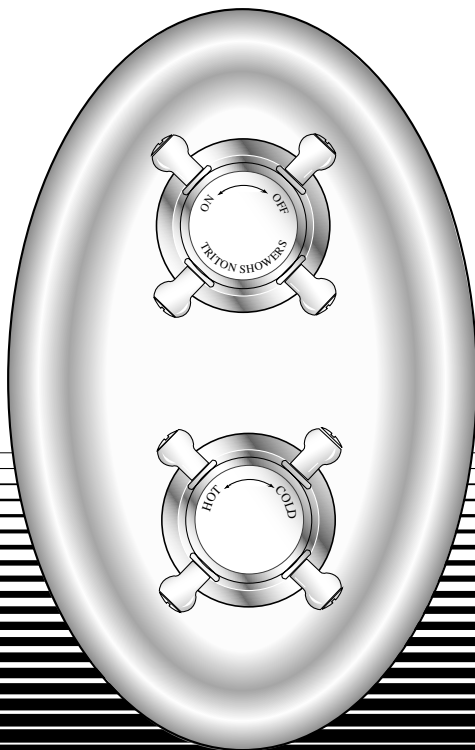


TRITON

**· DC7000 dual control
Antique mixer shower ·**



Installation and Operating Instructions

INSTALLERS PLEASE NOTE THESE INSTRUCTIONS ARE TO BE LEFT WITH THE USER

2180290B May 2000

DC7000 ANTIQUE

TRITON



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| CONTENTS | Page |
|------------------------------------|-------------|
| Introduction | 2 |
| Safety warnings | 2 |
| Main components and pack contents | 3 |
| Site requirements | 4 |
| Temperature adjustment range | 5 |
| Preparing and siting of the shower | 6 |
| Installation – general | 7 - 8 |
| Installation | |
| solid wall | 9 |
| hollow wall | 10 |
| cubicle or panel | 11 |
| Connecting the supply pipes | 12 |
| Fitting Showerhead | 13 |
| Using the tiling shroud | 14 |
| Fitting the face plate and knobs | 14 -15 |
| Commissioning | 16 - 17 |
| Operating the shower | 17 |
| Maintenance | 18 - 19 |
| Spare Parts | 20 |
| Inspection and maintenance record | 21 |
| Fault finding | 22 |
| Guarantee, service policy, etc. | rear cover |

INTRODUCTION

This book contains all the necessary fitting and operating instructions for your Triton dual control mixer shower. Please read them carefully. Read through the whole of this book before beginning your installation.

The shower installation must be carried out by a suitably competent person and in sequence of this instruction book.

Care taken during the installation will ensure a long and trouble free life from the shower.

This thermostatic shower valve has been independently tested and approved to all the requirements of *NHS Estates Model Engineering Specification D08 Thermostatic Mixing Valves (Healthcare Premises)* to the following designations and for the following applications:

- HP-S** Shower with supply pressures of 1 - 5 Bar and unrestricted flow rate.
- LP -S** Shower with supply pressures of 0.2 - 1 Bar and unrestricted flow rate.

For optimum performance within the specified running pressure range a minimum flow of 8 litres per minute should be available to both inlets.

The valve is suitable for fully modulating type combination boilers and multi-point hot water heaters. Also suitable for thermal storage, unvented systems and pumped gravity systems.

Important: Before installing with a gas instantaneous water heater, ensure the appliance is capable of hot water delivery at a minimum switch on flowrate of 3 litres per minute. At flow rates between 3 and 8 litres per minute the appliance must be capable of raising the water temperature by 45°C. Water temperature at the inlet to the mixer must remain relatively constant when flowrate adjustments are made.

The valve unit can be fitted in any orientation. For a wall mounted sprayhead installation, the plumbing will be simplified if the outlet is fitted upwards.

The valve is supplied with an integral single check valve and integral large area filter on each inlet.

Inlet connections are by compression fittings for

15mm copper pipe.

This valve unit is supplied with a mounting bracket to suit installation in a chased out cavity in a solid wall, a stud partition wall, dry lined wall or fixing to a shower cubicle or panel. It is also supplied with an attached tiling shroud which provides protection for the unit.

SAFETY WARNINGS

- 1** Layout and sizing of pipework must be such that when other services are used, pressures at the shower control inlets *do not* fall below the recommended minimum.
- 2** DO NOT choose a position where the shower could become frozen.
- 3** The outlet of this appliance must not be connected to any form of tap or fitting not recommended by the manufacturer.
- 4** The sprayhead must be cleaned regularly to remove scale and debris.
- 5** Conveniently situated isolating valves in each inlet supply must be fitted as an independent method of isolating the shower should maintenance or servicing be necessary.
- 6** If it is intended to operate the shower in areas of hard water it is advisable to fit a scale inhibitor.
- 7** If it is intended to operate the shower outside the guidelines laid out in the requirements then see NOTE below.

NOTE: In the event of items 2 and 7, contact Triton Customer Service for advice.
Tel: (024) 7637 2222.

Replacement parts can be ordered from Triton Customer Service. See 'spare parts' for details and part numbers.

Due to continuous improvement and updating, specification may be altered without prior notice.

MAIN COMPONENTS and PACK CONTENTS

- 1 Mixer valve body
- 2 Face plate
- 3 Temperature control knob
- 4 On/off control knob
- 5 Tiling shroud
- 6 Mounting bracket
- 7 Flat bracket - 2 off
- 8 Sprayhead and arm
- 9 Tool and screw pack
- 10 Ceramic on / off cap
- 11 Ceramic temperature cap
- 12 Trim rings
- 13 Flow limiter
- Face plate template

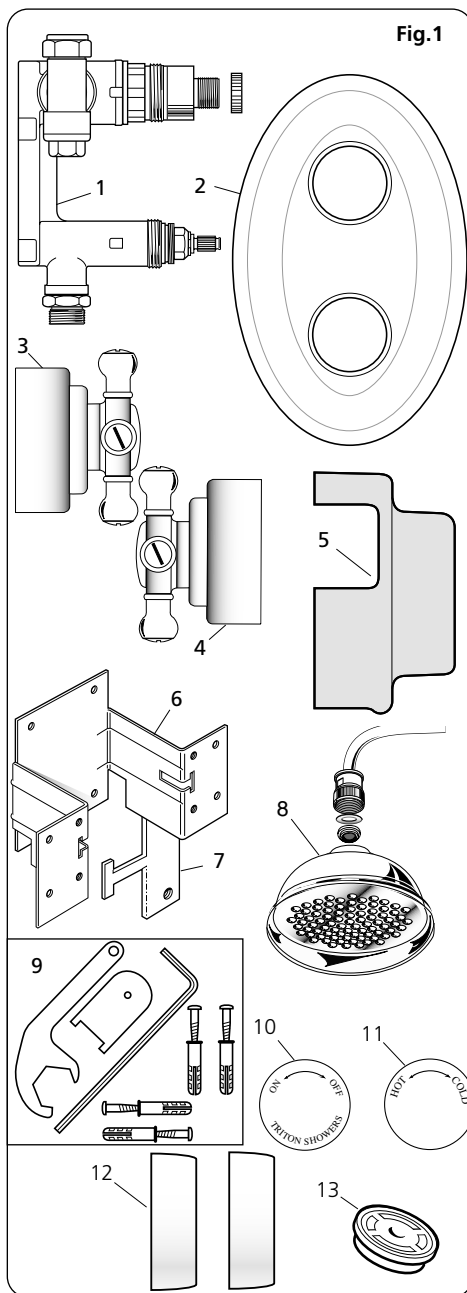
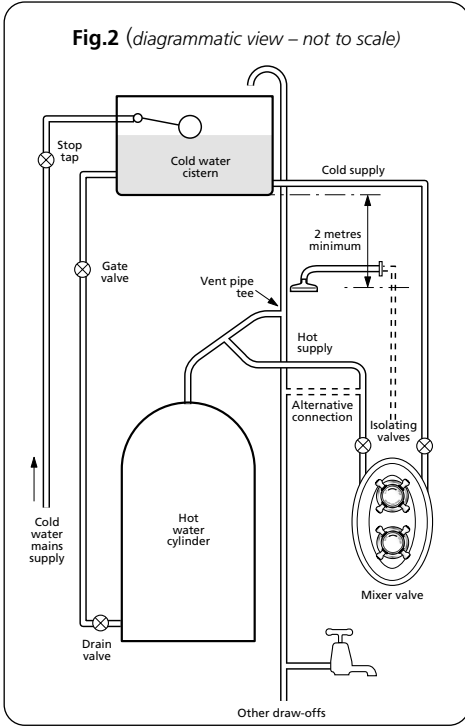


Fig.2 (diagrammatic view – not to scale)



SITE REQUIREMENTS

The installation must be in accordance with Water Regulation Byelaws and BS6700.

Minimum running water pressure: 0.2 bar.

Maximum running water pressure: 5 bar.

Maximum static water pressure: 10 bar.

For optimum performance within the specified running pressure range a minimum flow of 8 litres per minute should be available to both inlets.

Whilst the mixer valve is operational (open outlet), inlet pressures must not be capable of exceeding 7 bar. For effective operation of the internal seals, the maximum static pressure must not be exceeded.

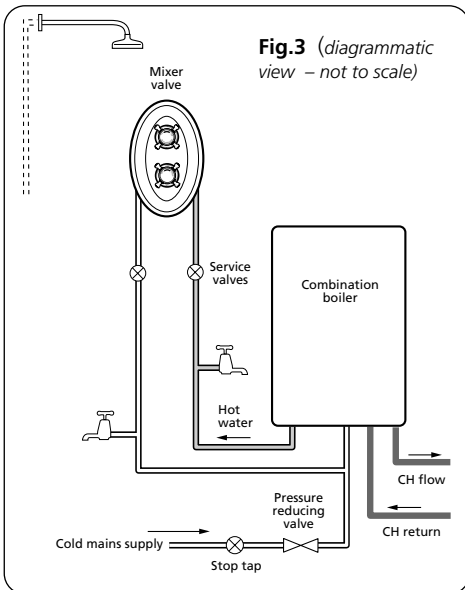
NOTE: On sites where the running pressure is above 5 bar, the use of a suitably sized pressure reducing valve fitted in the cold mains supply pipework can provide nominally equal pressures at the mixer valve.

For optimum performance of this shower both hot and cold water supplies to the shower valve should be fed at nominally equal pressures.

The pipework should be installed such that the flow is not significantly affected by other taps and appliances being operated elsewhere on the premises.

NOTE: Where thermal store/combi boilers or multi-point heaters are used, if excessive draw offs take place the boiler may not be able to maintain an adequate output temperature. This could result in the shower temperature becoming noticeably cooler.

Fig.3 (diagrammatic view – not to scale)



Water temperature requirements

Maximum hot water temperature 80°C

Recommended maximum 65°C

Minimum hot water temperature 52°C

Maximum cold water temperature 20°C

BS6700 recommends that the temperature of stored water should never exceed 65°C.

A stored water temperature of 60°C is considered sufficient to meet all normal requirements and will minimise the affects of scale in hard water areas.

TEMPERATURE ADJUSTMENT RANGE

The mixed water temperature can be adjusted from cold through to a top limit (which can be pre-set during installation – factory set at approximately 39°C), with full anti-scald protection throughout the range.

Fig.2 shows a typical gravity fed installation. (The distance between the bottom of the cold water cistern and the sprayhead must be at least 2 metres).

Fig.3 depicts a typical combination boiler installation.

Fig. 4 illustrates an unvented mains pressurised hot water storage system.

DO NOT use jointing compounds on pipework.

INSTANTANEOUS WATER HEATERS APPLIANCE CAPABILITIES

In order to ensure the optimum performance from the shower when connected to an instantaneous water heater, the appliance must be capable of raising the temperature of the incoming water by 45°C (81°F) and delivering a flow rate of not less than 8 litres per minute.

A flow limiter is supplied for the insertion into the shower head which controls the maximum flow of 8 litres per minute.

To fit the flow limiter unscrew the shower head from the ball joint. Insert the flow limiter flat face up into the shower head (fig.5) fit the flat face washer and refit the shower head to the ball joint.

With the flow limiter fitted and when the system is in use, the on/off flow control should be turned fully anti-clockwise to full flow setting.

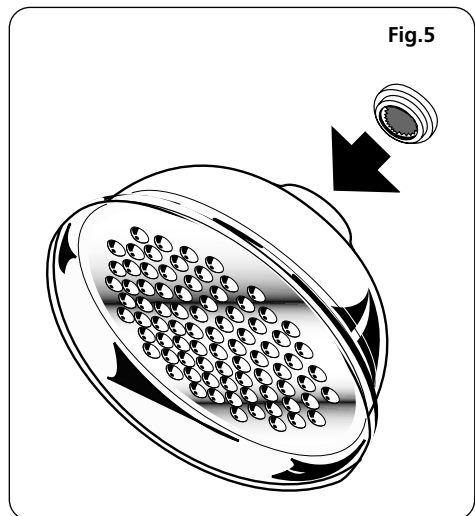
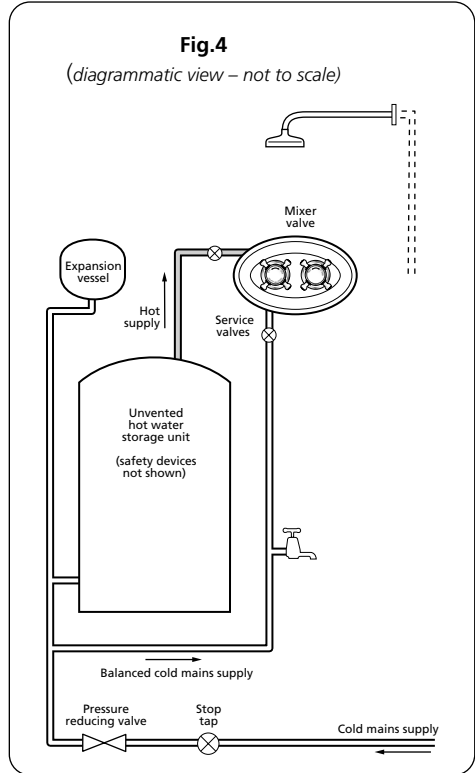
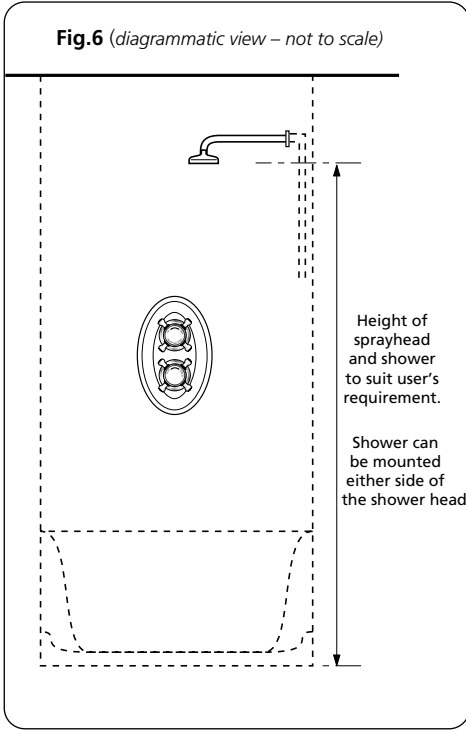


Fig.6 (diagrammatic view – not to scale)



PREPARING THE MIXER VALVE

Check the contents to ensure all parts are present.

Ensure the supplied metal fixing bracket, tiling shroud, cranked spanner, lock nut key and allen key are all to hand.

Before commencing the installation, make sure all the apertures on the valve are carefully covered to prevent ingress of any debris etc.

The valve unit is supplied with a mounting bracket to suit installation in a chased out cavity in a solid wall, a stud partition wall, dry lined wall or fixing to a shower cubicle or panel. It is also supplied with an attached tiling shroud which provides protection for the valve both for transit and on site. It should be left on at all times until such time when it is being installed.

The hot and cold water pipes should not be permanently attached to the wall closer than 2m from the valve prior to installation to allow for final adjustment of the valve position.

SITING OF THE SHOWER

WARNING: THE SHOWER MUST NOT BE POSITIONED WHERE IT WILL BE SUBJECT TO FREEZING CONDITIONS.

Refer to fig.6 for correct siting of the shower.

Position the shower and sprayhead on the wall so that all controls can be comfortably reached whilst using the shower. The spray head can be positioned either side of the shower.

The valve unit can be fitted in any orientation. For a wall mounted sprayhead installation, the plumbing will be simplified if the outlet is fitted upwards.

INSTALLATION

a) General conditions

NOTE: The outlet of the shower must not be connected to any tap or fitting not recommended by Triton Plc.

DO NOT use jointing compounds on any pipe fittings for the installation.

Use only the compression fittings supplied. DO NOT solder fittings within the vicinity of the valve unit as heat transfer can damage the seals and thermostatic components.

NOTE: Suitable isolating valves (complying with Water Regulation Byelaws) MUST be fitted on the hot and cold water supplies to the shower as an independent means of isolating the water supplies should maintenance or servicing be necessary.

When connecting pipework avoid using tight 90° elbows. Swept or formed bends will ensure optimum performance.

The valve unit can be fitted in any orientation (fig.7), but for a wall mounted sprayhead installation, the plumbing will be simplified if the outlet is fitted upwards. Access to the integral strainers will also be improved with this configuration.

The hot water inlet is identified with a red mark, the cold water inlet with a blue mark. The swivel inlets allow for either rising or falling hot and cold water supplies. Note the swivel inlets have 'O' seals to the body and do not require PTFE tape or other means of sealing.

Gently screw the swivel inlets into the body of the valve unit and stop as soon as resistance is felt. Then back off by up to 1.5 turns to align the inlet with the hot and cold supply pipes. THE SWIVEL INLETS MUST NOT BE TIGHTENED AGAINST THE VALVE BODY TO MAKE A SEAL (fig.8).

The Triton dual control mixer valve includes a mounting bracket which allows the installer to mount the shower into a solid, stud partition or other hollow wall structures. The bracket can also be used for fitting in a shower cubicle or panel providing the back of the cubicle or panel is accessible.

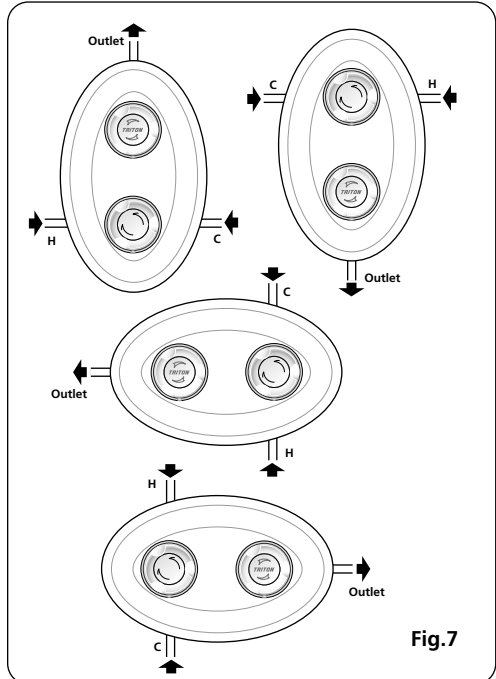


Fig.7

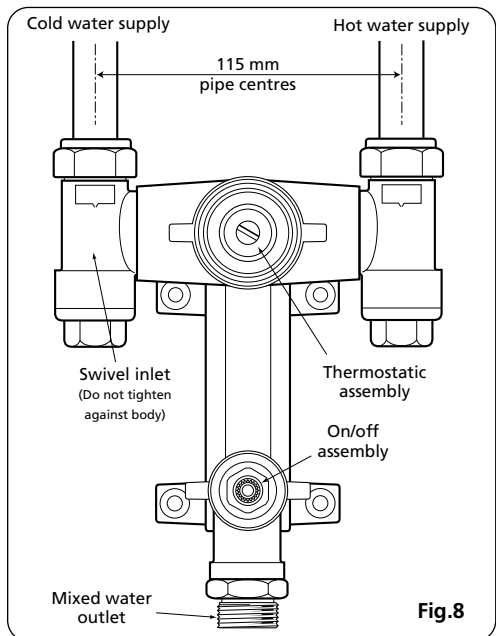
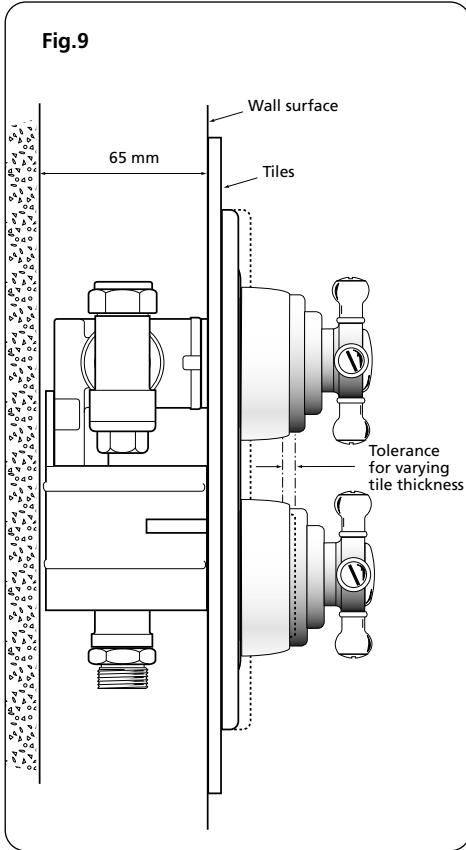


Fig.8



When installing into a stud partition or other hollow wall structure the installer may wish to consider fabricating rear supports or other options. Such options are beyond the scope of this guide.

Before starting, ensure the available depth of recess or cavity is at least 65 mm (fig.9) measured from the face of the wall upon which the mounting bracket is screwed (excluding the tile thickness).

The allowance for varying thickness of tiles up to 10mm is accommodated by a limited degree of tolerance between the control knobs and their trim rings.

If the valve unit is to be fitted behind an existing wall panel, use the supplied self-adhesive template (fig.16) as a guide when cutting the aperture.

b) Valve installation in a solid wall

Remove the tiling shroud if fitted to the valve unit. The shroud is retained by a 2.5mm hex socket screw, replace the screw in the valve immediately to avoid it being lost.

Decide on the shower position and determine whether the hot and cold water supplies will enter the shower from the top (falling) or bottom (rising) or rear.

The building depth should be at least 70mm deep from the surface of the wall. It is recommended to use the supplied mounting bracket (fig.10) at all times when installing the shower valve. It provides the correct visible amount of shower control through the face plate when the installation is complete. There is limited tolerance between the control knobs and trim rings to allow for varying thickness of tiles up to 10mm.

As a guide for the size of hole, place the tiling shroud on the wall and trace around it (fig.11).

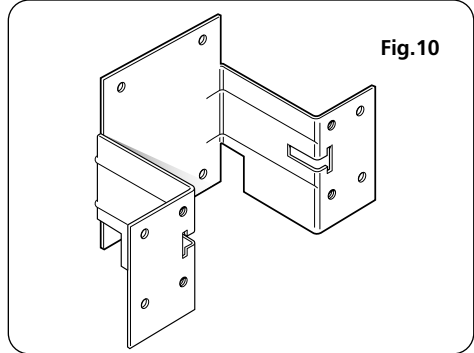
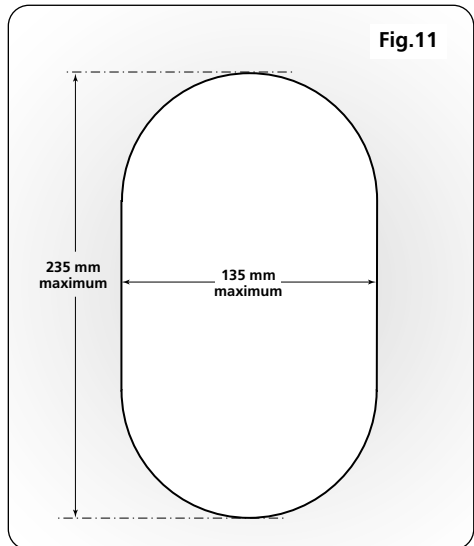
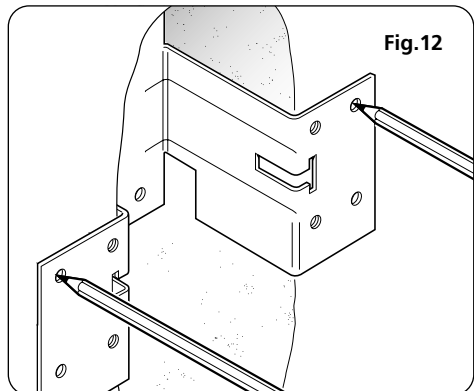
Remove the plaster and brickwork to the required depth and chase out any additional areas of the wall to facilitate pipework to and from the valve.

Offer the mounting bracket up to the wall and mark the four outer plain holes (fig.12). Remove the bracket then drill and plug the wall. Screw the bracket to the wall. Route the pipework to valve position.

Flush out the pipework in accordance with Water Regulation Byelaws .

Offer the valve up to the mounting bracket, and secure using the four screws provided.

Proceed to 'connecting supply pipes' section.

**Fig.10****Fig.11****Fig.12**

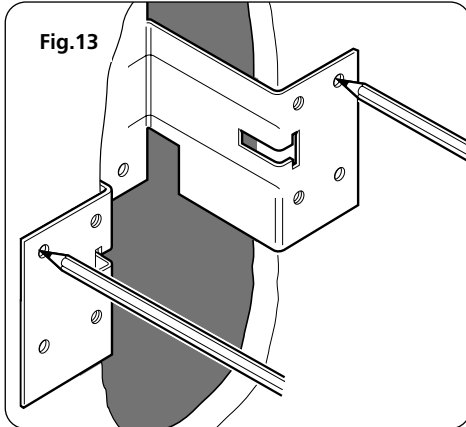


Fig.13

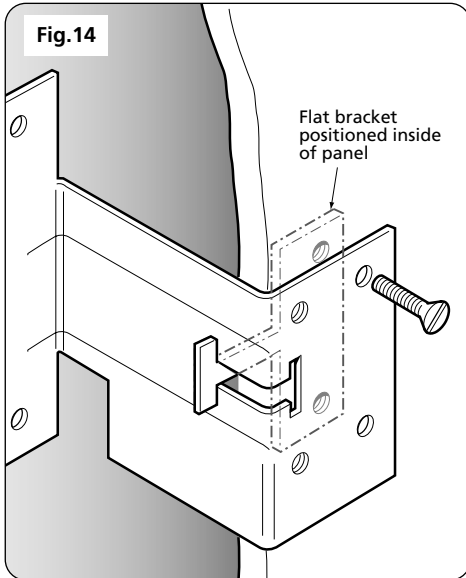


Fig.14

c) Valve installation in a hollow wall

The wall mounting bracket supplied with the shower is suitable for use on a plasterboard wall of 10mm - 13mm thickness.

Decide on the shower position and determine whether the hot and cold water supplies will enter the shower from the top (falling) or bottom (rising) or rear.

The hollow cavity should be at least 65mm deep from the surface of the wall. It is recommended to use the supplied mounting bracket (fig.10) at all times when installing the shower valve. It provides the correct visible amount of shower control through the face plate when the installation is complete. There is limited tolerance between the control knobs and trim rings to allow for varying thickness of tiles up to 10mm.

Mark the route of the incoming and outgoing pipework. As a guide for the size of hole, place the tile shroud on the wall and trace around it (fig.11).

Take out the plasterboard and offer the mounting bracket up to the wall and mark the four outer plain holes (fig.13). Remove the bracket and drill the wall.

Two additional flat brackets are supplied for hollow wall fixing. Slide the 'T' piece section through the slot either side of the mounting bracket then insert it into the wall cavity and position the two flat brackets in line with the outer holes (fig.14). Secure using the bolts provided. Route the pipework to the valve position.

Flush out the pipework in accordance with Water Regulation Byelaws .

Offer the valve up to the mounting bracket and secure using the four screws provided.

Proceed to 'connecting supply pipes' section.

d) Valve installation in a panel or cubicle

To use the wall mounting bracket supplied with a shower cubicle or a laminated panel, wooden blocks are required to increase the depth of the bracket. These blocks need to increase the depth of the bracket to between 70.5 mm and 76.5 mm from the finished surface (fig.15).

Decide on the shower position and determine whether the hot and cold water supplies will enter the shower from the top (falling) or bottom (rising) or rear.

Mark the route of the incoming and outgoing pipework. Only the two holes for the control knobs require to be cut out of the panel or cubicle. Use the supplied template as a guide (fig.16).

After cutting the two holes, fit the valve to the mounting bracket and secure using the four screws provided.

Offer the valve and mounting bracket up to the back of the panel ensuring the thermostatic and on/off assemblies are protruding and centralised through the apertures. Mark the four inner tapped holes (fig.17). Remove the valve and bracket and drill the panel and wooden blocks. Route the pipework to valve position.

Flush out the pipework in accordance with Water Regulation Byelaws .

Fit the mounting bracket together with the valve to the panel and secure using the bolts and washers provided.

Proceed to 'connecting supply pipes' section.

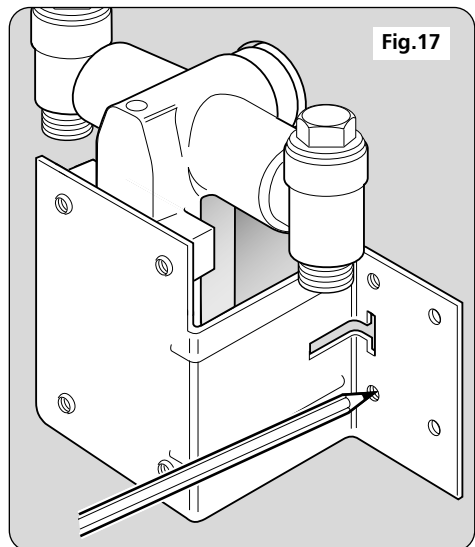
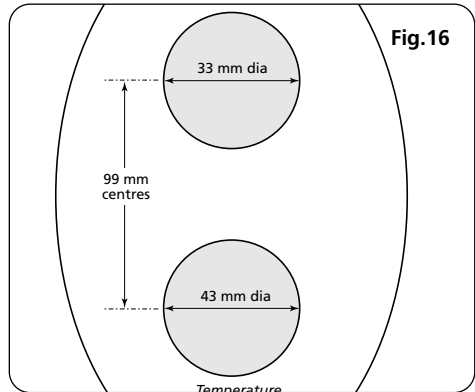
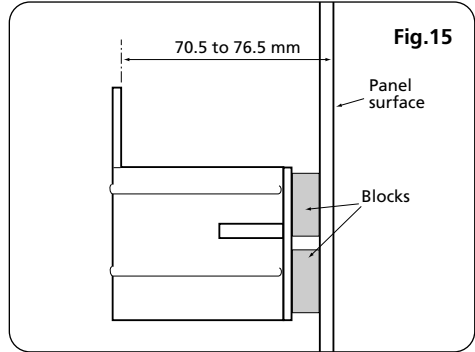
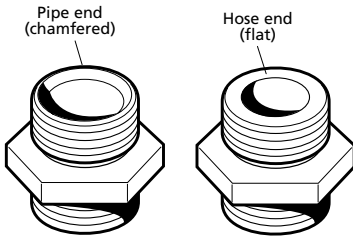


Fig.18



CONNECTING THE SUPPLY PIPES

Gently screw the swivel inlets into the body of the valve unit and stop as soon as resistance is felt. Then back off by up to 1.5 turns to align the inlet with the hot and cold supply pipes. THE SWIVEL INLETS MUST NOT BE TIGHTENED AGAINST THE VALVE BODY TO MAKE A SEAL.

Connect the hot water supply to the inlet marked RED, and connect the cold water supply to the inlet with the BLUE mark.

Remember the swivel inlet has an 'O' ring seal and that no other sealing means is required.

Tighten the compression fittings with the cranked spanner, supplied for when access is restricted.

Ensure the on/off assembly is turned to the off position by temporarily fitting the on/off control and turning clockwise until resistance is felt.

Open the supplies and test for leaks in the pipework upstream of the valve.

OUTLET ADAPTOR

The mixed water outlet adaptor needs to be removed and replaced using PTFE tape to ensure a water tight seal.

NOTE: The outlet adaptor is reversible with one side suitable for connection to a flexible hose – flat end (fig.18), and the other is a chamfered end for a 15 mm compression fitting.

FITTING THE FIXED HEAD

Complete outlet pipework from the valve ending in a 1/2" BSP female threaded fitting – not supplied (fig 19).

Note the depth of thread on the fixed head unit from the finished wall surface is 10mm (fig 20). It is advisable that pipework installed in solid walls be provided with sufficient free play inside a cavity to enable any slack to be accommodated.

At this point it is advisable to fit a blanking plug in the female fitting, turn on the valve and check for leaks from the outlet fittings.

Make good the wall, tiling etc.

Screw in place the showerhead arm and mark the position of the three fixing holes (fig 21).

Drill and plug the holes using the plugs supplied. NOTE: If fitting to a hollow wall structure, use suitable cavity wall fixtures.

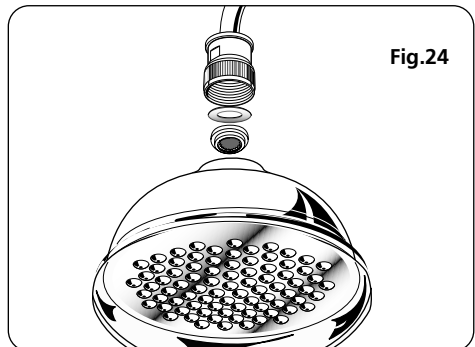
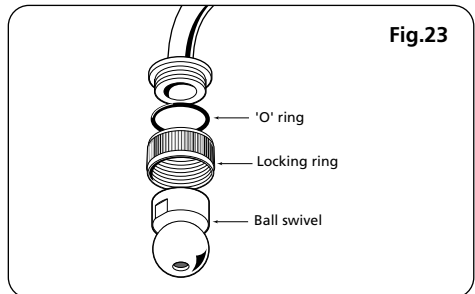
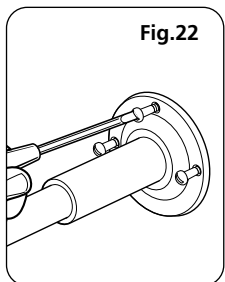
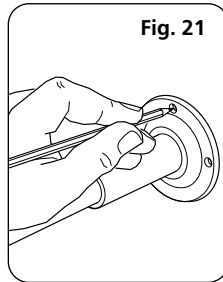
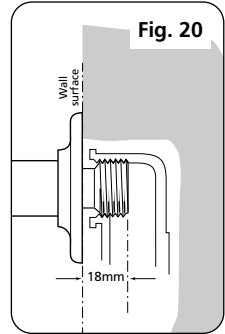
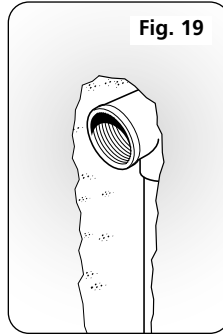
Apply PTFE tape to the 1/2" BSP thread on the shower head arm before fitting.

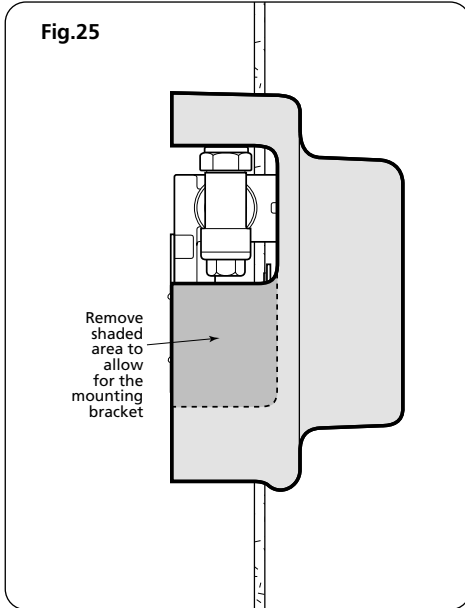
Secure the showerhead arm to the wall with the three screws supplied (fig 22).

Screw the ball swivel and locking ring onto the end of the showerhead arm (fig 23) ensuring the 'O' ring is in place.

NOTE: The ball swivel must be screwed on tight in order to provide a water tight connection. The use of an appropriate tool may be used if necessary.

Screw on the fixed showerhead ensuring the supplied tapered sealing washer is in place as shown in (fig 24). The showerhead must be screwed on tight in order to ensure a water tight connection.





USING THE TILING SHROUD

The tiling shroud will need a section removed (fig.25) in order to accommodate the mounting bracket.

Replace the tiling shroud over the mixer valve.

Plaster or tile up to the edge of the shroud. Note that if the tiles are accurately cut to match the profile of the shroud, then the face plate will seal around the hole in the tiles, and the valve unit will be able to be removed from the mounting bracket without the need to break any tiles.

Ensure the grout lines are flush with the tiles in order to provide a smooth sealing surface for the face plate.

FITTING THE FACE PLATE AND KNOBS

Unscrew the face plate retaining rings from the valve unit (if fitted).

See *fig.26 for the assembly of parts*. Position the face plate over the valve unit and place the trim rings onto the face plate ensuring the indicator notch is in the 12 'o' clock position. It must be in this position regardless in which orientation the unit is mounted.

Secure by screwing on the two brass face plate retaining rings.

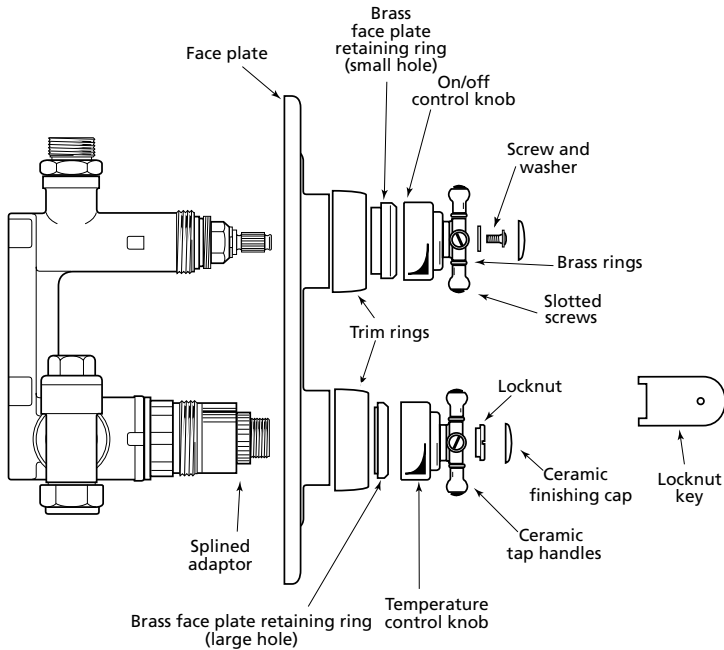
Gently tighten the rings by hand until the face plate clamps gently against the wall. Do not over-tighten or the face plate may distort. The face plate incorporates a silicon sponge seal which will satisfactorily seal against a smooth wall.

Temperature control knob assembly

Place the temperature knob temporarily onto the splined adaptor, and rotate fully anti-clockwise. Remove the knob and reposition onto the splined adaptor again, but this time ensuring the ceramic tap handles are in a 2 o'clock and 10 o'clock position (fig.27).

Screw the locknut down against the knob and tighten using the key supplied. Do not fit the finishing cap just yet as when the commissioning is carried out, the maximum temperature adjusting screw may have to be altered.

Fig.26



On/off control knob assembly

Place the splined on/off knob onto the splined shank and secure with the washer and fixing screw.

Push fit the finishing cap onto the on/off knob. Note the cap with the hot and cold lettering fits on the temperature control knob and the on/off cap fits on the on/off knob. The caps are not interchangeable.

Note that should the knobs and faceplate require cleaning then care must be taken not to scratch them in the process. Wash away any surface dust before cleaning with soapy water.

DO NOT USE ABRASIVE CLEANERS AND SOLVENTS OR THE SURFACES MAY BECOME DAMAGED.

Fig.27

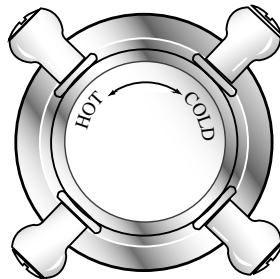
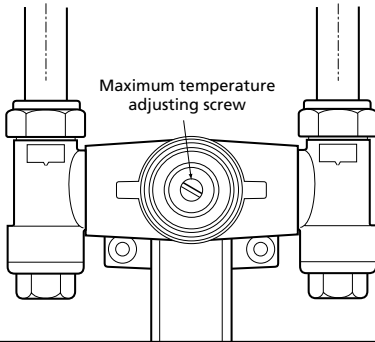


Fig.28



COMMISSIONING

(The following conforms to NHS Estates Model Engineering Specification D08 for when the mixer has been installed in healthcare premises).

ENSURE THAT ALL SUPPLY PIPEWORK HAS BEEN FLUSHED THROUGH PRIOR TO COMMISSIONING.

Ensure that both hot and cold water supplies are fully open and at (or near to) their design temperature and pressures and are within the requirements as stated.

Set the temperature control to the maximum temperature setting – by rotating the knob fully anti-clockwise until resistance is felt.

Open the on/off control by turning it anti-clockwise. Placing a burst polythene bag over the shower head will catch and deflect the spray during commissioning.

Allow the shower to run at maximum temperature setting until the water temperature has stabilised.

Should the temperature rise in an uncontrolled manner, then the hot and cold supplies are probably reversed. This must be corrected before proceeding further.

The mixer valve is factory set to provide a maximum outlet temperature of 39°C but this should be checked on site to ensure the setting has not been altered and also to ensure user safety.

Should the maximum temperature require adjustment, remove the temperature knob finishing cap (if it has been placed in position when assembling the temperature controls previously). Adjust the small slotted screw in the centre of the spindle (fig.28) – anti-clockwise to increase the temperature, clockwise to decrease the temperature.

The maximum temperature should not exceed 41°C. For installations complying with NHSE specifications.

After setting the maximum temperature, turn the shower on and off several times and check the maximum setting is correct. Record the commissioning data on the maintenance record at the rear of this book in order for the in-service performance of the mixer valve to be assessed.

Finally, check the thermal shut off facility of the

valve by performing a thermal shut off test. Shut off the cold supply. The flow from the shower should stop immediately or reduce to a trickle in which case the water temperature should be less than 43°C.

In either case there is no risk of scalding.

If however the temperature is above 43°C then it is likely there is contamination in the valve preventing it from shutting off the hot supply. In this case refer to the maintenance section or contact Customer Service.

In domestic installations where D08 specification is not required, the maximum temperature setting should not exceed 45°C.

OPERATING THE SHOWER

To start the shower, rotate the on/off control fully anti-clockwise (fig.29) for maximum flow.

To stop the water flow, rotate the on/off control fully clockwise (fig.30) until resistance is felt.

To adjust the water temperature, rotate the temperature control – clockwise in the direction of the cold arrow (fig.31) for a cooler shower or anti-clockwise in the direction of the hot arrow (fig.32) for a hotter shower.

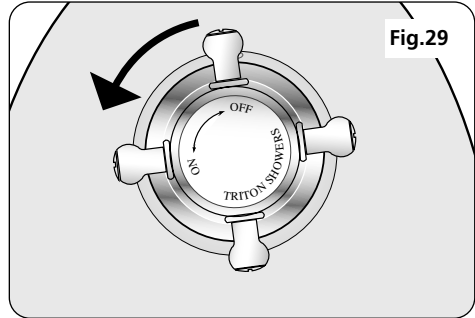


Fig.29

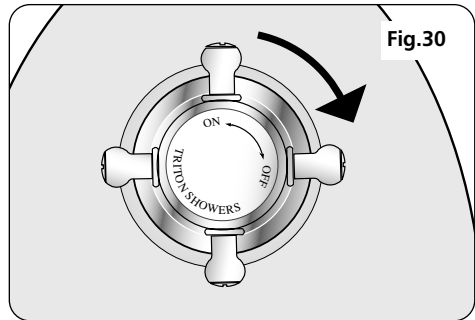


Fig.30

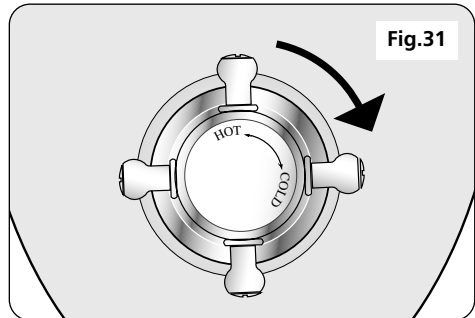


Fig.31

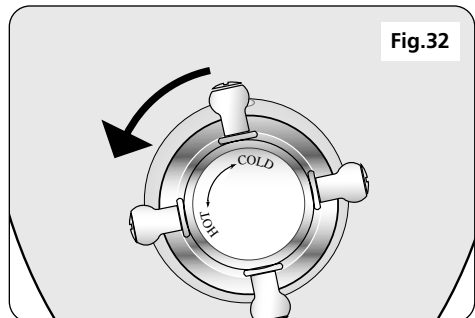


Fig.32

MAINTENANCE

(The following maintenance procedure must be carried out for commercial and health care premises, but is not necessarily required for domestic installations).

Maintenance of the unit is required to ensure continued performance after installation and that it continues to provide scald prevention.

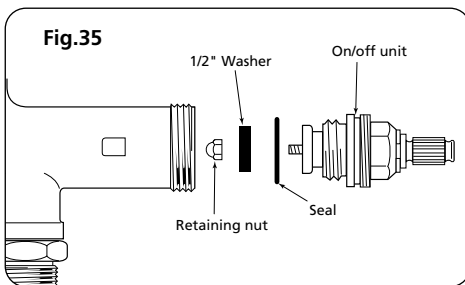
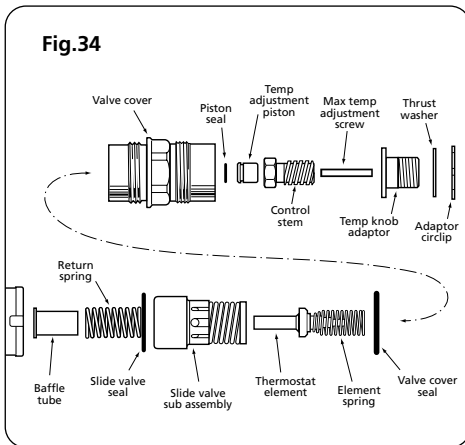
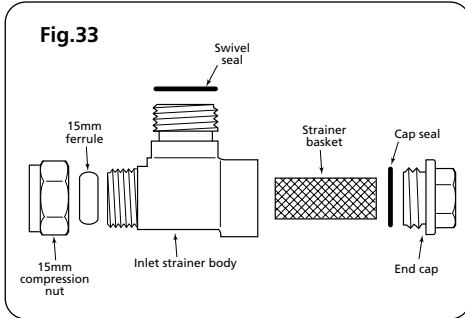
The frequency of routine maintenance of the internal of the valve will depend mainly on the water supply condition. Local knowledge will dictate suitable intervals. In addition, the following precautions should be observed:

a) Initially check the strainer baskets (fig.33) for debris once every three months and clean if necessary. This period can be increased if appropriate once the general condition and cleanliness of the water is established. Where the water supplies come from beneath (rising) the mixer valve, lifting out the strainer basket may not remove all of the trapped debris. Full flushing out may be necessary if debris is found or suspected.

b) Perform a thermal shut off test every three months, and check the maximum temperature setting. See the 'Commissioning' section for the details of this test and re-adjustment of the maximum temperature setting if required.

c) If the maximum water temperature varies by more than 2°C from the commissioned setting then ensure the strainers are clean and that the isolating valves are fully open. Test the non return valves as described below. If these tests do not highlight the reason for the temperature variation, then follow the procedure below for investigating failure of the thermal shut off test.

d) If the mixer valve fails the thermal shut off test then remove the knobs, faceplate and control valve cover. Check the internal surface for scaling. If the body requires descaling then it should be removed from the pipework to carry this work out – the valve should be able to be removed through the aperture without breaking tiles. All rubber parts must be removed prior to descaling. The slide valve seal (fig.34) located inside the body should always be replaced with a new seal after removal. Maintenance kits are available which contain 'O' rings and/or the thermostatic element.



When cleaning the external faceplate and knobs, never use cleaners containing abrasives or solvents as they may damage the chrome plating. Use only soap and a soft cloth.

Smear all 'O' rings with silicon grease prior to installing them. Torque the valve cover to 13 Nm (10 lb.ft.). This is to prevent inadvertently unscrewing the cover during temperature adjustment. Do not over-tighten the valve cover or the mounting arrangement may be damaged.

e) Replace the 'O' rings every three years – maintenance kits with spare 'O' rings are available. Smear silicon grease on all 'O' rings before assembling. At the same time replace the slide valve assembly (fig.34). Lightly smear the outside diameter with silicon grease before installing.

f) Replace the thermostatic element (fig.34) at least once every six years, or more often if problems are experienced or in installations where water is particularly hard.

g) The on/off mechanism (fig.35) has a 1/2" tap washer which should be replaced when it is found to be leaking. Remove the trim plate and unscrew the on/off assembly. The washer is retained by a small nut. When replacing, do not overtighten – torque to 25Ncm. Ensure the on /off assembly is torqued down to 13Nm (10 lb.ft.) to prevent the user from inadvertently unscrewing the assembly during flow control. Do not over-tighten the assembly or the mounting arrangement may be damaged.

h) The non return valves (NRVs) prevent cross-flow between hot and cold supplies under unequal pressure conditions. They are designed for long life with no maintenance. Their function can be tested as follows:

i) To test the NRV on the hot side, shut off the hot supply and ensure the cold supply is open. Be prepared for leakage of trapped water in the pipe and remove the strainer basket on the hot side. Evidence of continuing leakage from the strainer body is coming through the hot supply NRV.

j) To test the NRV on the cold side, shut off the cold supply and ensure the hot supply is open. Be prepared for leakage of trapped water in the pipe and remove the strainer basket on the cold side. Evidence of continuing leakage from the strainer body is coming through the cold supply NRV.

If either NRV is leaking then the inlet elbow – complete with NRV and strainer basket, should be

replaced. It is not possible to satisfactorily remove the NRV itself from the elbow and should not be attempted.

IN-SERVICE TESTING

Periodic testing should be undertaken to check whether deterioration has occurred in the performance of the mixer valve.

A thermal shut off test, as described under maintenance, should be carried out. If water coming from the shower head is at a temperature of more than 2°C above the maximum mixed water temperature setting then the valve unit is due for maintenance.

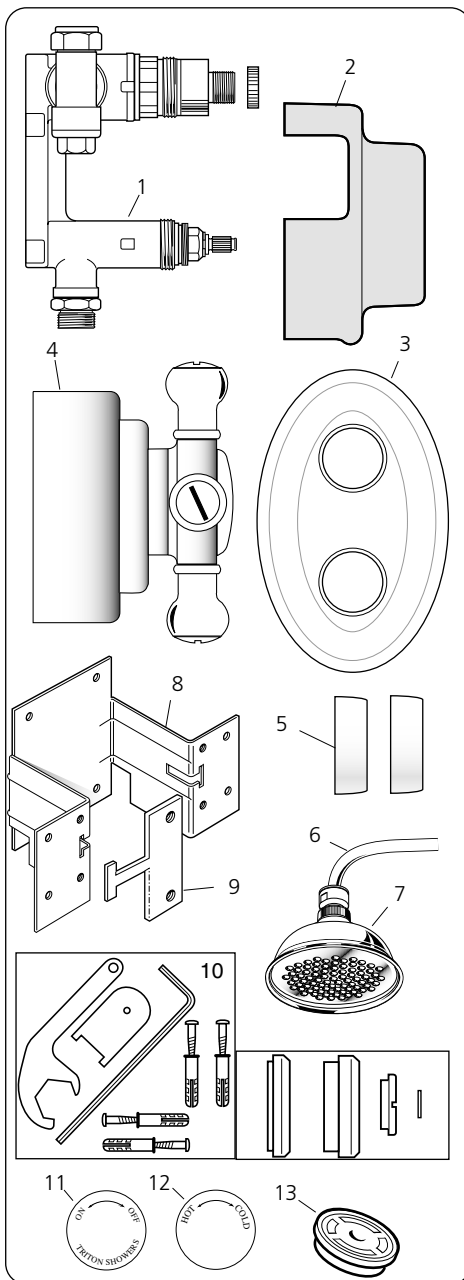
NOTE: A thermostatic mixing valve in need of maintenance can be undetectable in normal use and only becomes apparent when a disruption occurs in the hot or cold water supply temperatures or pressures.

The frequency of in-service testing depends upon the water condition passing through the unit. In-service testing should be between six to twelve months, but less than six month intervals in areas of hard water.

Experience of local conditions and the in-service testing record will dictate the frequency of in-service testing.

SPARE PARTS

| Ref. | Description | Part No. |
|------|--|----------------------|
| 1 | Valve unit comprising:- spline adaptor tiling shroud button screw | 7102447 |
| 2 | Tiling shroud | 7102446 |
| 3 | Face plate chrome gold | 7102444 7102445 |
| 4 | Temperature knob chrome gold | 83306420 83306430 |
| 4 | On/off knob chrome gold | 83306440 83306450 |
| 5 | Trim rings chrome gold | 7102525 7102526 |
| 6 | Spray arm chrome gold | 22009380 22009390 |
| 7 | Sprayhead chrome gold | 22009340 22009330 |
| 8 | Mounting bracket | 7012435 |
| 9 | Flat bracket | 7012436 |
| | Bracket assembly (comprising 8 & 9) | 83306290 |
| 10 | Utilities pack comprising:- tool and screw pack brass retaining rings locknut button screw washer mounting bracket flat bracket | 7102523 |
| 11 | Ceramic on / off cap | 86000250 |
| 12 | Ceramic temperature cap | 86000240 |
| 13 | Flow limiter | 22003530 |



DC7000 ANTIQUE

COMMISSIONING, MAINTENANCE and IN-SERVICE TESTING RECORD

Where installed (establishment)

Mixer valve location

Date installed Installed by

Commissioning details

| | |
|-------------------------|-----------------------------|
| Hot water temp. °C | Pressure Bar |
| Equip. used | Cold water temp. °C |
| Equip. used | Max. temp. setting °C |
| | C.W. fail °C (max) |

Replacement dates: 'O' ring seals (recommended every 3 years)

Thermostatic element and slidevalve (every 6 yrs.)

Inspection and maintenance record

| Date | Mixed temp | Hot temp | Hot press | Cold temp | Cold press | Flowrate | CW failure test | Signed |
|-------|------------|----------|-----------|-----------|------------|----------|-----------------|--------|
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FAULT FINDING

| <i>Symptom</i> | <i>Cause</i> | <i>Action/cure</i> |
|--|--|---|
| 1 Water too hot. | 1.1 Not enough cold water flowing through shower. | 1.1.1 Turn the temperature control clockwise. |
| | 1.2 Increase in the ambient cold water temperature. | 1.2.1 Turn the temperature control clockwise. |
| | 1.3 High volume of cold water being drawn off elsewhere. | 1.3.1 Reduce the simultaneous demand from the supply – ensure supply pressures are within specification. |
| | 1.4 Dirty filters. | 1.4.1 Clean – refer to maintenance section. |
| | 1.5 Internal parts failure | 1.5.1 Replace – refer to maintenance section. |
| 2 Water too cold | 2.1 Not enough hot water flowing through the shower. | 2.1.1 Turn temperature control anti-clockwise. |
| | 2.2 Decrease in the ambient cold water temperature. | 2.2.1 Turn temperature control anti-clockwise. |
| | 2.3 Insufficient hot water supplies from the heating appliance. | 2.3.1 Ensure hot water appliance is set to deliver correct hot water output temperature. 2.3.2 Combi boiler mutipoint installations check flow limiter fitted. |
| | 2.4 Hot water supply blocked or restricted. | 2.4.1 Turn shower off and consult a competent plumber or contact Triton Customer Service. |
| | 2.5 Dirty filters. | 2.5.1 Clean – refer to maintenance section. |
| | 2.6 Internal parts failure | 2.6.1 Replace – refer to maintenance section. |
| 3 Water does not flow or shower pattern collapses when another outlet is turned on. | 3.1 Water supplies cut off. | 3.1.1 Check water elsewhere in property and if necessary contact local water company. |
| | 3.2 Shower unit blocked. | 3.2.1 Inspect filters – refer to maintenance section. Clean if necessary. |
| | 3.3 Blockage in pipework. | 3.3.1 Turn the shower off and consult a suitably competent plumber. |
| | 3.4 Sprayhead blocked. | 3.4.1 Clean sprayhead. |
| | 3.5 Reduced flow rate when other outlets in use. | 3.5.1 Reduce the simultaneous demand at other outlets. 3.5.2 Ensure service valves are fully open. |
| 4 Shower will not shut off | 4.1 Debris damage to on/off washer. | 4.1.1 Replace washer – refer to maintenance section. |
| | 4.2 On/off washer worn. | 4.2.1 Replace washer – refer to maintenance section. |

Any maintenance or repair to the shower must be carried out by a suitably qualified person.

TRITON STANDARD GUARANTEE

Triton Plc guarantee this product against all mechanical and electrical defects arising from faulty workmanship or materials for a period of three years for domestic use only, from the date of purchase, provided that it has been installed by a competent person in full accordance with the fitting instructions.

Any part found to be defective during this guarantee period we undertake to repair or replace at our option without charge so long as it has been properly maintained and operated in accordance with the operating instructions, and has not been subject to misuse or damage.

This product must not be taken apart, modified or repaired except by a person authorised by Triton Plc. This guarantee applies only to products installed within the United Kingdom and does not apply to products used commercially.

This guarantee does not affect your statutory rights.

What is not covered:

1 Breakdown due to: a) use other than domestic

use; b) wilful act or neglect; c) any malfunction resulting from the incorrect use or quality of electricity, gas or water or incorrect setting of controls; d) faulty installation.

2 Repair costs for damage caused by foreign objects or substances.

3 Call out charges where no fault has been found with the appliance.

4 The cost of repair or replacement of pressure relief devices, sprayheads, hoses, riser rails and/or wall brackets, isolating switches, electrical cable, fuses and/or circuit breakers or any other accessories installed at the same time as these do not form the mechanical and electrical components contained within the unit..

5 The cost of routine maintenance, adjustments, overhaul modifications or loss or damage arising there from, including the cost of repairing damage, breakdown, malfunction caused by corrosion, furring, pipe scaling, lime scale, system debris or frost.

Service Policy

In the event of a complaint occurring, the following procedure should be followed:

1 Telephone Customer Service on (024) 7637 2222 (08457 626591 in Scotland and in Northern Ireland), having available the model number and power rating of the product, together with the date of purchase.

2 Triton Customer Service will be able to confirm whether the fault can be rectified by either the provision of a replacement part or a site visit from a qualified Triton service engineer.

3 If a service call is required it will be booked and the date of call confirmed. In order to expedite your request, please have your postcode available when booking a service call.

4 It is essential that you or an appointed representative (who must be a person of 18 years of age or more) is present during the service engineer's visit and receipt of purchase is shown.

5 A charge will be made in the event of an aborted service call by you but not by us, or where a call under the terms of guarantee has been booked and the failure is not product related (i.e. scaling and furring, incorrect water pressure, pressure relief device operation, electrical installation faults).

6 If the product is no longer covered by the guarantee, a charge will be made for the site visit and for any parts supplied.

7 Service charges are based on the account being settled when work is complete, the engineer will then request payment for the invoice. If this is not made to the service engineer or settled within 10 working days, an administration charge will be added.

Replacement Parts Policy

Availability: It is the policy of Triton to maintain availability of parts for the current range of products for supply after the guarantee has expired. Stocks of spare parts will be maintained for the duration of the products' manufacture and for a period of five years thereafter.

In the event of a spare part not being available a substitute part will be supplied.

Payment: The following payment methods can be used to obtain spare parts:

1 By post, pre-payment of pro forma invoice by cheque or money order.

2 By telephone, quoting credit card (MasterCard or Visa) details.

3 By website order, www.tritonshowers.co.uk

Triton Plc, Shepperton Park, Caldwell Road,
Nuneaton, Warwickshire. CV11 4NR

Customer Service

☎ (024) 7637 2222

Scottish and Northern Ireland Customer Service

☎ 08457 626591

Trade Installer Hotline

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E mail: technical@triton.plc.uk