XEROPHYTE

WATER-SAVING DIGITAL SHOWER

INSTALLATION GUIDE

TRITON

For a cleaner conscience

Vision

Our vision is to design and craft aspirational yet practical water conservation solutions that eliminate shower water wastage without compromising the shower experience.

We understand that enjoying a quality shower is an important part of our daily routine. This experience should not be marred by ineffective attempts to save water, or feelings of guilt with your hand under the shower while watching litres of water being wasted down the drain until the hot water arrives.

Triton Xerophyte

The Triton Xerophyte has been designed to incorporate innovative water conservation features, while at the same time delivering outstanding performance for the best possible shower experience.

Content

Important Information

This book contains all the necessary installation instructions for your Triton Xerophyte Smart Water-Saving Shower Mixer – Please read them carefully. Care taken during the installation will provide a long, trouble-free life from your shower. Your Triton Xerophyte MUST be installed in full accordance with this Guide, which is also available online for download by scanning the QR code affixed to each Triton Xerophyte shipping package or going to our website at www.iwsx.co.za.

All installations MUST comply with SANS 10252-1 and SANS 10254 requirements.

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.

Standards and approvals

The Triton Xerophyte Controller Unit is an independently mounted electronic Controller Unit. The Unit complies with the requirements of current British, European and South African safety standards for household and similar electrical appliances and meets the Compliance with European New Approach Directives (CE) and South African National Regulator for Compulsory Specifications (NRCS).

Declaration of conformity

Triton Showers declares that the Triton Xerophyte Mixer Unit and Controller, comply with the essential requirements and other relevant provisions of the Low Voltage Directive (2014/35/EU) and the EMC Directive (2014/30/EU) and the RE Directive (2014/53/ EU).

Please read this guide thoroughly and familiarise yourself with all instructions before commencing installation. It should be retained for future reference.

The shower installation MUST be carried out by a suitably qualified person, following the sequence of this instruction guide.

Plumbing

Supply pipes **MUST** be flushed to clear debris before connecting the Triton Xerophyte Mixer Unit.

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.

DO NOT use excessive force when making connections to the Triton Xerophyte Mixer Unit shower inlets.

DO NOT choose a position where the Triton Xerophyte Mixer Unit will become frozen or overheat in hot summers (> 40 °C).

DO NOT connect the Triton Xerophyte Mixer Unit to any form of tap or fitting not recommended by the manufacturer.

The Triton Xerophyte Mixer Unit **MUST** be installed as close as possible to the shower outlet. The length of pipework from the Triton Xerophyte Mixer Unit to the outlet fitting **MUST NOT** exceed 5m.

Important Information

The showerhead or other approved Triton devices **MUST** be regularly cleaned to remove scale and debris, especially if operated in areas with hard water (above 200 ppm temporary hardness).

DO NOT operate the Triton Xerophyte Mixer Unit outside the guidelines as laid out in 'site requirements' and 'specifications'.

When installed in a gravity-fed system the top of the Triton Xerophyte Mixer Unit **MUST** be at least 100 mm lower than the base of the cold water cistern to prevent the unit from running dry. A dedicated cold water supply **MUST** be taken directly from the cold water cistern to the Triton Xerophyte Mixer Unit, to ensure there is sufficient water pressure for the unit to operate as intended. This draw-off **MUST** be on the opposite side of the cistern to the float operated valve to reduce the risk of air entering the unit. The infill to the cistern should be checked to ensure an adequate infill rate of 16liter/minute occurs.

Electrical

The installation MUST comply with The South African National Standards and the Electrical Contractor regulations SANS 10142-1 (Edition 2). Make sure metal incoming hot and cold water supplies to the Triton Xerophyte Mixer Unit are adequately earth bonded.

DO NOT turn on the electrical supply until the plumbing connections have been completed. Only then can the electricity be switched to undertake commissioning. The Triton Xerophyte Mixer Unit **MUST NOT** be operated dry (without water).

The Triton Xerophyte Mixer Unit MUST be connected to a means for disconnection from the main electrical circuit. The Triton Xerophyte MUST be connected to a residual current device circuit breaker in accordance with current wiring regulations.

If the Triton Xerophyte Mixer Unit is to be installed within a bath or shower room the electrical installation **MUST** conform to SANS 10142-1: 2017 (Edition 2).

The Triton Xerophyte Mixer Unit **MUST** only be used with the AC power supply cable provided. If this supply cable is damaged, it **MUST** be replaced by a qualified person to avoid a hazard.

Uninterrupted power supply (UPS)

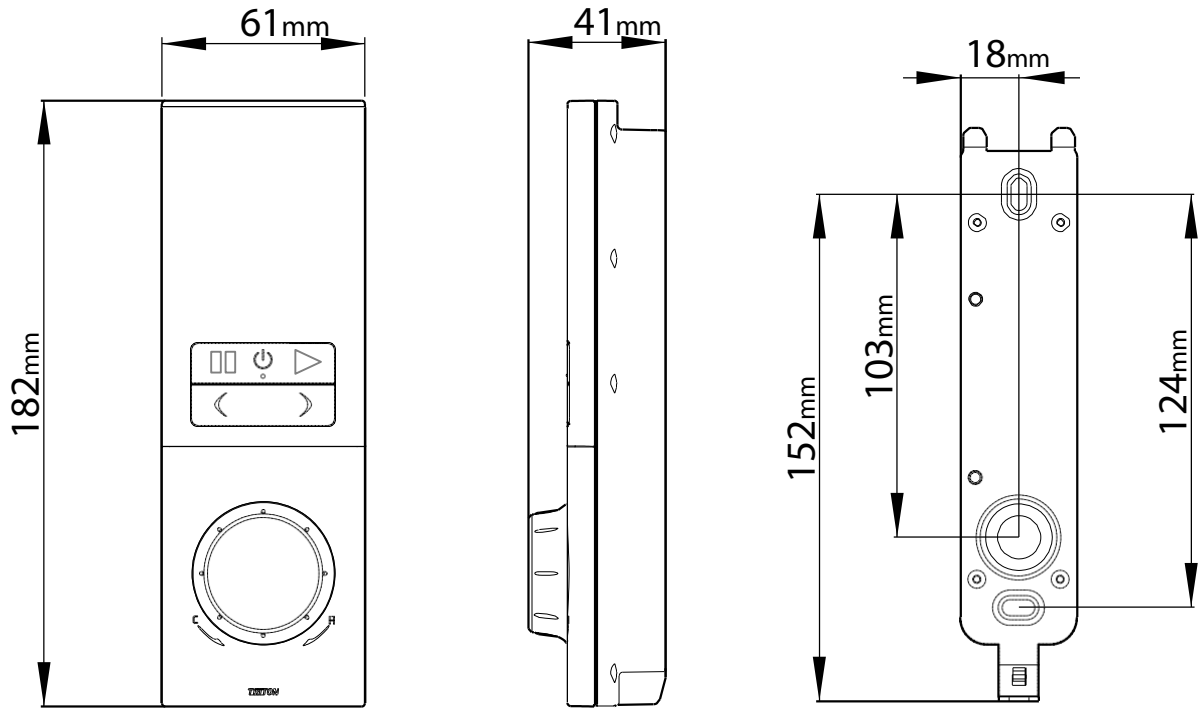
In areas with frequent power outages, we strongly recommend that you connect the Triton Xerophyte Mixer unit to a minimum 1000VA inline interactive uninterruptible power supply (UPS) if no other immediate and automatic standby power source is available

Solar panels with battery backup

Should there be an inverter powered by battery backup, connect the Triton Xerophyte to a plug point on the backup power line to ensure uninterrupted use during power outages.

Dimensions

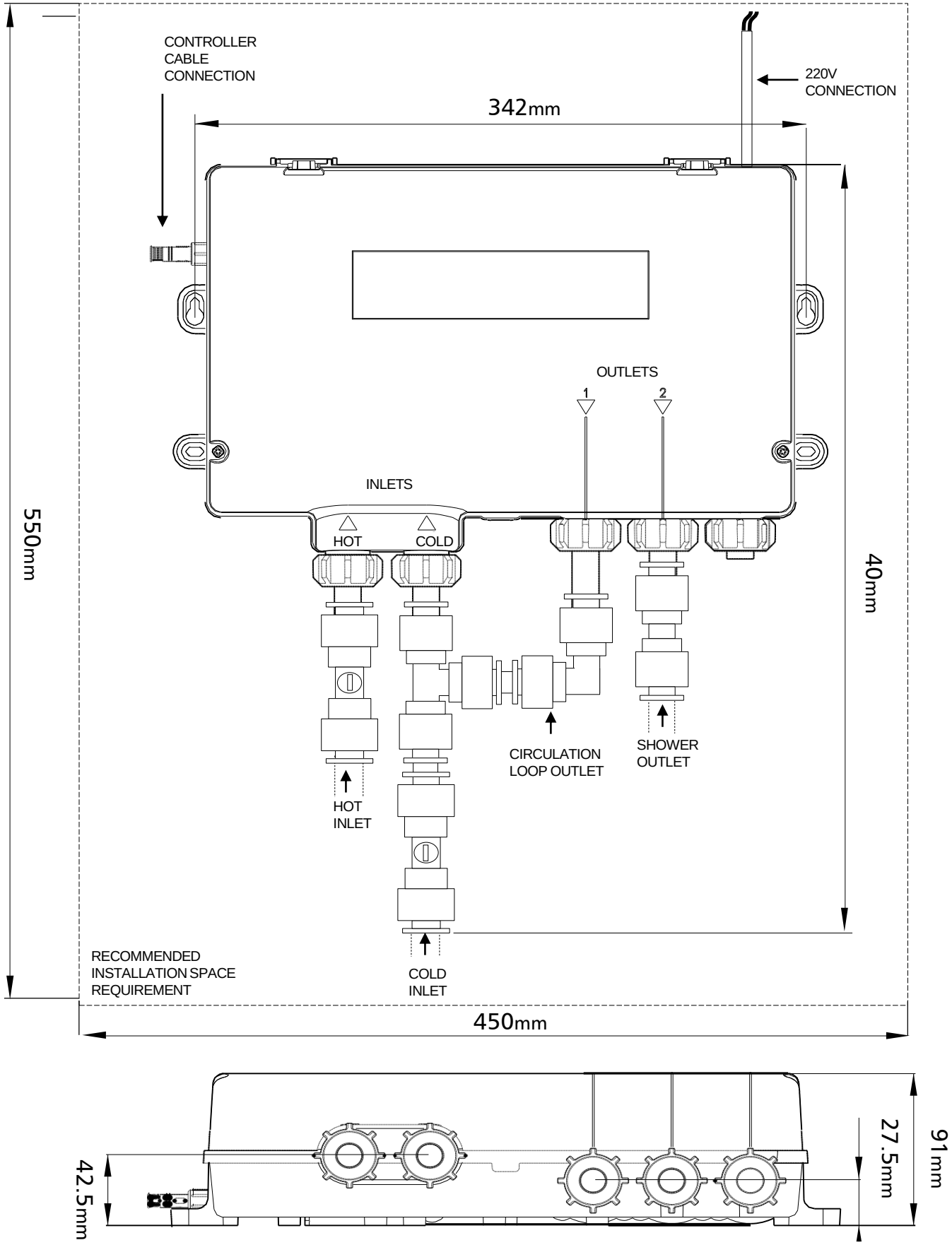
Triton Xerophyte Controller Unit (Including Wall Fixing Bracket)



Professional Installer Notes

On premises with metallic surfaces e.g. metal ceiling panels, metal ducting and metallic insulating materials, we recommend wired connection, as wireless transmissions MAY BE BLOCKED from the Controller Unit and thus prevent correct operation of the shower.

Dimensions


CONTROLLER
CABLE
CONNECTION
220V
CONNECTION
342mm
OUTLETS
1
2
INLETS
HOT
COLD
550mm
40mm
CIRCULATION
LOOP OUTLET
SHOWER
OUTLET
HOT
INLET
COLD
INLET
RECOMMENDED
INSTALLATION SPACE
REQUIREMENT
450mm

42.5mm
27.5mm
91mm

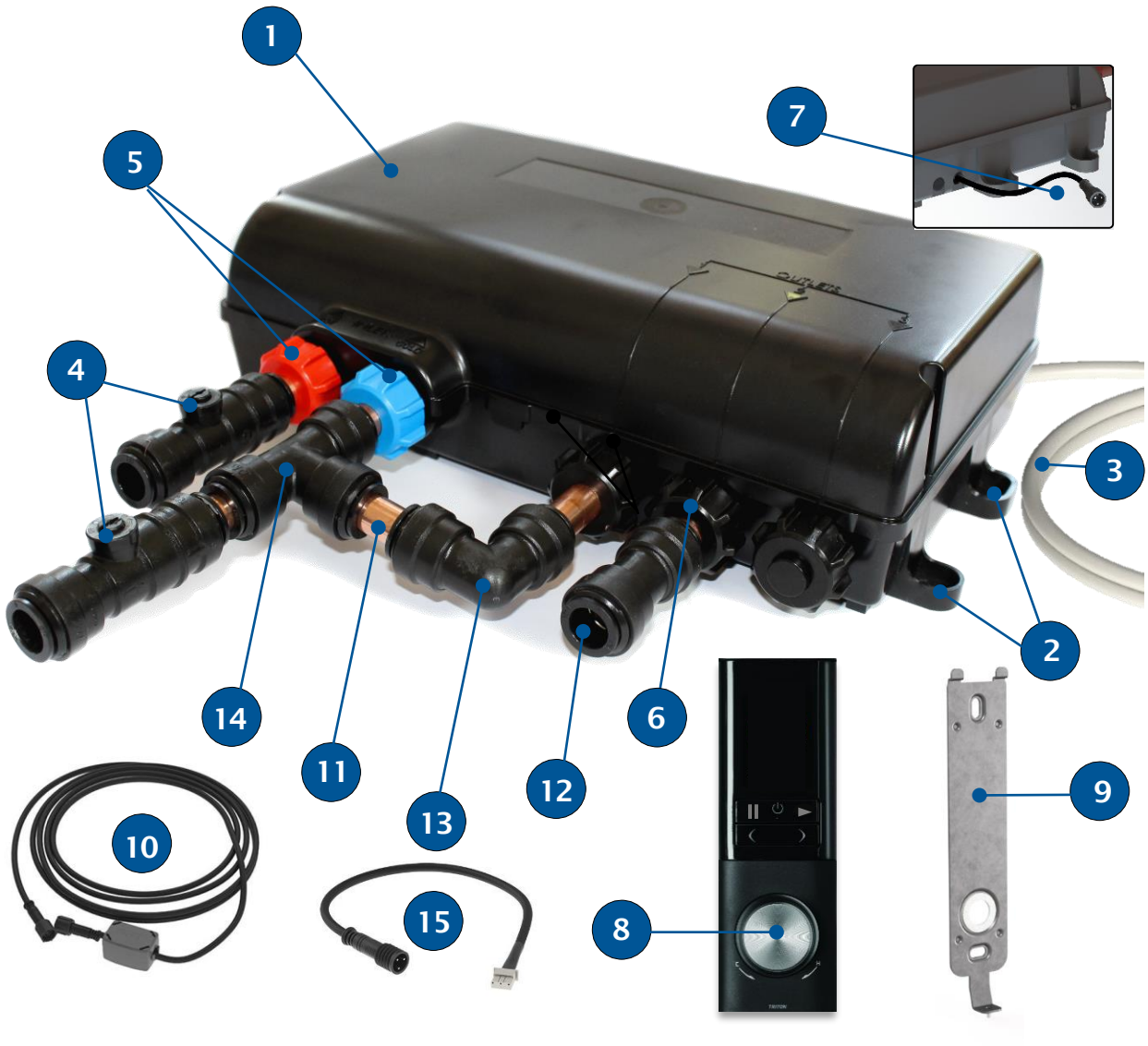
Specification

	Triton Xerophyte Mixer Unit
Electrical	230V
Mains Supply	50Hz
Maximum Load	125W
Water	
Inlet Connections	15 mm Push-Fit Connectors**
Outlet Connections	15 mm Push-Fit connectors**
Circulation Loop	15 mm Push-Fit Connectors**
Water Pressures	
Maximum Static	500kPa (5bar)
Minimum Running	100kPa (1bar)
Supply Pressure Differential	Nominally Equal
Temperatures	
Hot Water Temperature	55°C - 65°C
Cold Water Temperature	1°C - 20°C
Ambient Temperature	5°C - 40°C
Showering Temperature Adjustment Range	32°C - 47°C*
Splashproof rating	IP24

*MaximumTemperature setting can be adjusted between 41°C and 47°C (factory set at 47°C).

The Triton Xerophyte Mixer Shower is supplied with 15mm push-fit connectors, **DO NOT use any other type of fitting.

Main Components



1. Mixer Unit Cover
2. Mixer Unit Fixing Positions
3. Mixer Unit AC Power Lead
4. 15mm Push-Fit Connectors with Isolating Valves
5. Mixer Unit Inlets (HOT & COLD)
6. Mixer Unit Shower Outlet
7. Mixer Unit Data Cable Connector
8. Controller Unit
9. Controller Unit Fixing Bracket
10. 10m Data Cable
11. Circulation Loop
12. 15mm Push-Fit Straight Connector
13. 15mm Push-Fit Elbow Connector
14. 15mm Push-Fit Tee Connector
15. Data Cable Connector

Installation Information

The installation MUST BE carried out in accordance with these instructions, and MUST BE undertaken by a qualified competent person.

Mixer Unit may be installed in a (1) ceiling space, (2) an adjacent cupboard, or (3) on an outside wall, provided that it is not in direct sunlight and covered by a weatherproof box or the Xerophyte Vanity Cover (sold separately). If options 1-3 are not possible the Triton Xerophyte can be installed in the shower with the Xerophyte Vanity Cover ((sold separately – refer to the "Retrofitting Options" section of this Guide), provided there is enough room for maintenance. Safe and easy access to the Triton Xerophyte Mixer Unit should be available at all times. When planning the installation, if you are using the wired connectivity ensure that the distance between the Triton Xerophyte Mixer Unit and Triton Xerophyte Controller Unit is within the recommended range of the 10-metre data cable supplied, ensuring too that the data cable routing is taken into consideration.

The length of pipework running from the Triton Xerophyte Mixer Unit to the showerhead/accessory fittings will affect the showering temperature and the response time when changing the showering temperature on the Triton Xerophyte Controller Unit. The shorter the length of pipework, the better the Triton Xerophyte Mixer Unit will functioning, improving its water-saving efficiency and enhancing the user's shower experience.

So it is important to ensure that the Triton Xerophyte Mixer Unit is installed in a position that will minimise the length of pipe running between the Triton Xerophyte Mixer Unit outlet and the showerhead/accessory fittings. The length of pipework from the Triton Xerophyte Mixer Unit to the outlet fitting **MUST NOT** exceed 5m.

When installing the Triton Xerophyte Mixer Unit in an area not regularly accessed, consideration for potential leaks **MUST** be taken into account. While such events are unlikely, it is advisable to periodically check the installation for traces of water on or around the Triton Xerophyte Mixer Unit. If possible, install or position the Triton Xerophyte Mixer Unit in a location where any leak can be contained or routed to avoid areas sensitive to water damage.

Isolation valves are integrated into the push-fit connection fittings supplied for the hot & cold inlets. Ensure after installation that these valves are left in the fully open position, as failure to do this will result in poor flow and circulation performance and extended warm-up time from the Triton Xerophyte Shower Mixer.

The Triton Xerophyte Mixer Unit MUST NOT be positioned where it will be subjected to freezing or overheating conditions (> 40 °C). Water-saving efficiency might be influenced if installation is in an area where cold water temperatures exceeds 29 degrees C. In such installations, the circulation threshold can be adjusted to 32 degrees C in the "Circulation Temperature Threshold" settings.

All pipework **MUST** be rigidly supported to avoid any strain on the connections and prevent vibration during use. Long inlet pipework (dead-legs) should be kept to a minimum to avoid showering temperature fluctuations. The pipework should be installed such that the flow is not significantly affected by other taps and appliances being operated elsewhere on the premises.

DO NOT connect the Triton Xerophyte Mixer Unit to a gravity hot supply and a mains cold supply (or vice versa). **There are no user-serviceable components beneath the cover of the Triton Xerophyte Mixer Unit.**

Typical Suitable Installations

Important if using Wireless connected devices

Triton recommends wired installation. In cases where the location does not permit wired installation and wireless installation is necessary, please adhere to the installation guidelines below.

Metal objects such as steel baths, cold water storage tanks, hot water cylinders, radiators, foil-lined plasterboard, and even thick brick walls can all dramatically reduce the wireless operational range.

Interference from other wirelessly controlled devices and radio signals can dramatically reduce the ability of the wireless Triton Xerophyte Shower Mixer to maintain a good, consistent wireless signal. This may include mobile phones, cordless phones, radio-controlled toys, wireless doorbells, etc.

If you encounter difficulty whilst setting up the wireless connectivity of the Triton Xerophyte Shower Mixer, ensure all other radio interference is temporarily switched off.

Failure to follow these wireless connectivity guidelines can result in poor, intermittent, or failure of communication between the Triton Xerophyte Controller Unit and the Triton Xerophyte Mixer Unit.

Typical Suitable Installations

High-Pressure Instantaneous Hot Water System Installation

The Triton Xerophyte Mixer Unit **MUST** be installed with a multipoint on-demand gas water heater of a fully modulating design (i.e. where the water draw-off rate indirectly controls the gas flow rate to the burner).

A drop tight pressure reducing valve MUST be fitted if the supply pressures exceed 500kPa (5 bar) running.

It is recommended that an expansion vessel is fitted (and regularly maintained) if any form, of backflow prevention device is fitted i.e. pressure reducing valve (PRV).
This will ensure that excess expansion or pressure pulses **DO NOT** damage the product. 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.

A non-return valve MUST be fitted before the expansion valve (Fig 1).

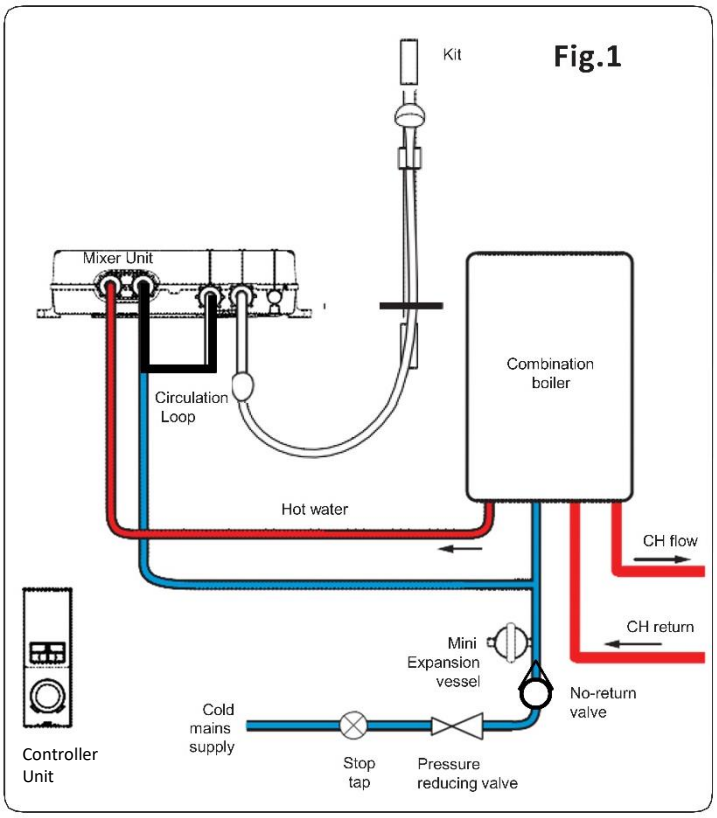


Fig 1 Instantaneous hot water systems e.g. combination boilers / on-demand water heater

Typical Suitable Installations

High-Pressure Instantaneous Hot Water System Installation Continued

On-demand gas heaters are not always able to supply an adequate flow rate of hot water, particularly in winter. Triton recommends fitting a flow regulator (supplied with the shower) into the hot inlet of the Triton Xerophyte Mixer Unit before installation. Refer to the table for details (see Fig 2).

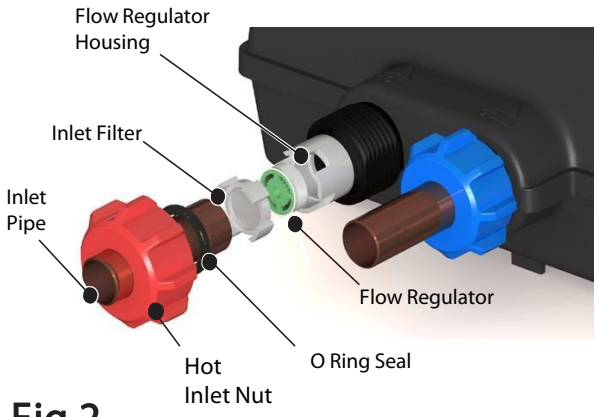


Fig 2

Geyser Rating	Regulator	
24 to 30kW	7 L/min	White/ Green
30 to 36kW	9 L/min	White/ Orange
36kW+	None required	

To fit the flow regulator

1. Unscrew the hot inlet nut and remove the inlet pipe, O ring seal, inlet filter, and flow regulator housing.
2. Fit the flow regulator into the flow regulator housing.
3. Refit the flow regulator housing, Inlet filter, O ring seal, and inlet pipe, secure with the hot inlet nut. Note: the hot inlet nut only needs to be hand tightened.

With instantaneous water heater appliances, when the warm-up function is finished the user may experience a brief temperature variation upon restart. This is because combination boilers will turn off after the warm-up process has been completed, so when restarted, the processing unit will release a cold slug of water followed by a hot slug as the hot water supply stabilises.

Typical Suitable Installations

High-Pressure Unvented Mains Pressure Cylinder Installation

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 500kPa (5 bar).

The drop tight pressure reducing valve MUST be set at the same value as the unvented package pressure reducing valve.

A non-return valve MUST be fitted before the stop tap (Fig 3).

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.

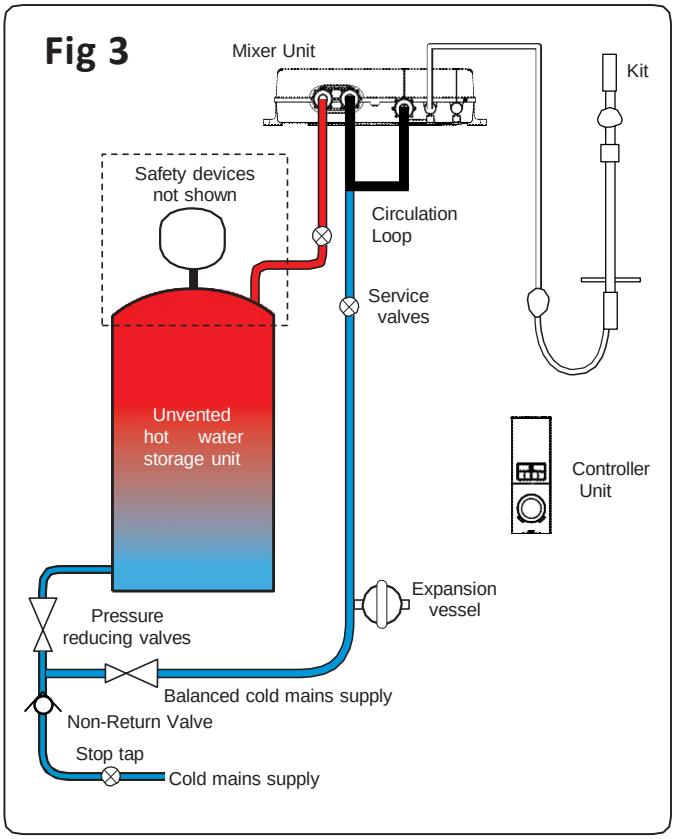


Fig 3 High-pressure system installation – Unvented mains pressure cylinders

Typical Suitable Installations

High-Pressure Thermal Store Systems Installation

The high-pressure system **MUST** be fitted with a tempering valve (blender valve).

The appliance **MUST** be capable of raising the temperature of the incoming water to a minimum of 55°C and delivering a flow rate of not less than 8 L/minute.

A drop tight pressure reducing valve MUST be fitted if the supply pressures exceed 500kPa (5 bar) running.

IMPORTANT

A non-return valve MUST be fitted before the expansion valve (Fig 4)

It is recommended that an expansion vessel is fitted (and regularly maintained) (shown in **Fig 4**), to ensure the unit is not damaged by excess pressures. This may already be installed externally or internally within the thermal store (check with the thermal store manufacturer).

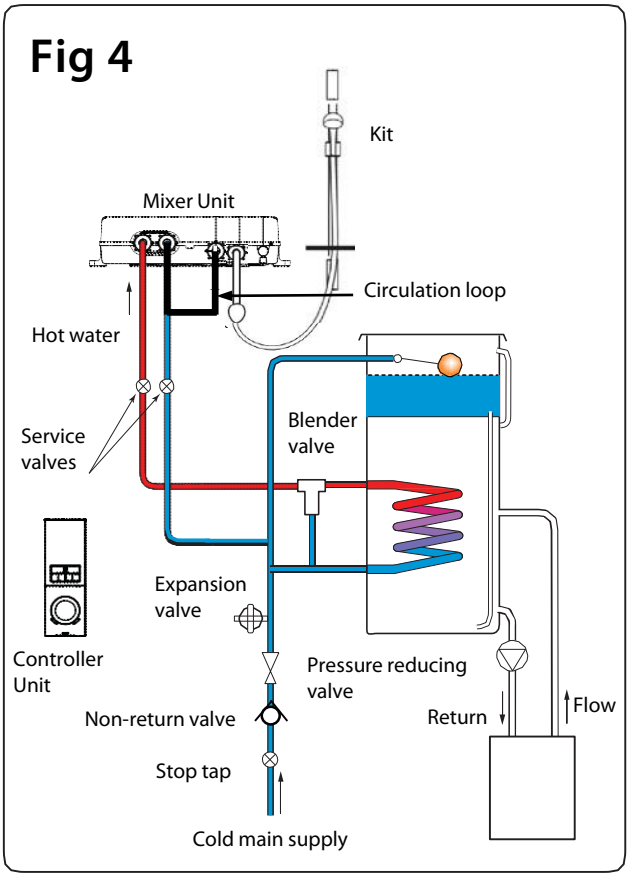


Fig 4 High-pressure system installation – Mains pressurised thermal store systems

Typical Suitable Installations

Low-Pressure Gravity Fed Systems Installation

IMPORTANT: The minimum head for the operation of the Triton Xerophyte Mixer Unit is 100 mm. For optimal operation, the Xerophyte Mixer Unit **MUST** be put as close as possible to the hot water cylinder. Shortening the distance between the Triton Xerophyte Mixer Unit and the hot water supply will shorten the warm-up period.The Triton Xerophyte Mixer 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).

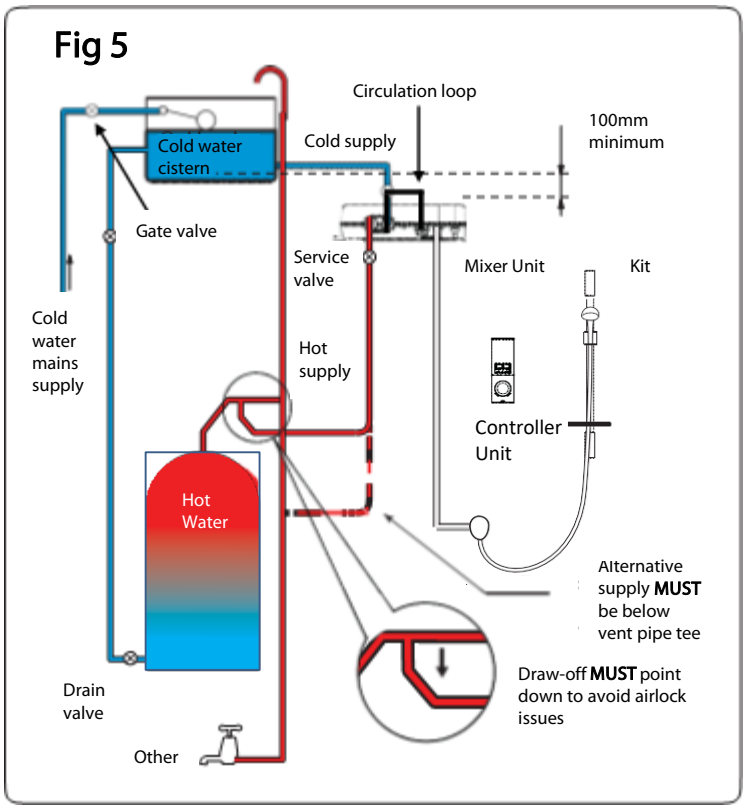


Fig 5 Low-pressure system installation – Gravity fed systems

IMPORTANT: Pipework layouts and connections **MUST** be such that other draw-offs will not affect water supplies to the Triton Xerophyte Mixer Unit, shared supplies may lead to air locking or water starvation. It is, therefore, essential to have independent hot and cold supplies to the Triton Xerophyte Mixer Unit.

If the hot water draw-off is incorrectly positioned, air may be drawn into the hot supply from the vent pipe causing spluttering, and temperature fluctuations at the showerhead.

Any draw-off for the Triton Xerophyte 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 Triton Xerophyte Mixer Unit.

Note: If the hot water source is moved or replaced at a later stage, a factory reset is required.

Typical Suitable Installations

General installation Guidelines

The Triton Xerophyte Mixer Unit **MUST** only be positioned as shown.

The Triton Xerophyte Mixer Unit can be mounted on a horizontal surface in any orientation **(Fig 6)**.

When mounting on a vertical surface the processing unit outlet **MUST ALWAYS FACE DOWNWARD (Fig 7)**. Failure to position the unit correctly could result in a significant reduction in performance.

IMPORTANT

If wall-mounting the Triton Xerophyte Mixer Unit the outlet MUST always be FACING DOWNWARDS (Fig 7).

Decide on the position for the Triton Xerophyte Mixer Unit. Position the Triton Xerophyte Mixer Unit in a dry, well-ventilated area.

The Triton Xerophyte Mixer Unit **MUST** always be positioned either flat on a suitable surface or on a wall where there is easy access for installation and maintenance.

Mark the four locating screw points for the base. If fixing to a brick wall or a stud partition, 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 an appropriate drill bit). Secure the Triton Xerophyte Mixer Unit in position using the 4 screws supplied **(Fig 8).**

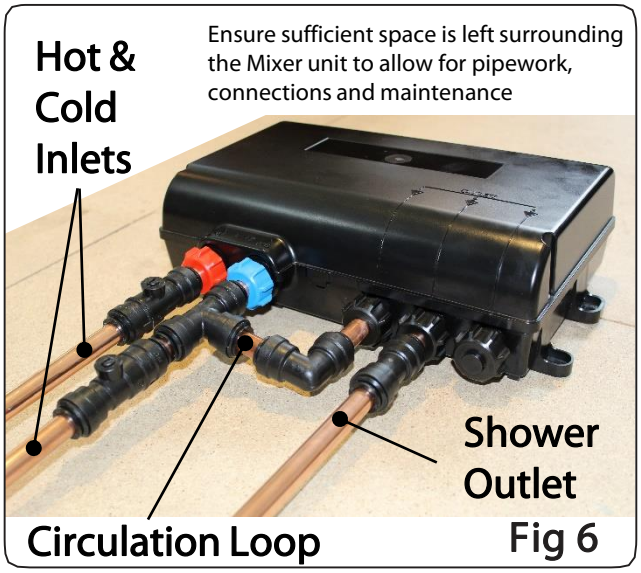


Fig 6

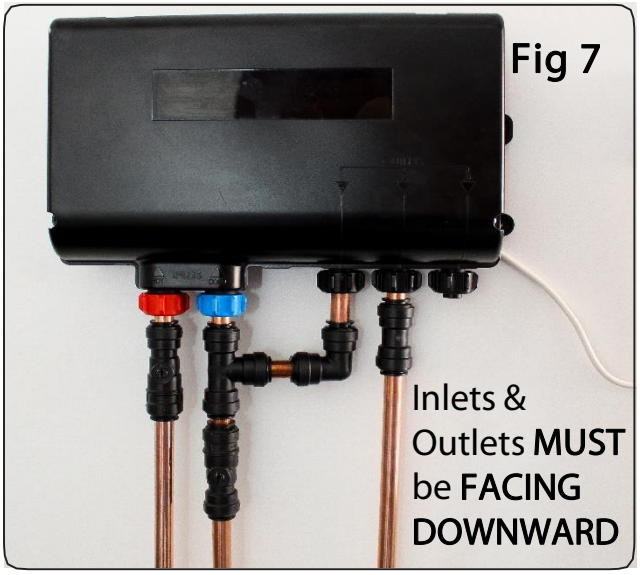


Fig 7

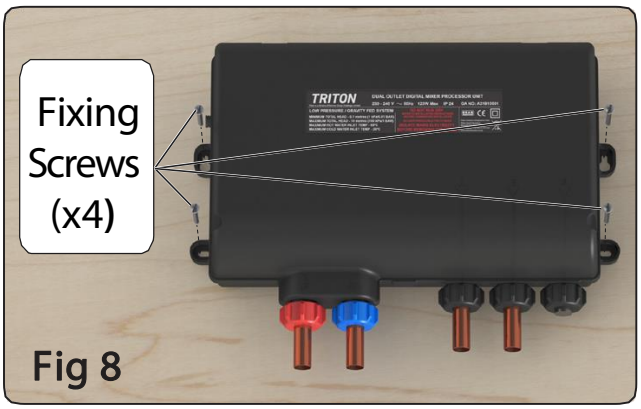


Fig 8

Triton Xerophyte Mixer Installation

If the Triton Xerophyte Mixer Unit is installed in the ceiling above the shower, the following requirements **MUST** be met for future servicing purposes:

a. There **MUST** be no risk of the Triton Xerophyte Mixer Unit or water pipe becoming frozen or overheating (> 40 °C) in hot summers.

b. To guard against over heating the Triton Xerophyte Mixer Unit **MUST NOT** be covered with any form of insulating material.

c. It is recommended that the Triton Xerophyte Mixer Unit be installed in an accessible and safe location.

d. Ceiling joists **MUST** be adequately boarded to provide safe and unobstructed access to, from, and around the Triton Xerophyte Mixer Unit.

e. There **MUST** be adequate lighting in the ceiling for servicing purposes.

Note: If mounting the Triton Xerophyte Mixer Unit in a ceiling 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 Triton Xerophyte Mixer Unit, this will give a visual indication of any failure.

Plumbing connections

Plumbing/Pipe installation to be carried out before electrical wiring installation.

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

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

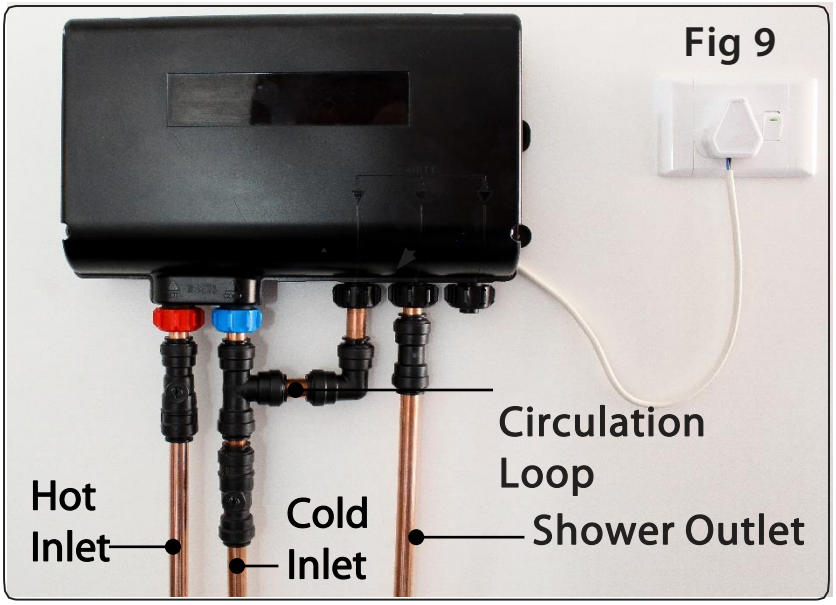


Fig 9 Triton Xerophyte Mixer plumbing connections layout.

Triton Xerophyte Mixer Installation

IMPORTANT:

The fittings on the inlets, outlets and circulation loop are the push-fit 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.

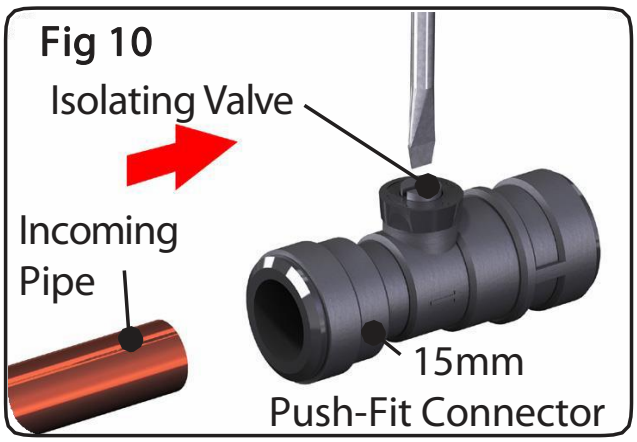
If using a chrome-plated copper pipe, remove the first 25 mm of plating completely from the connecting surfaces. If not completely removed, the collet will not grip the pipe and under pressure, the pipe may be forced out.

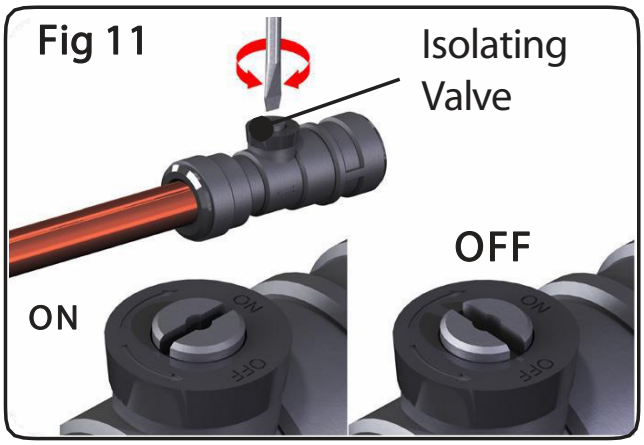
Before completing the connection of the water supplies to the inlets of the Triton Xerophyte Mixer Unit, flush out the pipework to remove all swarf and system debris.

1. Turn off the water supplies either at the mains stop valve or the isolating stop valve.
2. Having decided on the position of the unit and direction of pipe entry, complete the pipework to the Triton Xerophyte Mixer Unit.
3. Check for leaks before connecting the pipework to the Triton Xerophyte Mixer Unit.
4. Insert the incoming pipework into the 15 mm push-fit connectors **(Fig 10)**.
5. Check that the isolating valves on the inlet connectors are fully open **(Fig 11)**.

All pipework should be insulated.

To guard against overheating, DO NOT insulate or cover the Triton Xerophyte Mixer Unit.





Triton Xerophyte Mixer Installation

Before any electrical work is attempted, ensure the electricity supply is isolated at the mains switch.
Please take time to familiarize yourself again with the electrical compliance detail and installation guidelines introduced in the Important Information section at the beginning of this Guide.

Electrical installation may only be carried out by a qualified person.

Electrical connections

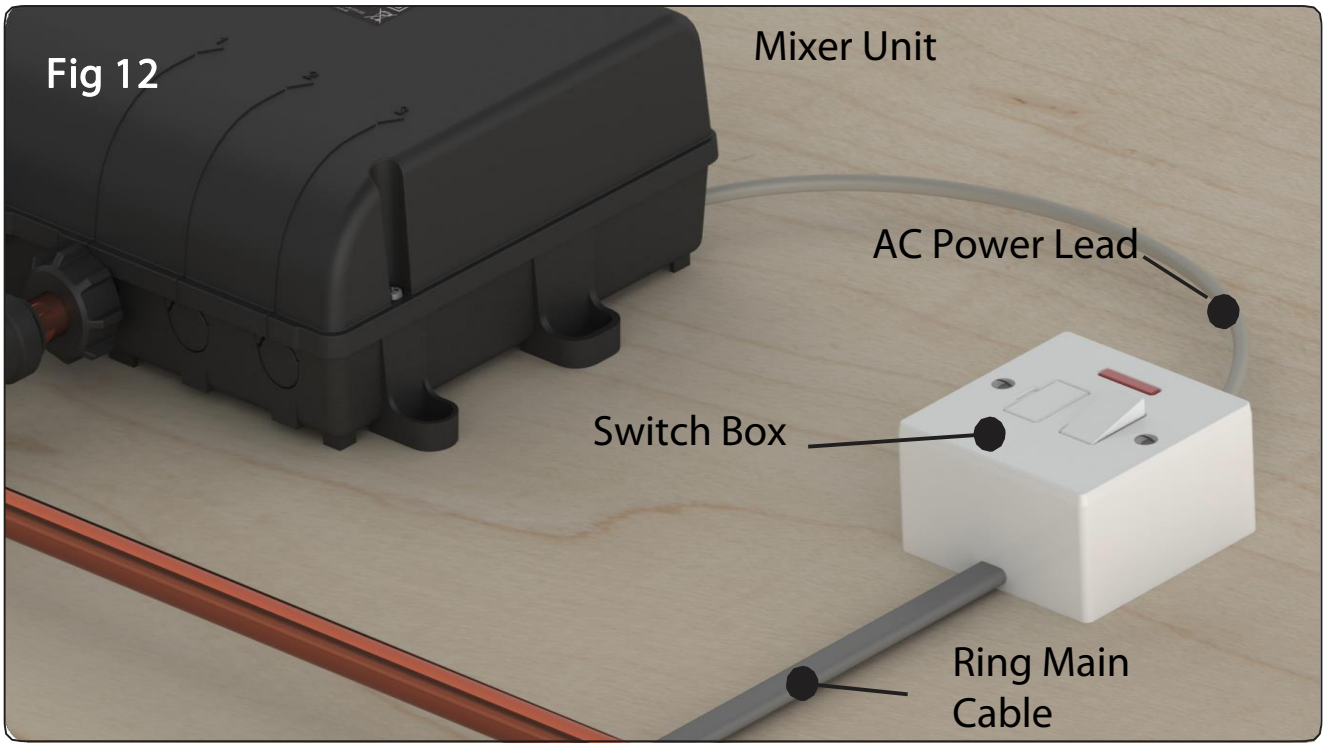
The Triton Xerophyte Mixer Unit **MUST** be connected to a means for disconnection from the main electrical circuit. The Triton Xerophyte **MUST** be connected to a residual current device circuit breaker in accordance with current wiring regulations **(Fig 12).**

Neutral cable marked **N** Blue

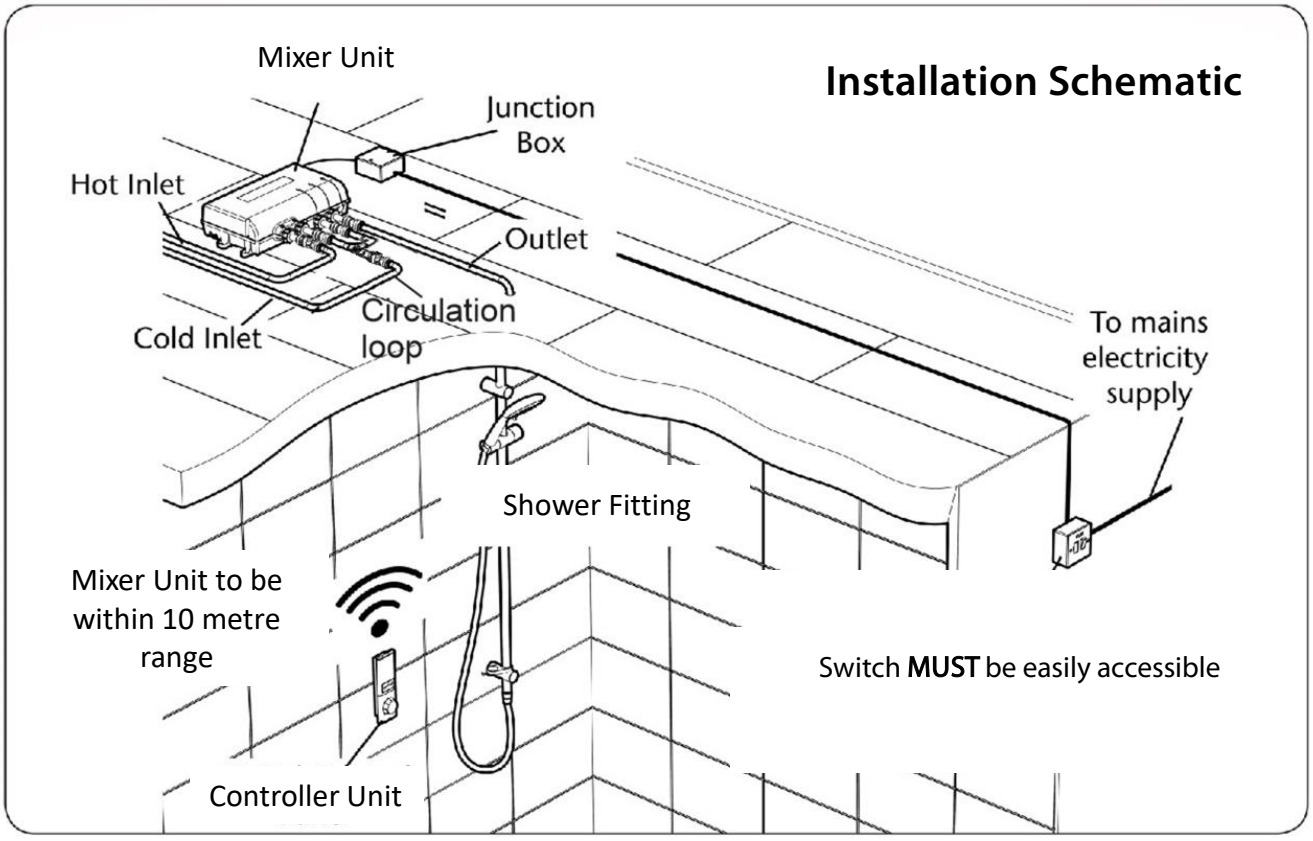
Live cable marked **L** Brown

Recommendation

In areas, with frequent power outages, we recommend you connect the Triton Xerophyte Mixer Unit to a minimum 850VA inline interactive uninterruptible power supply (UPS).
DO NOT switch on the electricity supply until all the pipe connections have been tested for leaks and the commissioning procedure has been followed.



Triton Xerophyte Mixer Installation



Very Important Installation Guidance

DO NOT install the Triton Xerophyte Mixer Unit where it can become frozen.
DO NOT install the Triton Xerophyte Mixer Unit where it can be subjected to ambient temperatures above 40°C.
DO NOT position the Triton Xerophyte Mixer Unit where maintenance access is poor or unsafe.
DO NOT install into a system where the cold water cistern holds less than 115 litres (230 litres if other outlets use the same cistern).
DO NOT install into a system where air locking could occur.
DO NOT install the wireless Triton Xerophyte Controller Unit in a position where communication with the Triton Xerophyte Mixer Unit is poor e.g installed under a metal bath, in front of a metal cistern, on foil backed plasterboard, outside of the 10-metre range.
DO NOT install the Triton Xerophyte Mixer Unit onto shared water supplies.
DO NOT fit plastic pipework unless rigidly supported.
DO NOT install the Triton Xerophyte Mixer Unit less than 100mm from the lowest level of water in the cistern.

Triton Xerophyte Controller Installation

The Triton Xerophyte Controller Unit can be connected to the Triton Xerophyte Mixer Unit in two ways; a) 10-metre data cable or, b) wireless using AA-sized **ALKALINE** batteries.

Data cable installation (Wired Connectivity Only)

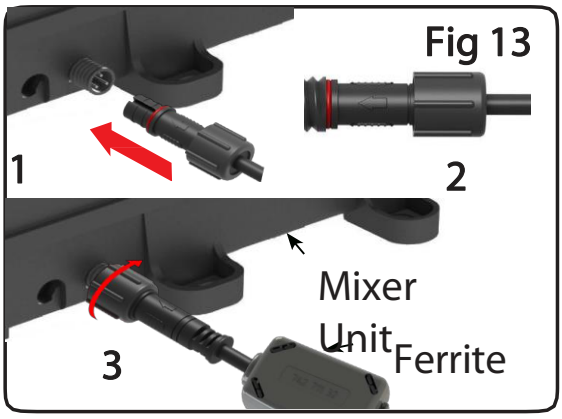
Triton recommend wired installation, as wireless transmissions MAYBE BLOCKED from the Triton Xerophyte Controller Unit and thus prevent correct operation of the shower.

The Triton Xerophyte Controller Unit has been designed to allow for installation within a shower cubicle or above a bath (i.e. splash-proof). The Triton Xerophyte Controller Unit **MUST** be located in a convenient place inside the enclosure whereby the user can start and stop the shower immediately, and also have easy access before entering the shower to activate the war-up procedure.

When using wired connectivity, the distance between the Triton Xerophyte Mixer Unit and Controller Unit MUST BE within the range of the 10-metre data cable.

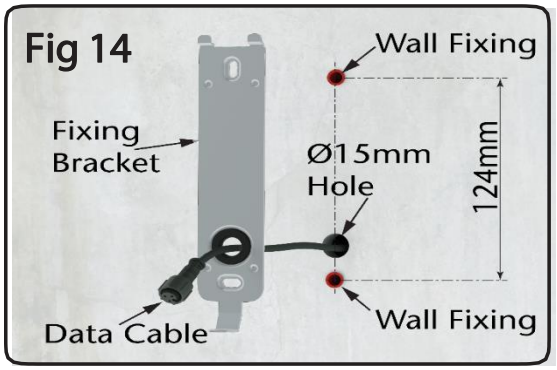
Data cable installation (Wired Connectivity Only)

When connecting the Triton Xerophyte Controller Unit to the Triton Xerophyte Mixer Unit using the data cable, the first operation is to connect the data cable (**ferrite end, see Fig 13**) to the triton Xerophyte Mixer Unit. On the ends of both the data cable and Mixer, the data cable connector are screw connectors, which provide a watertight seal. To ensure that the connectors are correctly assembled and sealed, **ALIGN** the two arrows on both connectors so that they point towards one another, and follow the 3 steps in **Fig 13**.



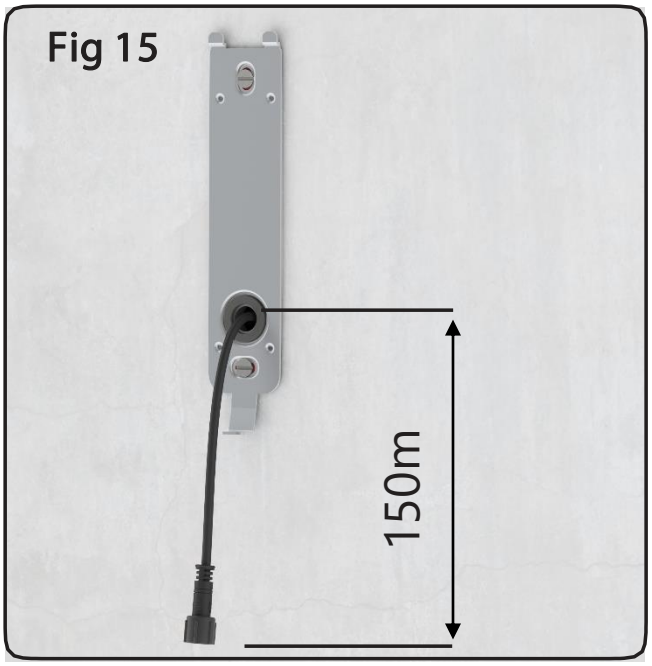
A 15mm diameter hole needs to be made within the showering area to allow for the data cable connection **(Fig 14)**.
Make sure there is enough slack cable at the Triton Xerophyte Controller Unit for the Unit to be removed should the need arise for future maintenance. Approximately 150mm protruding length should be sufficient **(Fig 15)**.

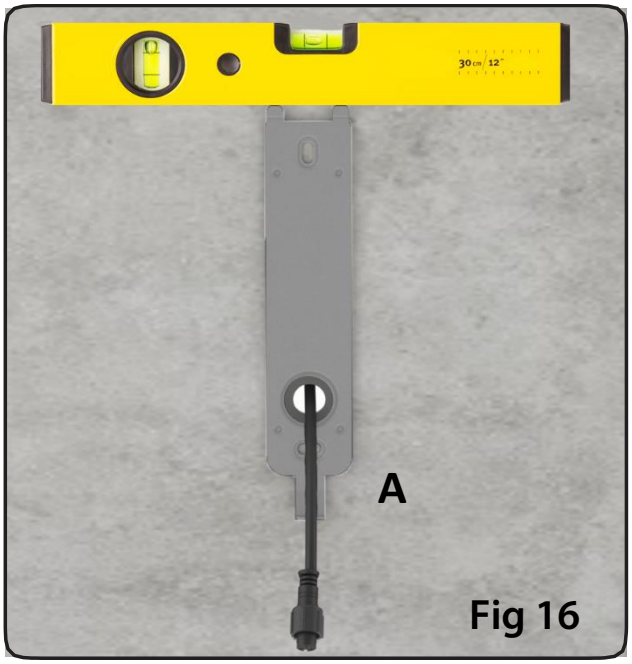
Under NO circumstances should the data cable be extended or shortened. The data cable MUST be connected with the ferrite end attached to the Triton Xerophyte Mixer Unit. The incorrect attachment will impair the performance of the shower and invalidate the guarantee.



Triton Xerophyte Controller Installation

If the data cable is being routed through wall cavities, chased into solid walls or surface mounted, then appropriate trunking/conduit MUST be used. Data cables MUST be fitted in such a way so that they can later be removed for maintenance or servicing.





Fixing bracket installation

When installing the Triton Xerophyte Controller Unit, We recommend the Triton Xerophyte Controller Unit be mounted on the wall at a convenient place inside the enclosure whereby the user can easily start and stop the shower but also have easy access before entering the shower to activate the war-up procedure.

With the Triton Xerophyte Mixer Unit located and the data cable routed it is now time to fit the Triton Xerophyte Controller Unit.

Using the fixing bracket and a spirit level, position the bracket in the desired location, remembering to consider your cable routing position **(Fig 16)**.

Hold the fixing bracket in position and mark the top and bottom screw fixing holes **A (Fig 16)**. Remove the bracket from the wall then drill and plug the wall for the fixing positions **A**.

(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 used).

Secure the mounting bracket to the wall using the appropriate fixings.

For Wired Connectivity Only: Whilst securing the mounting bracket to the wall, the data cable **MUST** be pulled through so that approximately 150mm protrudes from the wall see **Fig 15**.

Triton Xerophyte Controller Installation

If installing the Triton Xerophyte Controller Unit onto a tiled wall, always mount the fixing bracket on the surface of the tiles. NEVER tile up to the Triton Xerophyte Controller Unit.

Triton Xerophyte Controller Unit fitting (Wired Connectivity Only)

Remove the battery compartment cover on the rear of the Triton Xerophyte Controller Unit by undoing the two fixing screws **(Fig 17)**.

Using a pair of side cutters remove the battery compartment cover from the small plastic tag as shown **(Fig 18)**.

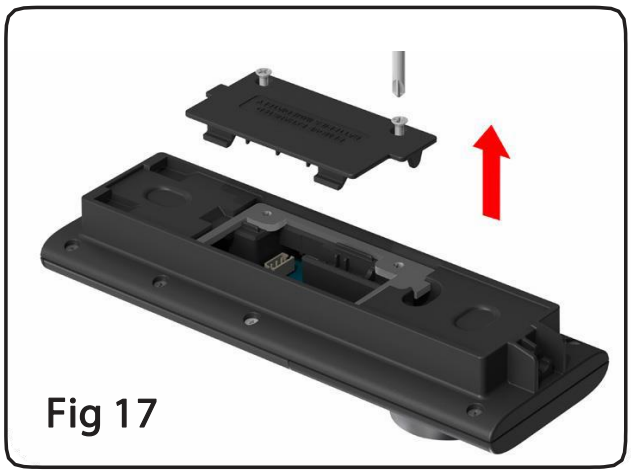


Fig 17

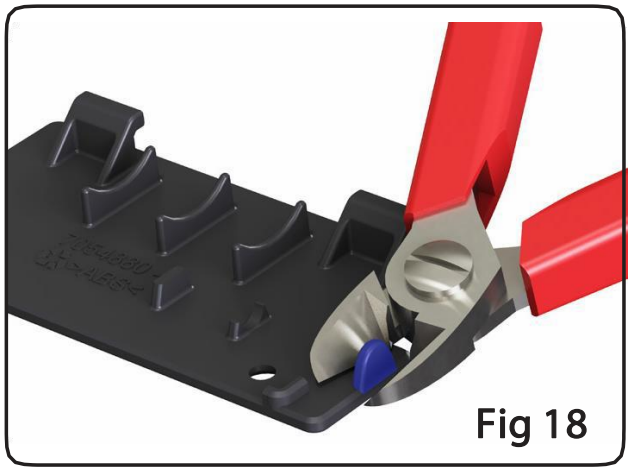


Fig 18

Connect the 3 pin coupler of the data cable connector Lead into the connector located on the PCB within the Triton Xerophyte Controller Unit. Very carefully push the connector lead into the grooves and slot of the battery compartment **(Fig 19)**.

The 3 pin coupler can ONLY be fitted one way into the PCB connector. Take care to ensure that the coupler pins properly align with the connection port on the Triton Xerophyte Controller Unit to guard against damaging the pins or weakening the connection

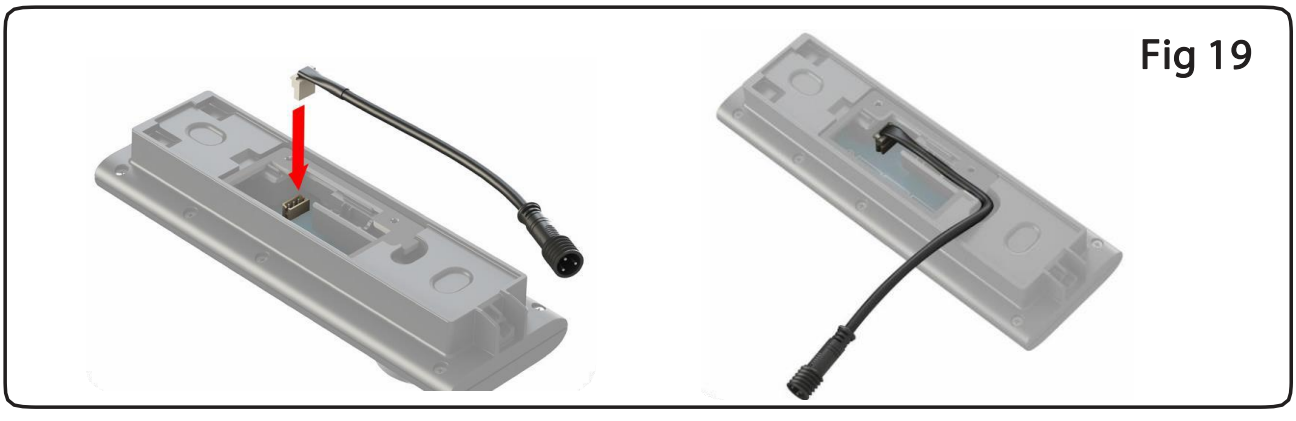


Fig 19

Triton Xerophyte Controller Installation

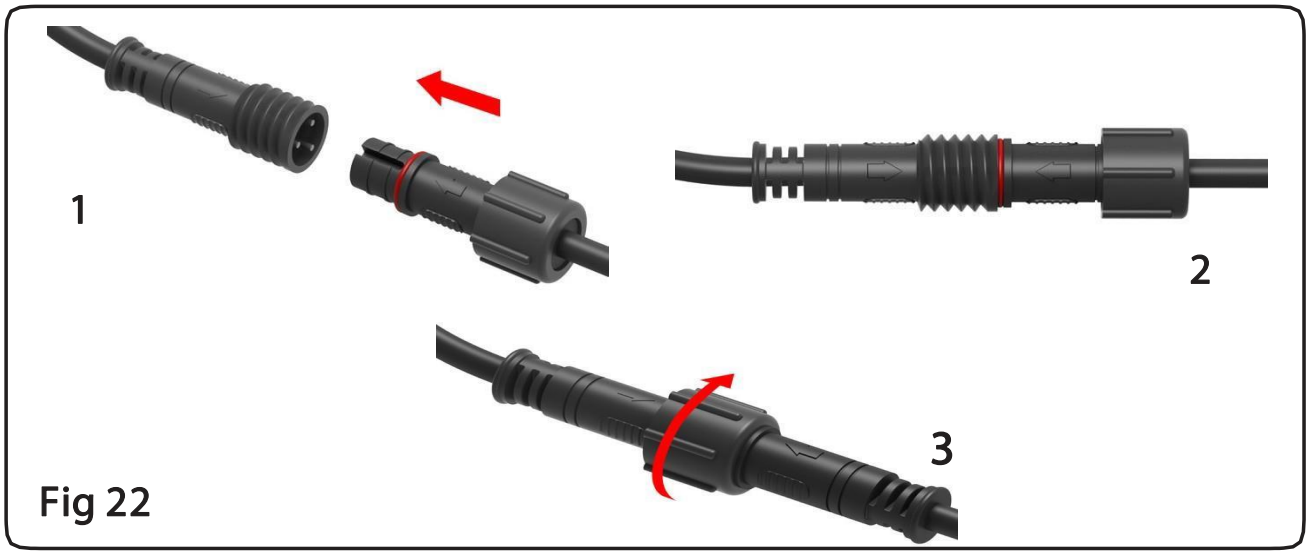
Replace the battery compartment cover and secure it in place using the two fixing screws previously removed.

Ensure that the battery compartment cover sits flush with the rear housing of the Triton Xerophyte Controller Unit and that both retaining screws are tight **(Fig 20)**.

Connect the data cable connector lead from the Triton Xerophyte Controller Unit to the data cable protruding from the fixing bracket **(Fig 21).**

Do not over tighten the screws.

On the ends of both the data cable and data cable connecting lead are screw connectors, which provide a watertight seal. To ensure that the connectors are correctly assembled and sealed, first **ALIGN** the two arrows on both connectors so that they point towards one another, And then follow the 3 steps in **Fig 22**.

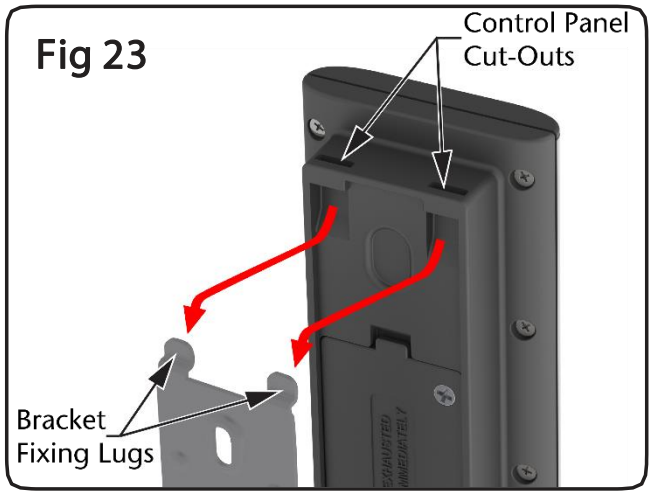


Triton Xerophyte Controller Installation

Attach the Triton Xerophyte Controller Unit to the fixing bracket. Whilst doing so push the excess data cable/data cable connection lead through the hole within the fixing bracket, and back into the wall cavity.

Fit Triton Xerophyte Controller Unit cut-outs over the bracket fixing lugs **(Fig 23)** and slide down into place. Secure with the single screw at the bottom of the Triton Xerophyte Controller Unit **(Fig 24).**

DO NOT overtighten the screw.



DO NOT turn on the electricity supply to the Triton Xerophyte Mixer until commissioning.

Triton Xerophyte Controller Unit fitting (Wireless Connectivity Only)

Triton recommend wired installation, as wireless transmissions MAYBE BLOCKED from the Triton Xerophyte Controller Unit and thus prevent correct operation of the shower. Should it be necessary to rely on wireless connectivity, then it is important to wait until AFTER commissioning before deciding on the final location of the Triton Xerophyte Controller Unit and drilling any holes for installing the Controller Unit's fixing bracket. The best and final location to place the Triton Xerophyte Controller Unit will need to be first tested to ensure there is a strong and consistent wireless signal between the Controller Unit and the Triton Xerophyte Mixer Unit.

The Triton Xerophyte Controller Unit should be installed no more than approximately 10-metres from the Triton Xerophyte Mixer Unit. The ideal location to mount the Triton Xerophyte Controller Unit is on the wall at a convenient place inside the enclosure whereby the user can easily start and stop the shower but also have easy access before entering the shower to activate the war-up procedure.

Triton Xerophyte Controller Installation

For Wireless Connectivity Only: Fit 3 x AA sized ALKALINE batteries (not supplied) into the Triton Xerophyte Controller Unit as shown in Fig 25.

Always use of ALKALINE batteries. Other batteries might cause reconnection connectivity problems. Flat Batteries must be replaced with new batteries

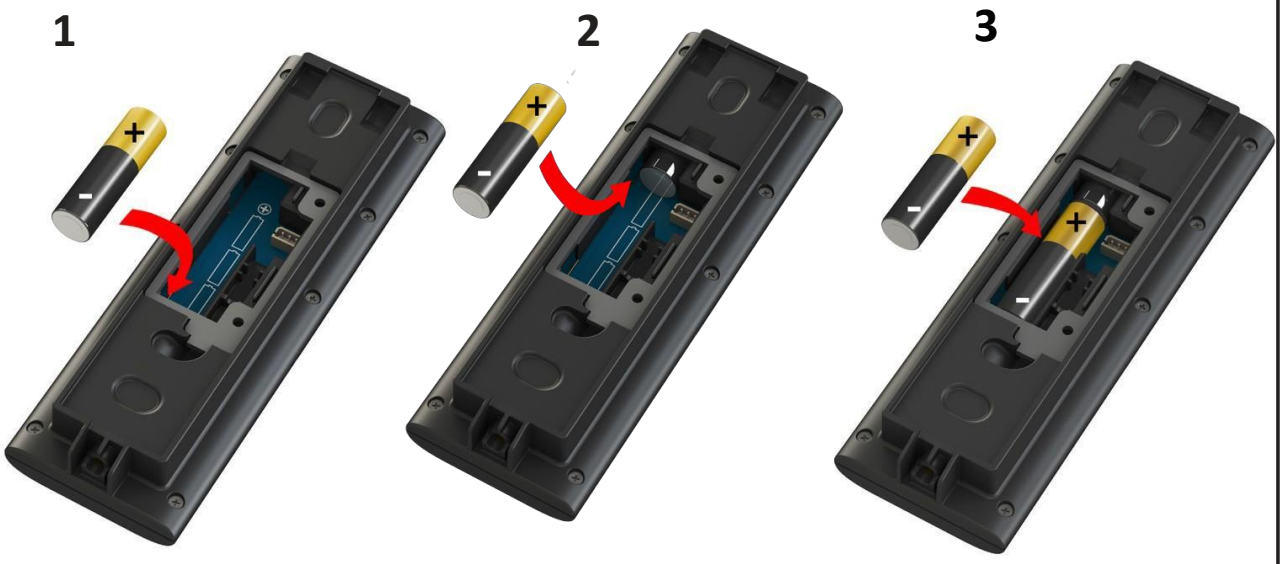


Fig 25

Make sure the fitting of the batteries is done correctly, otherwise the PCB within the Triton Xerophyte Controller Unit could be damaged.

Replace the battery compartment cover and secure it in place using the two fixing screws previously removed.

Ensure that the battery compartment cover sits flush with the rear housing of the Triton Xerophyte Controller Unit and that both retaining screws are tight **(Fig 20).**

DO NOT overtighten the screws.

Attach the Triton Xerophyte Controller Unit to the fixing bracket.

Fit Triton Xerophyte Controller Unit cut-outs over the bracket fixing lugs **(Fig 23)** and slide down into place. Secure with the single screw at the bottom of the Triton Xerophyte Controller Unit **(Fig 24).**

DO NOT overtighten the screw.

Always use ALKALINE batteries in your Triton Xerophyte Controller Unit.

Commissioning

Triton Xerophyte Controller Unit preparation for commissioning

Commissioning is to ensure water is purged through the unit and any air is dispelled from the system. During commissioning, alternating values are displayed on the Triton Xerophyte Controller Unit screen. The purpose is the enable the installer to hold their hand under the shower outlet to verify that the Triton Xerophyte is functioning correctly.

While the Triton Xerophyte Shower Mixer is in commissioning mode all other functionality is locked out. Before commencing the commissioning process you **MUST** first ensure that the isolating valves on the hot and cold inlets are fully open (Fig 11) and then turn on the water supplies and check the entire installation for water leaks. Commissioning **MUST** be carried out with suitable pipework/hose attached to the shower outlet and with the outlet directed to waste. **DO NOT** run the Triton Xerophyte Shower Mixer without water.

When the above actions have been satisfactorily completed, turn on the electrical supply to the Triton Xerophyte Mixer Unit.

WARNING: Failure to commission the Triton Xerophyte Mixer correctly could cause long term damage to the shower.

Preparation for commissioning (Wireless Connectivity Only)

With batteries fitted into the Digital Controller, electricity supply to the Digital Processor unit turned on, the wireless connectivity between the Digital Controller and Digital Mixer Processor unit will be automatically undertaken. If the Digital Controller is connected to the Digital Processor, the controller will display this symbol in the corner of the display.

If however either of the messages in Fig.26. are displayed on the Digital Controller permanently then wireless connectivity should be undertaken manually.

To manually connect the Digital Controller with Digital Mixer Processor unit, ensure that fully charged batteries are fitted into the Digital Controller.

1. Isolate the electricity supply to the Digital Mixer Processor Unit
2. After at least 1 minute restore the electricity to the Digital Mixer Processor Unit
3. Within 2 minutes, with the Controller in sleep mode, press the On/Off ( ) or remove and replace the batteries in the Controller.
4. If this does not restore wireless connectivity, this process should be repeated.
5. If for any reason the loss of connection cannot be resolved, please contact IWSX Customer Service in South Africa.

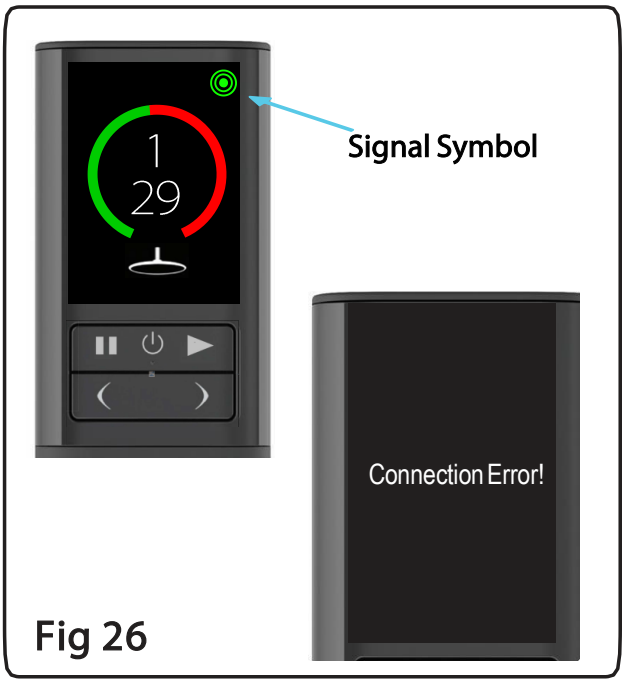


Fig 26

Commissioning

NOTE: Failure to install the Triton Xerophyte Controller Unit within the defined installed distance of within 10 metres of the Triton Xerophyte Mixer Unit will negatively affect wireless connectivity. If the symbols in Fig 26 continue to be displayed, then the Triton Xerophyte Controller Unit will need to be relocated. It is crucial for efficient and trouble-free operations to ensure that there is a strong and consistent wireless signal connecting the Triton Xerophyte Controller Unit and Triton Xerophyte Mixer Unit.

DO NOT run the Triton Xerophyte Mixer Shower without a water supply.

Fig 27

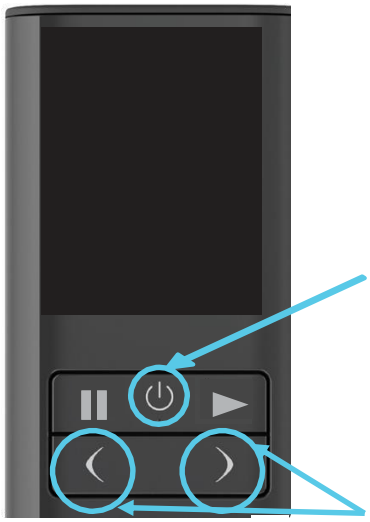
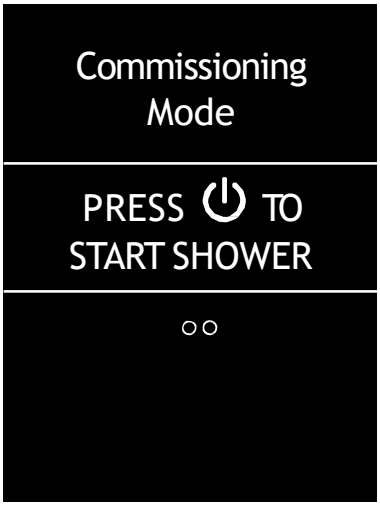


Fig 28



Commissioning procedure (Wired and wireless)

After switching the Triton Xerophyte Controller Unit on, the message illustrated in Fig 28 will be displayed on the Controller Unit. To begin the commissioning procedure, press the 'Start/Stop' button (Fig 27).

The purpose of the commissioning process is to dispel any air in the system and to prime both supplies to the Triton Xerophyte Mixer Unit. It also provides the opportunity to verify that everything is functioning correctly. The process takes around 2 minutes, and water flows from the shower head during the process.

During the commissioning mode, the Triton Xerophyte varies flow control and temperature while displaying the process on the screen. It is suggested to hold your hand under the flow to to verify that the temperature and flow of shower water corresponds with the information displayed on the Controller Unit's screen.

Press the 'Start/Stop' button to terminate the commissioning process if you are confident that there is no air in the system. Following servicing or maintenance, it will be necessary to repeat the above commissioning process. This commissioning process can be reactivated from the configuration menu. Refer to the 'Settings and configuration' section within the User Guide.

Quick Start

1

SWITCH ON
Press ⏻ to warm-up. A beep sounds when the shower is ready

2

START SHOWER
Press ► to start.
The target temperature is displayed
.

3

SHOWER TEMPERATURE
You can adjust the water temperature at any time

4

SHOWER TIMER
During showering, the remaining time is displayed (mins/secs)

5

PAUSE/RESTARTT
The shower can be paused and restarted as many times as needed

6

FLOW ADJUST
You can adjust the water flow at any time during showering

7

AUTOMATIC STOP
The beep will sound 30 seconds before the end of the session

8

RESTART
To extend your shower session, press ►

General Maintenance

If the Triton Xerophyte Mixer Unit is dismantled for any reason during servicing or maintenance, then it **MUST** be inspected to ensure there are no leaks. Following maintenance or servicing it is recommended to repeat the commissioning procedure to ensure no air has become trapped during the work.

Cleaning

Many household cleaners contain abrasive and chemical substances, and should not be used for cleaning the Triton Xerophyte Controller Unit or any chrome-plated fittings. It is recommended that your Triton Xerophyte Shower Controller is cleaned regularly with warm, soapy water using a microfibre cleaning cloth (eg: E-cloth) or sponge ONLY.

DO NOT use a general-purpose cleaning cloth (eg: J-cloth) dishcloth or scourer.
DO NOT use abrasive or aggressive chemical cleaning products as this may affect the product surface finish and invalidate your guarantee.

It is recommended that the filter be periodically cleaned to maintain the performance of the shower.

Cleaning the inlet filters

Using an appropriate flat-bladed screwdriver, isolate both the hot and cold inlet valves **(Fig 11)**.
Isolate the electricity supply to the Triton Xerophyte Mixer Unit.
Unscrew the inlet nut and remove the inlet pipe, O ring seal, flow regulator housing/inlet filter.
Remove the inlet filter from the flow regulator housing **(Fig 28)** and wash thoroughly under running water to remove all debris.

Refit the flow regulator housing/Inlet filter, O ring seal and inlet pipe, secure with the inlet nut.

Note: the inlet nut only needs to be hand tightened.

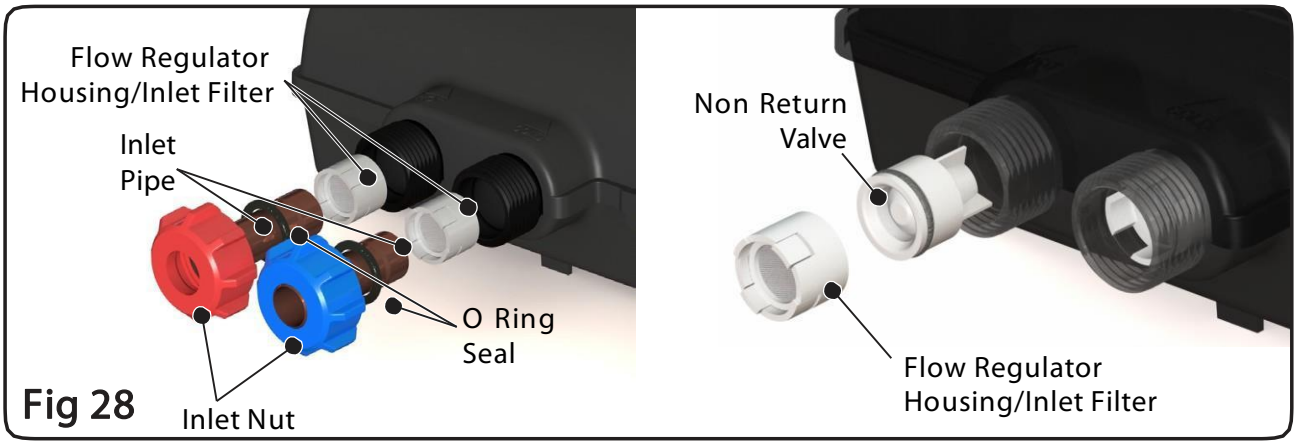
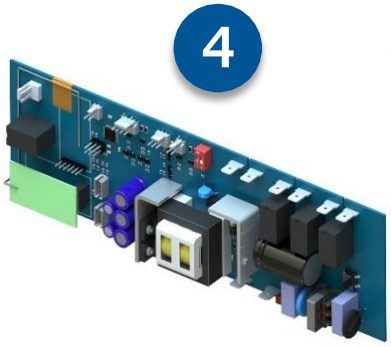
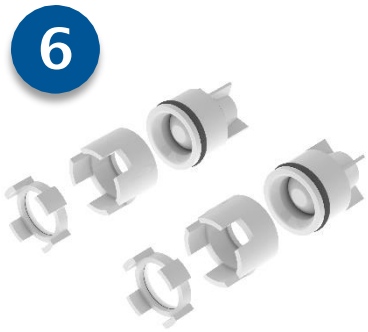
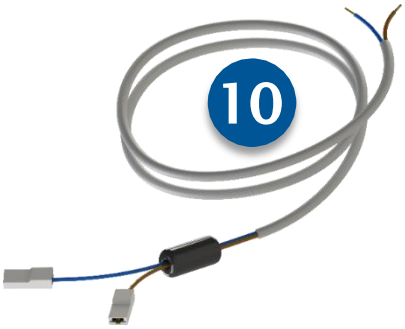


Fig 28

Spare Parts







Spare Parts

Ref.	Description	Part No.
1.	HP Dual Temp Valve	83316980
2.	Flow Valve & Potentiometer Assembly	83316770
3.	Dual Outlet Assembly	83316920
4.	Mixer Unit PCB	7073763
5.	Pump Assembly	83316790
6.	Check valve & Inlet Filter Pack	83316810
7.	Triton Xerophyte Digital Controller Unit	83316820
8.	Digital Controller Fixing Bracket	88316740
9.	Data Cable Connector for Controller Unit Only	2160634
10.	Mains Cable	2160637
11.	10m Data Cable Inc Ferrite	S86100820
12.	Mixer Unit (IWSX)	A31810503
13.	Pump Bracket	PB998871

Fault Diagnosis

If any maintenance is required then it **MUST** be carried out by a competent trades person. **ENSURE** that the underlying cause of the malfunction is resolved before replacing any parts.

IMPORTANT - Isolate the electricity supply before attempting any fault diagnosis inside the Triton Xerophyte Mixer Unit

	Cause	Action/Cure
Triton Xerophyte Mixer Shower will not turn on/no water flow.	Interrupted power supply caused by either local power cuts or a blown fuse or circuit breaker.	Inspect and, if necessary, renew or reset fuse or circuit breaker. If it fails again, consult a qualified electrician.
	Batteries in the Triton Xerophyte Controller Unit are flat (wireless only).	Install new batteries. Refer to the 'Triton Xerophyte Controller Unit Installation' section of this Guide.
	Triton Xerophyte Controller Unit is installed out of range (wireless only).	Reposition the Triton Xerophyte Controller Unit, refer to the 'Triton Xerophyte Controller Unit Installation' section of this Guide.
	Inlet isolating valves are not fully open.	Check if isolating valves are fully open. Refer to 'Triton Xerophyte Mixer Installation' of this Guide.
	Inlet filters or check valves blocked.	Check for a blockage in inlet filters and check valves, refer to 'Cleaning the inlet filters' under ' General Maintenance' of this Guide.
	Air lock in water supplies.	Purge air from hot and cold supplies to the connectors on the Triton Xerophyte Mixer Unit. Following purge action, initiate the Commissioning procedure as outlined in the 'Commissioning' section of this Guide.
	Failure of hot or cold water supply.	Check water elsewhere in the property and, if necessary, contact the local municipality.
	Loss of wireless connection between Triton Xerophyte Controller and Mixer Unit (wireless connectivity only).	Go to the "Commissioning – Wireless Connectivity Only" section of this Guide and repeat the wireless connectivity procedure.
	Unit malfunction.	Contact IWSX Customer Service.

Fault Diagnosis

Problem/ Symptom	Cause	Action/Cure
Water too cool or cold.	Temperature setting too low.	Increase temperature via rotary temperature control. Refer to the 'Adjusting the Temperature' in the User Guide.
	'Max Shower Temperature' setting set to low.	Refer to the 'Configure Settings' section of the Triton Xerophyte User Guide to adjust the temperature settings.
	Supply temperature below 50°C.	Refer to 'Specifications' for guidance on how to set the system temperature to a minimum of 55°C.
	Water pressure above maximum specified or imbalanced.	Check water pressures are normally equal, refer to the 'Specifications' section of this Guide for further guidance.
	Combination boiler cutting in/out.	Check the use of flow regulators, refer to the 'Typical Suitable Installations' section of this guide for further guidance.
	Insufficient supply of stored hot water.	Check that the hot water storage capacity meets the recommendation of the 'Typical Suitable Installations' section of this Guide.
	Air lock in Triton Xerophyte Mixer Unit.	Prime to remove air from the Triton Xerophyte Mixer Unit. Following purge action, the Triton Xerophyte Mixer Unit commissioning procedure must be undertaken in accordance with the 'Commissioning' section of this Guide.
	Inlet supply connection reversed.	Check the inlet supply connection, then if necessary correct, in accordance with the 'Triton Xerophyte Mixer Unit Installation" section of this guide.
	Outlet pipe run is too long.	Ensure that the distance between the Triton Xerophyte Mixer Unit and Showerhead is as short as possible in accordance with the 'Triton Xerophyte Mixer Unit Installation section of this Guide.
	Outlet pipe is not insulated.	Ensure the outlet pipe is thermally lagged, then if necessary rectify, in accordance with the 'Triton Xerophyte Mixer Unit Installation' section of this Guide.
Low flow rate.	Flow settings too low.	Increase flow by pressing the flow increase button. Refer to the 'Adjust the Flow' section in the User Guide.
	Inlet isolating valves are not fully open.	Check if isolating valves are fully open. Refer to 'Triton Xerophyte Mixer Installation' of this Guide.
	Inlet filters or check valves blocked.	Check for a blockage in inlet filters and check valves, refer to 'Cleaning the inlet filters' under ' General Maintenance' of this Guide.
	Blockage in the pipework.	Turn off the shower and consult a suitably competent plumber.
	Blocked showerhead or hose.	Clean the spray plate or replace the blocked hose.
	Inlet water pressure low.	Check if sufficient water pressure is available. Refer to the 'Specifications' section of this Guide for further guidance.

Fault Diagnosis

Problem/Symptom	Cause	Action/Cure
Low Flow Rate.	Airlock in Triton Xerophyte Mixer Unit.	Prime to remove air from the Triton Xerophyte Mixer Unit. Once the air has been removed, initiate the commissioning procedure as outlined in the 'Commissioning' section of this Guide.
	The installed hot inlet flow regulator is not suitable or has been incorrectly installed.	Check the hot inlet flow regulator and installation to ensure they comply with the 'Typical Suitable Installation' section of this guide. If not, take appropriate hot inlet flow regulator replacement and/or reinstallation action.
The shower stops during showering.	Maximum showering time reached.	Restart the shower by pressing the 'start button', refer to the 'Configure Settings' in the User Guide for further guidance.
	Loss of wireless connection between Triton Xerophyte Controller and Mixer Unit (wireless connectivity only).	Go to the 'commissioning –Wireless Connectivity Only' section of this Guide and repeat the wireless connectivity procedure.
	Loss of either hot or cold water supply.	Check water elsewhere in the property and, if necessary, contact the local municipality.
		Check that water is available to the shower when other outlets are in use.
		The Triton Xerophyte will inform you if there is a problem with the hot water supply. Refer to the 'Display Screens' section in the User Guide. Either, wait for stored water to reach temperature or cancel the warm-up cycle by pressing the play button. The Triton Xerophyte will adjust the shower temperature to as close as possible to the target temperature as is allowed by the stored water temperature.
	Air lock in Triton Xerophyte Mixer Unit.	First check that the installation complies with the Installation Section of this Guide, then prime to remove air from the Triton Xerophyte Mixer Unit. Once the air has been removed, initiate the commissioning procedure as outlined in the 'Commissioning' section of this Guide.
	Combination boiler cutting in/out.	Check the use of flow regulators, refer to the 'Typical Suitable Installations' section of this guide for further guidance.

Fault Diagnosis

Problem/Symptom	Cause	Action/Cure
Triton Xerophyte Controller Unit is not responsive.	Loss of or poor wireless signal between Triton Xerophyte Controller and Triton xerophyte Mixer Unit (wireless connectivity only).	Go to the "Commissioning – Wireless Connectivity Only" section of this Guide and repeat the wireless connectivity procedure. Check Batteries.
	Unit malfunction.	Contact IWSX Customer Service
Shower Pulsing (HP). (Combination boiler).	Water supply temperature too low.	Increase the hot water temperature at the source.
	Unbalanced water.	Fit a pressure reducing valve in the cold water supply inlet.
Noise	Air lock in Triton Xerophyte Mixer Unit.	First check that the installation complies with the Installation section of this Guide, then prime to remove air from the Triton Xerophyte Mixer Unit. Once the air has been removed, initiate the Triton Xerophyte Mixer Unit commissioning procedure as outlined in the "Commissioning" section of this Guide
	Water hammer.	Ensure all pipework is securely fixed, see '**General Installation Information**'.
	Unit malfunction.	Contact IWSX Customer Service.

Retrofitting Options

No need to remodel your bathroom to install the Triton Xerophyte. Retrofitting your existing shower with a Triton Xerophyte is simple with our two optional extra installation solutions.

Option A

Our optional innovative ceiling-fed shower fitting allows the Triton Xerophyte Mixer Unit to be installed above your shower in the ceiling.

Option B

The optional Xerophyte Vanity Cover enables the Triton Xerophyte Mixer Unit to be installed in the shower cubicle, minimizing the distance between the mixer and the showerhead to maximize water savings and enhance your shower experience. *"Showerhead and arm not included"*

Disposal and Recycling

Batteries

Spent batteries should **NOT** be disposed of with your normal household waste.

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

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

NRCS APPROVED

Guarantee and Service Policy

SA SERVICE POLICY

In the event of a product fault or complaint arising from the poor or incorrect installation (refer the *Xerophyte Water-Saving Digital Shower Installation Guide*), or a faulty electrical connection or plumbing and/or boiler, please first contact, where applicable, either your installer, a professional and qualified tradesperson or your utilities service provider.
If the fault persists, or the fault from the outset cannot be attributed to any of the afore mentioned causes, the following procedure should be followed:
Telephone IWSX in South Africa on +27 (0) 12 3485022 and ask for Customer Service. To ensure we properly and expeditiously process your complaint you will need to provide the following information:

- Your name and contact numbers
- The address at which your Triton Xerophyte is installed
- The date upon which you purchased your Triton Xerophyte (Note: if your Triton Xerophyte is still under guarantee you will be asked to provide proof of purchase)
- The name of the installer and date of installation
- As much detail as you can about the fault.

Replacement Parts Policy

IWSX holds an inventory of functional spares in South Africa. Spare parts can be ordered from IWSX in South Africa on +27 (0) 12 3485022. Payment can be made by credit/debit card (excluding American Express and Diners Card) or pre-against a pro-forma invoice.

In case of orders for spare parts to rectify faulty product still under guarantee, please note that they will be charged at normal recommended retail if you are unable to provide proof of original product purchase.

IWSX does not accept liability for and will not accept returns for credit or replacement of parts incorrectly ordered or identified at time of order. If IWSX supplies the wrong part in lieu of that ordered, IWSX will replace it with the correct part in exchange for the original part´s return.

TRITON STANDARD GUARANTEE

Triton guarantee the Triton Xerophyte Mixer Unit and Triton Xerophyte Controller (the Product") against all manufacturing defects for a period of 3 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 installation instructions published in *Xerophyte Water-Saving Digital Shower Installation Guide.*
All Triton accessories such as Triton showerheads, Triton shower hoses and Triton shower riser rails carry 1-year parts-only guarantee by Triton against manufacturing defects.

Under this guarantee, IWSX may elect at its option to without charge repair or replace any part found to be defective during the guarantee period, so long as it has been properly maintained and operated in accordance with the operating instructions and has not been subjected to misuse or damage, and has-not be taken apart, modified or repaired. This guarantee applies only to products installed within Southern Africa and does not apply to products used commercially. This guarantee does not affect your statutory rights.

Exclusions. This guarantee does-not cover:

1. Breakdown due to:
   a. use other than domestic use;
   b. wilful act or neglect;
   c. any malfunction resulting from the incorrect use or quality of electricity, gas or water or incorrect setting of controls;
   d. failure to properly install in accordance with this *Xerophyte Water-Saving Digital Shower Installation Guide*.
2. Claims for missing parts once the product has been installed.
3. Repair costs for damage caused by foreign objects or substances.
4. Total loss of the product due to the non-availability of parts.
5. Compensation for loss of use of the product or consequential loss of any kind.
6. The cost of repair or replacement of isolating switches, electrical cable, fuses and/or circuit breakers or any other accessories installed at the same time. Replacement of the pressure relief device that only activates when the shower outlet is blocked is also excluded.
7. The cost of routine maintenance, adjustments, overhaul, modifications or loss or damage arising therefrom, including the cost of repairing damage, breakdown, or malfunction caused by, but not limited to, corrosion, scaling and furring, incorrect water pressure, electrical/plumbing installation faults, frost or exposure to freezing overheating conditions.

TRITON

For a cleaner conscience

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Triton Showers is a division of
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It is our policy to improve the design and specification of our products and we reserve the right to depart from the design given without prior notice.