

# CIFIAL



CIFIAL UK LTD  
Unit 7 Faraday Court, Park Farm Ind Est  
Wellingborough, Northants NN8 6XY

## **ANTIQUE DUAL CONTROL TEMPERATURE STABILISED THERMOSTATIC SHOWER CONTROL**

### **INSTALLATION MAINTENANCE AND OPERATING GUIDE**

Please leave with the user.

#### **FOR CONCEALED AND EXPOSED INSTALLATION MODELS**

OUR QUALITY CONTROL PROCEDURES ENDEAVOUR TO ENSURE THIS PACK IS COMPLETE. HOWEVER, IF YOU FIND ANY PARTS MISSING OR REQUIRE TECHNICAL INFORMATION, PLEASE CONTACT:-  
THE MANUFACTURER.

A & J GUMMERS LIMITED.  
UNIT H REDFERN PARK WAY,  
TYSELEY,  
BIRMINGHAM  
B11 2DN.

TEL NO: 0121-706 2241  
FAX NO: 0121-706 2960

800003/A

**A & J  
GUMMERS**

## **INTRODUCTION**

Installation and operating instructions for the Thermostatic Shower Mixing Valve.

The valve is supplied with the hot inlet on left and cold inlet on right when viewed from the front. The hot supply must be connected to the inlet port marked 'H'.

Please read these instructions carefully, and ensure the shower valve is installed to local Water Authority regulations. If in doubt, contact a registered plumber or the Secretary, Institute of Plumbing, 64 Station Lane, Hornchurch, Essex. RM12 6NB. Telephone: 01708 472791.

## **SITE REQUIREMENTS**

To ensure the correct operation of your shower mixing valve it is important to fully understand your site installation. This thermostatic mixing shower will suit:

HIGH PRESSURE  
LOW PRESSURE  
MAINS PRESSURE  
PUMPED PRESSURE  
UNEQUAL PRESSURE  
GRAVITY PRESSURE

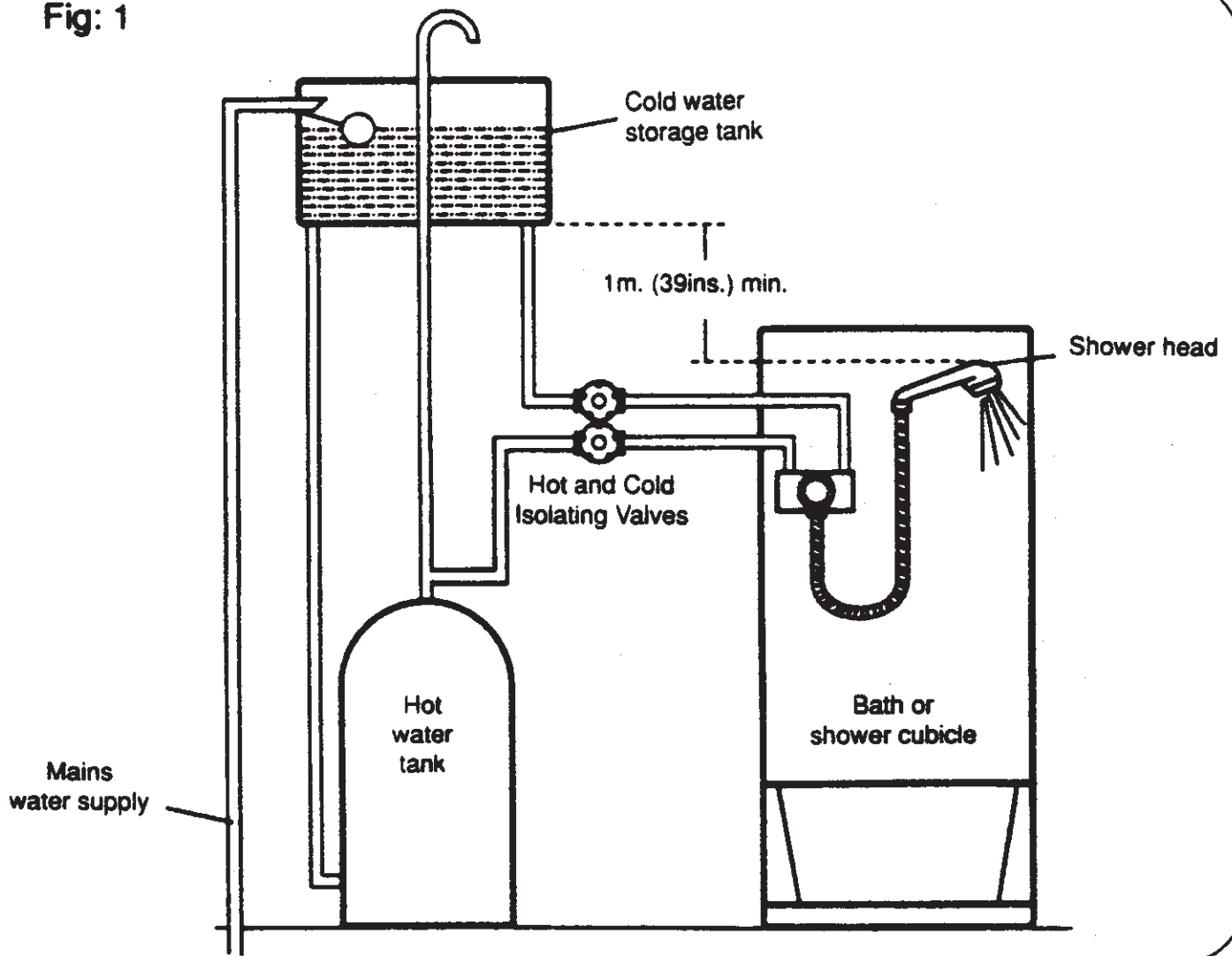
The shower mixing valve may require slight adjustment depending on your site installation the following may apply.

### **1 GRAVITY FED**

Fig. 1 shows a typical layout. The distance between the bottom of the cold water tank and the shower head must be a minimum of 1 metre (0.1 bar).

The cold water supply for the valve must be connected directly to the cold water tank and the hot water supply connected to a Essex or Sussex Flange in the side of the cylinder or to the vent and draw off pipe of the hot water cylinder, as close to the top of the cylinder as possible.

Fig: 1



The above installation is recommended for most showers, if however your cold supply is mains pressure then the following will be required:-

## 2. SITE INSTALLATION DETAILS.

- a) Low pressure hot supply between 1 and 2 metres (0.1 - 0.2 bar)  
Mains cold supply between 2 and 10 bar.  
\* fit white orifice disc part no. 460192 (38) into cold inlet elbow. follow the same fitting instructions as for flow limiter .... **DO NOT USE THE FLOW LIMITERS.** (Fig. 2)
- b) Hot supply between 2 to 4 metres (0.2 - 0.4 bars)  
Main cold supply up to 10 bars.  
\* fit 7 litre (green) limiter into cold inlet elbow only.
- c) Hot supply above 5 metre (0.5 bar)  
Mains cold supply up to 10 bars.  
\* fit 5 litre (yellow) limiter into hot inlet elbow.  
\* fit 7 litre (green) limiter into cold inlet elbow.

### UNVENTED SYSTEM

Fit 5 litre (yellow) limiter into hot inlet elbow.  
Fit 7 litre (green) limiter into cold inlet elbow.

This will give a shower outlet flow of about 10 litres/min. (2.2 gallons per min).  
(Cold supply to shower from same source as hot).

### 3. INSTANTANEOUS GAS WATER HEATERS & COMBINATION BOILERS (UNVENTED)

The hot supply from the heater is to be connected to the hot inlet elbow and cold inlet elbow connected to the cold supply. Fit 7 litre flow limiter (as supplied) into cold inlet elbow as shown below in Fig. 2. With certain permutations of Combination Boiler and mains pressure it may be necessary to fit a 5 litre (yellow) Flow Limiter into the hot elbow.

### 4. INSTANTANEOUS (NON STORAGE) 7-9 kw Electric Water Heaters (Unvented)

This will require a 5 litre (yellow) flow limiter into Cold inlet elbow.

**IMPORTANT:-** It is a requirement of Instantaneous Electric Water Heaters that a stable flow of water passes through the heater.

This requirement can be satisfied by using a Gummers Flow Stabiliser (960060) and should be adjusted to give a temperature of between 45 - 50 Degrees C from the heater.

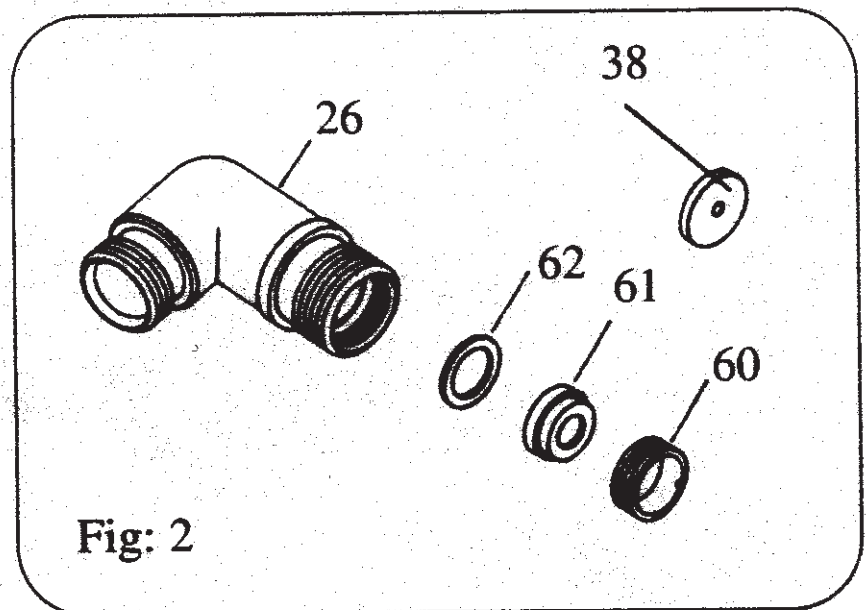
Flow Stabilisers should be fitted prior to the heater, and are available from A & J Gummers. Tel: 0121-706 2241.

### 5. PUMPED SHOWERS

Your Thermostatic shower is also ideal for power shower installations and can be matched to most makes of booster pump. For further information contact your local stockist.

### 6. NOTE WATER BYELAWS

When connecting a mixing valve to gravity hot supplies and mains cold water that byelaw 30 (2) will apply.



**NOTE:** fit white orifice disc (38) only on cold and low pressure hot, see gravity fed installation requirements. (2a)

# INSTALLATION

## 7. GENERAL

- a. Before commencing it is advisable to install isolating valves on both hot and cold supplies for flushing out and servicing purposes.
- b. It is important that both supply pipes are flushed before connecting mixing valves to ensure no pipe/plumbing debris enters mixing valve.
- c. A simple way of flushing both supply pipes is to fit the outlet adaptor (31) to both pipes and secure with compression nut (29) and olive (30). fit hose to adaptor and flush out pipes to waste.
- d. We recommend fitting strainers (41) to ensure no debris enters mixing valve.
- e. In hard water areas the mixing valve may require more frequent cleaning and servicing.

## 8. PIPE POSITION

Before mounting the valve to the wall, the position for pipework should be decided. Three inlet positions-top, bottom and rear are possible simply by rotating the elbows in the valve body (see fig. 3 below). With the elbow screwed fully against the valve body it can be unscrewed a maximum of 1.5 turns to allow for lateral tolerance.

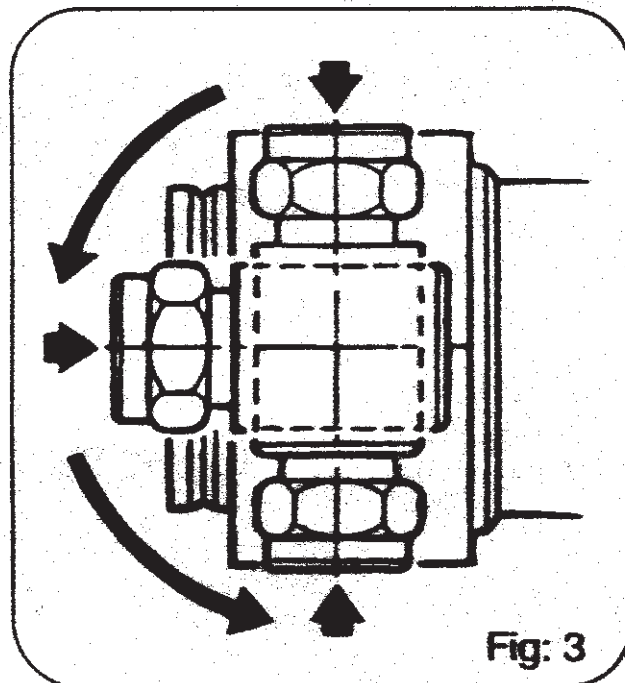
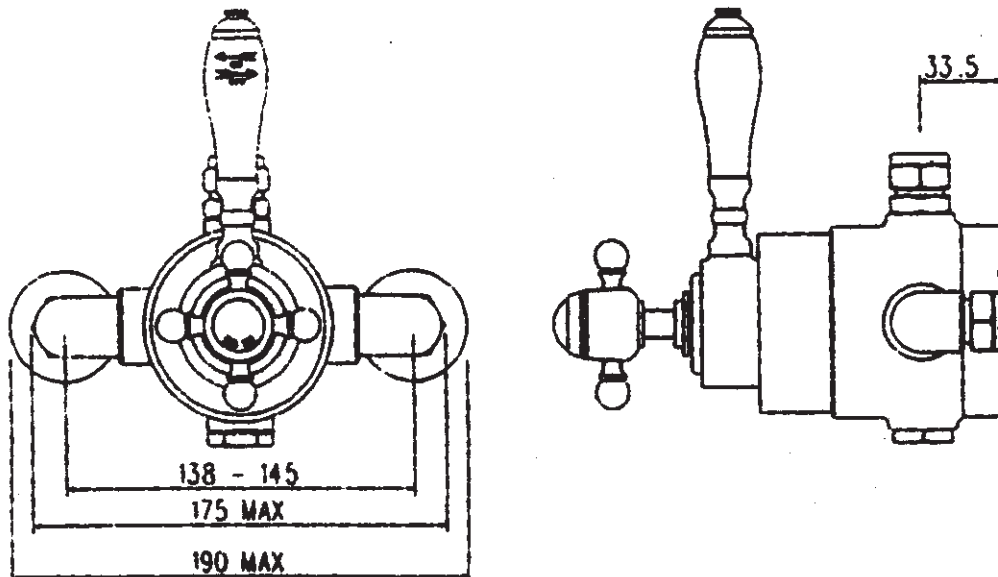


Fig: 3

## 9. EXPOSED MOUNTING

- a. Please refer to section 7 (page 4) to ensure the General Installation requirements are met.
- b. Use the exposed backplate (28) as a template for the fixing holes.
- c. Drill and plug wall to suit screws provided.
- d. Fit grubscrews (40) loosely to backplate and secure backplate to wall.
- e. Locate the valve body to the wall and lock with grubscrew. Fit outlet adaptor (32) to valve - exchange with blanking plug (31) for top outlet.
- f. Connect inlet pipes to valve with compression fittings, please ensure the hot supply is connected to the inlet port 'H'.

Fig: 4 EXPOSED VALVE



# 10. CONCEALED FIXING

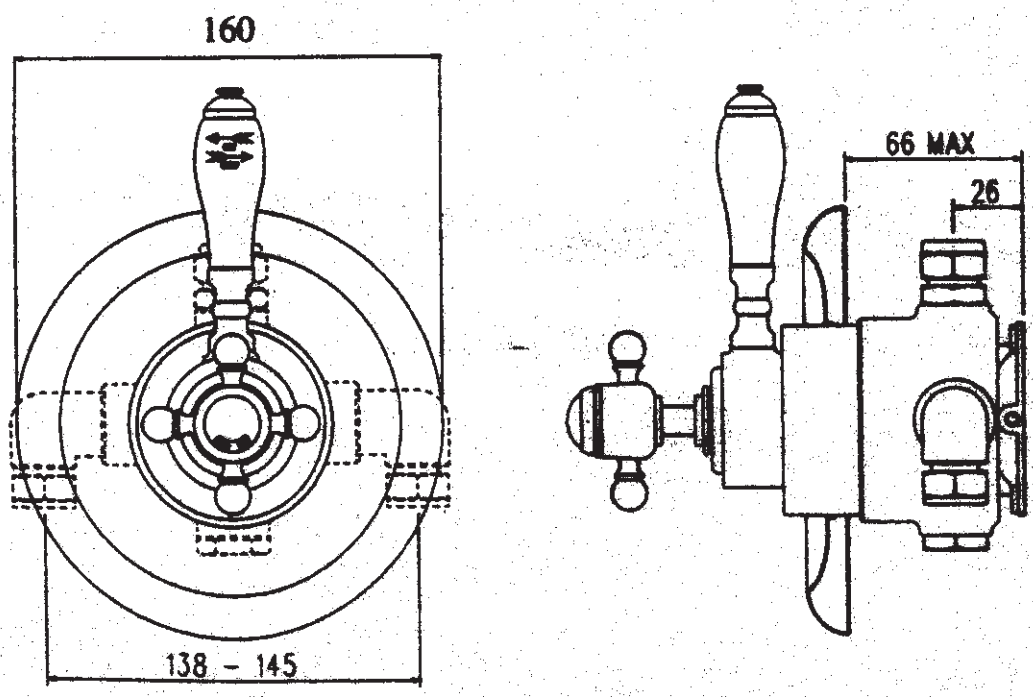
Please refer to section 7 (page 4) to ensure the General Installation requirements are met.

It is essential that when installing a concealed mixing valve, full access to the valve can be achieved for servicing purposes. Isolating valves - fitted on both supplies - should be accessible and located near the valve for this purpose.

Rear access to the mixing valve is always preferred wherever possible (eg. an airing cupboard or panelled wall), as this removes the need to disturb any tiling or decorative features at the front of the valve. If this is not possible, removable access panel of 300mm square minimum fitted to a simple wooden framework could be installed to allow full access and removal of the valve if necessary. Such a panel could, for example, be tiled over and secured with mirror screws in each corner and the screws capped. Removal of a valve installed in this manner would mean only disturbing only a few tiles. Fig.5 show overall dimensions of the concealed valve.

Once the valve is installed and tiling complete, fasten wall plate (66) to tiled surface with seal (65) in between. Locate Surround (67) on to the wall plate by hooking under knob lever and rotating to catch on Wall Plate Lugs.

Fig. 5 CONCEALED VALVE.



## 11. OPERATION

The lever (13) controls water flow and the handle (15) controls mixed water temperatures. Turn the lever (13) anti-clockwise to progressively increase water flow rate up to a maximum at about 3/4 of a turn. Turn the handle (15) anti clockwise to increase water temperature. The maximum temperature is factory set at 43° C when the handle (15) has been turned to its fullest extent. If you require a hotter or cooler maximum you can do so by following the directions below referring when necessary to the parts list

## 12. MAXIMUM TEMPERATURE SETTING

- a. Remove the Indice (52) on the front of the handle.
- b. Turn the lever (13) anti-clockwise to the maximum flow position.
- c. Turn the handle (15) anti-clockwise to the maximum temperature position.
- d. Remove the spindle screw (27), and pull off the handle.
- e. Adjust the spindle extension (53) by using the handle (15) partially replaced on splines to alter the maximum temperature.
  - \* Turn anti-clockwise for warmer temperature.
  - \* Turn clockwise for cooler temperature.
- f. When the desired maximum temperature is obtained, replace the spindle screw and the indice.

## 13. WATER BYELAWS

"Shower installations in all respects must meet with the requirement of Water Byelaws". If in doubt you should contact your local Water Authority for advice or a registered member of the Institute of Plumbers Tel: 01708 472791 for a list of your nearest plumbers. Here are two byelaws to which we bring your attention to:

### a. **All Shower Installations**

Byelaws 17 (2) b the shower head of any Shower Hosepipe is connected by a fixed or sliding attachment so that it can only discharge water at a point not less than 25mm above the spill-over level of the relevant bath, shower tray or other fixed appliance.

### b. Showers connected to mains cold supply mixed with hot stored water:

Byelaw 30 (2) cisterns storing water for domestic purposes.

Where the shower valve is supplied with hot water from a storage cistern and cold water from the mains supply pipe a cold storage cistern that complies to byelaw 30 (2) must be used.



## 14. SERVICING/MAINTENANCE

- a. \* If your Thermostatic mixing valve fails to operate it could be the result of incorrect installation. Please refer to installation and site requirements.
- b. \* If the valve has operated correctly for a time, but no longer performs acceptably, it may require servicing/cleaning.
- c. \* Isolate hot and cold supplies.
- d. \* Remove indice (52) Remove spindle screw (27) and pull off handle (15). Remove concealing plate if applicable. Remove spindle extension (53). Pull off spacer (36) and remove circlip (16) the flow control body (54) can now be pulled off.
- e. \* Remove body sleeve (37) by unscrewing grub screw at side. Remove the fixed valve head (8) as an assembly of parts by unscrewing using a spanner on the large hexagon. Place aside piston and distributor assembly. **DO NOT DISMANTLE THIS ASSEMBLY.**
- f. \* Unscrew the half cartridge (5) (Note! Do not grip the half cartridge in vice jaws or wrench jaws. You can release the half cartridge by inserting a flat tool such as a flat file through the half cartridge slots and use a spanner or vice on the large hexagon of the head driving one against the other - the half cartridge has a standard right hand thread.)
- g. \* Remove the circlip (43) and push out the spindle assembly.
- h. \* Remove all O rings and washers.

## 15. MAINTENANCE CLEANING

- a. \* Soak all metal parts in descalent, wash off in clean water.
- b. \* Examine all seals and replace if necessary. (A maintenance kit is available which contains all seals).
- c. \* Use a silicon based grease on all seals (light smear only), and on thread of spindle (2) and spindle housing (3).

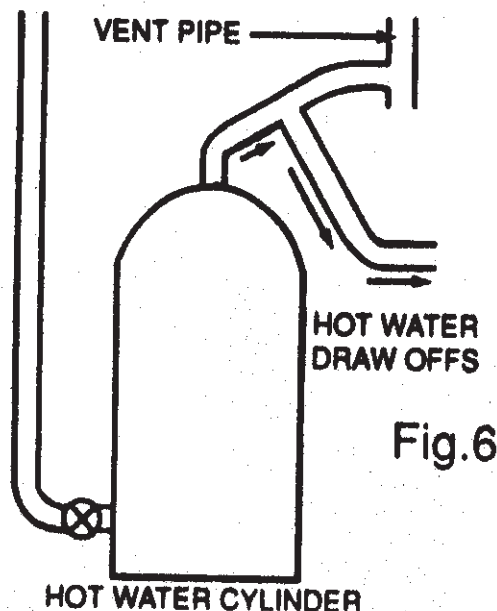
## 16. RE-ASSEMBLY

- a. \* Add P.T.F.E. washer (42) to spindle (2) from the splined end, then the O ring (4). The spindle is then screwed into the spindle housing (3). Fit O rings (20 & 48) onto flow head (35) and locate the spindle assembly into the flow head (35). Fit circlip (43) Please note that the circlip does not locate on the groove immediately below the spline but locates on the next groove down towards the threaded end of the spindle.
- b. \* Replace flow nut washer (11) onto flow nut (10) and fit to flow head (35) (left hand thread). Fit O ring (19) to fixed valve head (8) and fit same to head assembly, securing with circlip (16). Fit O rings (45 & 50) to shut off plate (49) and fit to half cartridge (5), Screw hold cartridge to flow adjust head (35)
- c. \* Place thermostat (25) into piston and distributor assembly (6) and place the return spring (23) into the recess at the bottom of the piston and distributor assembly (use a dab of greece to retain this is place)
- d. \* Offer the piston assembly up to the head assembly ensuring that the thermostat (25) is located in the recess in the adjustment screw (3)
- e. \* Screw the whole assembly into the valve body (1) and tighten.
- f. \* Replace the body sleeve (37) and secure with grub screw, before replacing flow control body (54) turn valve off (clockwise) and place flow control with lever (13) upwards, secure with circlip (16). Replace spacer (36) onto flow adjust head (35) replace spindle extension (53) into spacer (36) and fit handle (15) then refer to Maximum Temperature Setting (section 12).
- g. \* After finally setting your desired maximum temperature, replace spindle screw (27) and washer (58) Finally replace indice (52)

# GENERAL FAULT DIAGNOSIS

If your Thermostatic mixing valve fails to operate correctly either immediately upon installation or after a period of time, the following important points should be checked:-

1. Isolate supplies and ensure that both hot and cold water supplies are reaching the valve body. You may need to dis-connect supply pipes to ensure this.
2. Ensure that there is no debris between the faces of the piston (6) and it's mating faces; bottom of Valve Body (1) and Half Cartridge (5).
3. Check that the valve has been installed correctly in accordance of its particular feed system (ie. use of flow limiters where necessary)
4. Common problems with pumped systems include:
  - i. Insufficient head pressure to initiate pump; (check with pump supplier/manufacturer)
  - ii. Airlocks within the pump impellers. Fig. 6 shows the preferred Tee-Off configuration of the hot water supply. Any air bubbles formed by the hot water will tend to cling to the top surface of the pipe and dissipate to atmosphere through the vent pipe.
5. That the hot water temperature source is sufficient; preferred minimum of 60°C.



ITEM No.	DESCRIPTION	ITEM No.	DESCRIPTION
1	VALVE BODY	35	FLOW ADJUST HEAD
2	SPINDLE	36	SPACER (DUAL CONTROL)
3	SPINDLE HOUSING	37	BODY SLEEVE (DUAL CON.)
4	O-RING	38	WIPER FOR PEEK DISC
5	WALL COVER PLATE	39	CONE POINT GRUB SCREW S.S.
6	PLASTIC DISTRIBUTOR	40	FILTER
7	LEVER VALVE HEAD	41	SMALL PITE WASHER (SPINDLE)
8	LEVER SPACER	42	S.A.S. CIRCLIP
9	FLOW INLET	43	PLASTIC RETAINING COLLAR
10	LARGE PITE WASHER (FLOW INLET)	44	O-RING
11	LEVER CAP	45	1/2" O.D. PLASTIC CHECK VALVE
12	GRANITE LEVER	46	O-RING
13	BALL WASHER	47	O-RING
14	SPRING	48	O-RING
15	WALL BRACKET	49	SPRINT OPE PLATE
16	LEVER ROD	50	WALL COVER PLATE
17	O-RING	51	INDICE
18	O-RING	52	SPINDLE EXTENSION
19	O-RING	53	FLOW CONT. BODY (DUAL CON.)
20	O-RING	54	SLEEVE PEEK
21	O-RING	55	O-RING
22	O-RING	56	WASHER
23	RETAINING RING	57	WASHER
24	WALL MOUNTING ELEMENT (0.170)	58	WASHER
25	WALL MOUNTING ELEMENT (0.170)	59	O-RING
26	CHECK VALVE PLUNGER	60	RETAINING RING
27	WALL MOUNTING ELEMENT (0.170)	61	WASHER
28	BACKPLATE	62	CONCAVING BACKPLATE
29	SPRING	63	WASHER
30	COMPRESSION RING	64	WASHER
31	OUTLET PLUG	65	WALL SEAL
32	WASHER	66	WASHER
33	WASHER	67	CONCAVING PLATE
34	O-RING	68	O-RING
35	O-RING	69	O-RING
36	O-RING	70	O-RING
37	O-RING	71	O-RING
38	O-RING	72	O-RING
39	O-RING	73	O-RING
40	O-RING	74	O-RING
41	O-RING	75	O-RING
42	O-RING	76	O-RING
43	O-RING	77	O-RING
44	O-RING	78	O-RING
45	O-RING	79	O-RING
46	O-RING	80	O-RING
47	O-RING	81	O-RING
48	O-RING	82	O-RING
49	O-RING	83	O-RING
50	O-RING	84	O-RING
51	O-RING	85	O-RING
52	O-RING	86	O-RING
53	O-RING	87	O-RING

