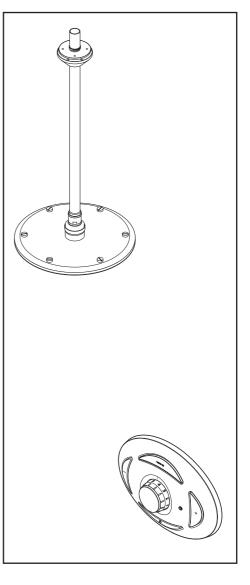




SATELLITES

High performance mixer shower with remote control



Installation instructions

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

UK SERVICE POLICY

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

- Telephone Customer Service on 0844 980 0750 having available, your details including post code, the model number and power rating of the product, together with the date of purchase.
- Based on information given over the telephone, a Triton Customer Service Advisor will attempt to diagnose the fault and confirm whether a site visit from a qualified service engineer is required.
- All products attended to by a Triton service engineer must be installed in full accordance with the Triton installation guide applicable to the product. (Every product pack contains an installation guide, however, they can also be bought via our Customer Service Spares Department).
- Our engineer will require local parking and if a permit is required this must be available to the engineer on arrival at the call.
- It is essential that you or an appointed representative (who must be over 18 years of age) is present for the duration of the service engineer's visit. If the product is in guarantee you must produce proof of purchase.
- 6. 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 or electrical/ plumbing installation fault) a charge will be made. A charge will also be issued if nobody is at home when the service engineer calls or adequate parking/permit is not available.
- 7. If the product is no longer covered by the guarantee an up front fixed fee will be charged before the site visit.
- 8. Should proof of purchase not be available on an "in-guarantee" call, or should the service engineer find that the product is no longer under guarantee, the engineer will charge the same fixed price and the customer will be expected to pay the engineer before he leaves. If payment is not made on the day an administration charge will be added to the fixed charge.
- If a debt is outstanding from a previous visit, or from any other Triton purchase. Triton reserves the right to withhold service until the debt has been settled.
- 10. Triton takes the health, safety and wellbeing of its employees very seriously and expects customers to treat all staff members with respect. Should any employee feel threatened or receive abuse, either verbally or physically, Triton reserves the right to withhold service and will support the employee with a legal prosecution.

Replacement Parts Policy

Availability: It is the policy of the manufacturer to maintain parts availability for the duration of production and a period of five years thereafter, in accordance with industry standards.

Spare parts are available via our website, **www.tritonshowers. co.uk**, or by telephoning Triton Customer Service Spares Department. Payment should be made by credit/debit card (*excluding American Express or Diners Card*).

Payment can also be made by pre-payment of a pro forma invoice by cheque or money order.

Triton Showers Triton Road Nuneaton Warwickshire CV11 4NR

Triton is a division of Norcros Group (Holdings) Limited

TRITON STANDARD GUARANTEE

Triton guarantee this product against all mechanical defects arising from faulty workmanship or materials for a period of five 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. 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:

- 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 electricity, gas or water or incorrect setting of controls; d) failure to install in accordance with this installation guide.
- 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.** Call out charges where the water supply cannot be isolated, this includes consequential losses arising from unserviceable supply valves.
- 7. The cost of repair or replacement of pressure relief devices, showerheads, 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.
- 8. 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: 🕿 0844 980 0750

Trade Installer Hotline: 🕿 0844 980 0730 Fax: 0844 980 0744

www.tritonshowers.co.uk

E-mail: serviceenquiries@tritonshowers.co.uk

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1 PLUMBING NOTES

- **1.1** All installations must comply with Water Regulations or Water Bylaws.
- **1.2** Supply pipes must be flushed to clear debris before connecting the mixing unit.
- **1.3** 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.
- **1.4** DO NOT use excessive force when making connections to the mixing unit.
- **1.5** DO NOT choose a position where the shower will become frozen.
- **1.6** DO NOT connect this mixing unit to any form of tap or fitting not recommended by the manufacturer.
- **1.7** The showerhead or other approved Triton device MUST be regularly cleaned to remove scale and debris.
- **1.8** 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, please contact Customer Service.
- **1.9** DO NOT operate the mixing unit outside the guidelines as laid out in 'site requirements' and 'specifications'.

Low pressure unit only

- **1.10** DO NOT connect the low pressure mixing unit to the mains water supply as this would damage the unit.
- **1.11** When installed, the top of the low pressure mixing unit must be at least 100 mm lower than the base of the cold water cistern to prevent the unit running dry.
- **1.12** A dedicated cold water supply must be taken directly from the cold water cistern to the mixing unit. This drawoff must be on the opposite side of the cistern to the float operated valve to reduce the risk of air entering the unit.

- 1.13 The cold water cistern should hold at least 115 litres (25 gallons). If other outlets are served from the cistern the capacity should be increased to 230 litres (30 gallons).
- **1.14** Do not connect to a combination cylinder unless the minimum cold storage can be achieved as the shower can deliver up to 16 litres/min.
- **1.15** The infill to the cistern should be checked to ensure an adequate infill rate occurs.

2 ELECTRICAL NOTES

- 2.1 The installation must comply with BS 7671 'Requirements for electrical installations' (IEE wiring regulations). Make sure metal incoming hot and cold water supplies to the mixing unit are adequately earth bonded.
- **2.2** DO NOT turn on the electrical supply until the plumbing connections have been completed. Only then can the electricity be switched on in order to power the solenoid to turn water on to the mixing unit when commissioning. The mixing unit must not be operated dry without water.
- 2.3 The mains supply must be 230/240V, at 50Hz, connected to the unit via a 5 Amp fused connection unit (not supplied).
- 2.4 In accordance with 'The Plugs and Sockets etc. (Safety) Regulations 1994', this unit is intended to be permanently connected to the fixed electrical wiring of the mains system. All external connections must be safely secured.

If the mixer is to be installed within a bath or shower room the electrical installation MUST conform to Part P Building Regulation Requirements for Special Locations.

INTRODUCTION

This book contains all the necessary installation instructions for your mixing unit – 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.

The shower MUST NOT be subjected to water temperatures above $65^{\circ}C$.

The low pressure mixing unit is designed for use with a traditional low pressure 'gravity' system, using a cold water cistern and hot water cylinder, up to a maximum of 1 bar running pressure.

The high pressure mixing unit is designed for use with high pressure systems up to a maximum of 5 bar running pressure. The mixing unit is suitable for fully modulating type combination boilers and multipoint hot water heaters. It is also suitable for thermal storage and unvented systems.

IMPORTANT: Before installing with a gas instantaneous water heater, make sure it is capable of delivering hot water at a minimum switch-on flow rate 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 to a minimum of 52°C. Water temperature at the mixer inlet must remain relatively constant when flow rate adjustments are made (refer to the water heater operating manual to confirm compatibility with this mixer shower).

STANDARDS AND APPROVALS

The mixing unit is an independently mounted electronic control.

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

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

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

Pollution degree	2
Rated impulse voltage	2.5 kV
Suitable for drinking?	Not suitable

SITE REQUIREMENTS

The installation must be in accordance with Water Regulations and Bylaws.

DO NOT connect the mixing unit to a gravity hot supply and a mains cold supply (or vice versa).

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

BS 6700 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 effects of scale in hard water areas.

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

SPECIFICATIONS

	Low pressure unit	High pressure unit
Duty cycle	30 minutes on 30 minutes off	30 minutes on 30 minutes off
Electrical		
Mains supply Current	230V 50Hz 5 Amps	230V 50Hz 5 Amps
Water		
Inlet connections Outlet connections	15 mm push-fit connectors 15 mm push-fit connectors	15 mm push-fit connectors 15 mm push-fit connectors
Water pressures		
Maximum static	1.0 bar (10 m head)	10 bar (100 m head)
Maximum running	1.0 bar (10 m head)	5.0 bar (50 m head)
Minimum running	0.01 bar (0.1 m head)	1.0 bar (10 m head)
Water temperature requirements		
Maximum hot water	65°C	65°C
Minimum hot water	52°C	52°C
Maximum cold water	20°C	20°C
Temperature adjustment range	35 to 47°C 35 to 47°C (Max. temperature can be adjusted to 41°C setting	
Material		
Backplate, cover	ABS	ABS
Dimensions (in millimetres)		
Height	210	210
Width	355	355
Depth	100	100
Splashproof rating	IPX4	IPX4

GENERAL INSTALLATION NOTES

The following notes are given as the suggested steps for installing the Satellites mixer shower and remote control:

1. Site survey

Determine the position of all parts of the shower (kit, mixing unit and control) before starting the installation.

2. Fit the mixing unit

3. Install the appropriate riser rail

Having determined the position of the mixing unit, decide on which riser rail kit to use.

Note: If not installing the kit supplied, please refer to alternative kit installation instructions before routing any pipework and electrical cables.

4. Install the pipework and plumbing

Run the pipework from the mixing unit to the chosen outlet. Connect the inlet pipework, the outlet pipework and then the outlet fittings.

5. Electrical connections

Connect the mixing unit to the electrical supplies.

6. Register the remote control panel

Register the control panel to the mixing unit.

7. Commission the unit

Commission the shower and select the desired feature settings.

8. Fit the control panel to the wall.

Install the remote control panel wall mounting bracket within the showering area. Fit the control panel onto the bracket.

9. Operation

Operate the shower and set preferred flow settings.

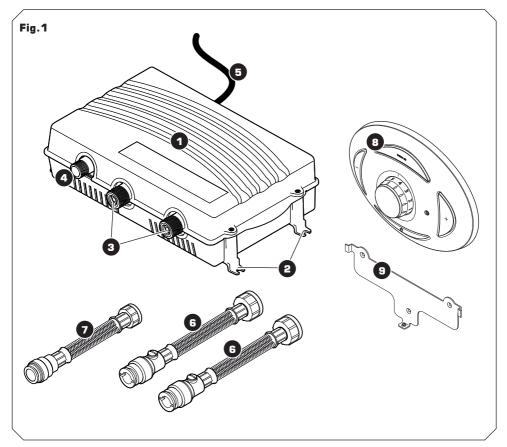
PROFESSIONAL INSTALLER NOTES

In commercial premises metallic surfaces e.g. metal ceiling panels, metal ducting and metallic insulating materials may block wireless transmissions from the remote control panel and prevent correct operation of the shower.

Please contact Triton's Specification Advisory Service on: 0844 980 0730 for guidance on commercial installations and if necessary make arrangements for a site survey.

ATELLITES by TRITON

MAIN COMPONENTS



Mixing unit & remote control unit (Fig.1)

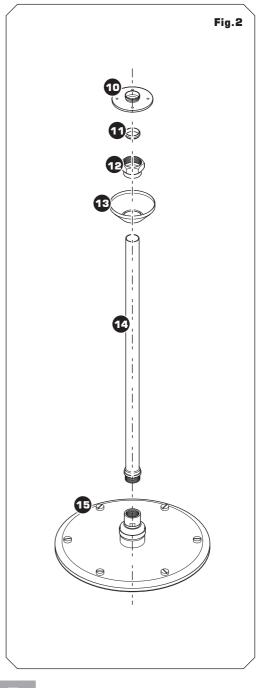
- 1. Cover
- 2. Screw fixing point
- **3.** Water entry points (Blue = Cold, Red = Hot)
- 4. Outlet
- 5. Mains electrical wire

- **6.** 15 mm push-fit inlet connectors
- 7. 15 mm push-fit outlet connector
- 8. Sirona remote control unit
- 9. Mounting bracket

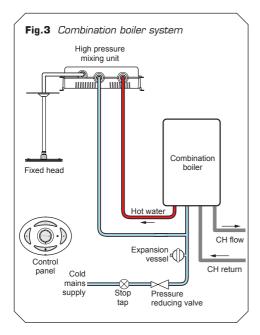
SATELLITES by TRITON

Cyrene ceiling arm kit (Fig.2)

- **10.** Ceiling arm mounting plate
- **11.** Olive
- 12. Locking nut
- 13. Ceiling trim
- 14. Ceiling arm
- 15. Emily fixed showerhead



TYPICAL SUITABLE INSTALLATIONS



a) High pressure system -Instantaneous gas-heated systems, e.g. combination boilers (Fig.3)

The high pressure mixing unit MUST be installed with a multipoint gas water heater or combination boiler of a fully modulating design (i.e. to maintain relatively stable hot water temperatures).

A drop tight pressure reducing valve MUST be fitted if the supply pressures exceed 5 bar running.

An expansion vessel (shown in **Fig.3**) MUST be fitted, and regularly maintained, to prevent the shower being damaged by excess pressures. This may already be installed within the boiler (check with manufacturer) and is in addition to the normally larger central heating expansion vessel.

The layout and sizing of pipework MUST be such that nominally equal inlet supply pressures are achieved and the effects of other draw-offs are minimised.

If using the 'WARM UP' feature of the control unit with a instantaneous water heater appliance the user may experience a brief temperature variation upon restart. This is due to the way in which a combi-boiler operates, such that the boiler will turn off after the warm up process has been completed. When restarted, the mixing unit will release a cold slug of water followed by a hot slug as the hot water supply stabilises.

IMPORTANT: If the combi-boiler is a stepmodulating type (i.e. it does NOT provide a stable output temperature under changing flow rates) then the 'Flow regulation' setting (Dip Switch 4) MUST be left set to 'ON'. See 'Commissioning'.

Instantaneous water heater appliance capabilities

In order to provide the best performance from the high pressure mixing unit when

connected to an instantaneous water heater, the appliance must be capable of raising the temperature of the incoming water to a minimum of $52^{\circ}C$ ($125^{\circ}F$) and delivering a flow rate of not less than eight litres per minute.

b) High pressure system -Unvented mains pressure systems (Fig.4)

The high pressure mixing unit MUST be installed with an unvented, stored hot water cylinder.

For systems with no cold water take off after the appliance reducing valve, it will be necessary to fit an additional drop tight pressure reducing valve when the mains pressure is over 5 bar. The drop tight pressure reducing valve must be set at the same value as the unvented package pressure reducing valve.

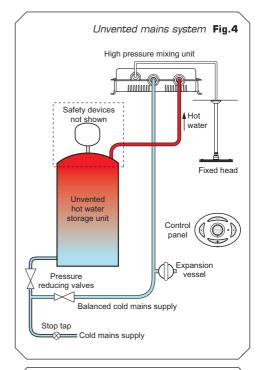
Note: An additional expansion vessel **(Fig.4)** may be required if a second pressure reducing valve is installed. This does not apply to packages with a cold take off after the pressure reducing valve to the cylinder.

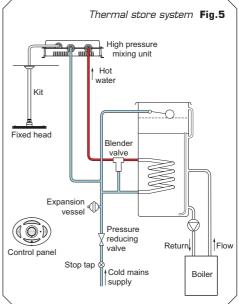
The layout and sizing of pipework MUST be such that nominally equal inlet supply pressures are achieved and the effects of other draw-offs are minimised.

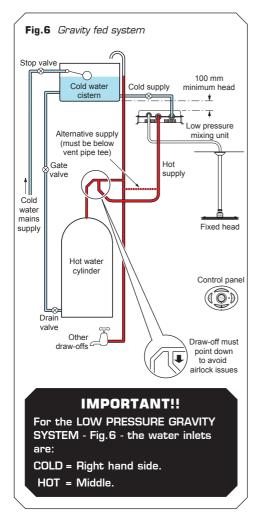
c) High pressure system -Mains pressurised thermal store systems (Fig.5)

The high pressure mixing unit, fitted with a tempering valve (blender valve), can be used. A drop tight pressure reducing valve must be fitted if the supply pressures exceed 5 bar running.

An expansion vessel (shown in **Fig.5**) must be fitted, and regularly maintained, to ensure the unit is not damaged by excess pressures. This may already be installed externally or internally within the thermal store (check with thermal store manufacturer).







d) Low pressure system -Gravity fed systems (Fig.6)

The low pressure mixing unit MUST be fed from a cold water cistern and hot water cylinder providing nominally equal pressures.

For the operation of the shower only, it is recommended that the cold water storage cistern is capable of holding at least 114 litres (25 gallons). Where other hot and cold outlets are likely to be in use simultaneously, the storage capacity should be increased to 228 litres (50 gallons) in accordance with BS 6700.

IMPORTANT: If the hot water drawoff is incorrectly positioned, air may be drawn into the hot supply from the vent pipe causing spluttering, temperature fluctuations at the showerhead.

Any draw-off for the mixer unit must point DOWN (to avoid air-lock problems) and must be BELOW the vent pipe tee.

Failure to correctly position the draw-off will result in poor performance or other problems with the mixing unit.

IMPORTANT: The minimum head for operation of the mixer unit is 100 mm. For correct operaton the mixing unit must not be sited more than 5 metres away from the hot water cylinder.

SITING OPTIONS

Refer to Fig.7 and Fig.8 for correct siting of the shower.

Position the control panel within 10 metres of the mixing unit, where it will NOT be in direct contact with water from the showerhead or any other Triton approved device. Position the mixing unit such that it 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 25 mm above the spill-over level of the relevant bath, shower tray or other fixed appliance'. The use of a hose retainer will usually meet this requirement, but if the showerhead can be placed within a bath, basin or shower tray, then a single check valve, or a similar device must be fitted in the outlet pipework to prevent back-flow.

Rear entry supply

The mixing unit is mounted behind an adjoining wall with a heated water pipe running to a bulkhead (**Fig.7**). Uses a standalone riser rail assembly.

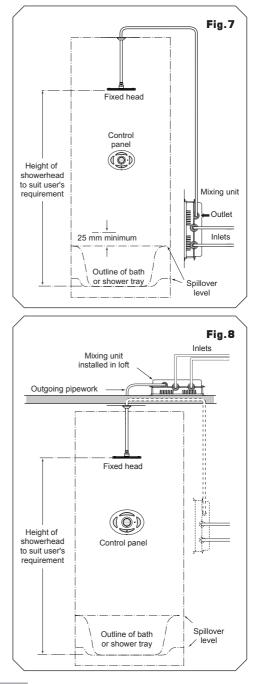
Falling supply

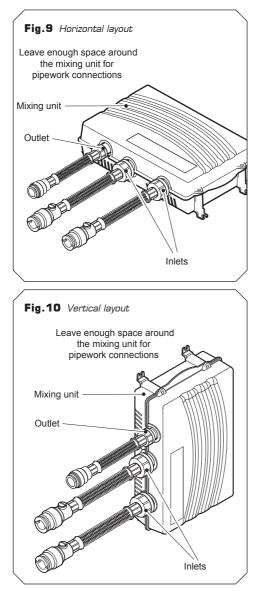
Here the mixing unit is installed in the loft or behind an adjacent wall with the heated water pipe running down the inside of the riser rail. The water outlet is at the bottom of the riser rail (**Fig.8**).

Note: If the mixing unit is installed in the loft it is advisable to install above a catchment tank fitted with an overflow warning pipe. This will ensure that in the unlikely event of leakage from the mixing unit it will not go unnoticed.

IMPORTANT: Leave enough space around the mixing unit to allow for the incoming and outgoing pipework fittings and connections.

Having selected one of the fitting options position the control panel and showerhead on the wall so that all controls can be reached comfortably when using the shower.





INSTALLATION

Positioning the mixing unit

The mixing unit MUST only be positioned as shown.

The mixing unit can be mounted on a horizontal surface in any orientation (**Fig.8**).

When mounting on a vertical surface the mixing unit outlet MUST be at the top (**Fig.9**). Failure to position the unit correctly will result in a significant reduction in performance.

Note: If the mixer is to be mounted in a loft or airing cupboard where the ceiling or wall has metallic backing on the plasterboard then it may be necessary to remove a small section of the metallic backing to enable communication between the control panel and the mixing unit.

Removing an area of about 50 cm x 50 cm of the metallic backing from the ceiling or wall immediately above or behind where the control panel is mounted should be sufficient to enable correct communications.

Note: It is advisible to position the control panel and bracket on the wall to confirm correct communications before starting any drilling and fixing of the unit.

PROFESSIONAL INSTALLER NOTES

In commercial premises metallic surfaces e.g. metal ceiling panels, metal ducting and metallic insulating materials may block wireless transmissions from the remote control panel and prevent correct operation of the shower.

Please contact Triton's Specification Advisory Service on: 0844 980 0730 for guidance on commercial installations and if necessary make arrangements for a site survey.

Note: If mounting the mixing unit in a loft it is worth considering building a catchment tank with an overflow pipe directed to an external point. In the unlikely event of a problem occurring with the mixing unit this will give a visual indication of any failure.

Fitting the showerhead

Decide the position for the ceiling arm on the ceiling within the shower area.

Position the mounting plate on the ceiling. Mark the centre hole and the four securing holes on the ceiling (**Fig.11**). Using a 26 mm cutter, drill the ceiling opening.

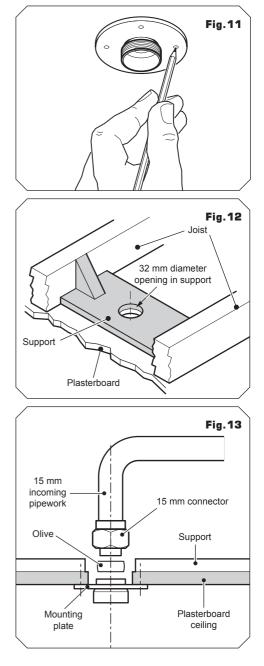
Note: The installer may wish to consider building a support **(Fig.12)** or similar within the loft space to provide extra support for the ceiling arm and associated pipework.

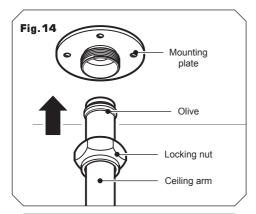
Insert the mounting plate onto the opening and secure using the screws supplied.

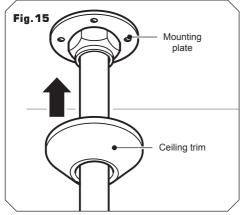
Plumbing connections

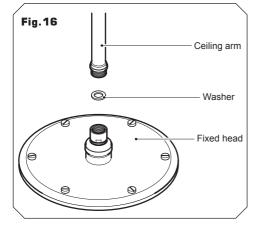
Complete the outlet pipework running from the mixing unit into the top of the mounting plate and finish the installation using an olive and a 15 mm connector (**Fig.13**).

IMPORTANT: Before completing the connection of the water supply to the ceiling arm flush out the pipework to remove all swarf and system debris.









Fitting the ceiling arm

Wrap the exposed thread on the mounting plate with PTFE tape.

Slide the locking nut and olive onto the ceiling arm. Insert the ceiling arm into the mounting plate and slide the olive up to the plate base. Screw the locking nut onto the mounting plate and tighten to secure the ceiling arm in position (**Fig.14**).

Slide the ceiling trim over the arm up to the ceiling and push fit onto the mounting plate (**Fig.15**).

Screw the fixed showerhead to the arm, making sure the supplied washer is in place **(Fig.16)**.

IMPORTANT: Make sure all pipework connections to and from the mixing unit have been completed before connecting to the outlet.

Fitting the mixing unit

Decide on the position for the mixing unit; see **Fig.17** and **Fig.18**. Position the mixing unit in a dry, well ventilated area.

Mark the four locating points for the base.

Drill and plug the wall.

(An appropriate drill bit should be used. If the wall is brick, plasterboard or a soft building block, appropriate wall plugs and screws should be fitted).

Secure the mixing unit in position.

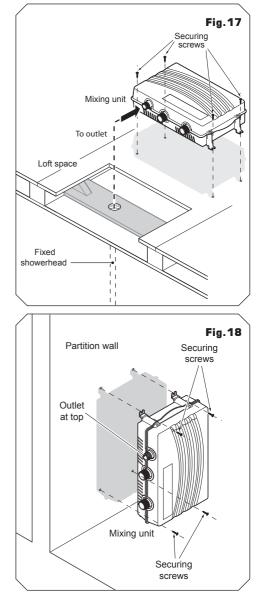
The mixing unit MUST always be positioned either flat on a suitable surface or on a wall so that there is easy access for installation and maintenance.

IMPORTANT: If wall mounting the mixing unit the outlet MUST always be at the top (**Fig.18**).

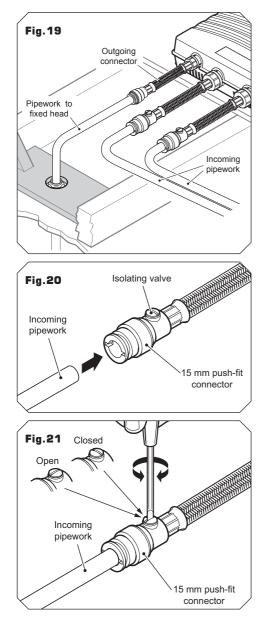
IMPORTANT: Before drilling holes in the ceiling or wall surface make sure there is enough clearance above the ceiling to accommodate the entry of the riser rail and heated water pipe.

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

- **a.** There must be no risk of the mixing unit or heated water pipe becoming frozen.
- b. The mixing unit 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 mixing unit MUST be installed in an accessible and safe location.
- Ceiling joists MUST be adequately boarded to provide safe and unobstructed access to, from and around the mixing unit.
- f. There MUST be adequate lighting in the loft for servicing purposes.



PLUMBING CONNECTIONS (Plumbing to be carried out before wiring)



Incoming plumbing connections

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.

Fig.19 shows the plumbing connections layout.

Procedure

Turn off the water supplies either at the mains stopvalve or the isolating stopvalve.

Having decided on the position of the unit and direction of pipe entry, complete the pipework to the mixing unit.

Insert the incoming pipework into the 15 mm braided push-fit connectors (Fig.20).

IMPORTANT: The fittings on the inlet elbows are the push-in type. The pipework must be cut with a pipe cutter and all burrs and rough edges removed from the end of the tube. The fittings can be used with copper and plastic pipe.

If using chrome plated copper pipe, remove the first 25 mm of plating completely from the connecting surfaces. If not completely removed then the collet will not grip the pipe and under pressure the pipe may be forced out.

IMPORTANT: Before completing the connection of the water supplies to the inlets of the mixing unit, flush out the pipework to remove all swarf and system debris. Check that the isolating valves on the inlet connectors are fully open (**Fig.21**). Turn on the water supplies to clear the debris to waste.

Check for leaks before connecting the pipework to the mixer.

Screw the two push-fit connectors (Fig.22) to the mixing unit inlets – cold to BLUE, hot to RED – as indicated on the mixing unit label. Make sure the filters are in place before fitting.

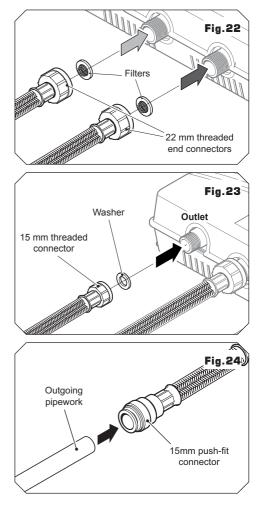
DO NOT use excessive force when making these connections.

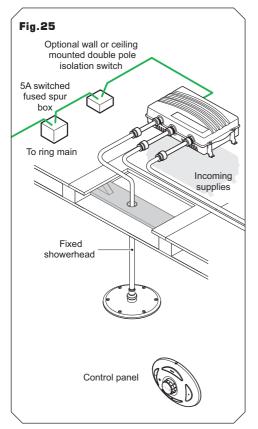
Note: The inlet connectors contain filters. These should be periodically removed and cleaned in order to maintain the performance of the shower. See section *'Cleaning'* on how to access the filters.

Outgoing plumbing connections

Screw the 15 mm threaded connector to the mixing unit outlet **(Fig.23)**. Make sure the washer is in place before fitting.

Insert the outlet pipework into the 15 mm braided push-fit connector (Fig.24).





WARNING!

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

ELECTRICAL CONNECTIONS

SWITCH OFF THE ELECTRICITY SUPPLY AT THE MAINS.

Connect the cable from the mixing unit to a 5 amp fused connection unit (**Fig.25**):

Earth cable marked	E	Green/yellow
Neutral cable marked	Ν	Blue
Live cable marked	L I	Brown

Note: if the mixing unit is to be installed within the bathroom beneath a bath or in an enclosed cupboard then the earth continuity of the installation must be effectively connected electrically to all exposed metal parts in the room or cupboard to conform with IEE regulations.

The disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.

If the supply cord is damaged, it must be replaced by the manufacturer, it's service agent or similarly qualified persons in order to avoid a hazard.

DO NOT switch on the electricity supply until the water has been turned on to the unit and connections have been tested for leaks.

REGISTERING THE SHOWER UNIT

Fitting the batteries

Remove the 2 screws securing the battery cover (Fig.26). Insert two AAA alkaline batteries into the control panel.

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

Registering

Before the shower can be used the control panel must be registered to the mixing unit. This will link the control panel to the specific mixing unit.

Note: This procedure MUST be carried out before fitting the battery cover and before fitting to the wall.

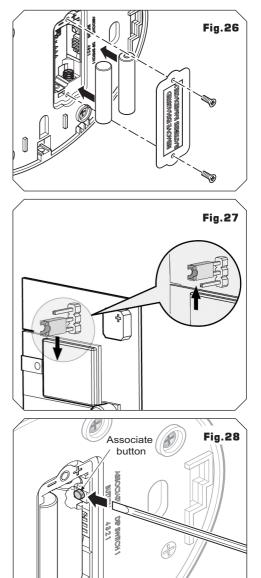
Turn on the water supplies to the shower. Switch on the electricity supply at the mains and then turn on the power to the mixing unit at the isolation switch.

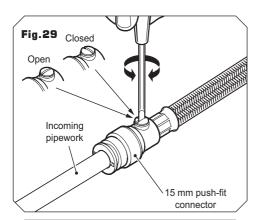
IMPORTANT: The mixing unit will start the registration procedure and will beep intermittently for about thirty seconds. Once the mixing unit has completed its registration procedure the intermittent beep will be replaced by a continual tone.

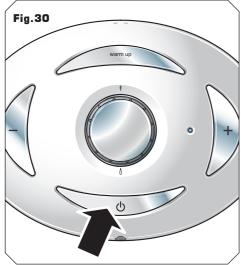
If the mixing unit does not beep, switch off at the mains supply and isolating switch, then remove the cover. To reset the module, move the pin connector across one pin (**Fig.27**). Refit the cover and switch on the power at the mains and isolating switch – the mixing unit will start its registration procedure.

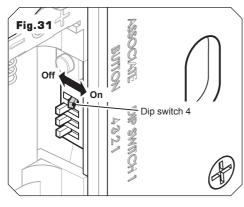
With the Satellite mixing unit emitting a continual tone, press and hold the 'Associate' button (Fig.28) until the LED on the control panel illuminates. Batteries need to be fitted for the Registering procedure to occur Release the button – the LED will remain illuminated.

When the continual tone stops the LED will extinguish. The control panel and mixing unit are now registered.









COMMISSIONING

Check that the isolating valves on the inlet connectors are fully open (**Fig.29**). Turn on the water supplies and check for leaks in the pipework to and from the unit.

The first operation of the shower is to ensure water is purged through the unit.

This operation must be carried out with suitable pipework attached to the shower outlet and with the outlet directed to waste.

The control panel is factory set in commissioning mode. To begin the commissioning procedure, press the 'START/ STOP' button (**Fig.30**). Allow the unit to run for two to three minutes to dispel any air in the system and to prime both supplies to the unit.

Press the 'START/STOP' button to stop the flow and isolate the electrical supply to the mixing unit.

Low pressure mixing unit only

To finalise the commissioning remove the batteries from the control panel and set dip switch 4 to the 'OFF' position **(Fig.31)**.

IMPORTANT: While the unit is in commissioning mode all other shower functionality will be locked out.

Dip switch settings

At this stage, the feature settings of flow, temperature and showering time can be selected using dip switches 1, 2 and 3.

Refer to **Table C** to determine the function of each dip switch.

Dip switch 1: Timer setting

Dip Switch 1 (Fig.32) allows selection between 20 minutes operation (OFF) and 10 minutes timed operation (ON) of the shower. Timed operation will set up the shower to run for a maximum of ten minutes before automatically shutting down.

Dip switch 2: Maximum temperature setting

Dip Switch 2 (Fig.32) sets the temperature to run between $35^{\circ}C - 47^{\circ}C$ (OFF) or between $35^{\circ}C - 41^{\circ}C$ (ON).

Dip switch 3: Eco flow setting

Setting Dip Switch 3 (Fig.32) to 'ON' sets the unit into 'Eco $\mathsf{FLow'}$ mode.

In 'Eco FLOW' mode the flow setting is set to a fixed flow rate (set by factory) and any adjustment of '+' button or '-' button will have no effect. Switching to this setting will also override any flow capping settings.

Dip switch 4: Flow regulation setting (Fully modulating combi-boilers and unvented mains systems only)

The control panel is supplied with Dip Switch 4 in the factory set flow position.

If Dip Switch 4 is left in the 'ON' position the 'Eco' flow and user '+/-' flow buttons will be locked out and the mixer unit will provide a fixed flow setting only.

To enable the 'Eco' flow or '+/-' flow buttons, set Dip Switch 4 to the 'OFF' position.

IMPORTANT: If the combi-boiler is a stepmodulating type (i.e. it does NOT provide a stable output temperature under changing flow rates) then Dip Switch 4 MUST be left in the 'ON' position.

Important notes on dip switches

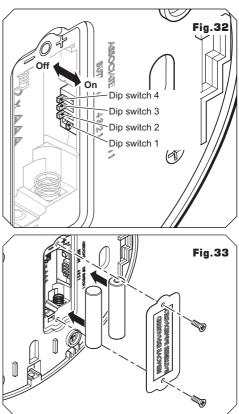
- 1. Dip Switch 4 overrides Dip Switch 3 at all times.
- **2.** Dip Switch 3 overrides flow control and flow capping is disabled.
- **3.** Dip Switch 4 'ON' is the normal running state for step modulating combi-boiler sites with HP units and also overrides the flow capping.

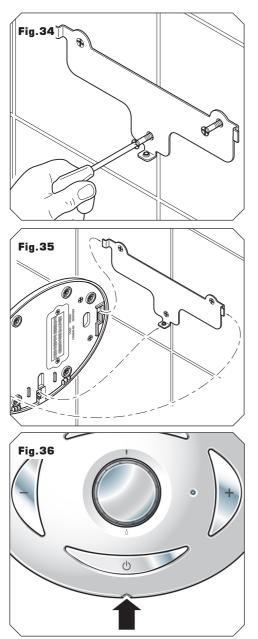
Having selected the preferred settings, refit the batteries, fit the battery cover **(Fig.33)** and turn the electrical supply back on.

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

Dip switch	Low pressure settings	High pressure settings
1 on 1 off	Run time set @ 10 Run time set @ 20	Run time set @ 10 Run time set @ 20
2 on 2 off	Temp range 35 - 41°C Temp range 35 - 47°C	Temp range 35 - 41°C Temp range 35 - 47°C
3 on	ECO mode set to 'ON'	ECO mode set to 'ON' if DIP 4 set to 'OFF'
3 off	Full flow control	Full flow control if DIP4 set to 'OFF'
4 on	Commissioning	Flow set at number 10 (combi flow)
4 off	Normal operation	Normal operation

Table C





INSTALLING THE CONTROL PANEL

Fitting the control panel bracket

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

Decide upon the location of the remote control. Align the mounting bracket on the wall and mark the location of the three fixing holes.

Drill and plug the wall.

(An appropriate drill bit should be used. If the wall is brick, plasterboard or a soft building block, appropriate wall plugs and screws should be fitted).

Secure the mounting bracket to the wall (**Fig.34**).

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

Fitting the control panel to the wall

IMPORTANT: Refer to the '*Registering* the Shower Unit', '*Commissioning*' and '*Operating functions*' sections before fitting the control panel to the wall.

Hook the control panel over the lugs on the mounting bracket (**Fig.35**) and slide into place. Secure with a single screw at the bottom of the control panel (**Fig.36**).

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

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INSTALLATION INSTRUCTIONS

EAULT FINDING

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Problem/Symptom Cause

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If the problem persists re-register the panel to the mixing unit. See installation registering the shower unit'	control	11.1 Interference with vireless signal.	LED indicator int base indicator find fact indicator
Fit new batteries.	r.r.or	pninnun seinettea r.or .wol	10 LED indicator light flashing every 4 seconds.
Check commissioning mode settings are . See 'Commissioning' for further details.		gninoissimmos ni tinu ۲.و Ande (LP unit orly).	9 No control over water flow or temperature.
Check available pressure and flow rates to er unit outlets.			
Check Dip Switch 4 is set to 'off'.	.təsən	ini lang pantol pang ini lang pang pang pang pang pang pang pang p	
Check capped settings and, if necessary,		oot egnittee beqqeo S.8	
Check Eco flow setting. See 'Operating or for further details.		8.1 Eco flow setting switched on.	.səter wolt wol 8
when other outlets are in use. Nait for stored water to reach normal Bestart the shower. If the problem s contact Customer Service.	7.2.7 / remper 7.3.1 /	7.2 Hot water supply temperature below 35°C. 7.3 Temporary loss of communication.	
Dheck water elsewhere in the house and, sary, contact the local water company. Dheck that water is available to the when other other are	if neces S.r. 7	7.7 Loss of either water .vlqquz	7 Shower stops after undefined time.
Restart the shower by pressing the button.		mumixem set naximum .emit gninework	6 Shower stops operating after twenty minutes.
Check timer setting. See 'Operating s' for further details.		Tim er operation witched on.	5 Shower stops operating after ten minutes.
ations' for minimum flow requirements. Check capped settings and, if necessary,		below minim stated on rating label. 4.5 Capped setting too low.	
Check if sufficient water pressure. See store: for minimum flow requirements		4.4 Water pressure	

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

Problem/Sympton Cause

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4.1.1 Inspect inlet filters. Clean if necessary. 4.2.1 Turn off the shower and consult a suitably competent plumber.	 I Blockage in supply. I Blockage in pipework. 	D
3.5.1 Prime to remove air from the mixim guixin. See 'commissioning'.	, hermal store). 3.5 Air lock in mixing unit LP only)	2 1
3.4.1 Cap the mumixem and the through the star. S.4.1 Cap the mixer See 'commissioning'.	bove maximum specified. hrough hot water ppliance (combi-boiler)	с С
muminim e ot anuteneture to a minimum s.2. Set system temperature to 50°C. of 50°C. 3.3.1 Fit pressure reducing valve.	S.S. Supply temperature .C. 50°C. S.3 Water pressure	- - -
2.1.1 Increase temperature via rotary temperature control. See 'operation'.	.wol oot anutenaqmaT 🔥 🕻	3 Water too cool
temperature control. See <i>'operation'.</i> 2.2.1 Set system temperature to a maximum of 65°C.	9.2 Supply temperature bove 65°C.	
Vistor sive and source and source for the source of the so	.Apid oot enuterequel 1.9	2 Water too hot.
typical suitable installation for details for the correct method of water connection). 1.6.1 Check water elsewhere in the house and, 1.6.1 Have unit checked by suitably qualified 1.7.1 Have unit checked by suitably qualified electrician or contact Customer Service.	reithe of either vater supply. V lqtu JinU (.1	٨
competent plumber. 7.5.1 Purge air from hot and cold supplies to the connectors on the mixer unit. (Refer to	ι.5 Air lock in water μομοιές (LP unit only).	
1.3.1 Check if isolating valves are fully open. Check if blockage in inlet filters. A.1 Turn off the shower and consult a suitably	nanel need replacing. 1.3 Blockage in pipework. 1.4 Blockage in pipework.	•
aupply. 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. 7.2.1 Fit new batteries.	ylqqu; Batteries in control	wolf 19w.
PLACE Blown fuse or circuit breaker. Check	newoq betqunetal r.i	

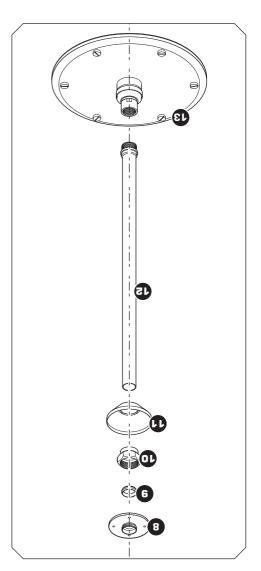
4.3 Blocked showerhead.4.3.1 Clean or replace blocked sprayplate/ cartridge.

STAAG 3AAG2

.oN theq	Description	.†9Я
00601828	Abalq gnitnuoM	.8
01601558	əvilo mm Əf	'6
83310950	Locking nut	.0r
05601558	mint gniliaD	٦٦.
83310940	mna gniliaD	.Sr

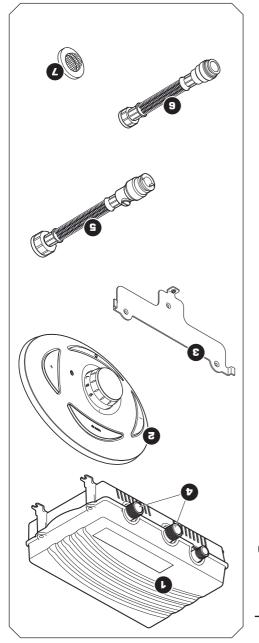
90000988

13. Emily fixed showerhead



STAAG 3AAG2

.oN theq



Description	.†9Я

A14430500	Control panel	.ς
214430200 214430201	Mixing unit Low pressure High pressure	٦.

Control panel wall bracket 7013533 3'

- 83311080 Check valve (in inlets) 'Þ
- (nieq) 06011558 Flexible hose – incoming ...B
- Flexible hose outgoing 00111888 '9
- 01111558 7. Inlet filter

3. Dip Switch 4 'OV' is the normal running state for step modulating combi-boiler sites with HP units and also overrides the flow capping.

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

NPORTATT: The shower should ALWAYS The shower should ALWAYS be switched off at the START/STOP button before isolating at the electrical isolating switch. Failure to do so will cause the LED indicator to flash for thirty seconds and stay lit for another thirty seconds before extinguishing.

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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.

OLEANING

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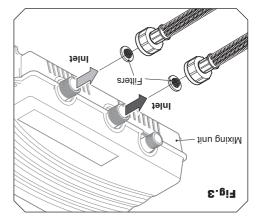
Turn off the water supplies before starting.

To gain access to the filters unscrew the inlet connectors from the mixing unit.

Remove the filter from the connector (Fig.3) and wash the filter thoroughly under running water to remove all debris. Replace the filter into the recess in the cap and screw the connector back into each inlet.

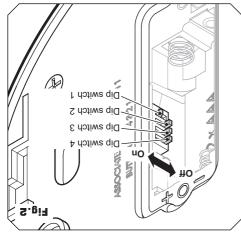
Cleaning the check valves

Should debris enter the check valves in the inlets causing cross flow through the unit it will be necessary to remove the check valves and, if required, replace them.



High pressure settings	Low pressure Low pressure	Dip Dip
01 @ tes emit nuA 02 @ tes emit nuA	01 @ tes emit nuA 02 @ tes emit nuA	no ľ Ťo ľ
7°N - 35 - 41°C 7°Ch - 35 - 41°C	7°C - 41°C Temp range 35 - 41°C	no S 110 S
ECO mode set to 'ON' if DIP 4 set to 'OFF' Full flow control if	'NO' ot tes ebom 003	no 6 110 6
OIP4 set to 'OFF'		
Flow set at number 10 (combi flow)	pninoizzimmoJ	no 4
Normal operation	Normal operation	4 011

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HING! Always isolate the electrical store replacing the batteries. d

IMPORTANT: If the combi-boiler is a stepmodulating type (i.e. it does NOT provide a stable output temperature under changing flow rates) then Dip switch 4 MUST be left in the 'ON' position.

SONITTAS ARUTAAA

Refer to **Table C** to determine the function of each dip switch.

Dip switch 1: Timer setting

Dip Switch 1 (Fig.58) allows selection between 20 minutes operation (OFF) and 10 minutes timed operation (ON) of the shower Timed operation will set up the shower to run for a maximum of ten minutes before automatically shutting down.

Dip switch 2: Maximum temperature setting Dip Switch 2 (Fig.58) sets the temperature to run between 35°C - 47°C (OFF) or between 35°C - 41°C (ON).

Dip switch 3: Eco flow setting

Setting Dip Switch 3 (Fig.58) to 'ON' sets the unit into 'Eco Frow' mode.

In 'Eco Flow' mode the flow setting is set to a fixed flow rate (set by factory) and any adjustment of '+' button or '-' button has no effect. Switching to this setting will also override any flow capping settings.

Dip switch 4: Commissioning setting (Low pressure only)

The control panel is factory set to the commissioning procedure Dip Switch 4 the commissioning procedure Dip Switch 4 must be turned 'OFF'.

Dip switch 4: Flow regulation setting (Fully modulating combi-boilers and unvented mains systems only)

The control panel is supplied with Dip Switch 4 in the factory set flow position.

If the Dip Switch 4 is left in the 'ON' position the 'Eco' flow and user '+/-' flow buttons will be locked out and the mixer unit will provide a fixed flow setting only.

To enable the 'Eco' flow and '+/-' flow buttons, set Dip Switch 4 to 'OFF'.

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- 1. Dip Switch 4 overrides Dip Switch 3 at all times.
- Dip Switch 3 overrides flow capping and flow capping is disabled.

RESTRICTING THE UNIT

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The maximum flow of the mixing unit may be restricted below the default settings: Press and hold the 'WARM UP' and '+' button for five seconds. The LED will light up to

show the control panel is in capping mode. To alter the flow press repeatedly either the '+' button or '-' button, until the desired

Once the flow has been adjusted, press and hold the 'WARM up' button for a further five seconds. At this point, the LED indicator will go out and the maximum flow setting has been capped.

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flow is achieved.

The minimum flow of the mixing unit may be restricted above the default settings:

Press and hold the 'MAW' op' and the '—' button for five seconds. The LED will light up to show the control panel is in capping mode.

To alter the flow press repeatedly either the '+' button or '--' button.

Once the flow has been adjusted, press and hold the 'WARM up' button for a further five seconds. At this point, the LED indicator will go out and the minimum flow setting has been capped.

Note: To reset the maximum and minimum flow settings to the factory defaults, enter and exit capping mode without making any adjustments.

Note: If the capping operation has not been set after five minutes, the control panel will return to its normal operation.

> **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 rate and the water reaching the stable temperature for that flow rate.

WARNING!

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play ensure that they do not play with the appliance.

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The water temperature is altered using the rotary temperature control (Fig.1).

Rotate the control clockwise; this will increase the temperature of the water up to a maximum at '10' which corresponds to 47°C (41°C if the feature setting has been selected).

Rotate the rotary control anti-clockwise; this will decrease the temperature of the water down to a minimum of '1'. This corresponds to a temperature of 35°C.

Rotating the temperature control fully anticlockwise to the % position will select the 'Colo' water setting.

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

Fig.1 shows the control panel controls.

Switch on the electrical supply to the mixing unit.

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Press the 'Stran/Stop' button and within a few seconds the LED indicator will illuminate briefly, showing that a button has been pressed, and water will begin to flow.

Pressing the 'Start/Stop' button once again will stop the water flow. Again, the LED will illuminate briefly.

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Press and hold the 'Werm UP' button until the LED indicator illuminates to start the shower. Water will begin to flow and will continue to flow until the showering temperature has reached the temperature set on the temperature control. At this point the unit will then shut down automatically.

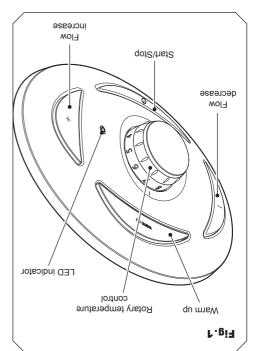
This feature ensures the incoming water supplies are up to their correct temperature and that any cold water in the outlet pipework is removed.

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Press the '+' button repeatedly to increase the flow of water from the mixing unit.

Repeatedly press the '--' button to reduce the rate of water flow.

The LED will illuminate when either the minimum or maximum flow settings have been reached.





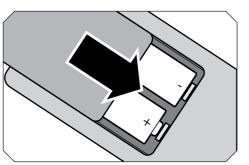
Supervise children if they are replacing batteries themselves in order to ensure these guidelines are followed.



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



SYAWJA

Make sure battery compartments are secure.

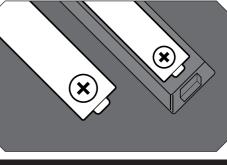
Ривцянер ву тне Врітіян Ваттей Малигастиверя Аззосіатіон

GUIDELINES GUIDELINES

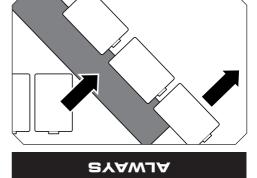
Used correctly, domestic batteries are a safe and dependable source of portable power. Problems can occur if they are misused or abused – resulting in leakage or, in extreme cases, fire or explosion.

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

SYAWJA



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



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

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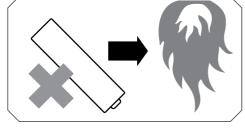
Store unused batteries in their packaging and away from metal objects which may cause a short-circuit.

SYAWJA



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.

SPECIFICATIONS

1PX4	PX4	IPX4	gniten toonghaalge
210 355 100	100 322 510	97 661 621	(mm ni) anoianəmiD לקנא Width Depth
S8A	284	284	Material Backplate, cover
(gnittes 2°r4 ot beteujbe	s ed neo enutereqmet xeM)	_	əbueu
35 to 47°C	35 to 47°C		Temperature adjustment
20∘C	20∘C	_	семрегасиге Махімит соїд water семрегасиге
52°C 55°C	5°C 5°C	_	Recommended maximum Minimum hot water
0.30	0.30		Water temperature requirements
(bear m Or) ned O.r	0.01 bar (0.1 m head)	_	gninnun muminiM
(bead m OZ) ned O.Z	(bead m Of) ned O.f		gninnun mumixeM
10 bar (100 m head)	(bead m Of) and O.f	_	Water pressures Maximum static
connectors fit-neu mm G f connectors	connectors fit-fit connectors	_	snoitoennoo teltuO
tif-Azuq mm Br	tif-Azuq mm Bl	_	Water Inlet connections
zHOð VOES eqmA ð	zHOZ VOES eqmA Z	VE – Jewoq IsnimoV dc from alkaline batteries	Electrical Mains supply Current
05 no setunim 30 setunim	30 no setunim OS 30 atronim OS		Duty cycle
tinu əruzsərq AgiH	tinu ərussərq wol	tinu lontroo stomsA	

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3-с - S səridəlineş səniləbiyg yəfəs yətəfə	8
Pecifications	

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

Telephone: 0844 980 0730 Facsimile: 0844 980 0744 Easimil: technical@tritonshowers.co.uk





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SATELLITES High performance mixer shower with remote control

Operation enoitounteni

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