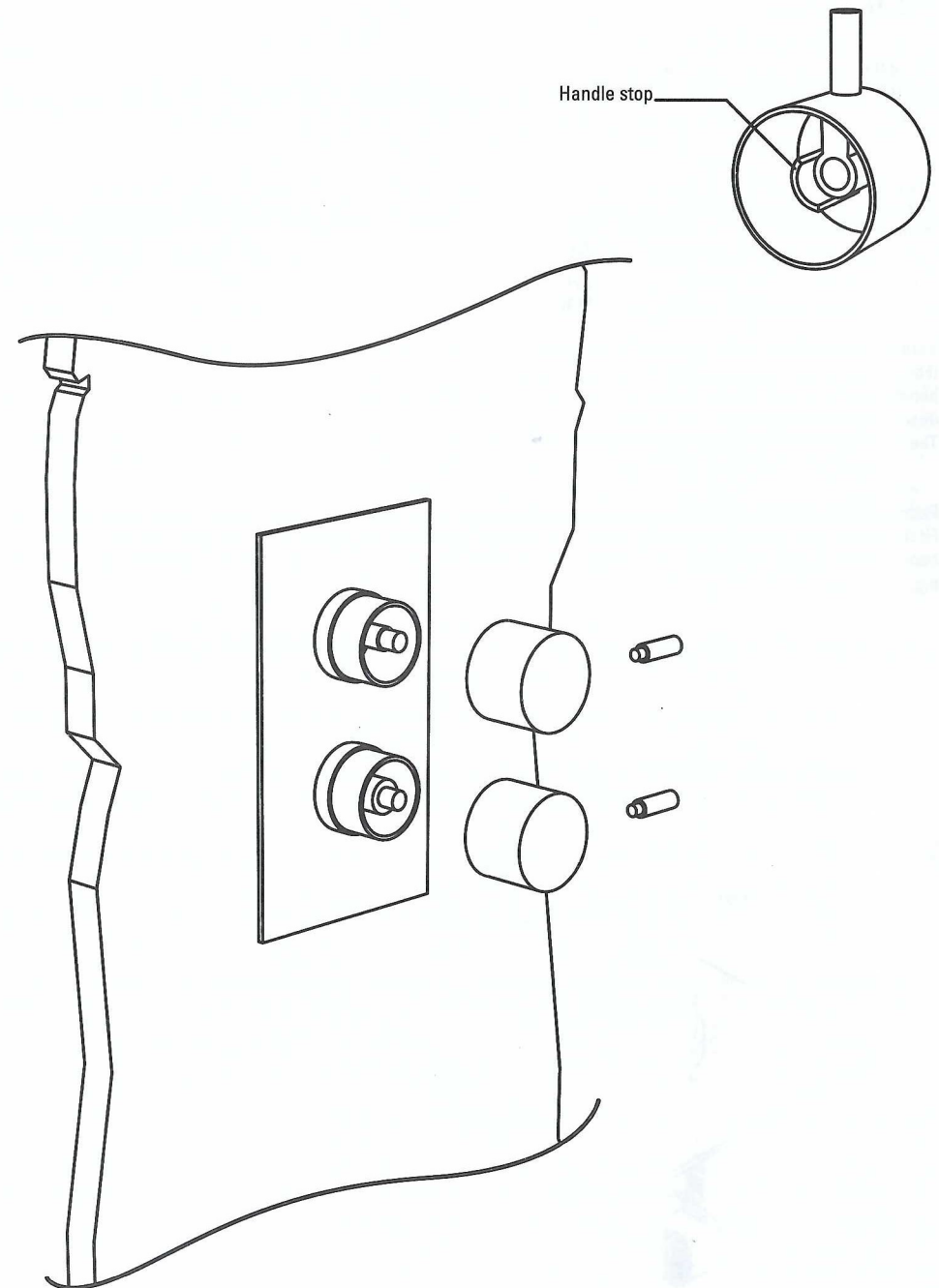
COMMISSIONING

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 DUAL AND TRIPLE SHOWER VALVES



1. Determine the mounting position for the shower valve.
2. Prepare the recess in the wall in which to mount the valve. Ensure the cover plate will hide the cut recess after installation of the valve.
The depth of the recess for both these valve types should be: MIN 70mm, MAX 90mm.
3. Mount the valve in the recess using the fixing lugs and supplied fixing screws to secure (see diagram opposite).
4. When the valve is securely mounted into the wall make the plumbing connections using PTFE tape. Inlets and outlets are all tapped 1/2" BSP. **IMPORTANT:** Do not use tapered threaded adaptors, this may damage the valve body.
5. Connect the water outlet to the valve primary outlet connection e.g. shower head
6. Triple inline valves only: Connect the secondary outlet to the auxiliary connection e.g. body jets or secondary shower handset.
7. Turn on the water supply and test all pipe work for leaks.
8. Remove Hot & Cold check valves, flush out the installation, clean the filters and refit. Re-check pipe work and valve for leaks.



SETTING THE TEMPERATURE OF THE THERMOSTAT AND INSTALLATION OF THE HANDLES

Fitting the Temperature Control Handle:

Check the valve after installation to ensure it operates at the correct outlet temperature. To set the maximum temperature rotate the spindle of the thermostat until the maximum showering temperature is reached (clockwise for cold, anti-clockwise for hot) It is recommended showers do not exceed 44°C.

The handle temperature limiting stop is situated on the underside of the handle body. Fit the handle onto the thermostat spindle so that the stop inside the handle butts up against the right hand side of the fixed stop on the thermostat body.

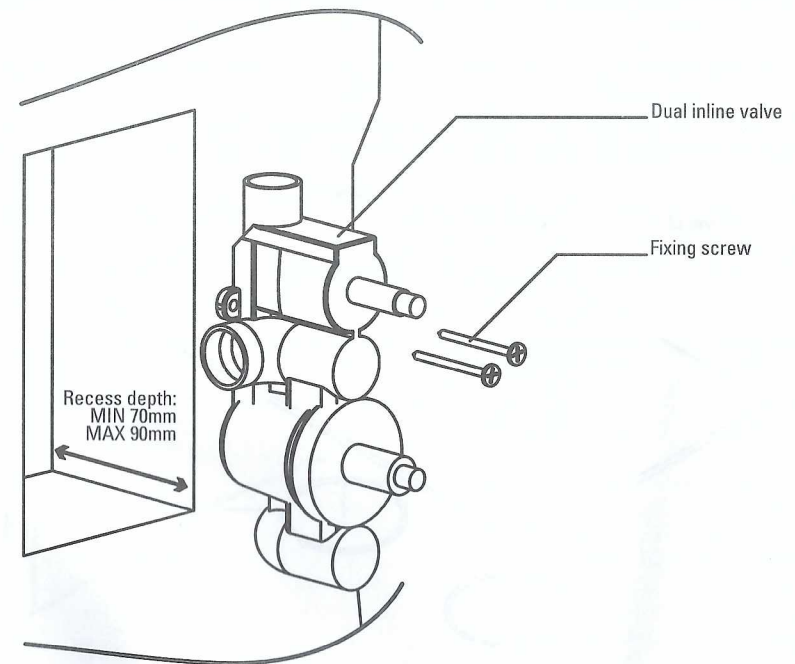
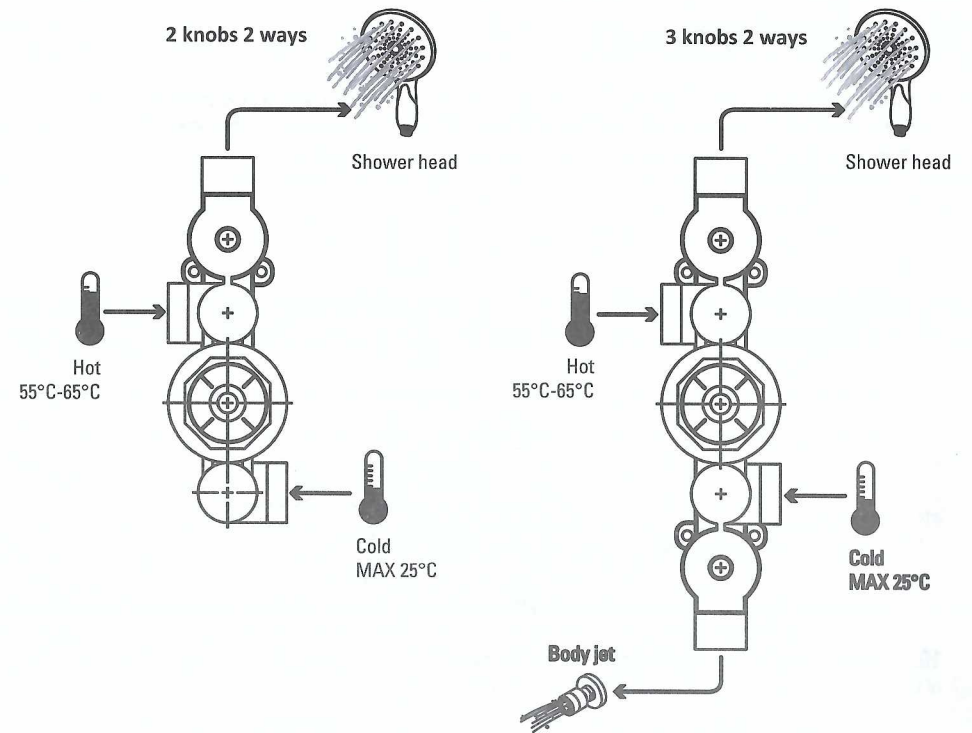
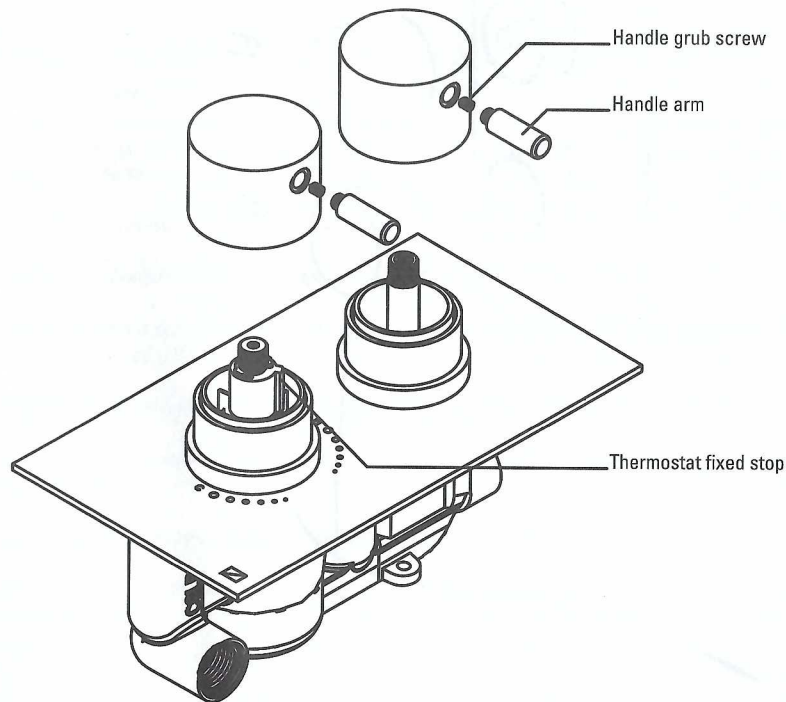
This will prevent the handle from turning beyond the maximum desired temperature. When correctly fitted the handle should only be capable of being turned from the stop in the direction of the cold arrow.

Screw the temperature control knob firmly in position using the grub screw to the side of the handle (For Wessex style handles only, secure the handle by removing the indices cover at the top of the handle and tightening the screw into the top of the thermostat spindle) Check once more the maximum desired temperature can not be exceeded.

The valve temperature should never exceed 46°C.

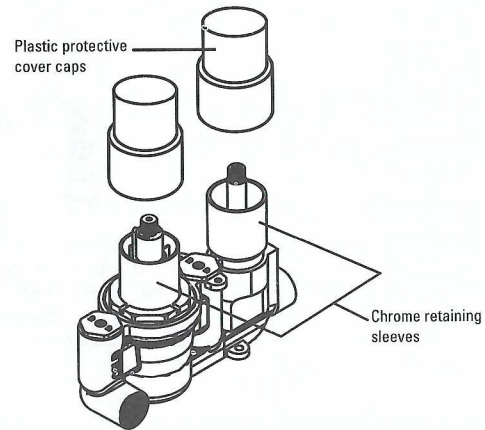
Fitting the Flow Control Handles:

Fit the remaining handle(s) onto the on-off flow control, by tightening the grub screw at the side of the handle. Triple handle valves have an additional on-off outlet to allow for control of secondary components e.g. body jets or shower heads.

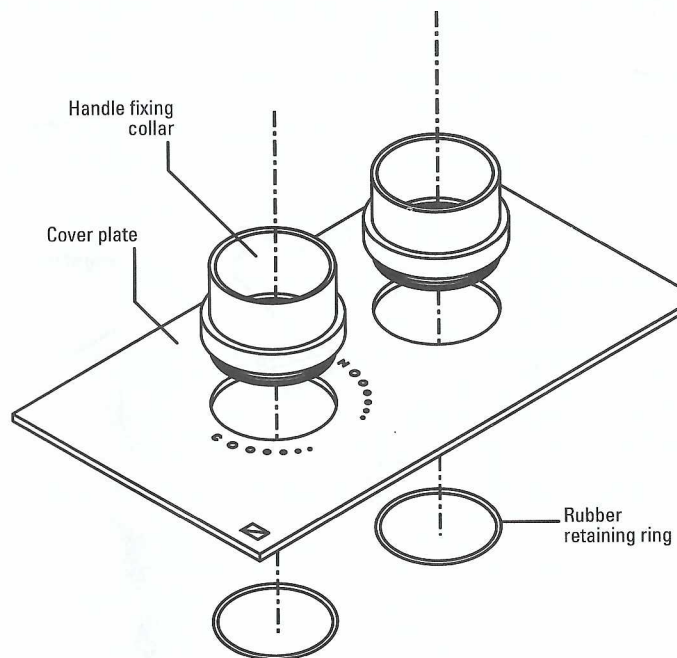


ASSEMBLY OF COVER PLATE

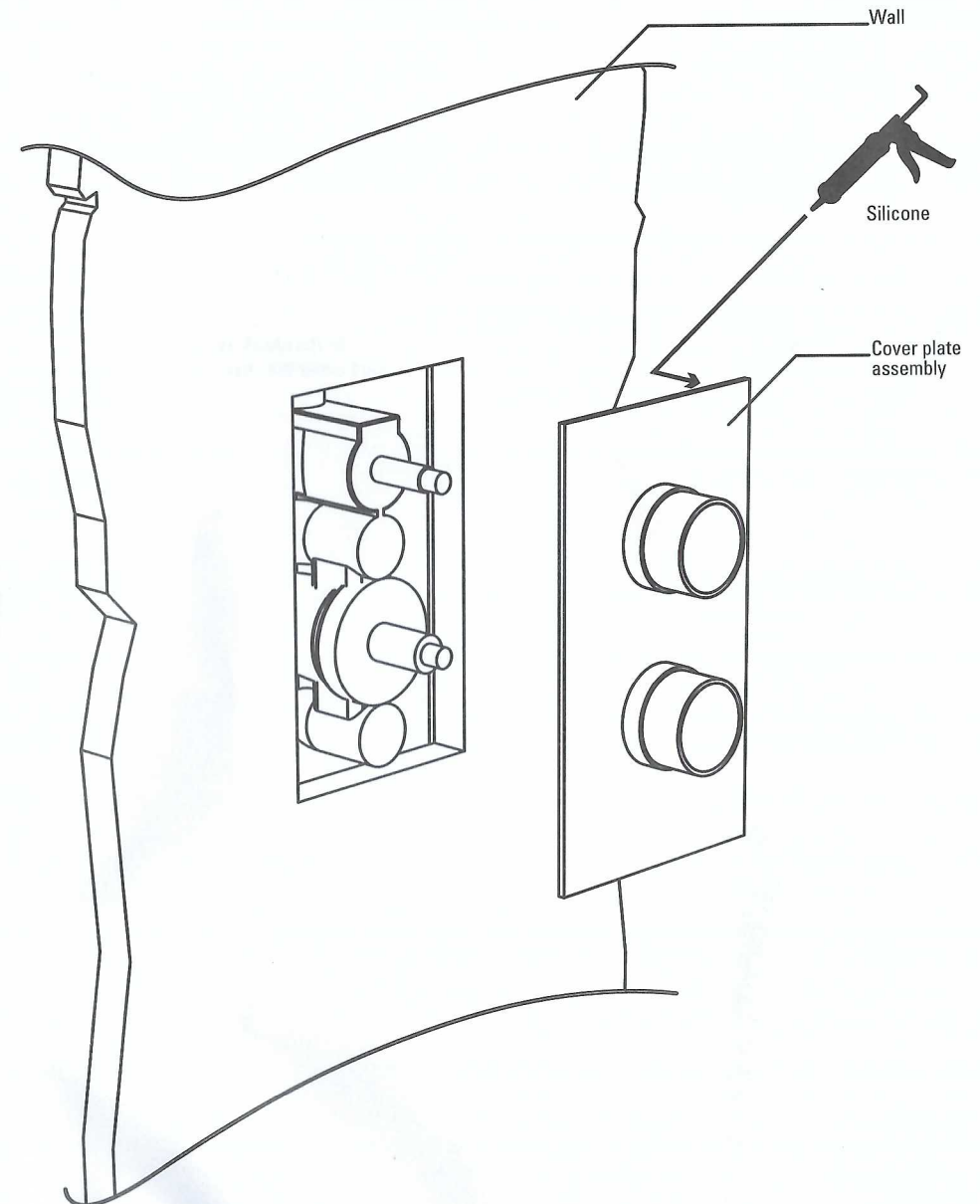
9. The valve is supplied with plastic protection covers. These can be left in place to protect the thermostat until assembly of the plate and handles and final commissioning of the valve is required. At this time, remove the protection cover whilst keeping the chrome retaining sleeve in place over the thermostat body.



10. Insert the fixing collars (packed inside the handle box) through the holes in the cover plate and secure to the back of the plate using the black rubber retaining rings supplied. See below.



11. Apply a small bead of silicone behind the front cover plate and slide over the body into position. Smooth off against the wall finish.



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, undo the 52mm AF clamp nut and pull the cartridge out (using temperature control knob to aid removal). Rotate the cartridge 180 degrees and re-assemble
Shower will not run hot enough when first installed	Maximum temperature needs adjusting, see temperature setting guide
Cold water running back through the valve into the hot water system.	Check and clean the check valve cartridges and filters located under the check valves.