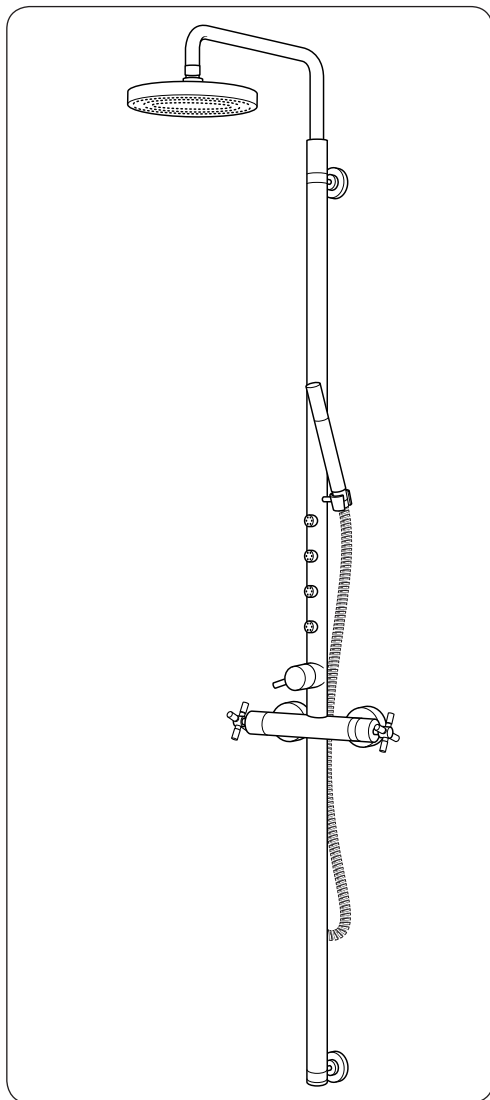


TRITON

**Leona
thermostatic
bar mixer
shower pole**



**Installation and
operating
instructions**



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

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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

E mail: technical@tritonshowers.co.uk

INTRODUCTION

This book contains all the necessary fitting and operating instructions for your Triton Leona thermostatic bar mixer shower pole.

Please read the instructions carefully. Read through the whole of this book BEFORE beginning your installation.

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

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

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

The mixer shower MUST NOT be subjected to water temperatures above 80°C.

This tap is suitable for high water pressures only and should be fitted in accordance with Water Regulations.

Pressure range – 1.0 bar to 5 bar

The shower pole is suitable for fully modulating type combination boilers and multi-point hot water heaters. It is also suitable for thermal storage, unvented systems and pumped gravity 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 inlet to the mixer must remain relatively constant when flow rate adjustments are made (*refer to the water heater operating manual to confirm compatibility with this mixer shower*).

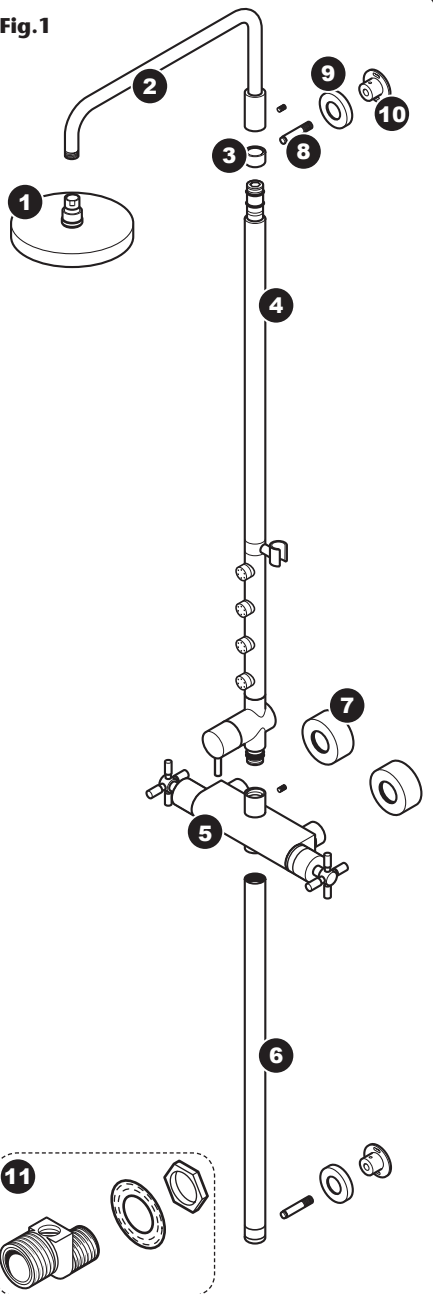
This mixer is supplied with an integral single check valve and integral filter in each inlet. Inlet connections are to 15 mm compression or ½" BSP female fittings (not supplied).

SAFETY WARNINGS

- a. 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.
- b. DO NOT choose a position where the shower pole could become frozen.
- c. DO NOT connect this shower pole to any form of tap or fitting not recommended by the manufacturer.
- d. The showerhead MUST be regularly cleaned to remove scale and debris.
- e. Conveniently situated service valves in each inlet supply MUST be fitted as an independent method of isolating the shower should maintenance or servicing be necessary.
- f. 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.
- g. DO NOT operate the shower pole outside the guidelines as laid out in '*site requirements*'.

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

Fig.1



MAIN COMPONENTS

1. Fixed showerhead
2. Fixed head arm
3. Bracket collar
4. Upper shower pole
5. Mixer valve
6. Lower shower pole
7. Inlet cover trims X2
8. Support arm X2
9. Mounting bracket cover trim X2
10. Mounting bracket X2
11. Inlet connector with
Metal washer (*not used*)
Lock nut (*not used*)

SITE REQUIREMENTS

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

Running water pressure:

1.0 bar min. to 5.0 bar max.

Maximum static water pressure:

10 bar

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

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

While the shower pole is operational (open outlet), inlet pressures MUST NOT be capable of exceeding 7 bar. For effective operation of the internal seals, the maximum static pressure MUST NOT be exceeded.

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

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

Where thermal store systems and instantaneous gas water heaters are used, if excessive draw-offs take place the boiler may not be able to maintain an adequate output temperature. This could result in the shower temperature becoming noticeably cooler.

Water temperature requirements

Maximum hot water temperature = 80°C

Recommended maximum = 65°C

Minimum hot water temperature = 52°C

Maximum cold water temperature = 20°C

BS 6700 recommends that the temperature of stored water should never exceed 65°C.

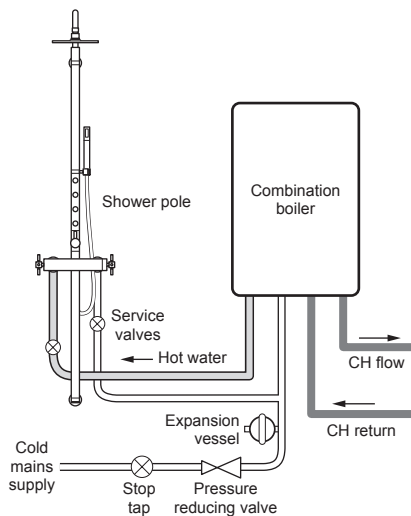
A stored water temperature of 60°C is considered sufficient to meet all normal requirements and will minimise the effects of scale in hard water areas.

Temperature adjustment range

The mixed water temperature can be adjusted from cold through to a top limit which can be preset during installation. This is with full anti-scald protection throughout the range (35°C to 40°C) providing the hot water temperature at the inlet remains 10°C above the outlet temperature.

Should there be a loss of flow to either incoming supply then water from the shower will stop or be reduced to a trickle until both supplies are restored.

Fig.2 (diagrammatic view – not to scale)



TYPICAL SUITABLE INSTALLATIONS

a) Instantaneous gas-heated systems, e.g. combination boilers (fig.2)

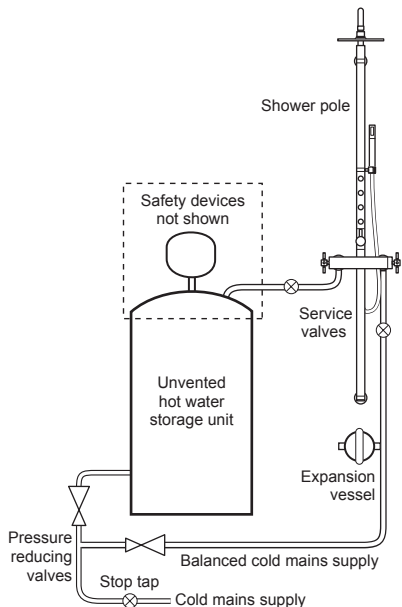
The shower MUST be installed with a multipoint gas water heater or combination boiler of a fully modulating design (i.e. to maintain relatively stable hot water temperatures).

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

An expansion vessel (shown in **fig.2**) 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. The hot supply temperature MUST remain a minimum of 10°C hotter than the required blend temperature for optimum performance.

Fig.3 (diagrammatic view – not to scale)



b) Unvented mains pressure systems (fig.3)

The shower can 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.3**) 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) Mains pressurised thermal store systems (fig.4)

Packages of this type, 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.4**) **MUST** be fitted, and regularly maintained, to make sure 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) Pumped gravity fed systems (fig.5)

The shower **MUST** be fed from a cold water cistern and hot water cylinder providing nominally equal pressures.

The mixer unit may be used with a gravity fed system with a pump to boost pressures as shown. There will be a minimum head requirement which will be specified in the installation and operation instructions supplied by the pump manufacturer.

Fig.4 (diagrammatic view – not to scale)

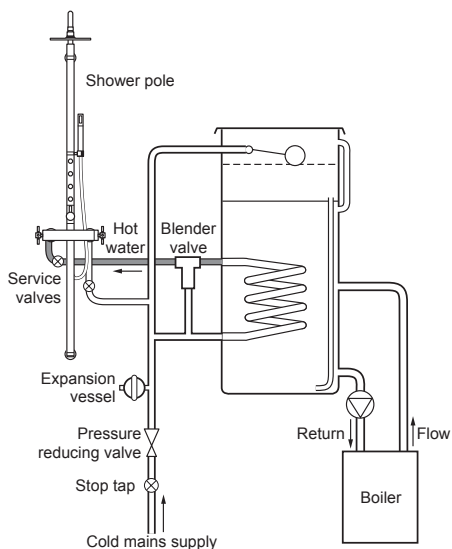


Fig.5 (diagrammatic view – not to scale)

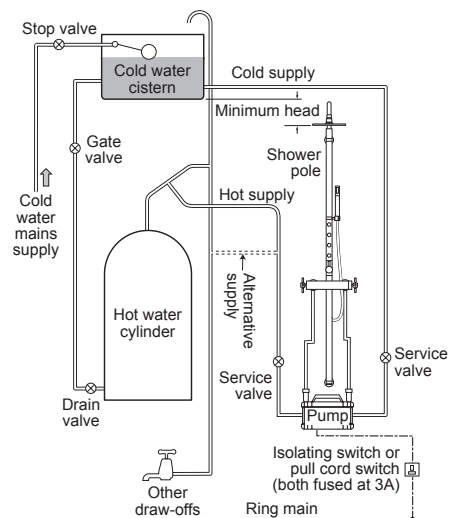
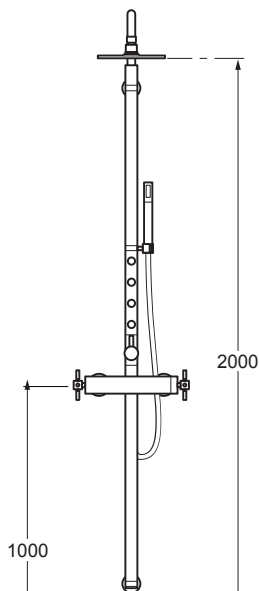


Fig.7 (diagrammatic view – not to scale)

All dimensions in millimetres



INSTANTANEOUS WATER HEATERS APPLIANCE CAPABILITIES

In order to provide the best performance from the shower 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°C (125°F) and delivering a flow rate of not less than eight litres per minute.

Note: If installing to a combination boiler flow regulators (not supplied) may be required to control the maximum flow.

PREPARING THE SHOWER POLE

WARNING!

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

Check the contents to make sure all parts are present.

Before beginning the installation, make sure all the openings on the mixer unit are carefully covered to stop ingress of any debris, etc. while routing the supply pipework.

The shower is suitable for installation on a solid wall, a stud partition wall, a dry lined wall or fixing to a laminate cubicle or panel.

The hot water inlet has a red symbol next to the inlet and must be on the left-hand side.

WARNING!

Due the weight of the shower pole, the installer MUST guarantee that the wall and fixings are suitable and can hold the shower pole securely.

If installing to a stud partition wall, dry lined wall or similar, it is recommended that the shower pole is secured to the studs or noggins.

SITING OF THE SHOWER POLE

Refer to **fig.7** for correct siting of the shower.

Position the shower pole on the wall so that all controls can be comfortably reached while using the shower.

The unit must be positioned horizontally with the outlet port at the bottom.

INSTALLATION

WARNING!

Due to the weight of the shower pole, it is advisable to have a second person support the unit during the fitting procedure.

General

Note: The outlet of the shower MUST NOT be connected to anything other than that recommended by Triton Plc.

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

DO NOT solder fittings near the mixer unit as heat transfer can damage the seals and thermostatic components.

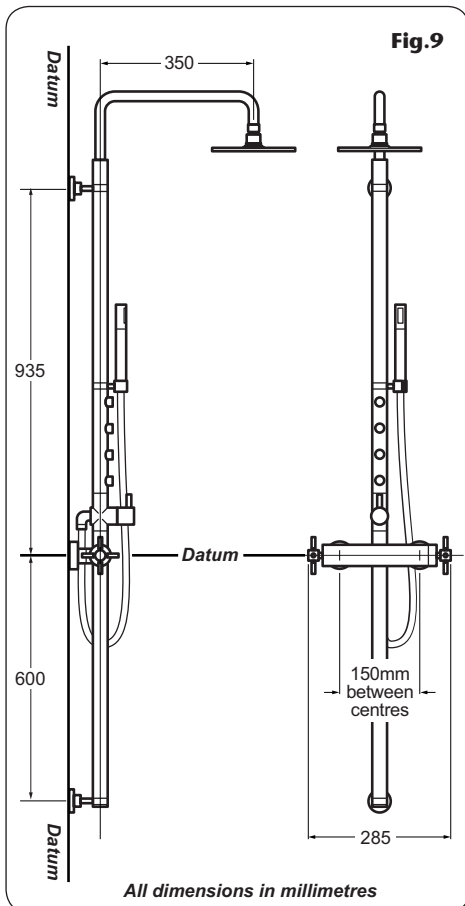
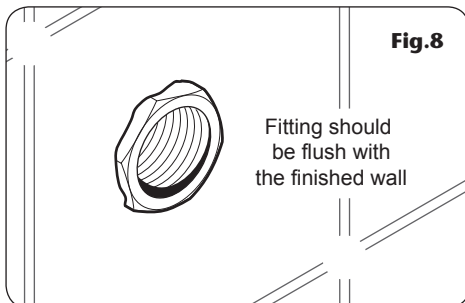
Note: Suitable service valves (complying with Water Regulations and Bylaws) MUST be fitted on the hot and cold water supplies to the shower as an independent means of isolating the water supplies should maintenance or servicing be necessary.

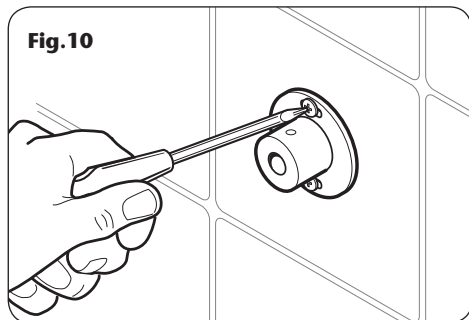
When connecting the pipework, avoid using tight 90° elbows. Swept or formed bends will give the best performance.

Inlet connectors

The supply pipes can be routed either from the side, rising, rear or falling and must end in suitable fittings (**fig.8**) to accept the offset inlet connector.

The inlet centres on the shower valves are 150 mm but with the inlet connectors an additional 20 mm adjustment is provided.



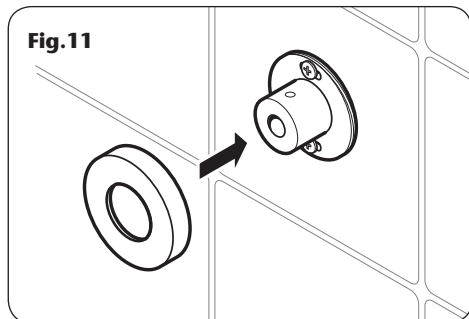


When installing into a stud partition or other hollow wall structures, the installer will need to consider building rear supports or other options. Such options are beyond the scope of this guide.

IMPORTANT: The pipe depth must be such that the face of the fitting is flush with the finished surface.

Flush out the pipework in accordance with Water Regulations and Bylaws.

Mark the positions for both the upper and lower mounting brackets as shown in **fig.9**.

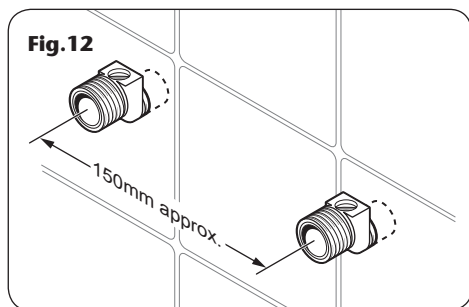


Drill and plug the wall using suitable wall plugs (the wall plugs provided are suitable for most brick walls — use an appropriate masonry drill, but if the wall is soft building block, use suitable wall plugs and an appropriate drill bit).

Secure the mounting brackets to the wall using suitable screws (**fig.10**).

Note: The elongated hole in the mounting bracket allows for a small amount of adjustment.

Screw the bracket cover trims onto the mounting brackets (**fig.11**).



Using PTFE thread tape, screw the supplied inlet connectors into the female fittings (**fig.12**). Make sure the fittings are level and set at 150 mm between centres.

Make good the wall, tiling, etc. up to the outlets.

The collars will provide a limited degree of tolerance and the amount of exposed thread will depend on the accuracy of fittings set in the wall.

Assembling the shower pole

Assemble the shower pole on a clean flat surface as follows:

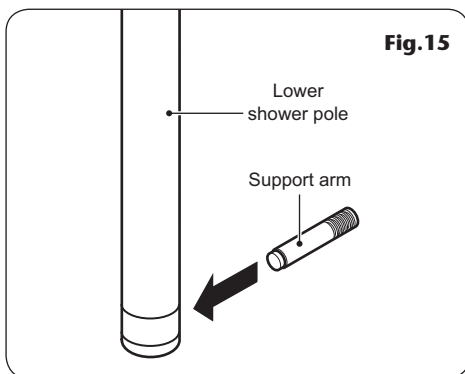
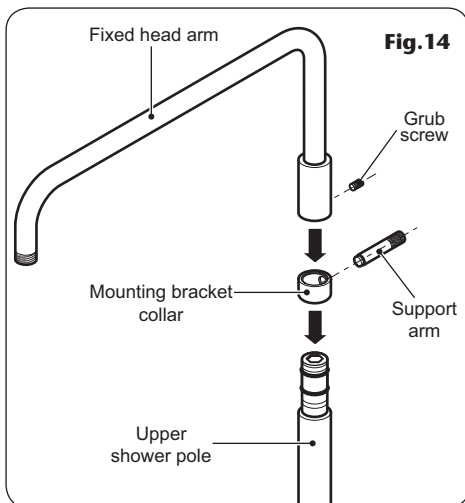
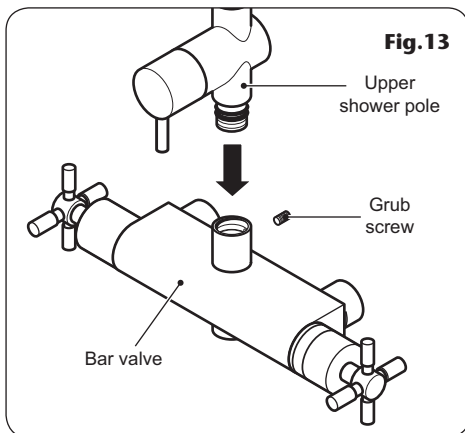
Push fit the upper shower pole into the bar valve section. Align, then secure using the grub screw in the rear of the bar valve (**fig.13**).

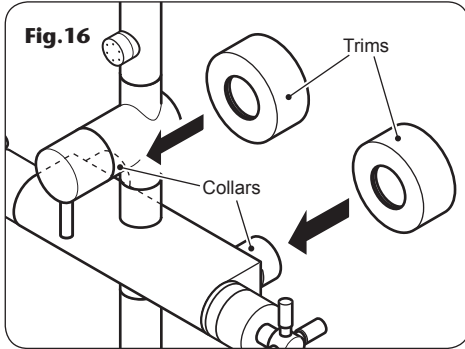
Fit the bracket collar over the top of the upper shower pole and align. Screw the support arm into the collar and, using a suitable screwdriver, tighten to secure to the shower pole (**fig.14**).

Making sure that the seals are in place, slide the fixed head arm over the top of the upper shower pole (**fig.14**). Align, then secure using the grub screw in the base of the fixed head arm.

Screw the lower shower arm into the base of the bar valve section.

Screw the lower support arm into the ring at the base of the lower shower pole (**fig.15**). Align the support arm to the rear and, using a suitable screwdriver, tighten the arm to the lower shower pole.





Fitting the shower pole

WARNING!

Due to the weight of the shower pole, it is advisable to have a second person support the unit during the fitting procedure.

Slide the cover trims onto the shower pole collars (**fig. 16**).

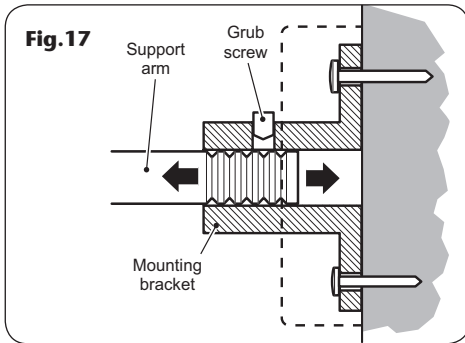
Make sure the sealing washers are in place in the shower pole inlets and that the mounting supports are aligned correctly.

Carefully locate the shower pole onto the dogleg connectors and insert the support arms into the wall brackets. Tighten the mounting bracket grub screws to secure temporarily the shower pole.

Note: The support arms allow for a small amount of depth adjustment (**fig. 17**).

Slide the cover trims forwards up to the wall surface to allow access to the 'flats' on the inlet collars (**fig. 18**). Tighten the collars to secure the shower pole to the dogleg connectors.

Loosen the mounting bracket grub screws, make any final adjustments and tighten once more to secure the shower pole to the wall.

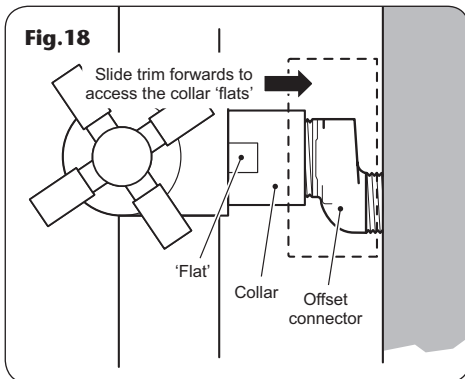


Fitting the flexible hose

Fit the flexible hose to the outlet on the underside of the mixer unit, making sure that the sealing washers supplied are inserted into each end of the hose cone (**fig. 19**).

LEAK TESTING

Fit the hose to the outlet and direct it to waste. Open the supplies and test for leaks in the valve connections. Remedy any leaks if necessary.



COMMISSIONING

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

Check the temperature knob (right-hand side) is rotated fully anti-clockwise (press the override button to achieve maximum temperature setting).

Make sure the showerhead is directed to waste. Start the water flow by turning the flow control (left-hand side) anti-clockwise.

Allow the shower to run at the maximum temperature setting until the water temperature has stabilised. Using the temperature control knob, rotate until your desired maximum showering temperature is reached.

The mixer valve contains a maximum temperature override button set at 40°C.

The mixer valve is factory set to provide a maximum outlet temperature of 40°C but this should be checked on site to check that the setting has not been altered and also to guarantee user safety.

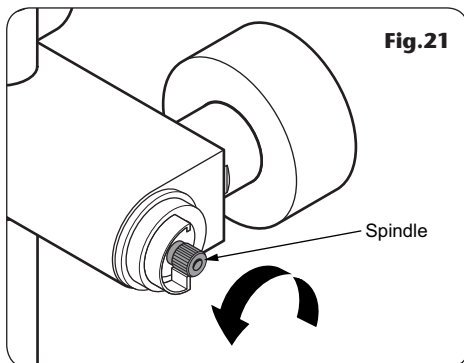
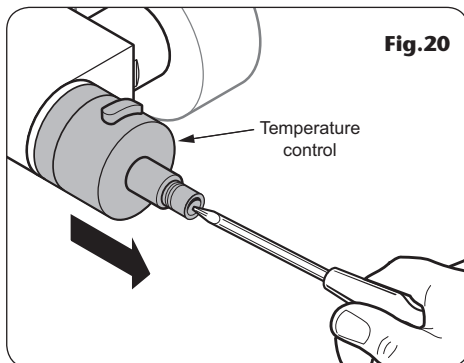
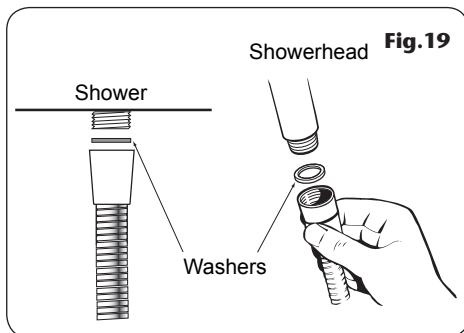
Adjusting the maximum temperature override setting

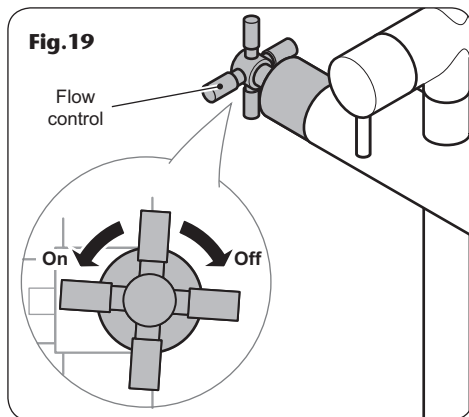
Unscrew the tap arm to expose the grub screws inside. Loosen all the grub screws and then unscrew the tap centre. To remove the temperature control knob unscrew the central retaining screw (**fig.20**).

Turn the flow control knob fully anti-clockwise. With a steady flow running, adjust the temperature valve spindle (**fig.21**) until the temperature is about 38°C (turn right for cold and left for warm).

When you are satisfied with the temperature turn the flow control off. Refit the temperature control knob, checking that the temperature stop is at the 12 o'clock position.

Secure the temperature control to the shower pole and refit the tap centre and tap arms.





OPERATING THE SHOWER

To start the shower, rotate the On/Off flow handle (left-hand side) fully anti-clockwise for maximum flow.

To stop the water flow, rotate the On/Off flow handle fully clockwise (**fig.19**).

To adjust the water temperature, rotate the temperature control (right-hand side) — clockwise for a cooler shower or anti-clockwise for a hotter shower.

To overcome the maximum temperature stop, depress the temperature control override button (**fig.20**) and turn anti-clockwise.

This shower pole has a diverter with four settings — fixed head, handset, body jets and off (**fig.21**).

To direct water to the fixed head, rotate the diverter control left to the fixed head position.

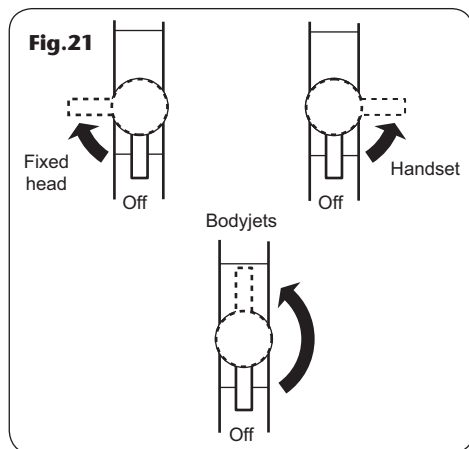
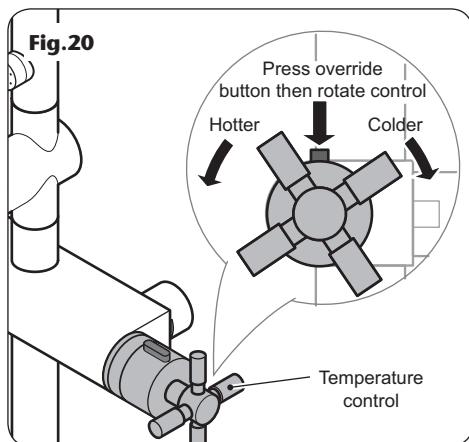
To use the handset setting, rotate the diverter control right to the handset position.

To use the body jets rotate the diverter control 180° up to the body jets position.

To stop the flow from all outlets rotate the diverter control to the OFF position.

Note: Upon finishing a shower, turn off the shower unit at the flow control.

CAUTION: Exposed metal surfaces may become hot during use.



CLEANING

DO NOT use abrasive or solvent cleaning fluids. The shower unit should be cleaned using a soft cloth and warm water.

CLEANING THE FILTERS

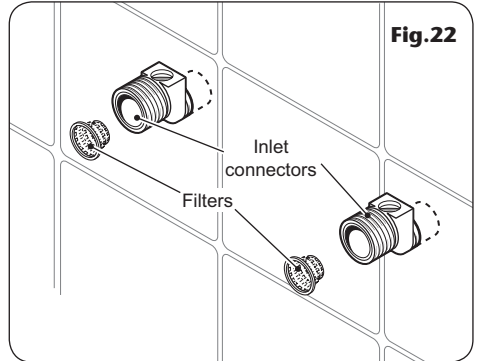
IMPORTANT: The filters are contained in the inlet connectors.

Turn off the water supplies before starting.

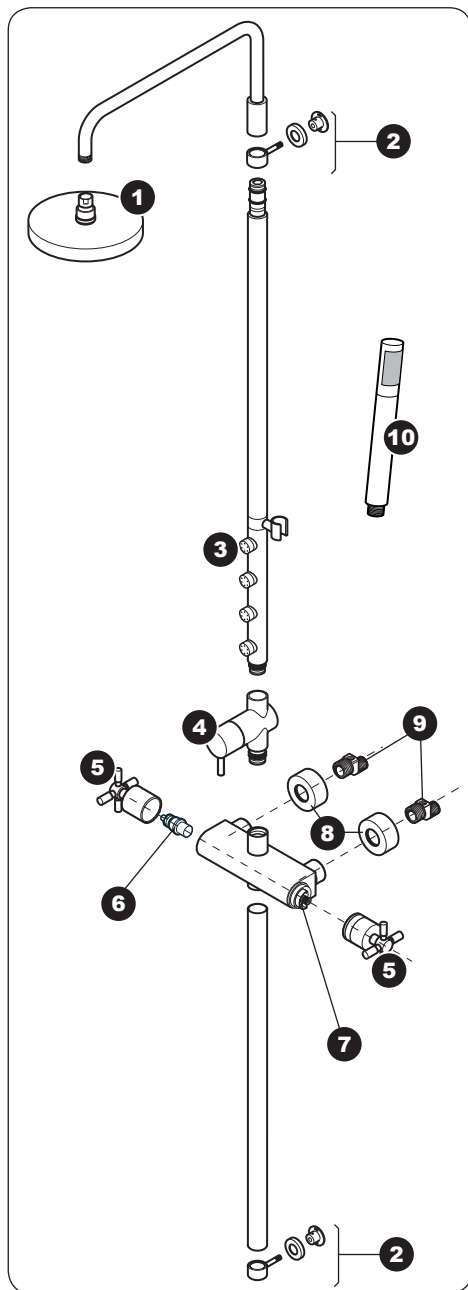
To gain access to the filters remove the unit from the inlet connectors.

Remove the filter from the inlet connector (**fig.22**) and wash the filter thoroughly under running water to remove all debris.

Replace the filter into the recess in the connector and screw the unit back into place.



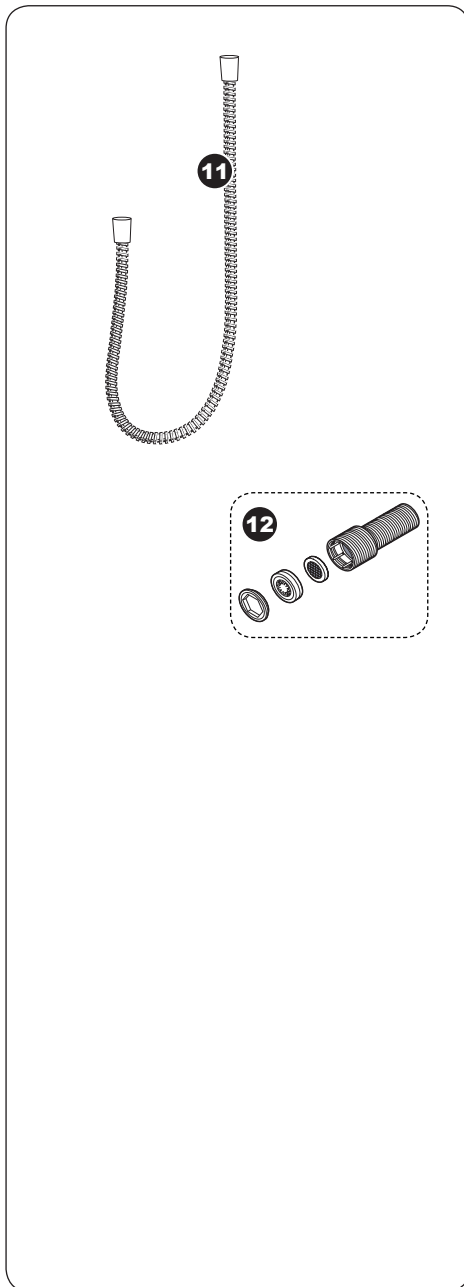
SPARE PARTS



Ref.	Description	Part No.
1.	Fixed showerhead	83310730
2.	Wall fixing kit	83310710
3.	Body jet service pack	83310720
4.	Diverter service pack	83310750
5.	Flow/temperature knob assy.	83310680
6.	Flow control cartridge	83310670
7.	Thermostatic cartridge	83310660
8.	Inlet trims	83310700
9.	Inlet connectors	83310690
10.	Showerhead	83310740

SPARE PARTS

Ref.	Description	Part No.
11.	Flexible hoses available in the following sizes: 1.00 m in white, chrome and gold 1.25 m in white, chrome and gold 1.75 m in chrome only	
<i>Optional parts</i>		
12.	Straight connectors	86001120



FAULT FINDING

The following can be carried out by a competent person

Problem/Symptom	Cause	Action/Cure
1 Water too hot.	1.1 Temperature control incorrectly commissioned.	1.1.1 Refer to 'commissioning' section.
	1.2 Not enough cold water flowing through shower.	1.2.1 Turn temperature control clockwise.
	1.3 Increase in the ambient cold water temperature.	1.3.1 Turn temperature control clockwise.
	1.4 Cold water supply blocked.	1.4.1 Turn off shower and consult a competent plumber or contact Triton Customer Service.
	1.5 High volume of cold water drawn off elsewhere.	1.5.1 Reduce the simultaneous demand from the supply.
2 Water too cold.	2.1 Temperature control incorrectly commissioned.	2.1.1 Refer to 'commissioning' section.
	2.2 Not enough hot water flowing through shower.	2.2.1 Turn the temperature control anti-clockwise.
	2.3 Decrease in the ambient cold water temperature.	2.3.1 Turn the temperature control anti-clockwise.
	2.4 Insufficient hot water supplies from the heating system.	2.4.1 Make sure heating appliance is set to maximum or has sufficient stored hot water. 2.4.2 Make sure heating appliance is igniting by trying a hot water tap elsewhere.
	2.5 Hot water supply blocked or restricted.	2.5.1 Turn off shower and consult a competent plumber or contact Triton Customer Service.
3 Water does not flow or shower pattern collapses when another outlet is turned on.	3.1 Water supplies cut off.	3.1.1 Check water elsewhere in house and if necessary contact local water company.
	3.2 Shower unit blocked.	3.2.1 Inspect the inlet filters. Clean if necessary.
	3.3 Blockage in pipework.	3.3.1 Turn off the shower and consult a suitably competent plumber.
	3.4 Showerhead blocked.	3.4.1 Clean the showerhead.
	3.5 System not capable of supplying multiple outlets at the same time.	3.5.1 Reduce the simultaneous demand. 3.5.2 Make sure stop/service valves are fully open. 3.5.3 Check if sufficient water pressure.

FAULT FINDING

The following is recommended for a professional qualified installer only

Problem/Symptom	Cause	Action/Cure
4 Water too cold.	4.1 Running pressure in excess of maximum recommended.	4.1.1 Fit a pressure reducing valve.
5 Shower controls noisy while in use.	5.1 Running pressure in excess of maximum recommended.	5.1.1 Fit a pressure reducing valve.
6 Shower will not shut off.	6.1 Flow control washer worn.	6.1.1 Renew flow control cartridge.



Service Policy

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

- 1 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.
- 2 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.
- 3 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).
- 4 Our engineer will require local parking and if a permit is required this must be available to the engineer on arrival at the call.
- 5 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.
- 9 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.

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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:

- 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 showerheads, hoses, riser rails and/or wall brackets 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.

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Trade Installer Hotline: ☎ 0844 980 0730

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