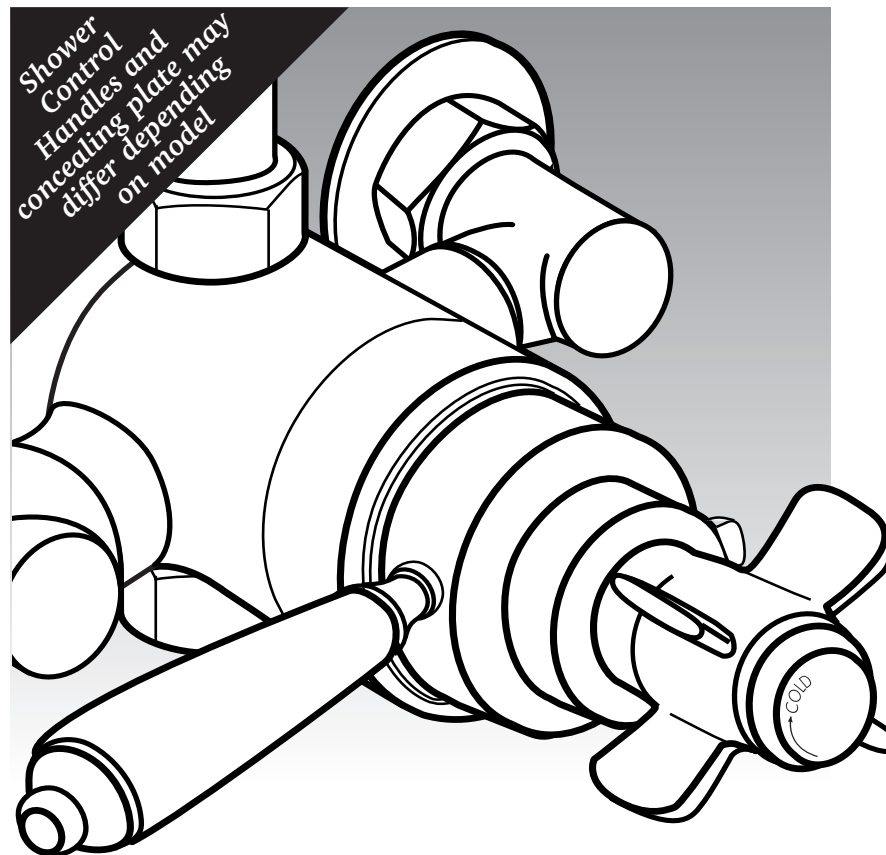


# 3/4" DUAL CONTROL THERMOSTATIC SHOWER VALVE



## INSTALLER'S GUIDE

3/4" ISSUE  
03

*These instructions cover all exposed or concealed versions of the 3/4" Dual Control Thermostatic Shower Valve Models*

**3/4" DUAL CONTROL SHOWER CONTROL****IMPORTANT INFORMATION****ISOLATION VALVES**

Suitable isolation valves should be fitted to both supplies in accordance with current Waterboard Regulations and our terms of warranty.

Due to their restrictive nature ball type valves should not be used.

**FILTERS**

To ensure the best performance and protection to the cartridge, 2 filter washers are fitted to the valve inlets. As they accumulate debris this could cause a reduction in the flow from the shower head. It is suggested that the filters be removed for cleaning by a competent person, as this condition is not covered by our warranty.

**VALVE SITING**

For best performance on a gravity fed system, the cold storage tank needs to be 1m above the fixed or adjustable shower head.

**PUMPED INSTALLATION**

**UNDER NO CIRCUMSTANCES MUST A PUMP  
BE FITTED TO A DIRECT WATER MAIN**

A pump is only to be used to boost the pressure from a tank-fed system.

**STORED WATER**

The cold storage tank must be a minimum of 50 gallons (225 litres); the hot cylinder must be capable of meeting the system demand.

**GRAVITY FEED HOT & COLD SUPPLIES**

This must be done according to good plumbing practice having regard for pipe sizes and long runs of pipework with low-head situations. The cold supply must always be taken from the header tank. The hot supply to be taken from the cylinders vent/draw off pipe.

**CYLINDER TEMPERATURE MUST BE IN EXCESS OF 60°C**

For best performance we recommend that the supplies are run in 22mm as close as possible to the mixing valve only reducing to 15mm if required at the mixer inlet.

**COMBI BOILER / MULTIPOINT SYSTEMS**

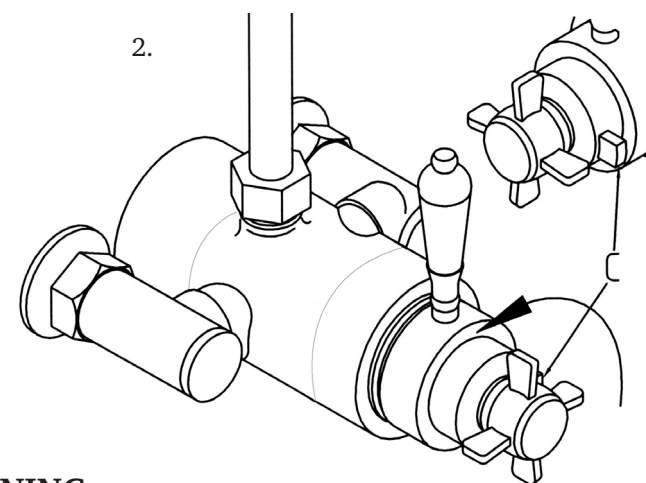
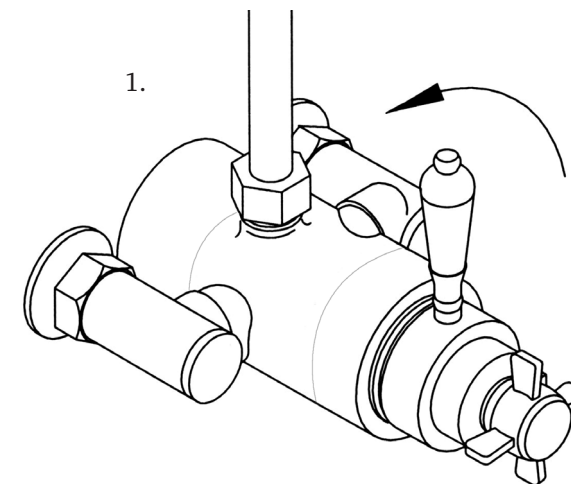
The gas water heater must be capable of raising the incoming water temperature by 35°C and delivering a flow rate of at least 9 litres (2 gallons) per minute to the shower valve. The maximum operating position for the shower valve is 5 bar. If the mains pressure exceeds this then a PRV must be fitted on the supply pipe after the main stopcock.

The cold supply can be taken from the nearest convenient main supply. The hot supply can be taken from the nearest water draw-off. Please take into account that a pressure drop will occur when other draw-off points are used when the shower is in use. Pipe work can generally be run in 15mm.

**3/4" DUAL CONTROL SHOWER CONTROL****USER GUIDE****SHOWER OPERATION**

Turn the on / off control fully anti-clockwise in to the open position to turn the shower on.

1. Rotate the temperature control lever to select the showering temperature.
2. Turn the on / off control fully clockwise into the closed position after use.

**CLEANING**

Your shower valve should only be cleaned using a soft soapy cloth.

**DO NOT USE ANY ABRASIVE CLEANERS**

## 3/4" DUAL CONTROL THERMOSTATIC SHOWER VALVE

### INTRODUCTION

This guide shows you how to install, maintain and generally get the most from your 3/4" dual control thermostatic shower valve.

**WE RECOMMEND INSTALLATION  
BY A QUALIFIED PLUMBER**

### TECHNICAL DATA

This shower valve is suitable for use on all common types of plumbing systems including **gravity, pumped, fully modulating combination boilers and high pressure unvented systems.**

**Minimum operating pressure 0.1 bar.**

**Maximum operating pressure 5 bar.**

**Balanced supply pressures provide optimum performance.**

### TEST DATA

These valves have been pressure tested to 15 Bar.

**Before proceeding, please note:**

1. The valve must be installed in compliance with local water authority byelaws and water supply byelaws.
2. Read all the instruction manual before proceeding.
3. Only begin the installation when you have all the necessary tools ready.
4. Please check that all the components are in the shower valve box.

### DUAL CONTROL THERMOSTATIC SHOWER VALVES

This shower uses a wax thermostatic cartridge to maintain a constant shower temperature. The valve is anti-scald and will automatically shut down if the cold water supply fails. The independent controls allow for separate operation of the spray force and temperature. The safety temperature button allows showering temperatures to reach a maximum of 38°C when calibrated for site conditions (see p10). To override this safety stop simply press the button and turn the temperature control handle. The shower elbows are supplied complete with non-return valves.

### AFTERCARE

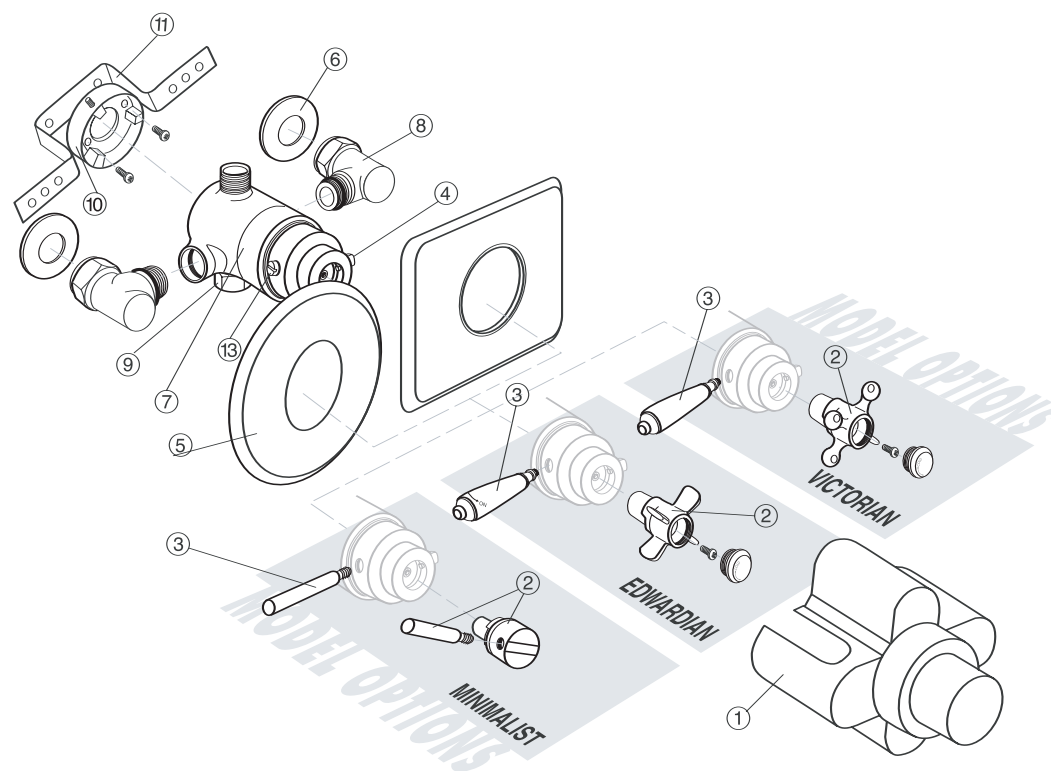
When installing or using tools, extra care must be taken to avoid damaging the finish or the fitting. To maintain the appearance of this fitting, please ensure it is cleaned regularly using a clean soft damp cloth only. Abrasive cleaners or detergents must not be used as they may cause surface deterioration.

## 3/4" DUAL CONTROL THERMOSTATIC SHOWER VALVE

### SHOWER VALVE COMPONENT CHECK LIST

#### KEY COMPONENTS

- |  |   |
|--|---|
| 1 • Protective Shroud  | 7 • Valve Body  |
| 2 • Temperature Control Handle   | 8 • Elbow Assembly  |
| 3 • Flow Control Handle  | 9 • Blanking Cap  |
| 4 • Temperature Override Button  | 10 • Backplate for all installations  |
| 5 • Concealing Plate (design may differ depending on choice of model). | 11 • Wall Mounting Bracket may be required for some concealed installations |
| 6 • Cover Plate  |   |

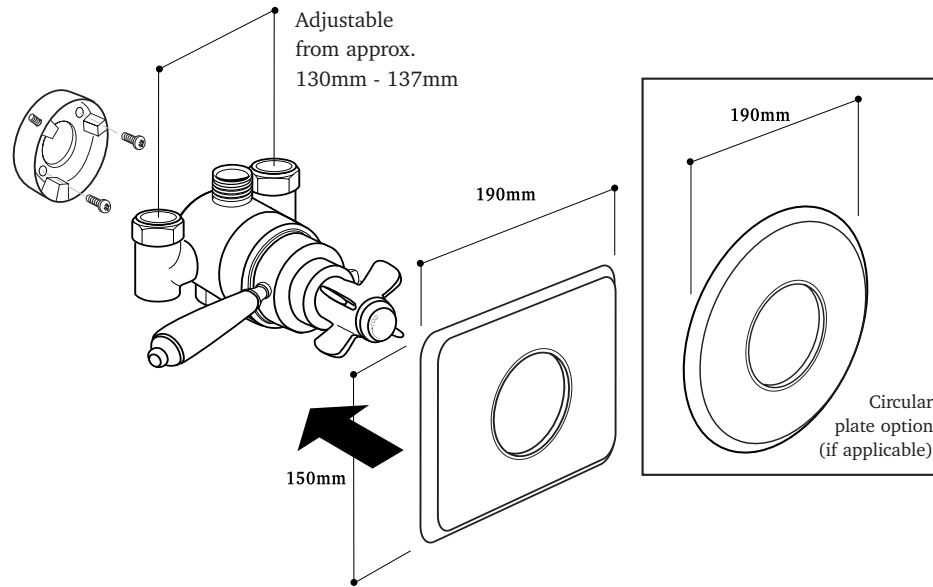


*PLEASE NOTE: Handles & concealing plate styles may vary depending on choice of model*

## 3/4" DUAL CONTROL THERMOSTATIC SHOWER VALVE

### PRE-INSTALLATION NOTES

#### Dimensions



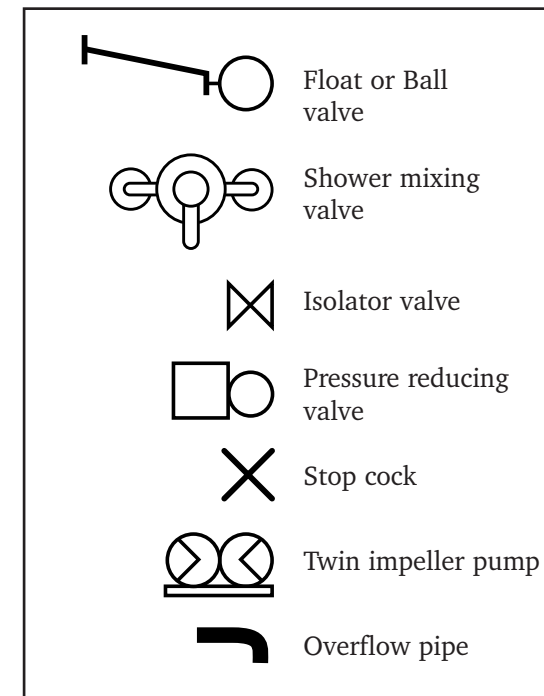
- Identify and check all the parts (**shower control handles and concealing plate styles may differ depending on model**).
- When positioning the shower valve, ensure you have sufficient pressure for an acceptable shower.
- Fix the shower valve to the fixing backplate and secure to the wall. To assist with the installation you may wish to use the wall mounting bracket supplied. N.B. The wall mounting bracket must be fitted at 45° so that access is available to connect water supplies.
- The hot water feed must **always** be connected to the inlet indicated for HOT.
- In line isolator valves must be fitted for servicing purposes.
- Refer to plumbing diagrams for further installation guidelines.

## 3/4" DUAL CONTROL THERMOSTATIC SHOWER VALVE

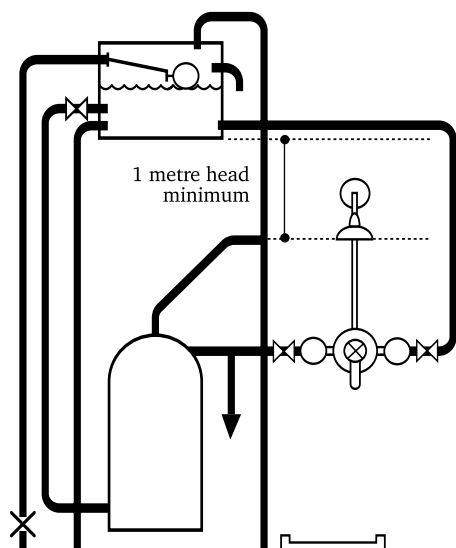
### INSTALLATION NOTES

#### ON HOT WATER SYSTEMS

#### PLUMBING DIAGRAMS



## 3/4" DUAL CONTROL THERMOSTATIC SHOWER VALVE

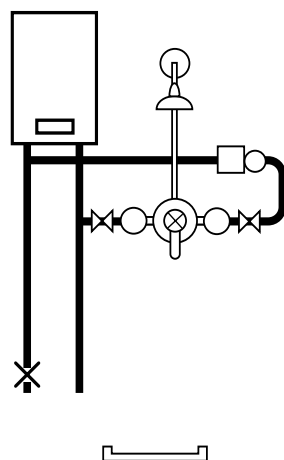


22mm pipework should be used for best performance.

### Gravity Fed Showers

The shower valve **must** be fed from a cold water storage tank and a hot water cylinder. The use of a Surrey or Essex flange connection to the hot water cylinder will ensure an independent supply of hot water to the valve; this action will stop air being drawn into the system.

NB Keep all pipework runs as short as possible for maximum shower performance.

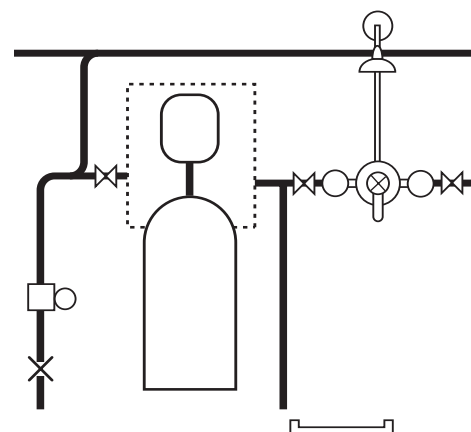


### Gas Heated/Combi-Boiler Showers

The shower valve **must** be installed with a modulating type combi-boiler or multi-point gas water heater. This system will produce a constant flow of water within the operating specifications of the appliance. NB The outlet temperature of the system **must** be capable of supplying hot water **in excess of 60°C**.

A pressure reducing valve may be required to ensure that cold water pressures do not exceed 4 Bar static.

## 3/4" DUAL CONTROL THERMOSTATIC SHOWER VALVE



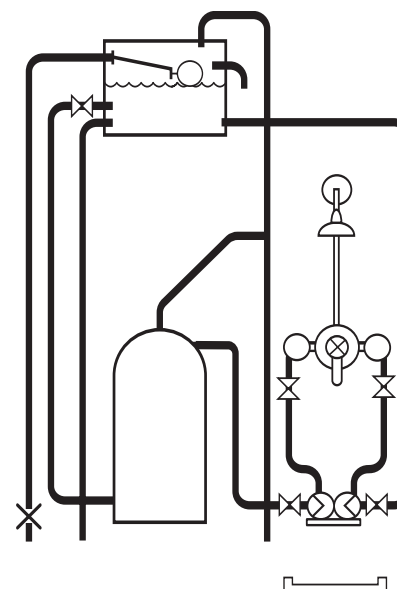
### Unvented Mains Pressure Showers

The shower valve can be used on an unvented mains pressure system. This type of system **must** only be installed by a **competent person as per the requirement of Part G of Schedule 1 to the building regulations**.

For systems with no cold water take off after the heaters pressure reducing valve, an additional pressure reducing valve should be fitted, and set, at the same pressure as the heaters.

The water supply pressure to the shower valve should be between 1 and 4 Bar.

N.B. Wherever possible 22mm pipework should be used.



### Pumped Showers

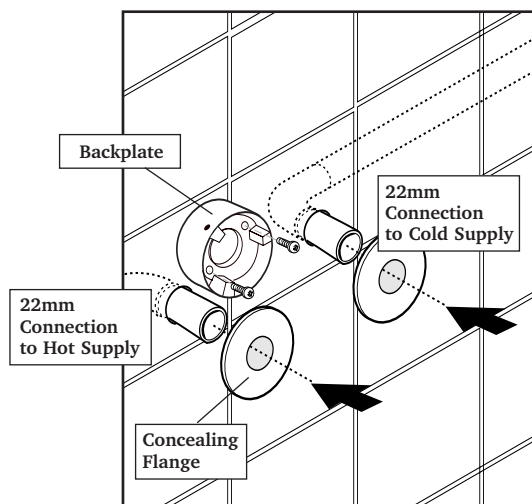
The shower valve can be used on a gravity fed pumped system. The use of a Surrey or Essex flange connection to the hot water cylinder will ensure an independent supply of hot water to the valve; this action will stop air being drawn into the system.

NB Please follow pump manufacturers' instructions relating to the siting and water feed details to the pump. Keep all pipework runs as short as possible for maximum shower performance.

N.B. Wherever possible 22mm pipework should be used.

## 3/4" DUAL CONTROL THERMOSTATIC SHOWER VALVE

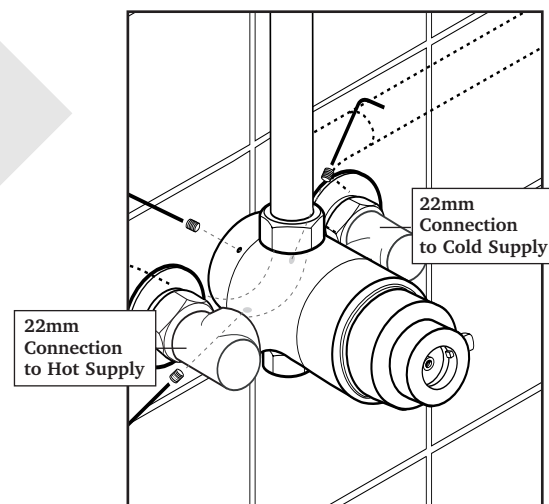
### EXPOSED VALVE Site Preparation



- Ensure hot and cold supply pipe feeds are positioned correctly ready to connect to the shower valve inlet elbows.
- If a rigid riser kit is being used, ensure the valve is positioned correctly to take the height of the vertical pipe.
- Position the fixing backplate and secure to the wall by means of two suitable screw fixings.
- Both hot and cold supply feed must be **flushed through** before connection to the shower valve is made. Re Water Supply Byelaw 55.
- To create a waterseal, use a thin line of suitable sealant around the supply pipe feeds and the tiles.
- Fit the concealing flanges over the supply pipes

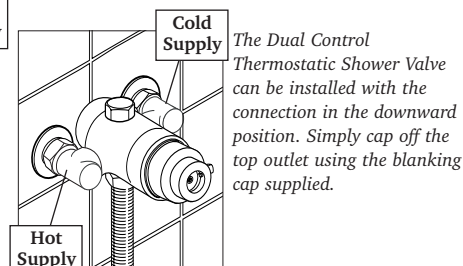
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### EXPOSED VALVE Connect to water supplies



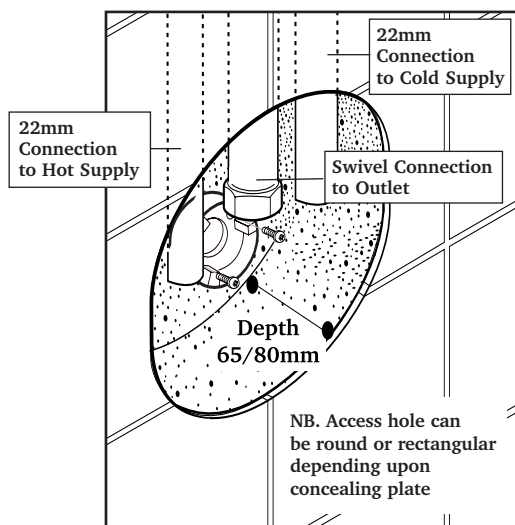
- Connect the hot and cold water supply feeds to the shower valve.
- Fit the shower valve body to the backplate, securing in place with 3 grub screws.
- Make connection to shower outlet.
- **Check for any leaks.**

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*The Dual Control Thermostatic Shower Valve can be installed with the connection in the downward position. Simply cap off the top outlet using the blanking cap supplied.*

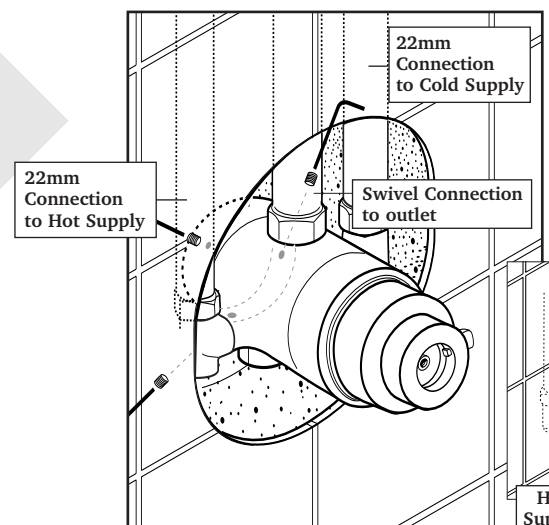
### CONCEALED VALVE Site Preparation



- Make a cavity in the wall to allow the hot and cold water supply connections to be made.
- Position the fixing backplate and secure in the wall cavity by means of suitable screw fixings.
- To assist with the installation you may wish to use the wall mounting bracket (no.11) supplied.
- Both hot and cold supply feed must be **flushed through** before connection to the shower valve is made. Re Water Supply Byelaw 55.

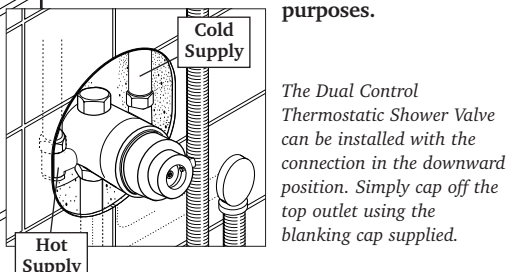
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### CONCEALED VALVE Connect to water supplies



- Connect the hot and cold water supply feeds to the shower valve.
- Fit the shower valve body to the backplate, securing in place with 3 grub screws. Make connection to shower outlet,
- **Check for any leaks.**
- **NB Please ensure that the area around the concealed valve is not filled in. Access must be left for servicing purposes.**

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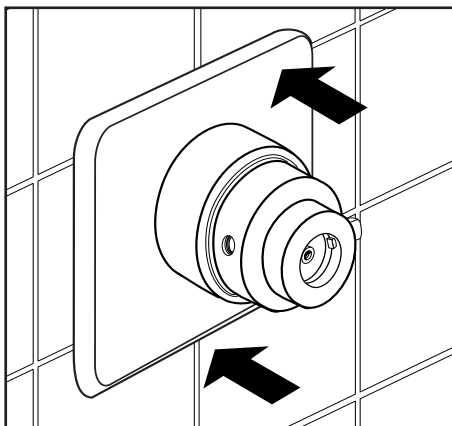


*The Dual Control Thermostatic Shower Valve can be installed with the connection in the downward position. Simply cap off the top outlet using the blanking cap supplied.*



## 3/4" DUAL CONTROL THERMOSTATIC SHOWER VALVE

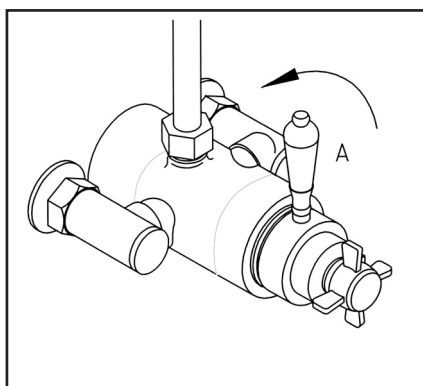
### CONCEALED VALVE Fit Concealing Plate



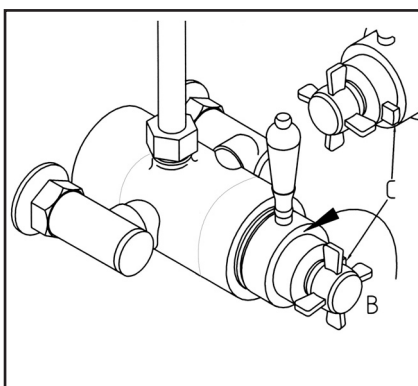
- Remove the protective film from the adhesive and push the concealing plate into position. (style may vary depending on model).
- To create a complete **waterseal**, use a thin line of suitable sealant between the concealing plate and the wall.

## CALIBRATION PROCEDURE

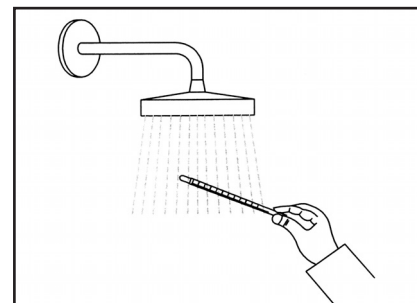
Control handles, shower outlet and final appearance may differ according to model chosen



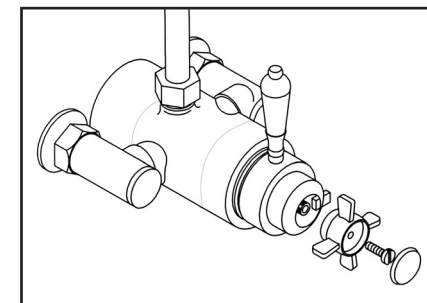
- **STEP 1**  
Turn flow handle A anti-clockwise to maximum flow position.



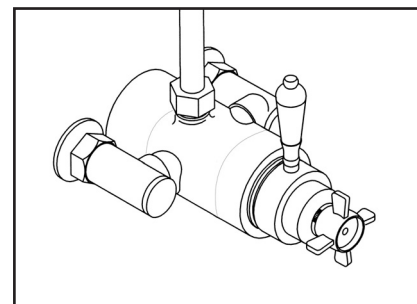
- **STEP 2**  
Turn temperature control knob B anti-clockwise until it contacts stop button C.



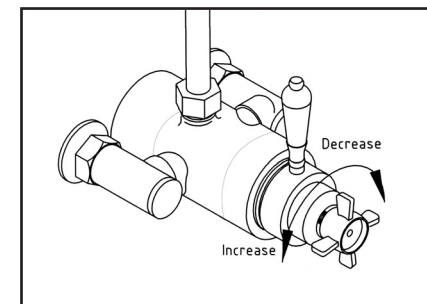
- **STEP 3**  
Allow water temperature to stabilise and check temperature. Proceed to step 4 if temperature is NOT 38°C.



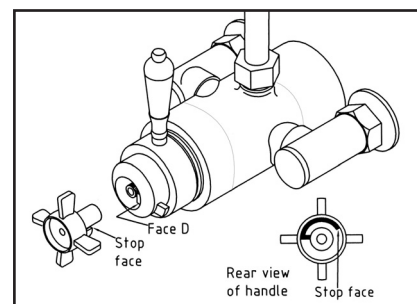
- **STEP 4**  
Remove the temperature control knob B.



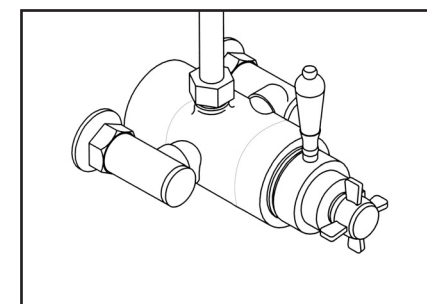
- **STEP 5**  
Refit the temperature control knob B on to the splined shaft with approximately 4mm engagement.



- **STEP 6**  
Slowly turn temperature control knob B in the required direction until 38°C is achieved at the discharge point. Allow to stabilise for 3 minutes.



- **STEP 7**  
Remove temperature control knob B & without rotating the splined shaft, relocate it so that the stop face of the knob is adjacent to Face D.



- **STEP 8**  
Re-assemble remaining parts of handle. Depress stop button whilst turning temperature control knob anti-clockwise to achieve temperatures greater than 38°C.

**3/4" DUAL CONTROL THERMOSTATIC SHOWER VALVE****FAULT FINDING CHART**

GRAVITY or PUMPED SYSTEM	
FAULT	DIAGNOSIS
Showering temperature is not hot enough	<ul style="list-style-type: none"> <li>• Ensure adequate flow of hot water to valve</li> <li>• Ensure hot water supply is at least 60°C</li> <li>• Check for airlocks in pipework</li> <li>• Ensure there are no inverted 'U's in any of the pipework runs</li> <li>• Check calibration</li> </ul>
Water goes cold during shower	<ul style="list-style-type: none"> <li>• Insufficient hot water storage</li> </ul>
When shower is set at cold, the showering temperature is too hot	<ul style="list-style-type: none"> <li>• Hot and cold supply connections have been made in reverse - reconnect correctly</li> <li>• Check calibration</li> </ul>
Shower temperature is too hot (pumped shower)	<ul style="list-style-type: none"> <li>• Check calibration</li> </ul>

COMBI or OTHER HIGH PRESSURE SYSTEM	
FAULT	DIAGNOSIS
Showering temperature is not hot enough	<ul style="list-style-type: none"> <li>• Ensure adequate flow of hot water to valve</li> <li>• Ensure hot water supply is at least 60°C</li> <li>• Check for airlocks in pipework</li> <li>• Ensure there are no inverted 'U's in any of the pipework runs</li> <li>• Check calibration</li> </ul>
The water goes cold whilst showering	<ul style="list-style-type: none"> <li>• Ensure the boiler is still firing. Adjust the boiler to the hottest output, not the best flow</li> </ul>

**NB.** Any product guarantees will be invalidated if the internal workings of the valve have been tampered with in any way. Please call our helpline if you are having any difficulties.

**3/4" DUAL CONTROL THERMOSTATIC SHOWER VALVE****INSTALLATION & MAINTENANCE**

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 56
Cold Supply Temperature - °C	≤ 25°	≤ 25°

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

- Designation of use, LP, HP and HP & LP.
- H.P only. 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.
- Recommended mixed water temperatures for applications of use.
  - 44°C for bath fill
  - 41°C for shower applications
  - 41°C for washbasin applications
  - 38°C for bidet applications
 These are recommended for all premises and should never exceed 46°C.
- 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 valves.



## 3/4" DUAL CONTROL THERMOSTATIC SHOWER VALVE

### INSTALLATION & MAINTENANCE

- The fitting of strainers is recommended as close as is practicable to the water supply inlets of the thermostatic mixing valve.
- The designation of the thermostatic mixing valve matches the application.
- The supply pressures are within the valves operating range.
- The supply temperatures are within the valves operating range.
- Isolating valves (and strainers preferred) are provided.
- The mixed water temperature at the terminal fitting must never exceed 46°C.
- TMV2 approved valves shall be tested against the original set temperature results once a year. When testing is due the following performance checks shall be carried out.
  1. Measure the mixed water temperature at the outlet.
  2. Carry out the cold fail-safe shut off 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.
  3. If there is no significant change to the set outlet temperature ( $\pm 2^{\circ}\text{C}$  or less change from the original setting) and the fail-safe shut off is functioning, then the valve is working correctly and no further service work is required.
- The installation of thermostatic mixing valves must comply with the requirements of the Water Supply (Water Fittings) Regulations 1999.