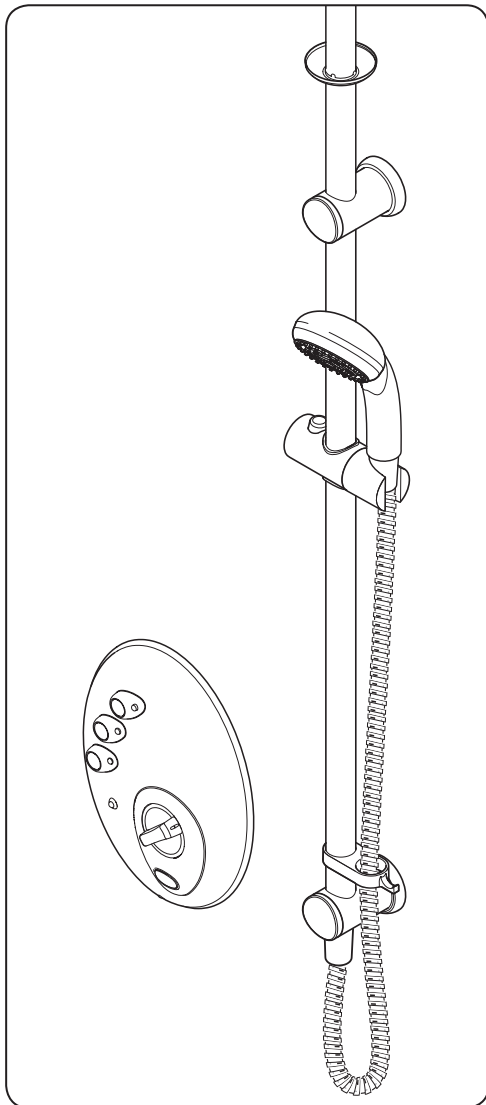


TRITON

***T300si wireless
remote
electric shower***

**Installation and
operating
instructions**



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

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PLEASE READ THIS IMPORTANT SAFETY INFORMATION

- ◆ Products manufactured by Triton are safe and without risk provided they are installed, used and maintained in good working order in accordance with our instructions and recommendations.
- ◆ **WARNING: DO NOT operate shower if frozen, or suspected of being frozen. It must thaw out before using.**
- ◆ DO NOT operate the unit if the showerhead or spray hose becomes damaged.
- ◆ DO NOT restrict flow out of shower by placing showerhead in direct contact with your body.
- ◆ DO NOT operate the shower if water ceases to flow during use or if water has entered inside the unit because of an incorrectly fitted cover.

1 GENERAL

- 1.1** Isolate the electrical and water supplies before removing the cover.
- 1.2** Read all of these instructions and retain them for later use.
- 1.3** DO NOT take risks with plumbing or electrical equipment.
- 1.4** Isolate electrical and water supplies BEFORE proceeding with the installation.
- 1.5** The unit must be mounted onto the finished wall surface (on top of the tiles). DO NOT tile up to unit after fixing to wall.
- 1.6** Contact Customer Service (*see back page*), if any of the following occur:
- a)** If it is intended to operate the shower at pressures above the maximum or below the minimum stated.
 - b)** If the unit shows a distinct change in performance.
 - c)** If the shower is frozen.
- 1.7** If it is intended to operate the shower in areas of hard water (above 200 ppm temporary hardness), a scale inhibitor may have to be fitted. For advice on the Triton Scale Inhibitor, contact Triton Customer Service.
- 1.8** The showerhead must be cleaned regularly with descalent to remove scale and debris, otherwise restrictions to the flow on the outlet of the unit will result in higher temperatures and could also cause the Pressure Relief Device in the unit to operate.
- 1.9** This product is not suitable for mounting into steam rooms or steam cubicles.

2 PLUMBING

- 2.1** The plumbing installation must comply with Water Regulations, Building Regulations or any particular regulations as specified by Local Water Company or Water Undertakers and should be in accordance with BS 6700.
- 2.2** The supply pipe must be flushed to clear debris before connecting to the shower unit.
- 2.3** DO NOT solder pipes or fittings within 300mm

of the shower unit, as heat can transfer along the pipework and damage components.

- 2.4** DO NOT fit any form of outlet flow control as the outlet acts as a vent for the heater can.
- 2.5** DO NOT use excessive force when making connections to the flexible hose or showerhead, finger tight is sufficient.
- 2.6** All plumbing connections MUST be completed BEFORE making the electrical connections.

3 ELECTRICAL

- 3.1** The installation must comply with BS 7671 'Requirements for electrical installations' (IEE wiring regulations), building regulations or any particular regulations as specified by the local Electrical Supply Company.
- 3.2** This appliance MUST be earthed.
- 3.3** In accordance with 'The Plugs and Sockets etc. (Safety) Regulations 1994', this appliance is intended to be permanently connected to the fixed wiring of the electrical mains system.
- 3.4** Make sure all electrical connections are tight to prevent overheating.
- 3.5** Fuses do not give personal protection against electric shock.
- 3.6** *To enhance electrical safety* a 30mA residual current device (RCD) should be installed in all UK electric and pumped shower circuits. This may be part of the consumer unit or a separate unit.
- 3.7** Switch off immediately at isolating switch if water ceases to flow during use.
- 3.8** Other electrical equipment i.e. extractor fans, pumps must not be connected to the circuits within the unit.
- 3.9** Switch off at isolating switch when not in use. This is a safety procedure recommended with all electrical appliances.
- 3.10** As with all electrical appliances it is recommended to have the shower and installation checked at least every two years by a competent electrician to make sure there is no deterioration due to age and usage.

INTRODUCTION

This book contains all the necessary fitting and operating instructions for your Triton T300si wireless remote electric shower — please read them carefully.

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

Care taken during the installation will provide a long, trouble-free life from your shower.

To check the product suitability for commercial and multiple installations, please contact Triton's specification advisory service before installation.

Telephone: +44 (0) 24 7632 5491

Facsimile: +44 (0) 24 7632 4564

E mail: technical@triton.plc.uk

SPECIFICATIONS

Electrical

Nominal power rating at 240V	Nominal power rating at 230V
9.5kW – (40A MCB rating)	8.7kW – (40A MCB rating)
10.5kW – (45A MCB rating)	9.6kW – (40A MCB rating)

Water

Inlet connection – 15mm diameter.
 Outlet connection – ½" BSP male thread.

Entry Points (for remote pack)

Water – bottom or back.
 Cable – top or back.

Materials

Backplate, cover, controls, showerhead – ABS.
 Sprayplate – Acetal.
 Elements – Minerally insulated corrosion resistant metal sheathing.

Dimensions (in mm)

	control panel	remote pack
Height	235	338
Width	180	208
Depth	40	98

Standards and Approvals

Splashproof rating IPX4.

Complies with the requirements of current British and European safety standards for household and similar electrical appliances.

Complies with requirements of the British Electrotechnical Approvals Board (BEAB).

Meets with Compliance with European New Approach Directives (CE).

Complies with the requirements of the Radio and Terminal Equipment (RTTE) Directive 1999/5/EC.

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

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

ADVICE TO USERS

The following points will help you understand how the shower operates:

- a.** The electric heating elements operate at a constant rate at your chosen power setting. It is the rate of the water passing through the heater unit which determines the shower temperature at a given setting. (The slower the flow the hotter the water becomes, and the faster the flow the cooler the water).
- b.** During the winter the cold water supply will be cooler than in the summer months. Therefore, the temperature of the water will vary from season to season on any one setting of the control buttons, e.g. if you have chosen 'Economy' power for your preferred shower temperature in the summer, you will have to select the 'High' setting and adjust the temperature control during the winter months.
- c.** The stabiliser valve minimises variations in shower temperature during mains water pressure changes. If changes in shower temperature are experienced during normal use, it will most likely be caused by the water pressure falling near to or below the minimum level. The drop in pressure may be due to water being drawn off at other points in the house whilst the shower is in use. If pressure drops appreciably below the minimum, the heating elements will automatically cut out.

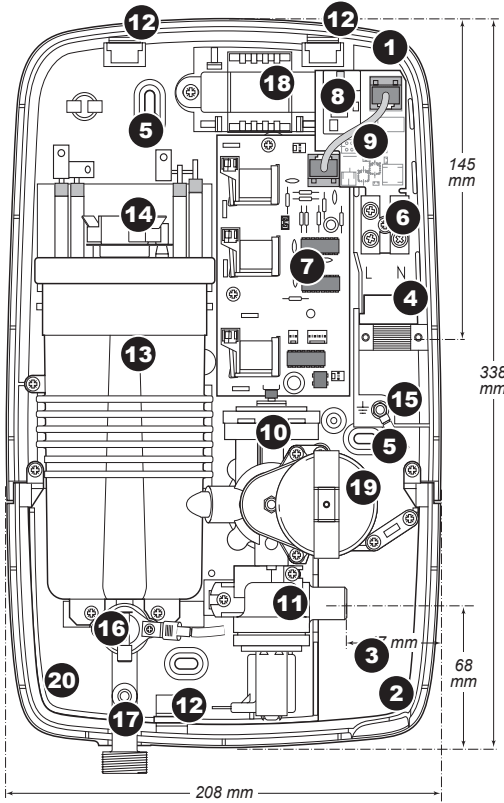
If ever the water becomes too hot and you cannot obtain cooler water, first check the showerhead has not become blocked.

IMPORTANT: When first installed (or following replacement of the PRD), the unit will be empty. It is essential the heater assembly contains water before the elements are switched on. As this unit has electronic control, it is vital that the commissioning procedure is followed. Failure to carry out this operation will result in damage to the unit and will invalidate the guarantee.

ELECTROMAGNETIC COMPATIBILITY **This product is intended for domestic use.**

This product may temporarily be affected by electromagnetic disturbance near to the installation that could cause temporary operation of the low pressure indicator together with switching to the cold power selection. If problems persist, contact Triton Customer Service (see rear page).

Fig.1



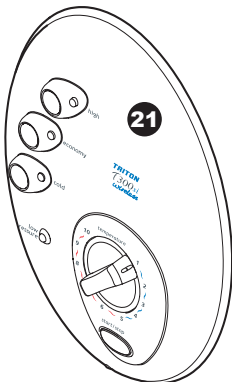
NOTE: Not all wiring shown for reasons of clarity

KEY TO MAIN COMPONENTS

Remote pack (Fig.1)

1. Top cable entry
2. Bottom pipe entry
3. Rear pipe entry area
4. Rear cable entry area
5. Wall screw fixing
6. Terminal block
7. Printed circuit board
8. RF module
9. RF Data cable
10. Stabilising valve
11. Solenoid valve
12. Guide pockets
13. Can and element assembly
14. Thermal safety cut-out (main)
15. Earth connection
16. Thermal cut-out (outlet)
17. Outlet pipe
18. Transformer
19. Stepper motor
20. Trimplate

Fig.2



Control panel (Fig.2)

21. Control panel

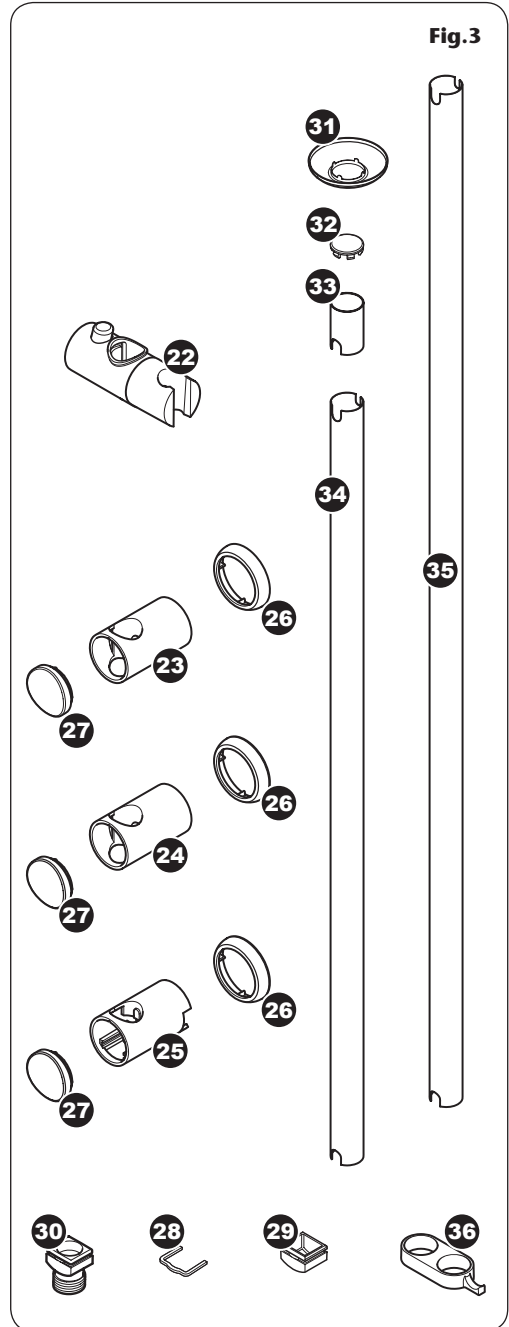
KEY TO MAIN COMPONENTS

Riser rail contents (Fig. 3)

- 22. Showerhead holder
- 23. Bridging wall bracket (lug on inside)
- 24. Guide bracket (no lugs inside)
- 25. Bottom bracket
- 26. Bracket trim ring (3 off)
- 27. Bracket end trim (3 off)
- 28. Water outlet fitting retaining clip
- 29. Blanking plug
- 30. Heated water pipe hose connector
- 31. Ceiling trim
- 32. Riser rail end trim
- 33. Riser rail – 40mm
- 34. Riser rail – 700mm
- 35. Riser rail – 940mm
- 36. Hose retainer
- 37. Fixing screws and wall plugs (not shown)

Pack contents

- Control panel
- Remote pack
- Riser rail kit
- Bulkhead
- 2m heated water tube (white)
- 3.3m heated water tube (white)
- 10mm push fit elbow
- PRD tube (clear)
- Flexible hose
- Plumbing connection kit
- Fixing kit
- Instructions, guarantee, template etc.



ELECTRICAL REQUIREMENTS

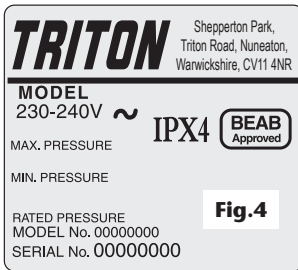
WARNING!

THIS APPLIANCE MUST BE EARTHED

The installation, supply cable and circuit protection must conform with BS7671 (IEE wiring regulations) and be sufficient for the amperage required.

The following notes are for guidance only:

- 1 The shower must only be connected to a 230 – 240V ac supply. If you are installing a shower with a kilowatt rating above 9kW, it is advisable to contact the local electricity supply company.



- 1.1 The electrical rating of the shower is shown on the rating label (**Fig.4**) within the unit.
- 2 Before making any sort of electrical connection within the installation, make sure that no terminal is live. If in any doubt, switch off the whole installation at the consumer unit.
- 3 The shower must be connected to its own independent electrical circuit. IT MUST NOT be connected to a ring main, spur, socket outlet, lighting circuit or cooker circuit.
- 3.1 The electrical supply must be adequate for the loading of the unit and existing circuits.
- 4 Check your consumer unit (main fuse box) has a main switch rating of 80A or above and that it has a spare fuse way which will take the fuse or miniature circuit breaker (MCB) necessary for the shower (**Fig.5**).
- 4.1 If your consumer unit has a rating below 80A or if there is no spare fuse way, then the installation will not be straightforward and may require a new consumer unit serving the house or just the shower.
- 4.2 You will need to contact the local electricity company. They will check the circuit and carry out what is necessary. They will also check the main bonding.
- 5 The earth continuity conductor of the electrical installation must be effectively connected electrically to all exposed metal

Fig.5 Diagrammatic view (not to scale)

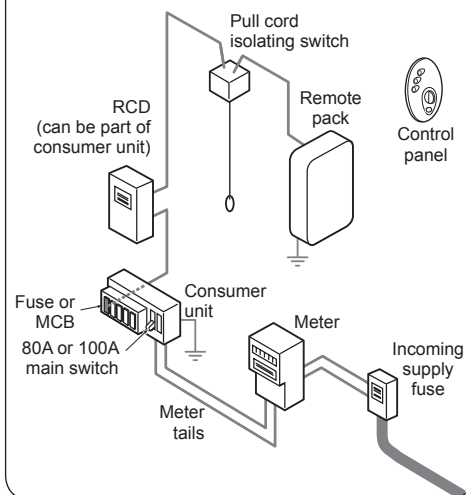


Table A

CIRCUIT PROTECTION

unit rating	MCB	cartridge fuse
7.0kW	30/32A	30A
7.5kW	32A	35A
8.0kW	40A	35A
8.5kW	40A	40A
9.0kW	40A	40A
9.5kW	40/45A	45A
10.5kW	45A	45A

parts of other appliances and services in the room in which the shower is to be installed, to conform to current IEE regulations.

- 5.1 All exposed metallic parts in the bathroom must be bonded together using a cable of at least 4mm² cross sectional area. These parts include metal baths, radiators, water pipes, taps and waste fittings.
- 6 For close circuit protection DO NOT use a rewirable fuse. Instead use a suitably rated miniature circuit breaker or cartridge fuse (see table A).
- 6.1 In the interest of electrical safety a 30mA residual current device (RCD) should be installed in all UK electric and pumped shower circuits. This may be part of the consumer unit or a separate unit.
- 7 A 45 amp double pole isolating switch with a minimum contact gap of 3mm in both poles must be incorporated in the circuit.
 - 7.1 It must have a mechanical indicator showing when the switch is in the OFF position, and the wiring must be connected to the switch without the use of a plug or socket outlet.
 - 7.2 The switch must be accessible and clearly identifiable, but out of reach of a person using a fixed bath or shower, except for

the cord of a cord operated switch, and should be placed so that it is not possible to touch the switch body while standing in a bath or shower cubicle. It should be readily accessible to switch off after using the shower.

- 8 Where shower cubicles are located in any rooms other than bathrooms, all socket outlets in those rooms must be protected by a 30mA RCD.
- 9 To obtain full advantage of the power provided by the shower, use the shortest cable route possible from the consumer unit to the shower.
 - 9.1 The current carrying capacity of the cable must be at least that of the shower circuit protection (see table B).
 - 9.2 It is also necessary to satisfy the disconnection time and thermal constraints which mean that for any given combination of current demand, voltage drop and cable size, there is a maximum permissible circuit length.
- 10 The shower circuit should be separated from other circuits by at least twice the diameter of the cable or conduit.
 - 10.1 The current rating will be reduced if the cabling is bunched with others, surrounded by thermal loft or wall insulation or placed in areas where the ambient temperature is above 30°C. Under these conditions, derating factors apply and it is necessary to select a larger cable size.
 - 10.2 In the majority of installations, the cable will unavoidably be placed in one or more of the above conditions. This being so, it is strongly recommended to use a minimum of 10mm² cabling throughout the shower installation.
 - 10.3 It is essential that individual site conditions are assessed by a competent electrician to determine correct cable size and permissible circuit length.

Table B

Twin and earth PVC insulated cable CURRENT CARRYING CAPACITY		
installed in an insulated wall	in conduit trunking	clipped direct or buried in a non-insulated wall
6mm ² 32A	6mm ² 38A	6mm ² 46A
10mm ² 43A	10mm ² 52A	10mm ² 63A
16mm ² 57A	16mm ² 69A	16mm ² 85A

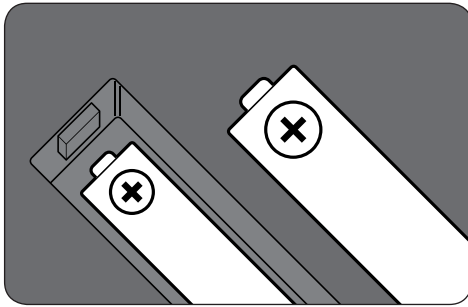
Note: Cable selection is dependent on derating factors

BATTERY SAFETY GUIDELINES

Used correctly, domestic batteries are a safe and dependable source of portable power. Problems can occur if they are misused or abused — resulting in leakage or, in extreme cases, fire or explosion.

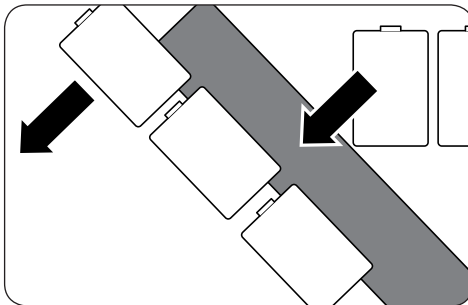
Here are some simple guidelines to safe battery use designed to eliminate any such problems.

ALWAYS



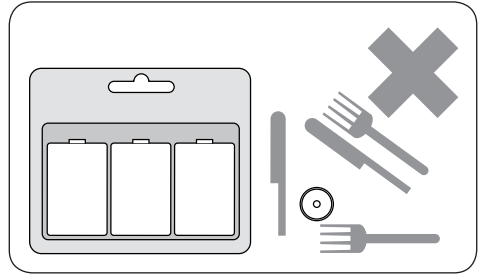
Take care to fit your batteries correctly, observing the plus and minus marks on the battery and appliance.

ALWAYS



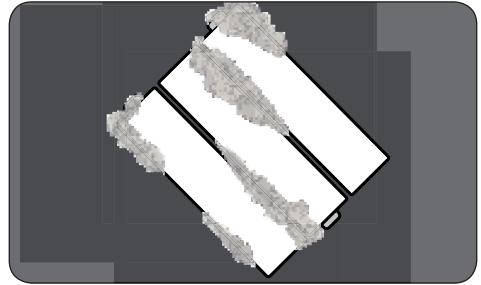
Replace the whole set of batteries at one time, taking care not to mix old and new batteries or batteries of different types.

ALWAYS



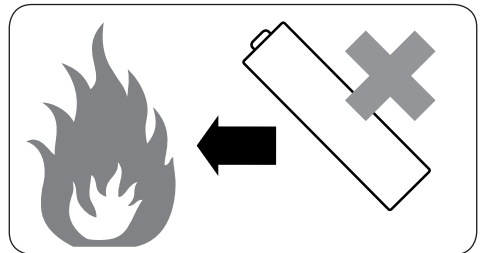
Store unused batteries in their packaging and away from metal objects which may cause a short-circuit.

ALWAYS



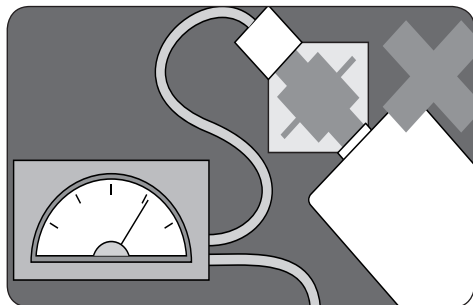
Remove dead batteries from equipment and all batteries from equipment you know you are not going to use for a long time. Otherwise the batteries may leak and cause damage.

NEVER



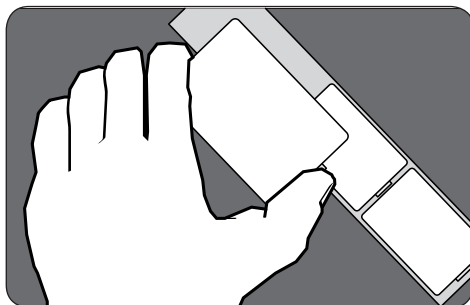
Never dispose of batteries in fire as this may cause them to explode.

NEVER



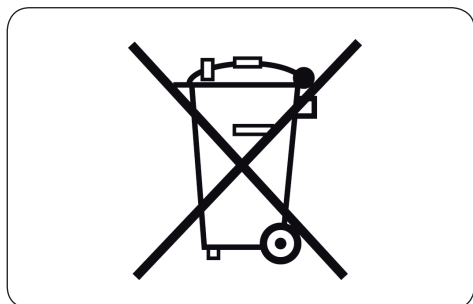
Never attempt to recharge ordinary batteries, either in a charger or by applying heat to them. There are special rechargeable batteries which are marked as such.

ALWAYS



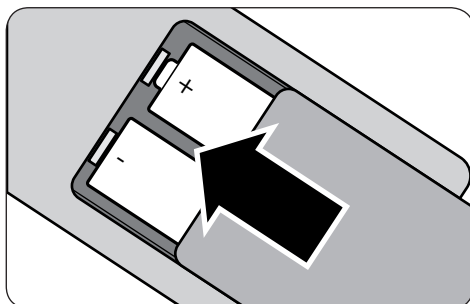
Supervise children if they are replacing batteries themselves in order to ensure these guidelines are followed.

ALWAYS



Always dispose of batteries in an environmentally friendly manner and in accordance with local regulations.

ALWAYS



Make sure battery compartments are secure.

Fig.6 Diagrammatic view (not to scale)

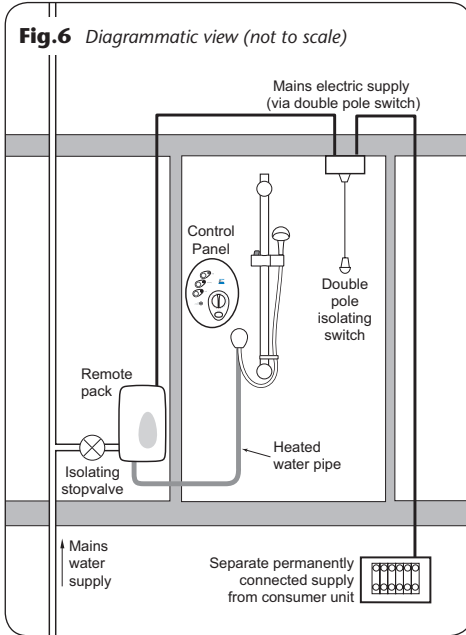
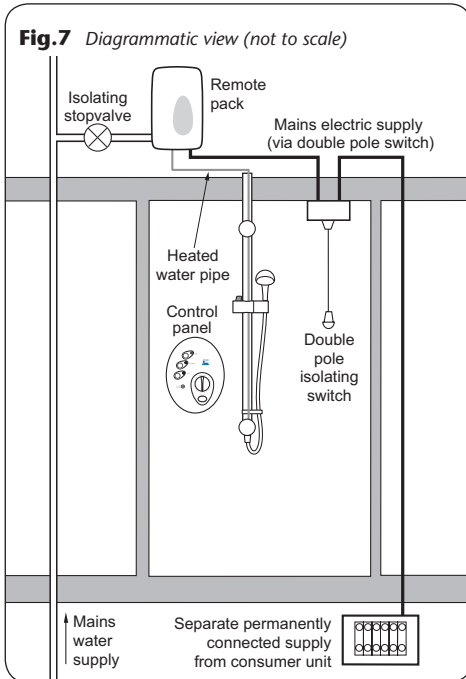


Fig.7 Diagrammatic view (not to scale)



WATER REQUIREMENTS

The installation must be in accordance with Water Regulations/Bylaws. To ensure activation of the heating elements, the shower must be connected to a mains water supply with a minimum running pressure of 100 kPa (1.0 bar) at a minimum flow rate of nine litres per minute.

For the 10.5kW rated shower, the minimum running pressure must be 150 kPa (1.5 bar) at a minimum flow rate of eleven litres per minute.

For all units the maximum static pressure must be 1000 kPa (10 bar).

If in any doubt, the pressure should be checked.

Note: If the stated flow rate is not available, it may not be possible to achieve optimum performance from the unit throughout the year.

The water supply can be taken from a cold water storage cistern provided there is a minimum head of ten metres (fifteen metres for the 10.5kW model). Minimum head is the vertical distance from the base of the cistern to the showerhead. It must be an independent supply to the shower only.

If it is intended to operate the shower at pressures above the maximum or below the minimum stated, contact Customer Service for advice.

Fig.6 shows a typical system layout for bulkhead and riser rail arrangement.

Fig.7 shows a typical system layout for the through riser rail arrangement.

INSTALLATION OPTIONS

Bulkhead fitting

The control panel is installed onto a tiled wall. The remote pack is behind an adjoining wall with heated water pipe running to bulkhead (**Fig.8**). Stand-alone riser rail assembly.

Through the ceiling fitting

Here the remote pack is installed in the loft with the heated water pipe running down the inside of the riser rail. Water outlet at the bottom of the riser rail. **Fig.9** shows the short version using two brackets, while **Fig.10** shows the longer rail option using all three brackets.

Fig.8 Bulkhead fitting

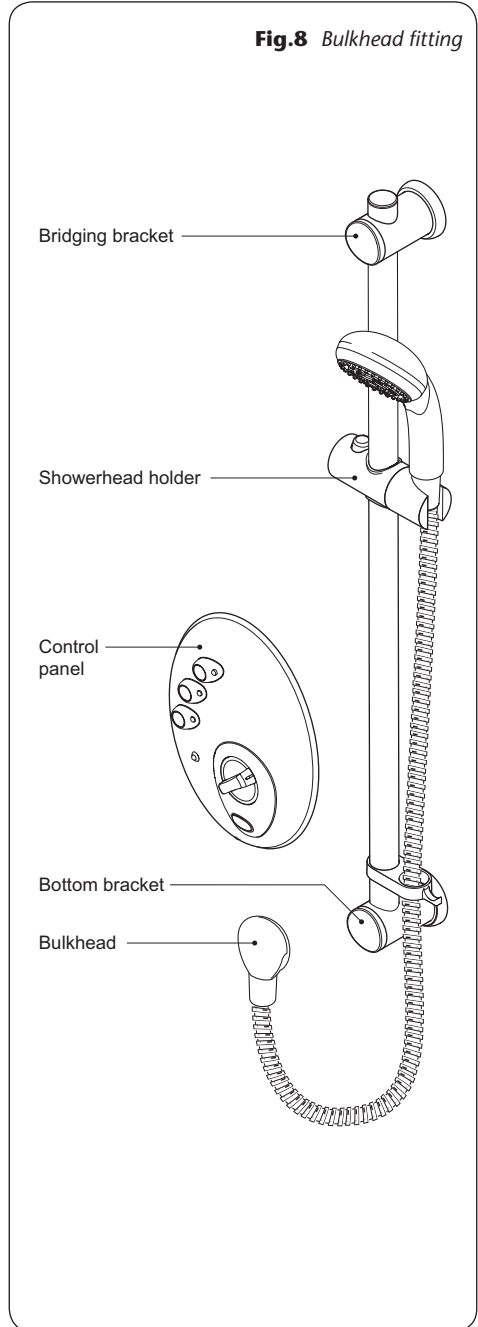


Fig.9 Through the ceiling fitting (short)

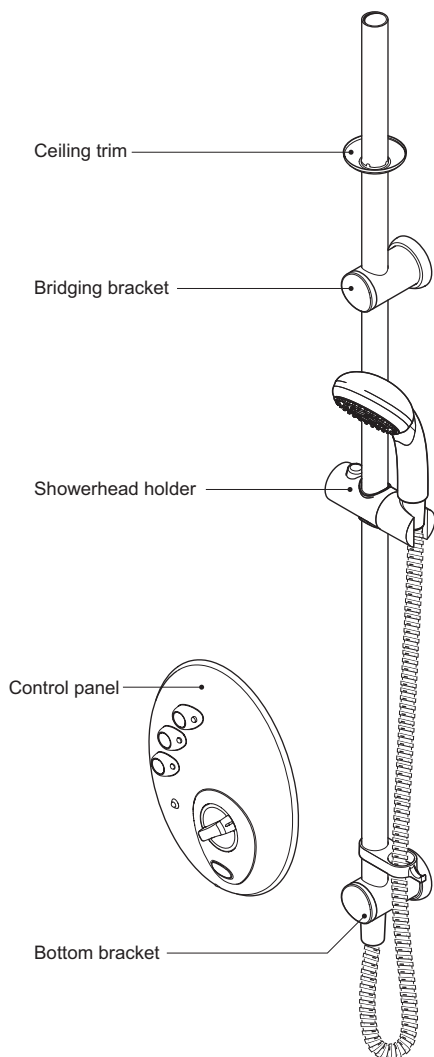
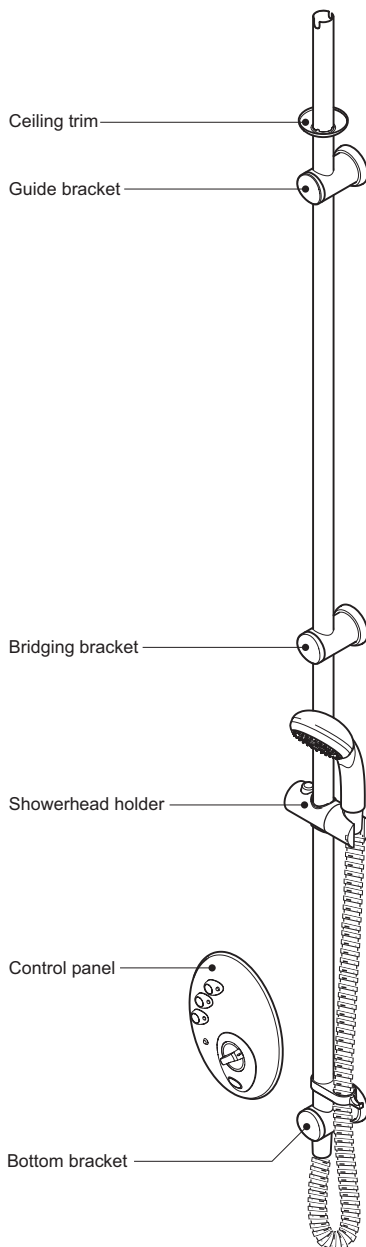


Fig.10 Through the ceiling fitting (long)



SITING OF THE SHOWER

WARNING!

The shower must not be positioned where it will be subjected to freezing conditions.

IMPORTANT: If installing onto a tiled wall always mount the unit on the surface of the tiles. NEVER tile up to the unit.

Refer to **Fig.11** and **Fig.12** for correct siting of the shower.

Position the control panel where it will NOT be in direct contact with water from the showerhead. Position the remote pack vertically and is accessible for maintenance purposes.

Note: Water Regulations requires that the showerhead be 'constrained 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'. The use of the supplied hose retainer will usually meet this requirement, but if the showerhead can be placed within a bath, basin or shower tray, then a double check valve, or a similar device, must be fitted in the supply pipework to prevent back-flow.

Fig.11

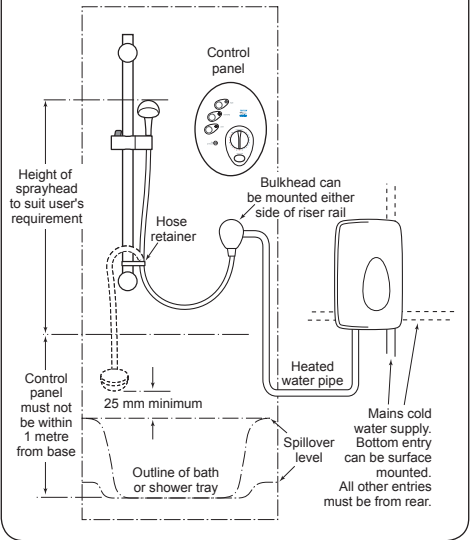
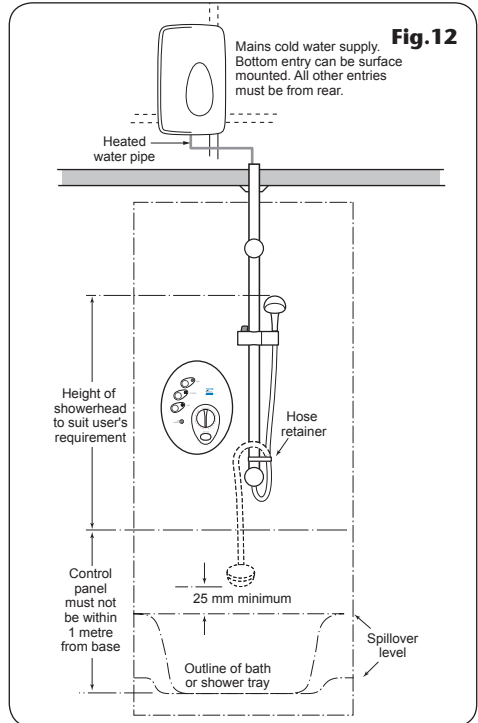
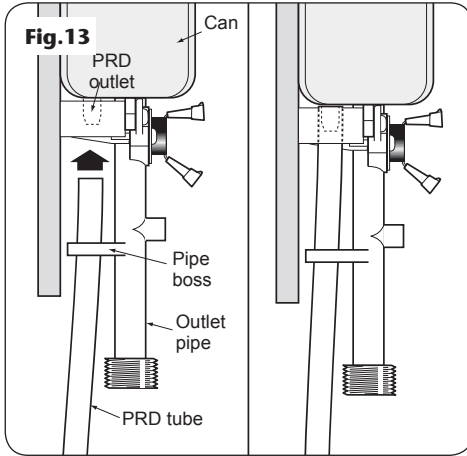


Fig.12





Pressure relief safety device

A pressure relief device (PRD) is designed into the shower unit which complies with European standards. The PRD (**Fig.13**) provides a level of appliance protection should an excessive build up of pressure occur within the shower.

IMPORTANT: If the PRD operates, then water will eject from the clear PRD tube, so make sure the tube, when eventually installed, is routed carefully to waste e.g. via a tundish and pipework directed to an external point (**Fig.14**).

In the event of the PRD operating, turn off the electricity and water supplies to the shower at the isolating switch and stopvalve. Contact Customer Service for advice on replacing the PRD.

DO NOT operate the shower with a damaged or kinked shower hose, or a blocked showerhead which can cause the PRD to operate.

When commissioning, the showerhead must be removed from the flexible hose. If not removed, again it may cause the PRD to operate.

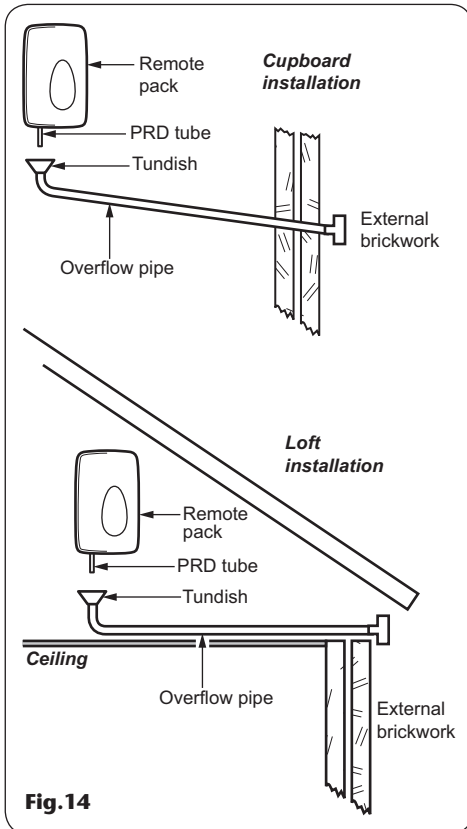


Fig.14

INSTALLATION OPTION 1: BULKHEAD FITTING

Heated water pipe in the wall

Decide on the position of the control panel, the bulkhead fitting and riser rail within the showering area. Establish a route in the wall between the remote pack and the outlet bulkhead.

The remote pack is connected to the bulkhead by means of a semi-rigid white 10mm plastic pipe which carries the heated water. This pipe can be channelled in a wall, plumbed through a wall or hidden behind a studded wall. The pipe can run up to 3.5 metres away from the remote pack. Any surplus pipe can be cut off as required.

Note: The bulkhead and control panel may be placed on different walls as long as the control panel is not in line with any spray when in use.

Routing the heated water pipe

After deciding the position of the riser rail and control panel, you may wish first to channel a route for the semi-rigid heated water pipe from the remote pack location to the bulkhead position.

Make good the wall, including any tiling, as all the units must be screwed to the finished wall surface.

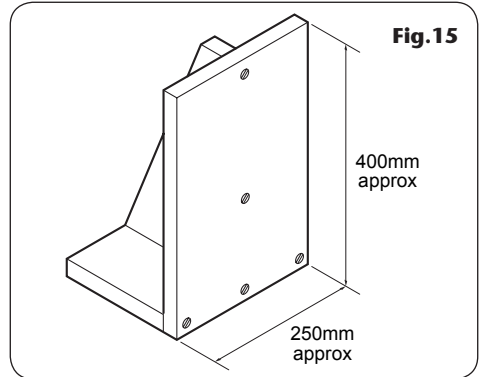
FITTING THE REMOTE PACK

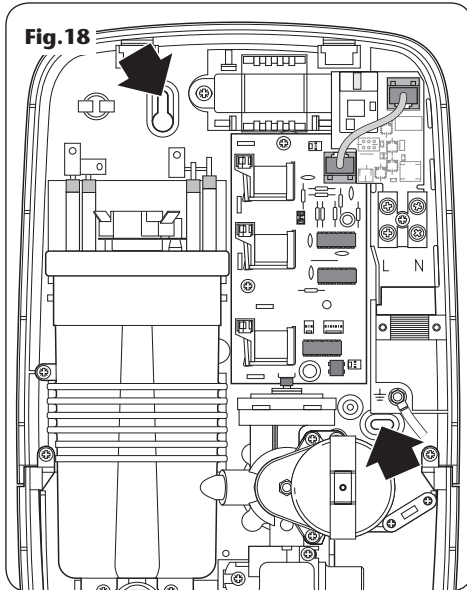
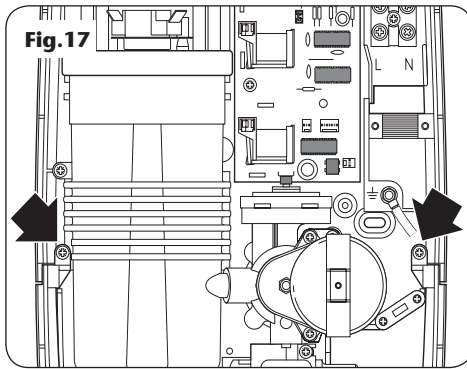
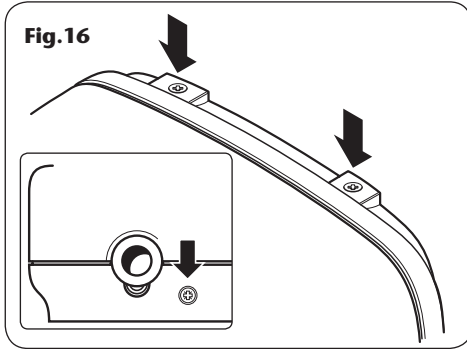
IMPORTANT: The remote pack must be mounted on a flat surface which covers the full width and length of the backplate. It is important that the wall surface is flat otherwise difficulty may be encountered when fitting the cover and subsequent operation of the unit may be impaired.

The remote pack must always be positioned so that there is easy access for installation and maintenance. Where this is difficult or a suitable wall is not available, a mounting bracket similar to that shown in **Fig.15** can be used.

Position the remote pack in a dry, well ventilated area.

IMPORTANT: The remote pack **MUST** be mounted vertically. **DO NOT MOUNT IT HORIZONTALLY.**





Procedure

Unscrew the top and bottom retaining screws (**Fig.16**) and lift cover from the backplate. To allow access to the pipe and cable connections, remove the two screws (**Fig.17**) and take off the trimplate.

After choosing the site for the shower, use the backplate as a template and mark two fixing holes (**Fig.18**). Drill and plug the wall. (*The wall plugs provided are suitable for most brick walls — use an appropriate masonry drill, but if the wall is plasterboard or a soft building block, you must use suitable wall plugs and a suitable drill bit*).

Screw top fixing screw into position leaving the base of the screw head protruding 6mm out from the wall.

Entry positions for the mains water are from the bottom or from the rear.

Cable entry is via the top or rear.

Note: Deviations from the designated entry points will invalidate product approvals.

If a bottom surface entry is required for the mains cold water then the necessary hole will need to be cut out in the trimplate and cover (**Fig.19**).

If a surface cable entry from the top is required then the relevant hole in the backplate will need to be cut out (**Fig.20**).

Hook the backplate over the top screw and fit the bottom fixing screw into position.

DO NOT fully tighten the screws at this stage, as the fixing holes are elongated to allow for out of square adjustment after the plumbing connections have been completed.

PLUMBING CONNECTIONS

Plumbing to be carried out before wiring.

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

DO NOT solder fittings near the shower unit as heat can transfer along pipework and damage components.

Compression fittings MUST be used to connect to the inlet of the remote pack (push-on fittings must not be used as the remote pack inlet may not fully enter this type of fitting to provide a watertight seal).

Note: An additional stopvalve, complying with Water Regulations, MUST be fitted in the mains water supply to the remote pack as an independent means of isolating the water supply should maintenance or servicing be necessary.

IMPORTANT: Before completing the connection of the water supply to the inlet of the remote pack, flush out the pipework to remove all swarf and system debris. This can be achieved by connecting a hose to the pipework and turning on the mains water supply long enough to clear the debris to waste.

Procedure

Turn off the water supply either at the mains stopvalve or the isolating stopvalve. Connect the mains water supply to the inlet of the remote pack via a 15mm x 15mm elbow compression fitting (*not supplied*).

If installing a feed pipe from the rear or bottom, the centre of the inlet valve to the wall surface is 20mm (**Fig.21**).

Note: If entry is from the rear, the nut of the compression fitting will be partially behind the surface of the wall (**Fig.21**). This area must be left clear when plastering over the pipework in order to make the nut accessible for future adjustments.

DO NOT use excessive force when making these connections. It is strongly recommended to use a correct size open ended spanner. Using adjustable pipe grips may damage internal components.

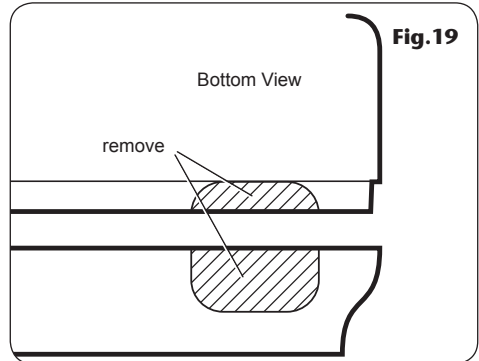


Fig.19

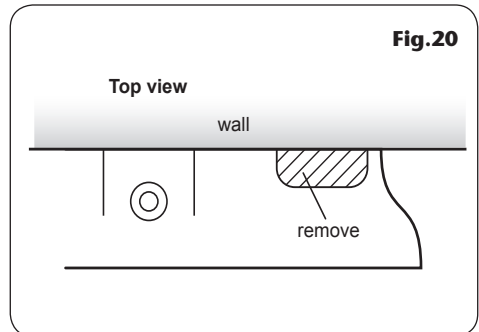


Fig.20

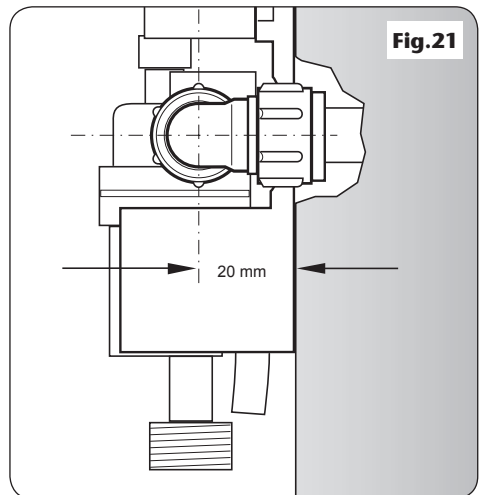
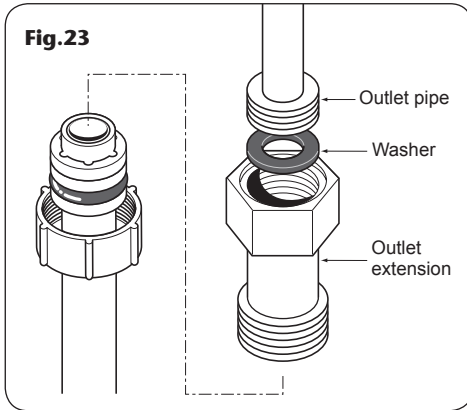
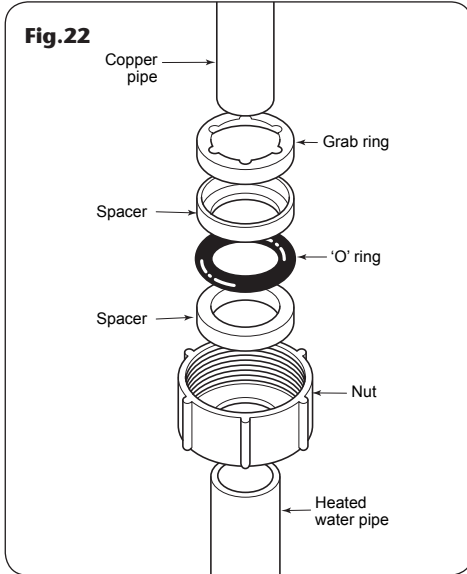


Fig.21



Make sure the backplate is square on the wall and tighten the two retaining screws which hold it to the wall.

Turn on the mains water supply and check for leaks in the pipework connection to the remote pack.

Note: At this stage no water can flow through the unit.

The remote pack is connected to the bulkhead outlet by means of a semi-rigid white 10mm plastic water pipe which carries the heated water. This pipe can be channelled through a wall or hidden behind a studded wall. The pipe can be run up to 3.3 metres away from the remote pack. Any surplus can be cut off as required.

Note: The water outlet does not need to be vertically above or below the control panel. If required the outlet adaptor and control panel can be placed on different walls as long as the control panel is not in the direct line of any spray when in use.

Push on the fittings to both ends of the heated water pipe as follows:

Slide the nut over the water pipe (**Fig.22**) followed by the 'O' ring sandwiched between the two spacers. Make sure the spacers have their flat sides towards the 'O' ring. Push the grab ring onto the pipe so that it locates about five to ten millimetres from the end. Finally, insert the supplied 8mm copper pipe into the end of the water pipe until it is flush. This is to provide extra support to the plastic pipe.

The pipe connects to the remote pack using the outlet extension (**Fig.23**) which is screwed onto the remote pack outlet pipe. Alternatively, a 1/2" x 15mm female thread to compression elbow can be screwed onto the outlet pipe, sealing the joint with PTFE tape.

Fit the clear plastic PRD tube through the can outlet pipe boss situated at the rear of the outlet pipe (**Fig.24**) and push firmly on to the PRD outlet.

The other end of the PRD tube needs to be directed to a suitable and visible waste — see P14 'Pressure relief safety device' for further details.

Note: Check the correct tubes have been used as they are similar in diameter and length (the PRD tube is clear).

IMPORTANT: Do not bend either the PRD tube or heated water pipe sharply as they will kink and restrict the water flow. If a tight bend is required in the heated water pipe cut the pipe and rejoin with standard 10mm elbow compression fittings or push-fit connectors.

Insert a 25mm length of 8mm copper pipe (four are supplied, but more may be required) to provide support for the plastic pipe under the olive ring. If possible, the connections should be accessible so that adjustment can be carried out when required.

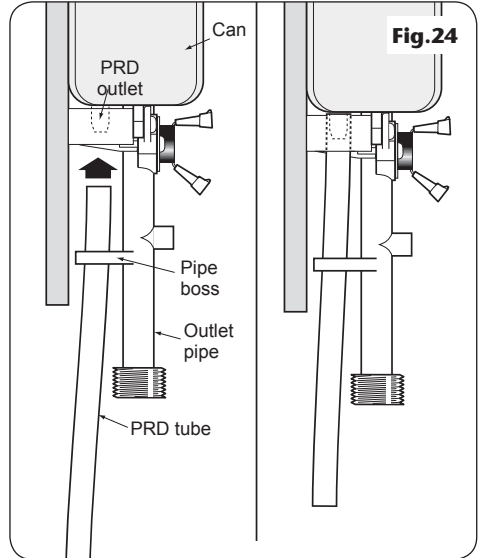


Fig.25

Heated water
pipe

Appropriate
fitting

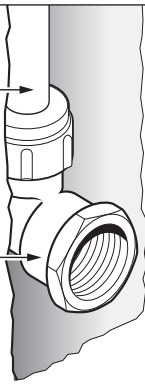


Fig.26

Finished surface

8mm – 13mm

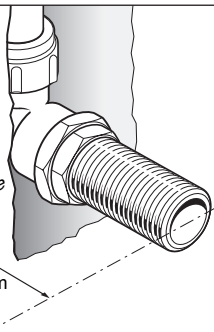
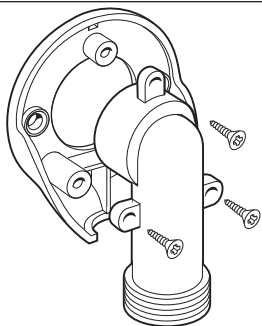


Fig.27



FITTING THE BULKHEAD

Route the heated water pipe to the outlet position and push on the fittings as shown in **Fig.22**. Connect the heated water pipe to a ½" BSP x 15mm female thread elbow or straight coupler compression fitting (**Fig.25**).

Note: This fitting is not supplied as variations in installations requires selection of the most suitable fitting.

Screw the supplied male-thread connector into the female fitting (**Fig.26**) using PTFE tape to give a watertight joint.

Note: The male-thread connector supplied has a shoulder. If fitting into a flush wall, make an additional 8mm allowance for this shoulder at the finished surface. The connector can be cut to size if required.

The threaded connector should protrude from the wall surface between 8mm and 13mm.

Make good the wall.

The bulkhead and its cover are supplied assembled. Separate the two halves by carefully prising apart at the smaller of the two elbow apertures.

Secure the elbow to the bulkhead body with the three screws supplied (**Fig.27**).

Screw the bulkhead assembly onto the threaded connector temporarily. Mark the position of the two fixing holes (**Fig.28**) securing the bulkhead to the wall.

Note: If screw thread protrudes too far out of the wall, it can be cut to the correct length using a hacksaw.

Unscrew and remove the bulkhead assembly. Check the location of the pipe in the wall before drilling.

Drill and plug the holes using the wall plugs supplied. (*The wall plugs provided are suitable for most brick walls — use an appropriate masonry drill, but if the wall is plasterboard or a soft building block, you must use suitable wall plugs and an appropriate drill bit*).

If fitting to a hollow wall structure, it may be preferable to secure the bulkhead by applying a bead of silicon seal to the back of the bulkhead.

Apply PTFE tape to the threaded connector.

Screw the bulkhead assembly onto the threaded connector until tight to the wall and the two fixing holes are aligned. Secure to the wall with the two screws supplied (**Fig.29**).

Finish by clipping the cover onto the bulkhead making sure the protruding legs locate in the bulkhead body.

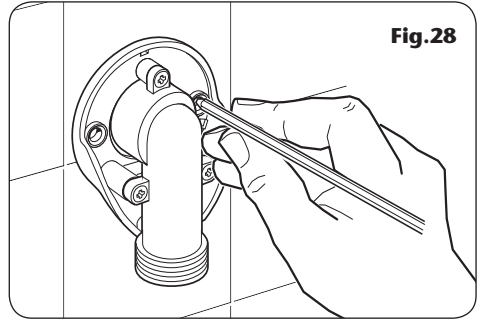


Fig.28

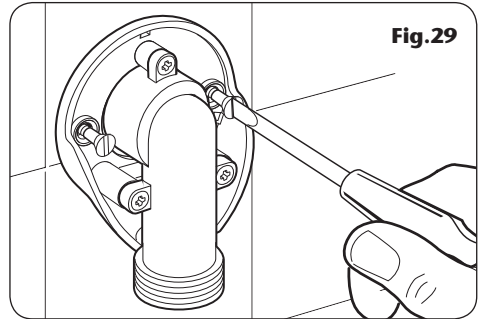
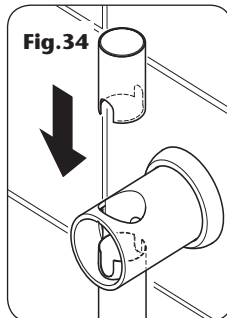
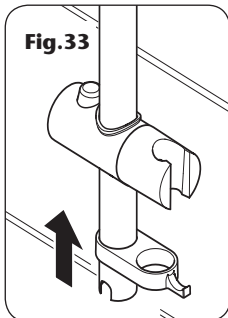
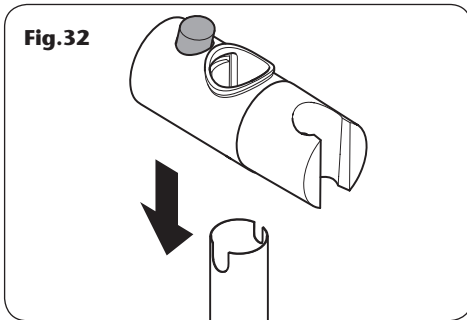
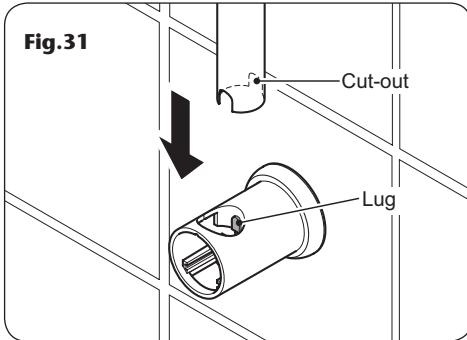
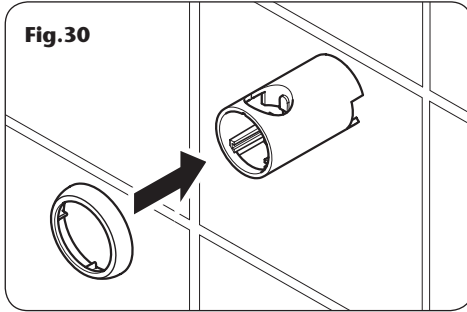


Fig.29



FITTING THE RISER RAIL

WARNING!

The edges of the riser rail are extremely sharp. Take care when handling and cutting the rails.

Decide the position for the rail on the wall within the shower area. Proceed as follows:

Offer the bottom bracket to the wall and mark the centre hole. Drill and plug the wall. (*The wall plugs provided are suitable for most brick walls — use an appropriate masonry drill, but if the wall is plasterboard or a soft building block, you must use suitable wall plugs and a suitable drill bit*).

Fit the bracket to the wall and secure in place using the screws supplied. Slide the trim onto the bottom bracket (**Fig.30**).

Locate the rail onto this bottom bracket, making sure the cut-out in the rail engages fully on the bracket lug (**Fig.31**).

Slide the trim over the bridging bracket. Locate the bracket on top of the rail. Check that the cut-out in the riser rail engages into the lug on the bracket end. Check the rail is vertical then mark the centre hole. Remove the bracket and rail then drill and plug the wall.

To fit the showerhead holder onto the riser rail press and hold the button on top of the holder to release the locking mechanism, then slide onto the rail (**Fig.32**). Release the button to lock the holder in place. Fit the hose retainer underneath the holder (**Fig.33**).

Place the riser rail, showerhead holder and hose retainer onto the installed bottom bracket.

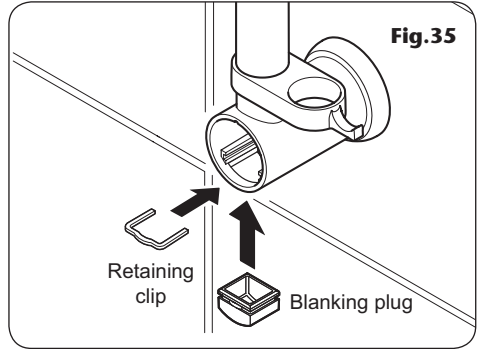
Replace the upper bracket onto the rail. Fit the 40mm riser rail section into the top of the upper bracket, making sure the smaller cut-out in the rail locates into the bracket lug (**Fig.34**). Secure the bracket to the wall using the screw supplied.

Note: The screw will pass through the cut-out in the front of the riser rail and secure the rear of the riser rail against the back face of the bracket.

Fit the blanking plug into the base of the bottom bracket and secure with the retaining clip (**Fig.35**). Place a bracket trim onto the end of each bracket (**Fig.36**) and then insert the riser rail trim into the top of the riser rail assembly (**Fig.37**).

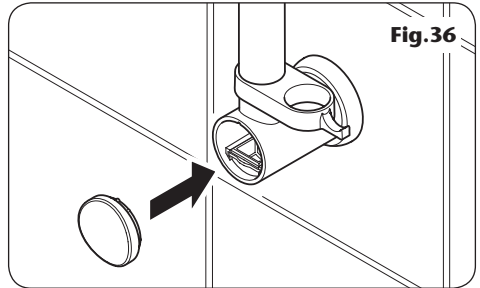
Adjusting the showerhead holder

To adjust the height of the showerhead holder, press and hold the button on top to release the locking mechanism. Slide the holder to the required position and then release the button to lock in place.



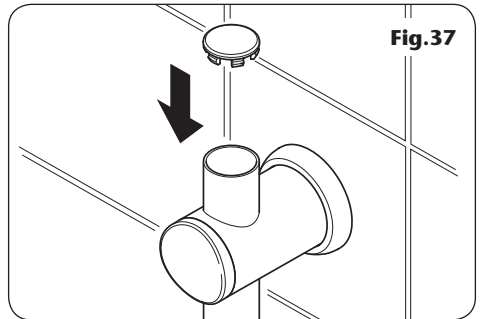
FITTING THE HOSE AND SHOWERHEAD

Feed the flexible hose through the hose retainer opening (**Fig.38**) so that it acts as a retaining ring (Water Regulations).



Screw the flexible hose to the bulkhead outlet and showerhead (**Fig.39**), making sure the supplied washers are in place at both ends of the flexible hose.

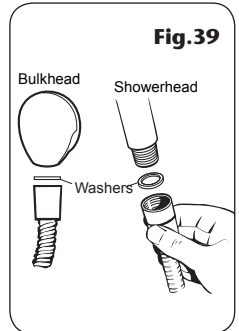
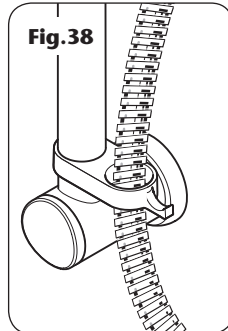
Place the showerhead into the holder and check that it fits correctly.



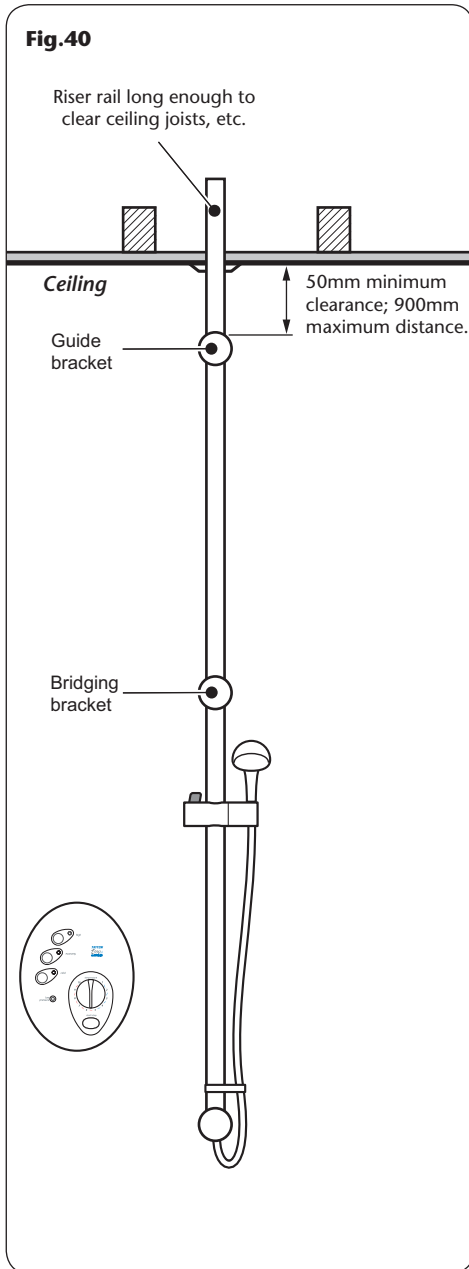
Note: The holder is slightly tapered and the showerhead and hose will only fit from one direction.

IMPORTANT: It is the conical end of the hose which grips into the holder. The showerhead will not fit in the holder without the hose attached.

At this stage, disconnect the showerhead and lay aside until the shower unit has been commissioned.



INSTALLATION OPTION 2: FITTING THROUGH THE CEILING



Heated water pipe routed inside the riser rail

WARNING!

Check there are no hidden cables or pipes before drilling holes for wall plugs. Use great care when using power tools near water. The use of a residual current device (RCD) is recommended.

IMPORTANT: Before drilling holes in the ceiling or wall surface make sure there is enough clearance above the ceiling to accommodate the entry of the riser rail and heated water pipe. Make sure the remote pack can be installed within 3.5 metres of the control panel and that any bulkhead or outlet can be installed within 5.3 metres.

If the remote pack is installed in a loft area the following requirements must be met for future servicing purposes:

- a.** There must be no risk of the remote pack, heated water pipe or PRD tube becoming frozen.
- b.** The remote pack **MUST NOT** be covered with any form of insulating material that may give rise to electrical circuits overheating during periods of high ambient temperature.
- c.** A safe means of access must be provided into the loft, e.g. via a fixed loft ladder.
- d.** The remote pack **MUST** be installed upright and in an accessible and safe location.
- e.** Ceiling joists must be adequately boarded to provide safe and unobstructed access to, from and around the remote pack.
- f.** There must be adequate lighting in the loft for servicing purposes.

FITTING THE CEILING RISER RAIL

WARNING!

The edges of the riser rail are extremely sharp. Take care when handling and cutting the rails.

Note: There are two lengths of riser rail supplied to cater for differing ceiling heights. It may be necessary to shorten the 940mm riser rail using a suitable hacksaw or pipe cutter.

DO NOT shorten the 700mm riser rail.

When determining your required riser rail length allow a minimum distance of 50mm between the ceiling and the bridging bracket. Make sure there is sufficient length of riser rail above the ceiling level to overcome any obstructions to running the heated water pipe, such as the height of the ceiling joist (**Fig.40**).

Procedure

Assemble the bottom and bridging bracket onto the 700mm rail, making sure the cut-outs in the rail engage the lugs in the brackets.

Hold the riser rail assembly up to the wall and align vertically to determine the height of the showerhead and control panel when installed.

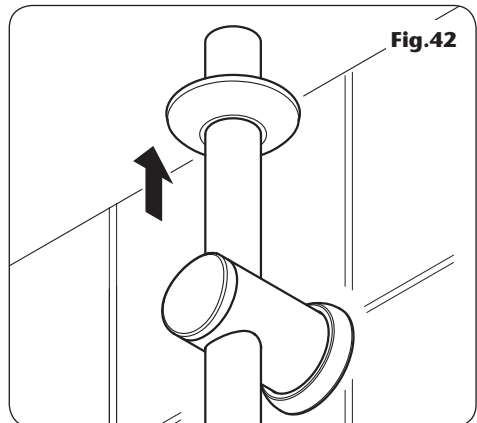
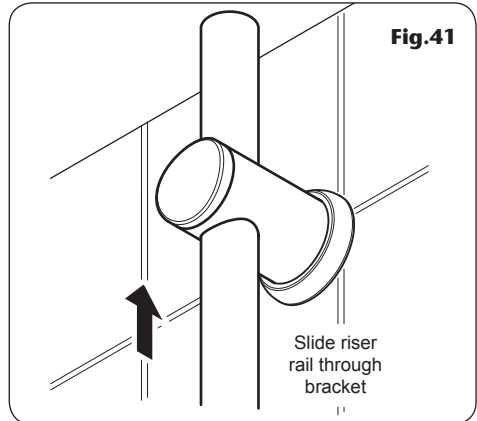
Mark the position of the bridging bracket then remove the assembly. Drill and plug the wall.

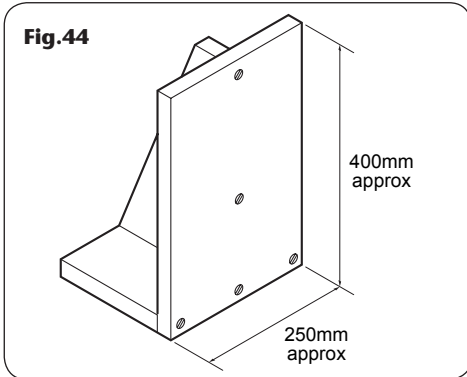
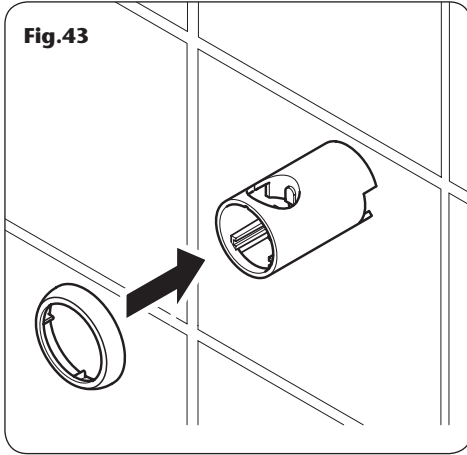
Temporarily fit the guide bracket to the bridging bracket fixing point.

Fit the bottom bracket to the riser rail and slide the rail up through the guide bracket (**Fig.41**) until it touches the ceiling. Use the bridging bracket to extend the rail if required.

Using a spirit level, align vertically the riser rail and mark the position of the rail on the ceiling. Remove the riser rail and guide bracket then drill the ceiling using a 26mm hole cutter.

Measure the 940mm riser rail and mark the required length to fit between the bridging bracket and through into the ceiling. Remember to add the extra length of rail onto the measurements to clear any obstructions above the ceiling level (**Fig.40**).





Cut the riser rail to length. If required, use the guide bracket for additional support.

Slide the trim ring onto the bridging bracket. Fit the upper riser rail into the top of the bridging bracket, making sure the cut-out engages the bracket lug.

Fit the ceiling trim onto the upper section of riser rail. Offer the assembled riser rail and bracket up to the ceiling. Secure the bridging bracket to the wall using the screw supplied and slide the ceiling trim into place (**Fig.42**).

Assemble the 700mm riser rail into the bottom bracket and fit to the bridging bracket. Using a spirit level, align the riser rail and mark its position. Drill and plug the bottom bracket screw fixing.

Slide the trim ring onto the bottom bracket and slide towards the base.

Fit the 700mm riser rail into the bottom bracket and then locate the top of the rail into the bridging bracket. Secure the bottom bracket to the wall (**Fig.43**).

See 'Fitting the control panel bracket' for details on how to fit the remote control cable and control panel to the control bracket.

FITTING THE REMOTE PACK

WARNING!

The remote pack must not be positioned where it will be subjected to freezing conditions.

IMPORTANT: The remote pack must be mounted on a flat surface. It is important that the surface is flat otherwise difficulty may be encountered when fitting the cover and subsequent operation of the unit may be impaired.

The remote pack must always be positioned so that there is easy access for installation and maintenance. Where this is difficult or a suitable wall is not available, a mounting bracket similar to that shown in **Fig.44** can be used.

Position the remote pack in the loft. It must be well ventilated and not covered.

IMPORTANT: The remote pack **MUST** be mounted vertically. **DO NOT MOUNT IT HORIZONTALLY.**

Procedure

Unscrew the top and bottom retaining screws (**Fig.45**) and lift cover from the backplate. To allow access to the pipe and cable connections, remove the two screws (**Fig.46**) and take off the trimplate.

After choosing the site for remote pack, use the backplate as a template and mark two fixing holes (**Fig.47**).

Drill and plug to suit the fixing screws supplied. *(The wall plugs provided are suitable for most brick walls — use an appropriate masonry drill, but if the wall is plasterboard or a soft building block, you must use suitable wall plugs and a suitable drill bit).*

Screw top fixing screw into position leaving the base of the screw head protruding 6mm from the wall.

Entry positions for the mains water are from the bottom or from the rear.

Cable entry is via the top or rear.

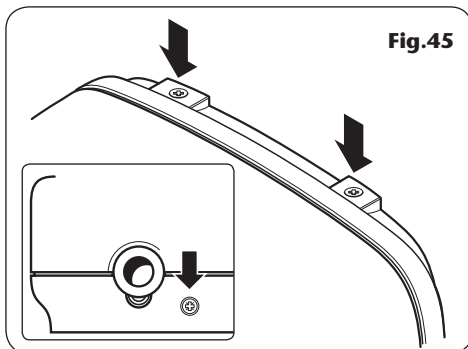


Fig.45

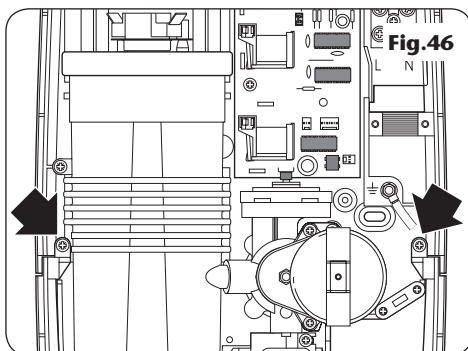


Fig.46

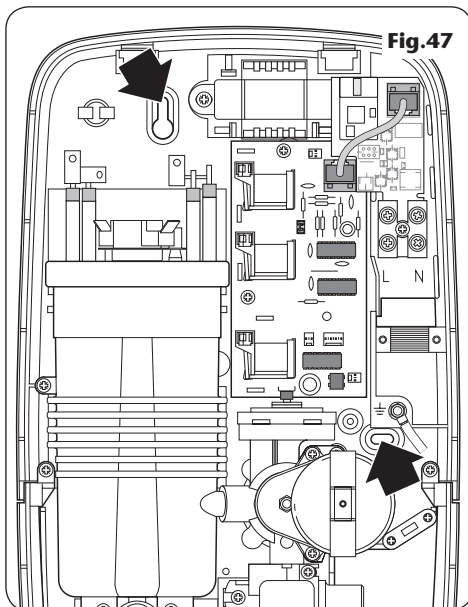
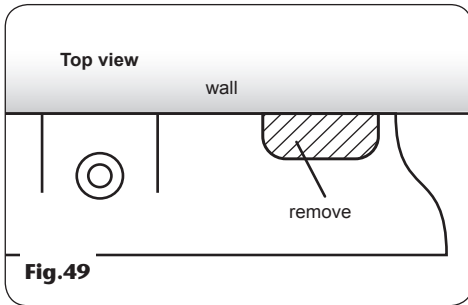
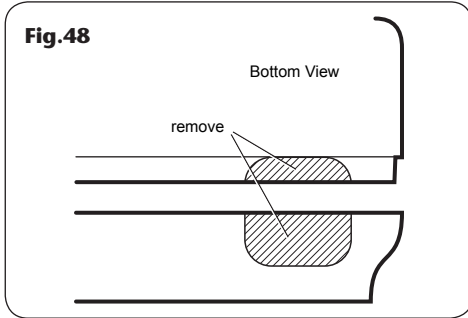


Fig.47



Note: Deviations from the designated entry points will invalidate product approvals.

If a bottom surface entry is required for the mains cold water then the necessary hole will need to be cut out in the trimplate and cover **(Fig.49)**.

If a surface cable entry from the top is required then the relevant hole in the backplate will need to be cut out **(Fig.50)**.

Hook the backplate over the top screw and fit the bottom fixing screw into position.

DO NOT fully tighten the screws at this stage, as the fixing holes are elongated to allow for out of square adjustment after the plumbing connections have been completed.

PLUMBING CONNECTIONS

Plumbing to be carried out before wiring.

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

DO NOT solder fittings near the shower unit as heat can transfer along pipework and damage components.

Compression fittings MUST be used to connect to the inlet of the remote pack (push-on fittings must not be used as the remote pack inlet may not fully enter this type of fitting to provide a watertight seal).

Note: An additional stopvalve, complying with Water Regulations, MUST be fitted in the mains water supply to the remote pack as an independent means of isolating the water supply should maintenance or servicing be necessary.

IMPORTANT: Before completing the connection of the water supply to the inlet of the remote pack, flush out the pipework to remove all swarf and system debris. This can be achieved by connecting a hose to the pipework and turning on the mains water supply long enough to clear the debris to waste.

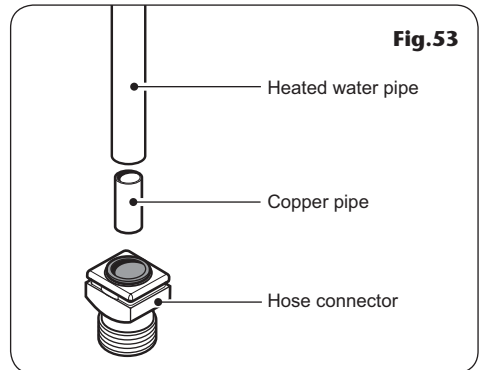
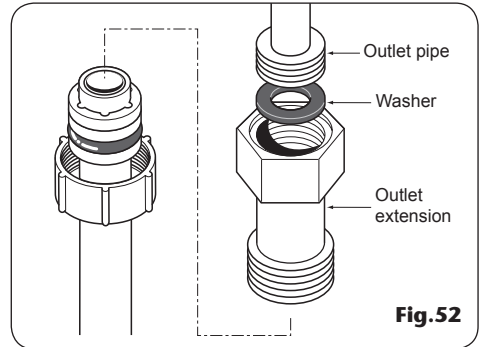
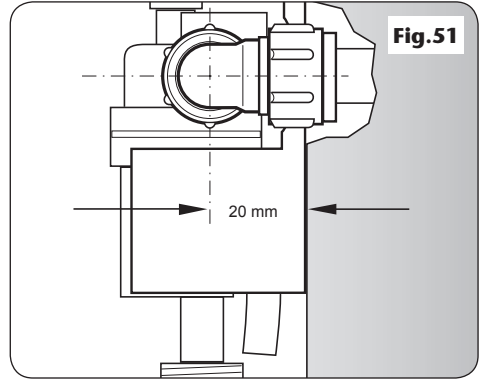
Procedure

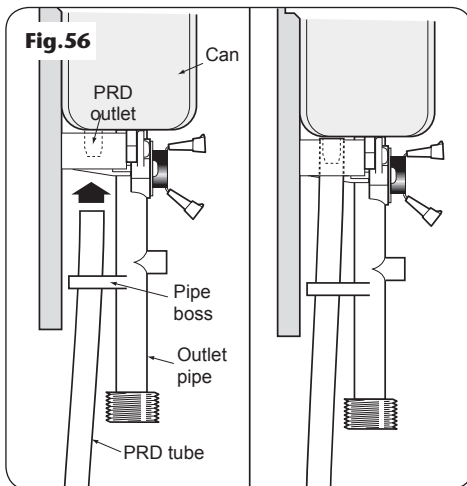
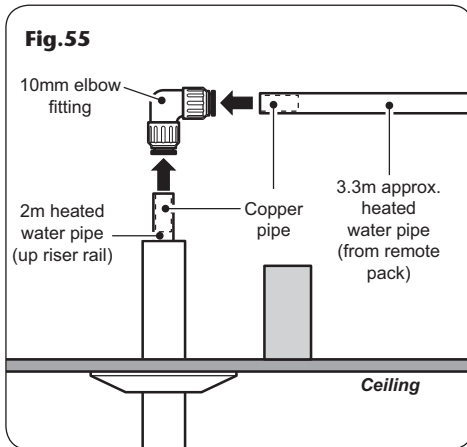
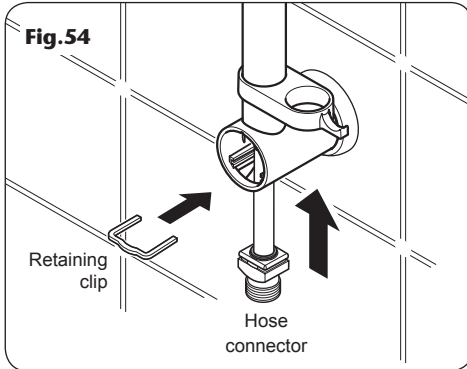
Turn off the water supply either at the mains stopvalve or the isolating stopvalve. Connect the mains water supply to the inlet of the remote pack via a 15mm x 15mm elbow compression fitting (*not supplied*).

If installing a feed pipe from the rear or bottom, the centre of the inlet valve to the wall surface is 20mm (**Fig.51**).

Note: If entry is from the rear, the nut of the compression fitting will be partially behind the surface of the wall (**Fig.51**). This area must be left clear when plastering over the pipework in order to make the nut accessible for future adjustments.

DO NOT use excessive force when making these connections. It is strongly recommended to use a correct size open ended spanner. Using adjustable pipe grips may damage internal components.





Make sure the backplate is square on the wall and tighten the two retaining screws which hold it to the wall.

Turn on the mains water supply and check for leaks in the pipework connection to the remote pack.

Note: At this stage no water can flow through the unit.

The remote pack is connected to the hose connector by means of two semi-rigid white 10mm plastic water pipes which carry the heated water.

The 3.3 metre pipe connects to the remote pack using the outlet extension (**Fig. 52**) which is screwed onto the remote pack outlet pipe. Alternatively, a 1/2" x 15mm female thread to compression elbow can be screwed onto the outlet pipe, sealing the joint with PTFE tape.

Feed the 2m heated water pipe up the centre of the riser rail so that the pipe end comes out of the top of the riser rail. Insert the supplied 8mm copper pipe into the end of the water pipe until it is flush. This will provide extra support to the plastic pipe. Push fit the pipe end into the hose connector (**Fig. 53**). Push the hose connector into the recess in the bottom bracket and secure with the retaining clip (**Fig. 54**).

In the loft, trim the 2m pipe excess to length. Insert the 8mm copper pipes into the end of both water pipes and then push fit both ends into the 10mm fitting (**Fig. 55**).

Fit the clear plastic PRD tube through the can outlet pipe boss situated at the rear of the outlet pipe (**Fig. 56**) and push firmly on to the PRD outlet.

The other end of the PRD tube needs to be directed to a suitable and visible waste — see P13 'Pressure relief safety device' for further details.

Note: Check the correct tubes have been used as they are similar in diameter and length (the PRD tube is clear).

ELECTRICAL CONNECTIONS

SWITCH OFF THE ELECTRICITY SUPPLY AT THE MAINS.


Fig.57 shows a schematic wiring diagram.

The cable entry points are shown in **Fig.1**.

The cable can be surface clipped, hidden or via 20mm conduit.

Note: Conduit entry can only be from rear.

Route the cable into the shower unit and connect to the terminal block (**Fig.58**) as follows:

Earth cable to terminal marked **E** 

Neutral cable to terminal marked **N**

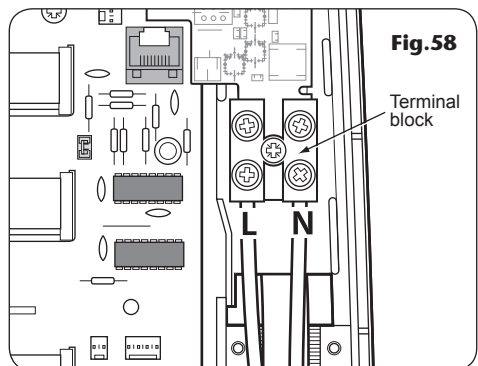
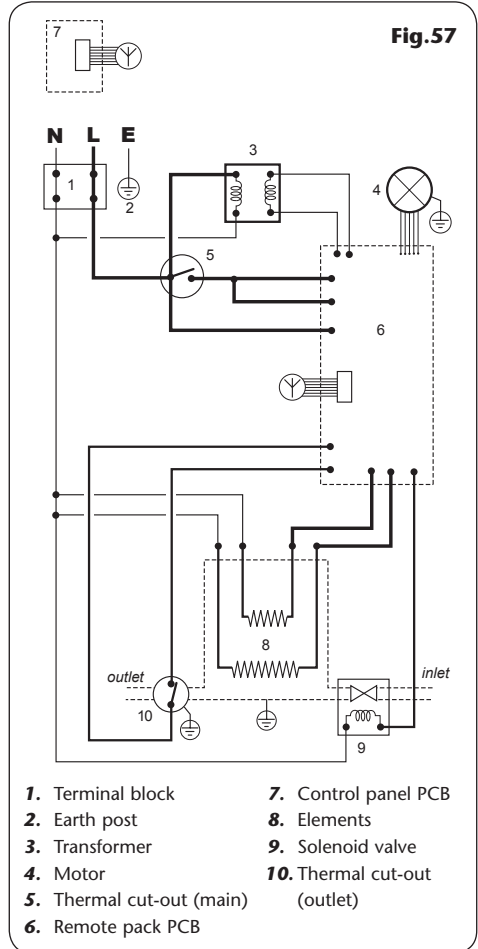
Live cable to terminal marked **L**

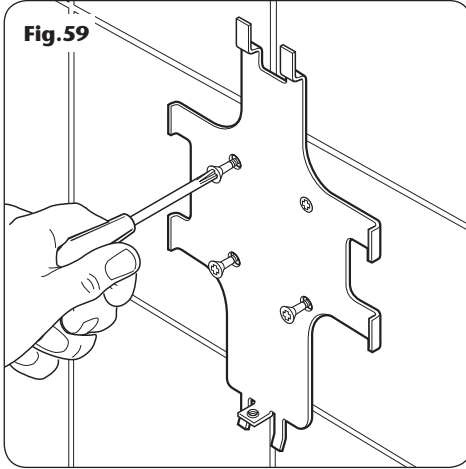
IMPORTANT: Fully tighten the terminal block screws and check that no cable insulation is trapped under the screws. Loose connections can result in cable overheating.

Note: The supply cable earth conductor must be sleeved. The outer sheath of the supply cable must be stripped back to the minimum.

The supply cable must be secured either by routing through conduit or in trunking or by embedding in the wall, in accordance with current IEE regulations.

The use of connections within the unit, or other points in the shower circuit, to supply power to other equipment i.e. extractor fans, pumps etc. will invalidate the guarantee.





FITTING THE CONTROL PANEL BRACKET

Align the mounting bracket on the wall and mark the location of the four fixing holes.

Drill and plug the wall.

Using the screws supplied, secure the mounting bracket to the wall (**Fig.59**).

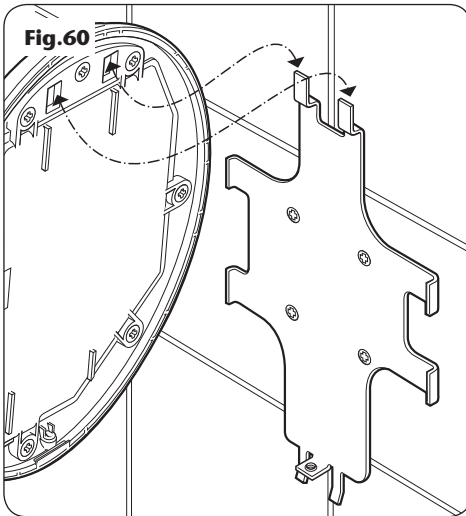
Note: The mounting bracket **MUST** be fitted on the surface of the tiles.

FITTING THE CONTROL PANEL

Note: Refer to the 'Associating the Shower Unit' section before fitting the control panel to the wall.

Hook the control panel over the lugs on the mounting bracket (**Fig.60**) and slide down into place. Secure in place with the single screw at the bottom of the control panel (**Fig.61**).

Note: To remove the panel undo the single retaining screw and lift off from the wall bracket lugs.



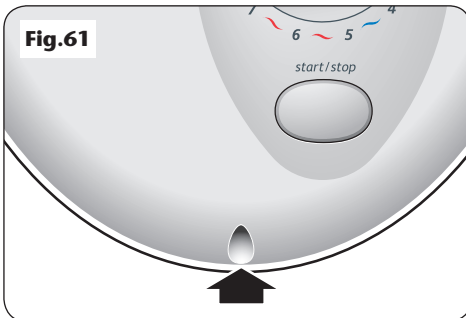
FITTING THE REMOTE PACK COVER

Refit the trimplate and secure with the two screws.

Before replacing the cover, check on the PCB that the purge pin is located on its two pins — the factory set position; see **Fig.66**.

Locate the tags on the cover into the holes on the backplate and guide into position. Secure the cover in position with the three retaining screws.

Note: **DO NOT** fully tighten at this stage as the remote pack cover is fitted temporarily in order to carry out the commissioning procedure.



ASSOCIATING THE SHOWER UNIT

Before the shower can be used the control panel must be associated to the remote pack. This will link the control panel to the specific remote pack.

Note: This procedure should be carried out before fitting the control panel to the wall.

Procedure

Insert the two AAA batteries (supplied) into the control panel (**Fig.62**).

IMPORTANT: Make sure to fit the batteries correctly otherwise the circuit board will be damaged.

Partially turn on the water supply to the shower — this will stop the PRD from operating. Turn on the electricity supply at the mains and then turn on the power to the remote pack at the isolation switch.

IMPORTANT: The remote pack will start its initialisation procedure and will beep intermittently for about thirty seconds. Once the remote pack has completed its initialisation procedure the intermittent beep will be replaced by a continual tone.

If the pack does not beep, switch off the remote pack at the mains and isolating switch, then remove the remote cover. To reset the module, move the pin connector across one pin (**Fig.63**). Refit the cover and switch on the power at the mains and isolating switch — the remote pack will start its initialisation procedure.

With the remote pack emitting a continual tone, simultaneously press and hold the HIGH and COLD buttons (**Fig.64**) and then press and release the Start/Stop button.

Once the indicators start flashing release the high and cold buttons. When the LEDs extinguish and the continual tone stops the control panel and remote pack will be associated.

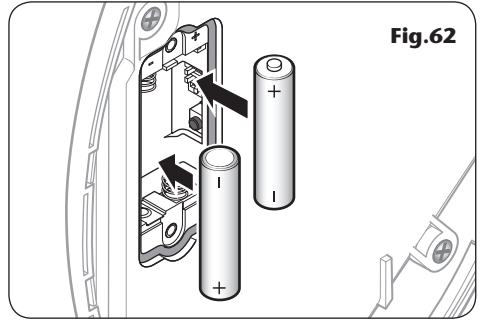


Fig.62

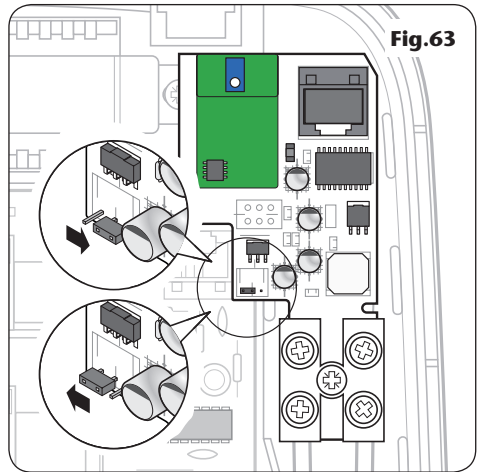


Fig.63

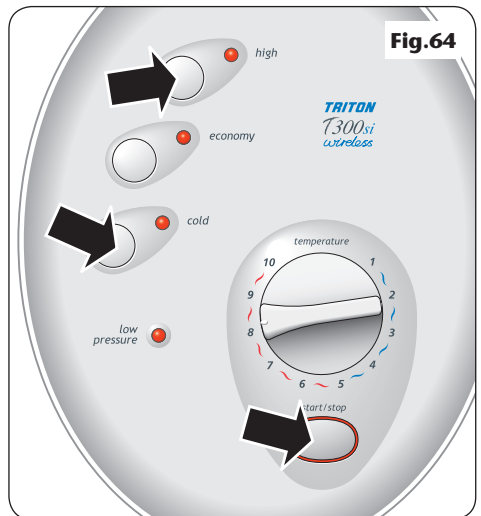
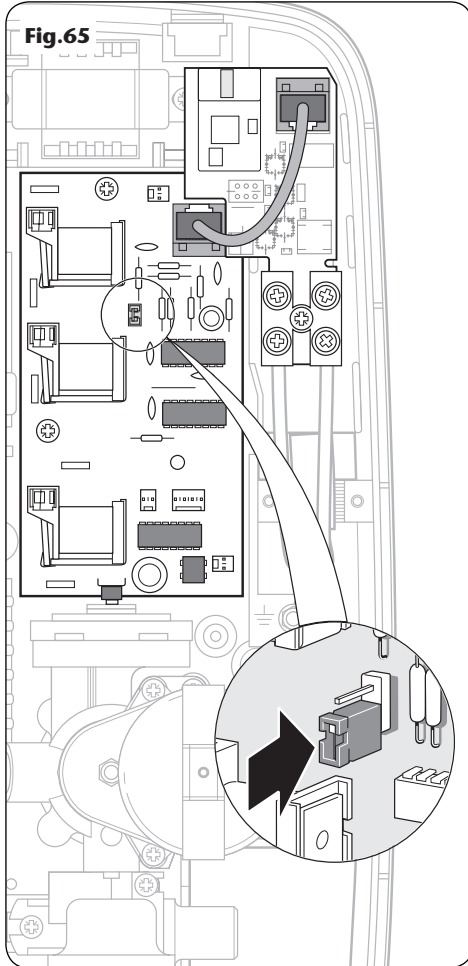


Fig.64



COMMISSIONING

Setting up the remote pack

Press the START/STOP button. The 'HIGH' and 'POWER ON' indicators will light for a few seconds and after a short delay water will begin to flow.

It will take about thirty seconds for a smooth flow of water to be obtained while air and any debris in the system is being flushed from the shower.

Note: During the commissioning procedure the low pressure indicator will flash every half second.

Once the flushing procedure is complete press the START/STOP button. The 'POWER ON' indicator will light up and the shower will go into the phased shutdown procedure. Once complete, the light will extinguish and water will cease to flow.

Switch off the electricity supply to the shower at the isolating switch.

Purge pin procedure

On the remote pack, undo the top and bottom screws and remove the cover. Inside the remote pack, on the PCB, is the purge pin (**Fig.65**). Pull the purge pin off its two pins and, in order for it to be used at a later date, replace it onto one of the pins.

Refit the cover and secure with the three screws.

Turn on the electricity supply at the isolating switch and then turn on fully the water supply.

Once the installation of the riser rail is complete the shower is ready for normal operation.

OPERATING THE SHOWER

IMPORTANT: Make sure the commissioning procedure has been carried out. Failure to do so will damage the unit and invalidate the guarantee.

To start the shower

Note: When first switched on at the isolation switch, the shower will attempt to initialise itself. This will last for about thirty seconds. Any attempt to start the shower before the initialisation procedure is complete will cause the control panel to run through the start-up routine. Press the START/STOP button and the 'POWER ON' and 'HIGH' indicators immediately light up and remain lit for two seconds.

All lights will then extinguish and water will begin to flow.

To stop the shower

Press the START/STOP button. The phased shutdown will begin and water will cease to flow after a few seconds. Note the 'POWER ON' indicator surround stays lit until phased shutdown is complete.

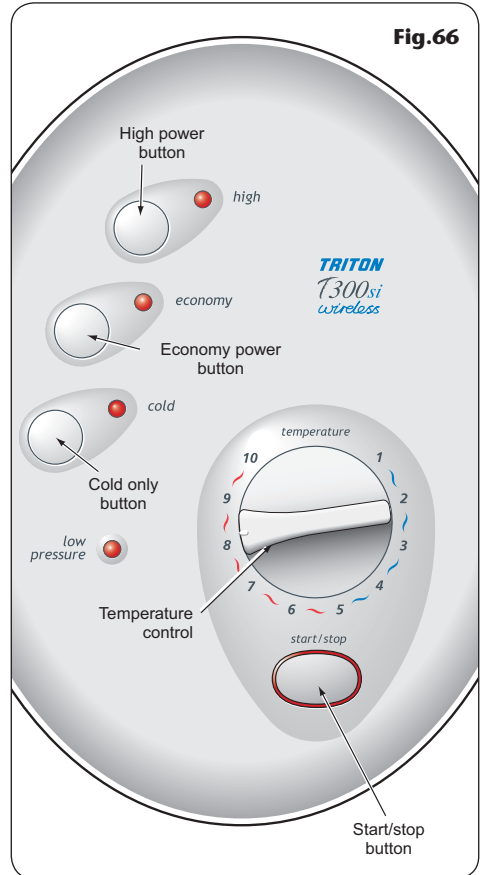
To use the control buttons

There are three control buttons — HIGH, COLD and ECONOMY — as shown in **Fig.66**. Upon selection, each button will light up for two seconds to indicate the mode chosen.

The upper button is a high power setting which allows the highest flow achievable for your preferred temperature. This setting should normally be regarded as optimum shower performance throughout the year. Temperature adjustment at this setting is via the temperature control.

The centre button is an economy setting for using less power when the ambient mains water temperature is high during hot months. Temperature adjustment at this setting is via the temperature control.

Note: If the stated flow rate required for the unit cannot be met due to low water pressure, it will be necessary to operate the unit on this setting during the warmer months because of flow rate limitations entering the unit.





The lower button is for cold water only. Adjusting the temperature control at this setting will only change the force of the water from the showerhead (it will not alter the water temperature).

To adjust the shower temperature

The water temperature is altered by increasing or decreasing the flow rate of the water through the shower using the temperature control (**Fig.66**).

After obtaining your preferred showering temperature, the number can be remembered and left as the normal setting and should only need to be altered to compensate for seasonal changes in ambient water temperature.

Note: The preferred number on 'ECONOMY' will give a different temperature to the same number position on 'HIGH'.

To decrease the shower temperature

Turn the temperature control anti-clockwise (**Fig.67**). This will increase the flow of water through the shower and is indicated by lower numbers.

To increase the shower temperature

Turn the temperature control clockwise (**Fig.68**). This will decrease the flow of water through the shower and is indicated by higher numbers.

CAUTION: It is advisable to be certain that the showering temperature is satisfactory by testing with your hand before stepping under the showerhead. There will always be a time delay of a few seconds between selecting a flow rate and the water reaching the stable temperature for that flow rate.

CAUTION: It is recommended that persons who may have difficulty understanding or operating the shower controls should not be left unattended when showering. Special consideration should be given to young children and the less able bodied.



OPERATING FUNCTIONS

Low pressure indicator (Fig.69)

If this indicator flashes every half a second, it means the water pressure has fallen below the minimum required for correct operation of the shower, resulting in the low pressure cut-out operating. This switches off power to the heating elements preventing any maintained temperature rises (water will continue to flow).

When adequate water pressure returns, the 'LOW PRESSURE' indicator will extinguish and the power will automatically be restored to the power setting at the time of the interruption.

Low battery indicator (Fig.69)

If the battery is running low then the 'LOW PRESSURE' indicator will flash every four seconds while the control panel is on.

Selector mode indicators (Fig.69)

Next to each control button there is an LED which lights up for two seconds when the button is pressed, showing which shower mode is in operation.

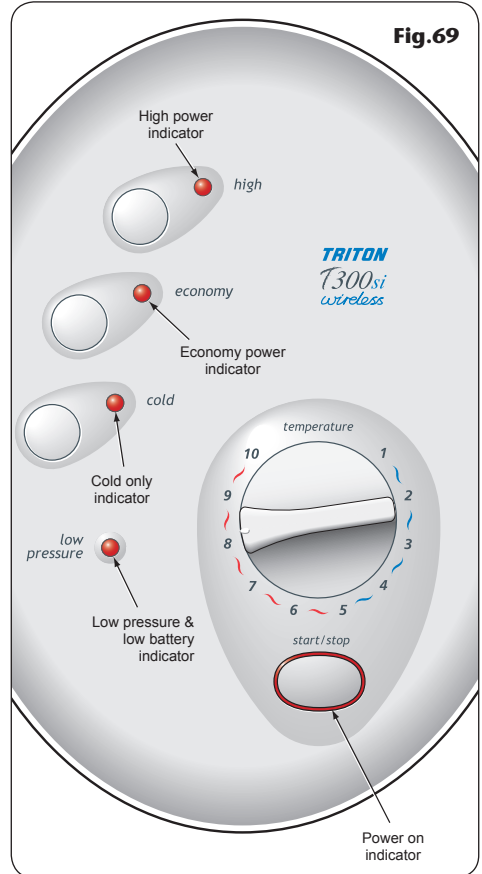
Phased shutdown

In use, when the START/STOP button is pressed once again, power is switched off to the elements. Water continues to flow for a few seconds, flushing out any remaining hot water. This makes sure the next immediate user will not receive a slug of hot water if standing under the showerhead when starting the shower.

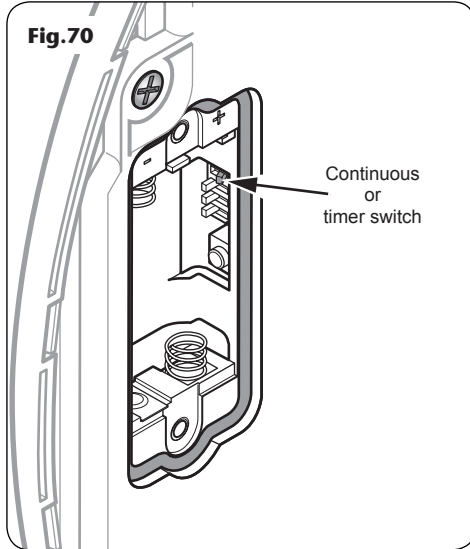
Note: The shower should always be switched off in this manner before isolating at the double pole isolating switch. Failure to do so will cause the 'POWER ON' indicator to flash for thirty seconds and stay lit for another thirty seconds before extinguishing.

Overheat cut-out

During normal operation if an overheat temperature is sensed, power to the elements will be reduced. Water will continue to flow. When the temperature has cooled sufficiently, power to the elements will be automatically restored to the previous setting at the time of interruption.



Note: In normal use, it is in order to leave the water supply permanently on to the shower unit but, as with most electrical appliances, **the unit must be switched off at the isolating switch when not in use.**



Safety cut-out

The unit is fitted with a non-resettable over-temperature safety device. In the event of abnormal operation which could cause unsafe temperatures within the unit, the device will disconnect the heating elements. It will require a visit from a qualified engineer to determine the nature of the fault and replace the safety device, once the unit has been repaired.

CONTINUOUS AND TIMED OPERATION

In the remote pack battery recess is a switch which allows selection between continuous and timed operation of the shower (**Fig.70**).

Changing the switch from continuous operation to timed operation will set up the shower so that once started, it will run for a maximum of ten minutes before automatically shutting down.

BATTERY LIFE

The estimated battery life of the control panel, if used on average for ten minutes four times a day, will give an approximate battery life span of 1 year 7 months. This assumes that two 1.5 V alkaline batteries are used.

Note: DO NOT use rechargeable batteries in the control panel as these will interfere with the low battery indicator operation.

ADJUSTING THE SHOWERHEAD

Five showerhead patterns are available (**Fig.71**). Adjust the spray pattern by turning the bezel on the showerhead in either direction until the desired pattern is obtained.

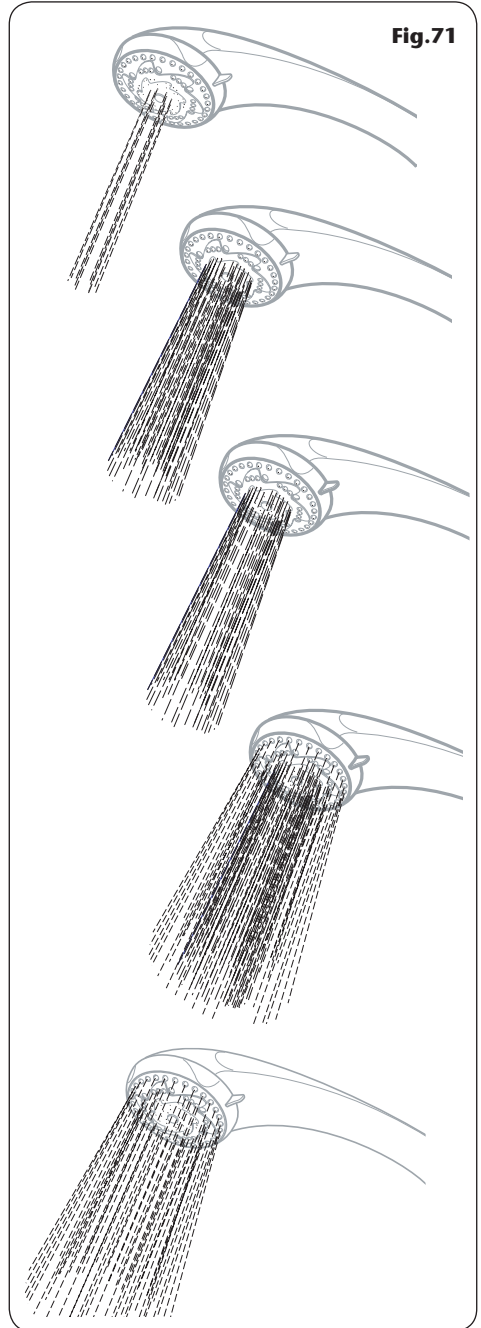


Fig.72

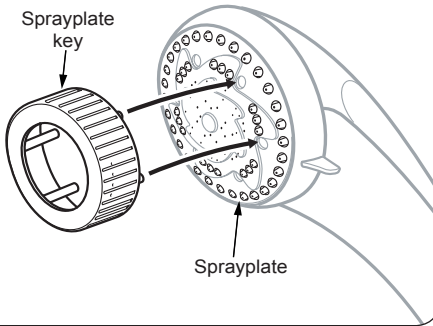
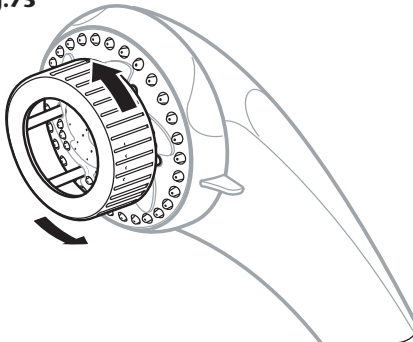


Fig.73



WARNING!

Do not use powerful abrasive or solvent cleaning fluids when cleaning the shower as they may damage the plastic fittings.

CLEANING

Before cleaning, turn off the unit at the isolation switch to avoid the shower being accidentally switched on.

IT IS IMPORTANT TO KEEP THE SHOWERHEAD CLEAN TO MAINTAIN THE PERFORMANCE OF THE SHOWER. The hardness of the water will determine the frequency of cleaning. For example, if the shower is used every day in a very hard water area, it may be necessary to clean the showerhead on a weekly basis.

Sprayplate removal

There is no need to remove the showerhead from the hose.

Using the removal tool supplied (**Fig.72**), locate the three raised 'bosses' into the three recesses in the sprayplate. Hold in firmly and twist anti-clockwise (**Fig.73**). This movement may turn the cartridge assembly as well until it reaches a 'stop'. Hold the cartridge firmly and continue to twist anti-clockwise. Having loosened the sprayplate sufficiently, it can be unscrewed and removed completely.

Clean the sprayplate with a suitable brush or preferably leave it to soak overnight in a mild proprietary descaler. Make sure all traces of scale are removed and thoroughly rinse in clean water afterwards.

Before replacing the sprayplate, switch the power back on at the isolating switch and direct the hose and showerhead to waste.

Turn the temperature control fully anti-clockwise. Press the START/STOP button.

This operation will flush out any loose scale deposits in the unit and showerhead. Stop after about thirty seconds.

Refit the sprayplate by screwing clockwise. Use the tool to screw the sprayplate tight.

INSTRUCTIONS FOR INSTALLERS AND SERVICE ENGINEERS ONLY

CLEANING THE FILTER

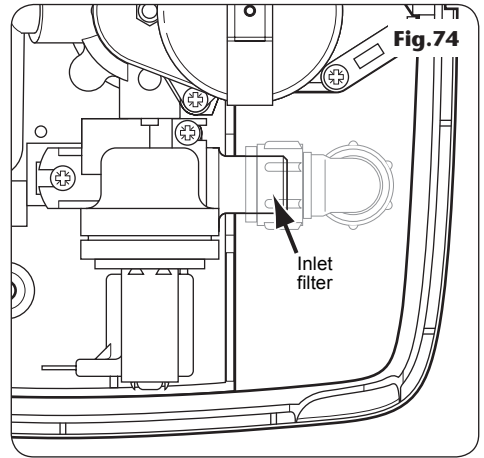
It is recommended that the filter is periodically cleaned in order to maintain the performance of the shower. It is essential that this operation is carried out by a competent person.

SWITCH OFF THE ELECTRICITY SUPPLY AT THE MAINS.

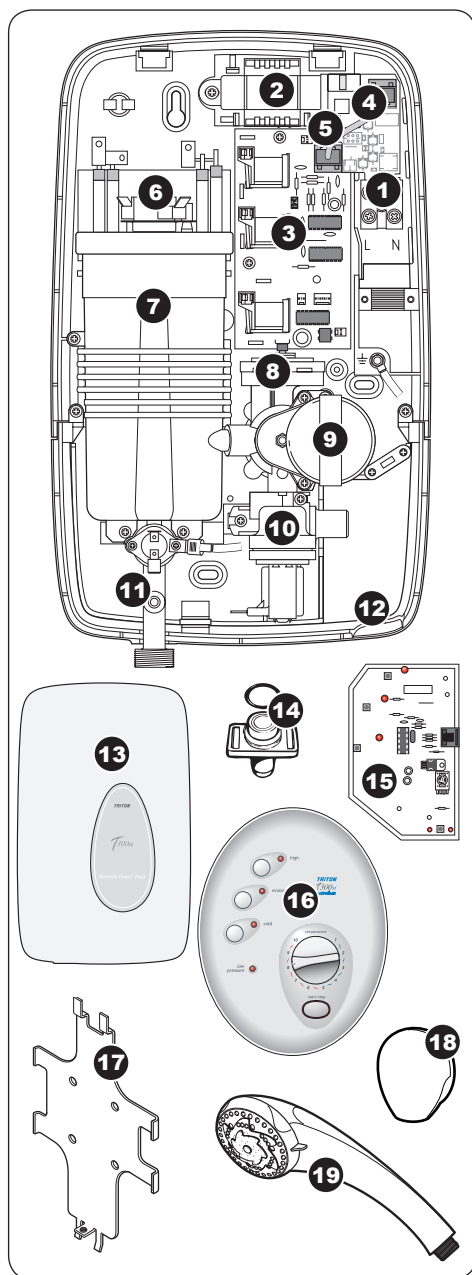
The inlet filter is situated inside the solenoid inlet (**Fig.74**).

To gain access to the filter, remove the cover then disconnect and remove the compression fitting. Also, depending on the incoming pipework arrangements, if there is not enough slack in the pipework, it could mean the removal of the unit from the wall.

When cleaning the filter, **DO NOT** use a sharp object, as it will cause damage. It is preferable to use an old toothbrush or similar.



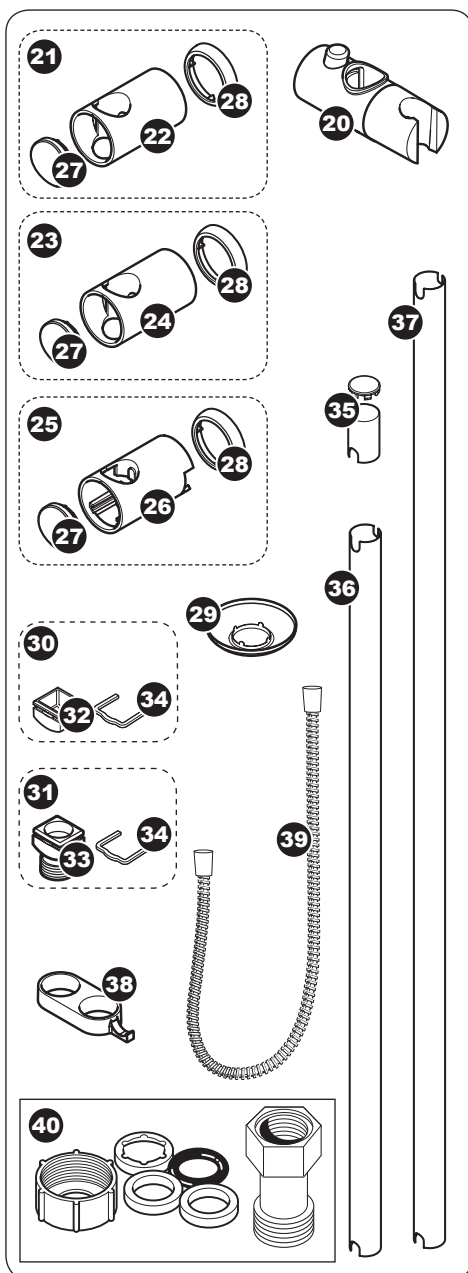
SPARE PARTS



Ref.	Description	Part No.
1.	Terminal block	
	9.5kW	82200800
	10.5kW	82200850
2.	Transformer	22005020
3.	Remote pack PCB	
	9.5kW	7072570
	10.5kW	7072985
4.	RF module	7073501
5.	RF data cable	P15310901
6.	Thermal cut-out (main)	22009860
7.	Heater can assembly	
	9.5kW	84500290
	10.5kW	84500670
8.	Stabiliser valve assembly	82600780
9.	Stepper motor	82300170
10.	Solenoid valve	83304130
11.	Outlet pipe assembly	85000100
12.	Trimplate	7051754
13.	Remote pack cover	85200030
14.	PRD & 'O' ring	83301330
15.	Control panel PCB	7073500
16.	Control panel assembly	87400130
17.	Control panel mounting bracket	7012512
18.	Bulkhead assembly	85500230
19.	5 mode showerhead	22011130
	- Wire set	83306410

SPARE PARTS

Ref. Description	Part No.
20. Showerhead holder	83308410
21. Bridging bracket assembly (bracket, end trim & trim ring)	83309970
22. Bridging bracket	83309450
23. Guide bracket assembly (bracket, end trim & trim ring)	83309980
24. Guide bracket	7053477
25. Bottom bracket assembly (bracket, end trim & trim ring)	83309990
26. Bottom bracket	7053476
27. Bracket end trim	83308400
28. Bracket trim ring	7053478
29. Ceiling trim	22011350
30. Blanking plug & retaining clip	83310000
31. Hose connector & retaining clip	83310010
32. Blanking plug	7053480
33. Hose connector	7053479
34. Retaining clip	7053481
35. Riser rail section – 40mm and end trim	7033485
36. Riser rail section – 700mm	7033495
37. Riser rail section – 940mm	7033484
38. Hose retainer	83308430
39. Flexible hose	28100010
40. Heated water pipe fittings kit	83304290
– All thread fitting	7032915
– PRD tube (clear)	22010210
– Heated water pipe 2m (white)	22011390
– Heated water pipe 3.3m (white)	22010200
– 10mm push fit elbow	22011380



FAULT FINDING

IMPORTANT: Switch OFF the electricity at the mains supply and remove the circuit fuse before attempting any fault finding inside the unit.

Problem/Symptom	Cause	Action/cure
1 Shower inoperable, no water flow.	1.1 Interrupted power supply.	1.1.1 Blown fuse or circuit breaker. Check supply. Renew or reset fuse or circuit breaker. If it fails again, consult a qualified electrician. 1.1.2 Power cut? Check other appliances and if necessary, contact local Electricity Supply Company.
	1.2 Unit malfunction.	1.2.1 Have unit checked. Ring Customer Service.
2 Water too hot.	2.1 Not enough water flowing through the shower.	2.1.1 Increase the flow rate via temperature control. 2.1.2 Blocked showerhead — clean or replace blocked sprayplate/cartridge.
	2.2 Blockage in supply.	2.2.1 Check if stop taps are fully open. Check if blockage in inlet filter.
	2.3 Increase in ambient water temperature.	2.3.1 Switch to economy power setting and readjust flow rate to give required temperature.
3 Water temperature cycling hot/cool at intervals.	3.1 Heater cycling on outlet thermal cut- out.	3.1.1 See 'Water too hot' causes 2.1, 2.2 and 2.3 and their appropriate action/cures. If it continues, contact Customer Service.
4 Water too cool or cold.	4.1 Too much flow.	4.1.1 Reduce the flow rate via temperature control.
	4.2 Water pressure below minimum stated on rating label.	4.2.1 Check low pressure indicator. If lit, continue with remainder of checks. If not lit, see 4.1 & 4.4.
		4.2.2 Is water supply mains or tank fed?
		4.2.3 If tank fed, replumb to mains water supply or see 4.2.5.
		4.2.4 If mains fed, make sure that mains stopvalve is fully open and that there are no other restrictions in the supply while shower is in use, or see 4.2.5.
		4.2.5 Fit a pump to give minimum pressure — contact Customer Service for advice.
4.3 Reduction in ambient water temperature.	4.3.1 Switch to full power setting and readjust the flow rate via the temperature control to give required temperature.	
4.4 Electrical malfunction or safety cut-out has operated.	4.4.1 Have unit checked by suitably qualified electrician or contact Customer Service.	

FAULT FINDING

Problem/Symptom	Cause	Action/cure
5 Cold indicator light on and low pressure indicator light flashing.	<p>5.1 Purge pin not placed correctly.</p> <p>5.2 Low water pressure.</p>	<p>5.1.1 Isolate the electricity supply. Remove remote pack cover and place purge pin on one pin only.</p> <p>5.2.1 Wait until the water pressure resumes to normal (flashing low pressure indicator extinguishes).</p> <p>5.2.2 Check if stop taps are fully open. Check if blockage in supply pipe.</p>
6 Temperature varies from normal to cold intermittently during showering.	6.1 Water pressure dropped below minimum required (indicator flashing).	6.1.1 Wait until the water pressure resumes to normal (flashing low pressure indicator extinguishes).
7 Pressure relief device has operated (water ejected from PRD tube).	<p>7.1 Blocked showerhead.</p> <p>7.2 Twisted/blocked flexible shower hose.</p> <p>7.3 Showerhead not removed while commissioning.</p>	<p>7.1.1 Clean or replace blocked sprayplate or cartridge and then fit a new PRD.</p> <p>7.2.1 Check for free passage through hose. Replace hose if necessary and then fit new PRD.</p> <p>7.3.1 Fit new PRD. Commission unit with showerhead removed.</p>
8. Low pressure indicator light flashing every 4 seconds.	8.1 Batteries running low.	8.1.1 Replace batteries.
9. Power on indicator flashes and unit switches itself off.	9.1 Interference with wireless signal.	9.1.1 Reassociate the control panel to the remote pack.



A **MORGROS** Company

Service Policy

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

- 1** Telephone Customer Service on +44 (0) 24 7637 2222 (+44 (0) 84 5762 6591 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 the unit must be fully installed for the call to be booked and the date confirmed. In order to speed up 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 ten 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 product's 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
Triton Road
Nuneaton
Warwickshire

CV11 4NR

TRITON STANDARD GUARANTEE

Triton Plc guarantee this product against all mechanical defects arising from faulty workmanship or materials for a period of two 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 by you or your resident family; *b*) wilful act or neglect; *c*) any malfunction resulting from the incorrect use or quality of water or incorrect setting of controls; *d*) faulty installation.
- 2** Repair costs for damage caused by foreign objects or substances.
- 3** Total loss of the product due to non-availability of parts.
- 4** Compensation for loss of use of the product or consequential loss of any kind.
- 5** Call out charges where no fault has been found with the appliance.
- 6** The cost of repair or replacement of pressure relief devices, showerheads, hoses, riser rails and/or wall bracket or any other accessories installed at the same time.
- 7** The cost of routine maintenance, adjustments, overhaul modifications or loss or damage arising therefrom, including the cost of repairing damage, breakdown, malfunction caused by corrosion, furring, pipe scaling, limescale, system debris or frost.

Customer Service: ☎ +44 (0) 24 7637 2222

Scottish and Northern Ireland

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Trade Installer Hotline: ☎ +44 (0) 24 7632 5491

Fax: +44 (0) 24 7632 4564

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