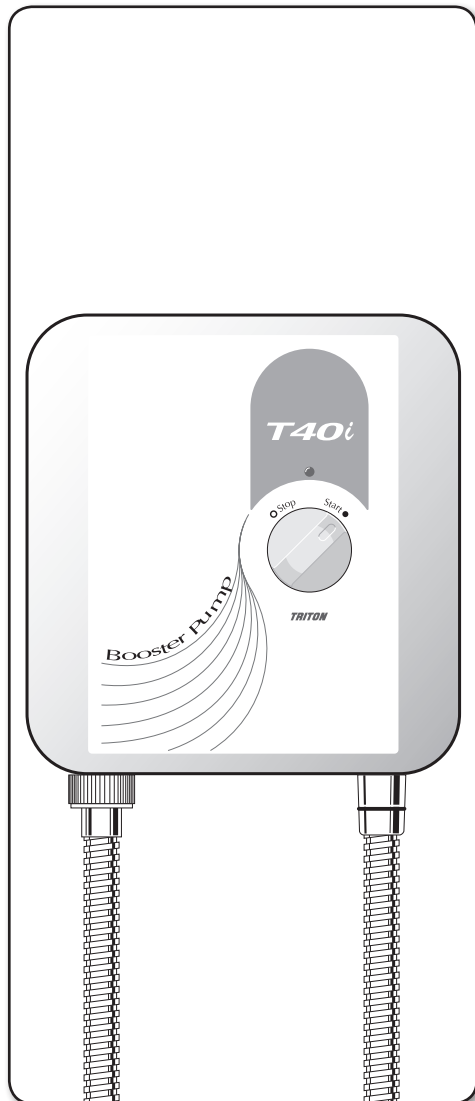


**TRITON**

**T40i  
booster pump**



**Installation and  
operating  
instructions**



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

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## ⚠ WARNING ⚠

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience or knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children may not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

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

Telephone: 024 7637 8495

Facsimile: 024 7632 4504

E mail: [technical@tritonshowers.co.uk](mailto:technical@tritonshowers.co.uk)



## **1 GENERAL**

- 1.1** Products manufactured by Triton are safe and without risk provided they are installed, used and maintained in good working order in accordance with our instructions and recommendations.
- 1.2 DO NOT** operate the unit if it is frozen, or suspected of being frozen. It must thaw out before using.
- 1.3** Switch off the electrical supply at the mains before removing the cover.
- 1.4** Read all of these instructions and retain them for later use.
- 1.5 DO NOT** connect to the mains water supply.
- 1.6** Isolate electrical and water supplies **BEFORE** proceeding with the installation.
- 1.7 DO NOT** connect to modulating type combination boilers, multi-point hot water heaters, and unvented or thermal storage systems.
- 1.8** Contact Customer Service (see back page), if any of the following occur;  
**a) If water ceases to flow during use.**  
**b) If the unit shows a distinct change in performance.**  
**c) If the pump is frozen.**  
**d) If water has entered inside the unit because of incorrectly fitted cover.**
- 1.9 DO NOT** restrict flow out of the pump by placing the sprayhead in direct contact with your body.
- 1.10 This product is not suitable for mounting into steam rooms or steam cubicles.**
- 1.11 DO NOT** use excessive force when making connections to the flexible hose or sprayhead, finger tightness is sufficient.
- 1.12** All hose connections **MUST** be completed **BEFORE** making the electrical connections

## **2 ELECTRICAL**

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

## INTRODUCTION

This book contains all the necessary fitting and operating instructions for your T40i booster pump. Please read them carefully.

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

Care taken during the installation will ensure a long, trouble-free life from your booster pump.

The T40i booster pump is designed to improve the flow rate through an existing bath/tap mixer valve. It is **NOT** designed to pressurise the water supply but only to assist the flow.

**IT MUST ONLY** be fitted to new or existing gravity fed shower mixer systems.

The unit is easy to install requiring no plumbing, only simple screw-on hose connections and a suitable power supply.

**NOTE:** *It must NOT be used with instantaneous water heaters.*

This product is suitable for installation in a bathroom.

**DO NOT** install the unit so close to the bath that the supplied hose becomes twisted or kinked and restricts the water flow.

**This product is rated at:  
15 minutes on / 45 minutes off.**

## SPECIFICATIONS

### Electrical

Voltage: ..... 240V

Pump motor rating: ..... 73 Watt (nominal)

### Water

Inlet connection – ½" BSP male thread.

Outlet connection – ½" BSP male thread.

### Entry Points

Water – bottom left.

Cable – top right, rear right.

### Materials

Backplate, cover, controls – ABS.

### Dimensions (in millimetres)

Height ..... 230

Width ..... 217

Depth ..... 80

### Standards and Approvals

Splashproof rating - IPX4

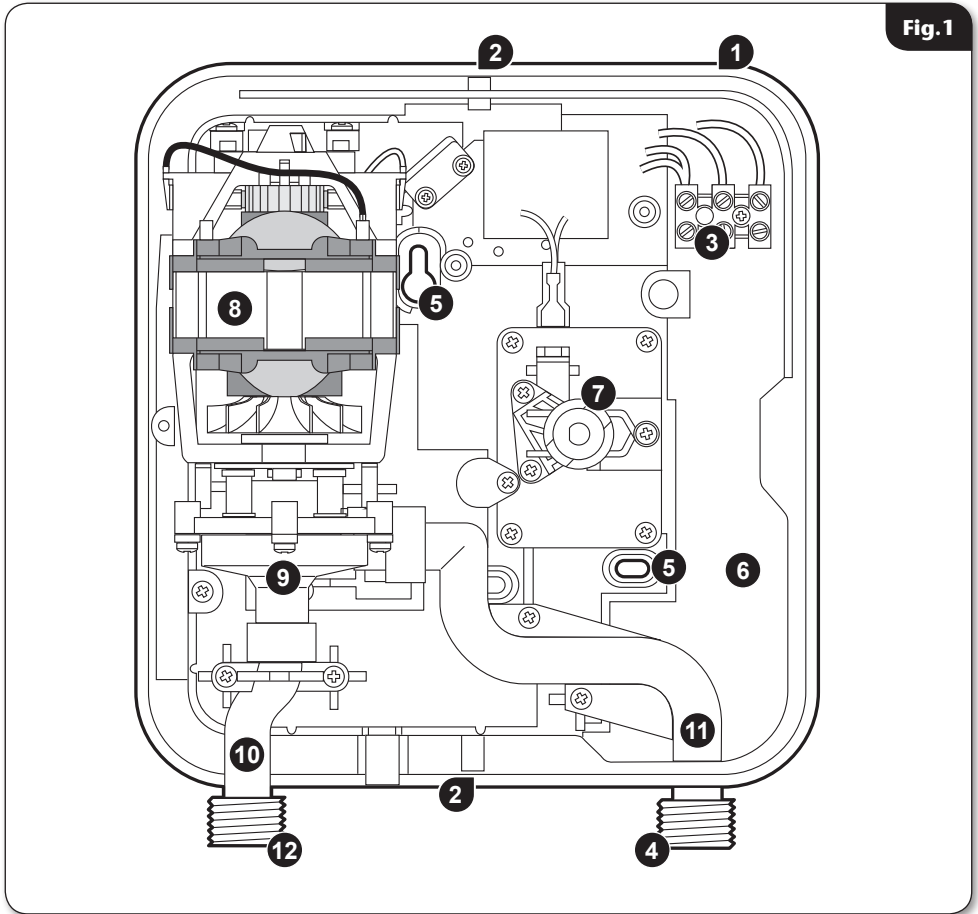
Complies with the requirements of current British and European safety standards for household and similar electrical appliances

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

Meets with Compliance with European Community Directives (CE)

## MAIN COMPONENTS

Fig. 1



- |                              |                            |
|------------------------------|----------------------------|
| <b>1</b> Top cable entry     | <b>8</b> Motor             |
| <b>2</b> Cover screw fixings | <b>9</b> Pump assembly     |
| <b>3</b> Terminal block      | <b>10</b> Inlet pipe       |
| <b>4</b> Outlet connection   | <b>11</b> Outlet pipe      |
| <b>5</b> Wall screw fixings  | <b>12</b> Inlet connection |
| <b>6</b> Rear cable entry    |                            |
| <b>7</b> Switch assembly     |                            |

## SITE REQUIREMENTS

### Water

The installation must be in accordance with Water Regulations/Byelaws.

To ensure correct operation, the T40i unit **MUST be connected to a gravity fed system of hot and cold water of equal pressure (fig.2).**

### ⚠ IMPORTANT ⚠

The T40i pump **MUST NOT** be connected to the mains water supply.

- The unit **MUST** be positioned **BELOW** the cold water cistern and **NOT** placed in areas where it will be subject to freezing conditions.
- Position the unit where it will **NOT** be in direct contact with water from the sprayhead.
- Both hot and cold water supplies to the existing bath/tap mixer valve **MUST** be direct and separate from any other outlets or connections.
- **DO NOT use jointing compound on any pipe fittings for installation.**

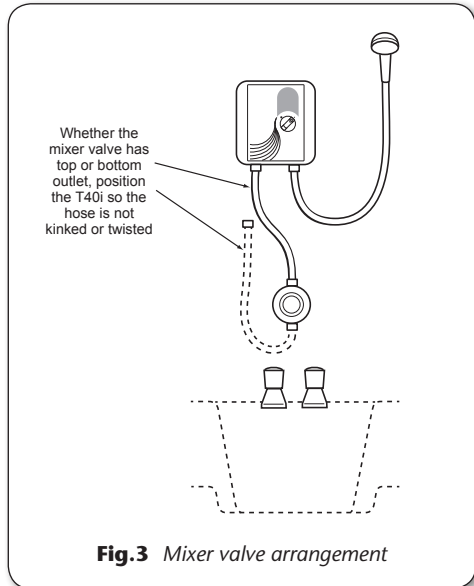
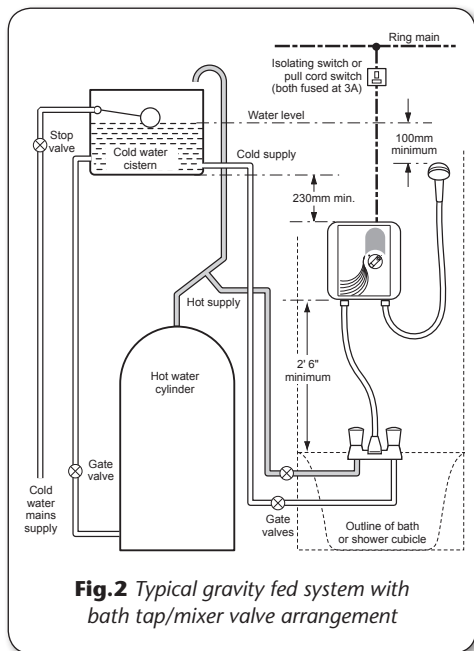
**NOTE:** The outlet of the T40i pump acts as a vent and must not be connected to any form of tap or fitting that is **NOT** recommended by the manufacturer.

Generally there are four main types of hot and cold water mixer systems to which the T40i can be installed. These are shown in (fig.2) through to (fig.5).

In each case, to ensure correct operation of the booster pump, the top of the T40i unit **MUST** be at least 230mm below the bottom of the cold water cistern and the sprayhead must be a minimum of 100mm below the water level of the cold water cistern.

**NOTE:** Bath mixer valves incorporating a diverter valve can have a high restriction to water flow, so the expected improvement may not be possible.

Water circuits supplying the T40i unit should be installed so that the flow is not significantly affected by other taps and appliances that are being operated elsewhere on the premises.



## SITE REQUIREMENTS

### Electrical

#### **⚠ WARNING**

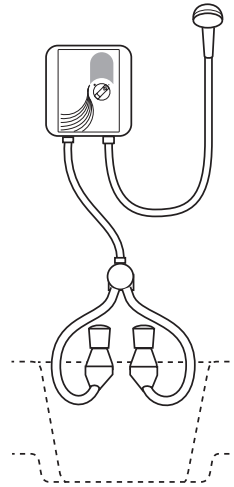
THIS APPLIANCE **MUST** BE EARTHED

- This product must be permanently connected to the electricity supply, via a double pole switch with at least 3mm contact separation. This can be a ceiling mounted pull cord switch, or a wall mounted switch, both of which must be fused at 3A.
- The switch must be readily accessible and clearly identifiable, but out of reach of a person using a fixed bath or shower, except for the cord of a cord operated switch.
- The installation and wiring **MUST** comply with the current IEE regulations.
- The supply cable and circuit protection **MUST** conform with IEE wiring regulations and be sufficient for the amperage required. In most cases 1mm<sup>2</sup> twin and earth cable will be adequate.

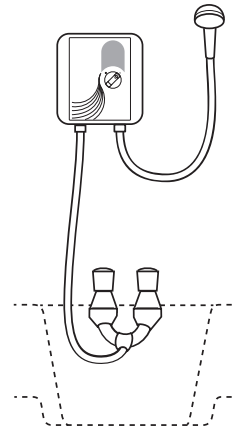
**If in any doubt consult a qualified electrician or contact Triton Customer Service for advice.**

#### **⚠ WARNING**

The unit **MUST NOT** be positioned where it will be subjected to freezing conditions.

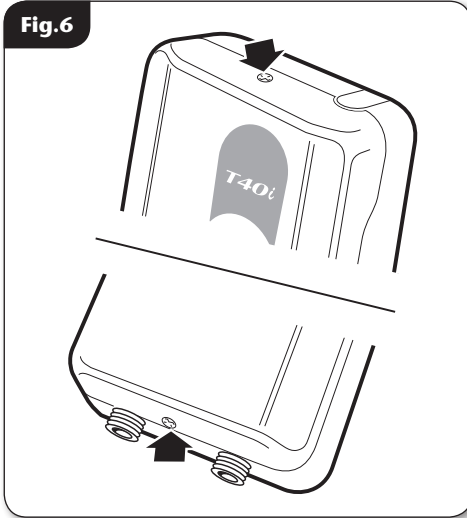


**Fig.4** Push-on with blender/mixer valve arrangement



**Fig.5** Push-on type arrangement

Fig.6



### FITTING TO THE WALL

- Unscrew the top and bottom retaining screws (**fig.6**) and lift the cover from the backplate.

**NOTE:** The control knob is an integral part of the cover – **DO NOT attempt to remove it.**

- Decide on the cable entry position, either top or rear.
- If top entry position is chosen, the cut-out in the backplate must be removed (**fig.7**).
- Loosely connect the flexible hose supplied to the T40i inlet connection and the mixer valve outlet. Using the backplate as a template, hold it against the wall, making sure there is some slack in the hose and mark the position of the fixing holes (**fig.8**). Remove the flexible hose from the T40i and mixer valve.

### ⚠ WARNING

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

Fig.7

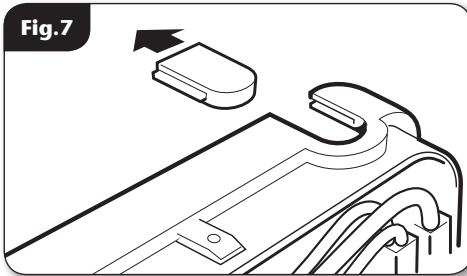
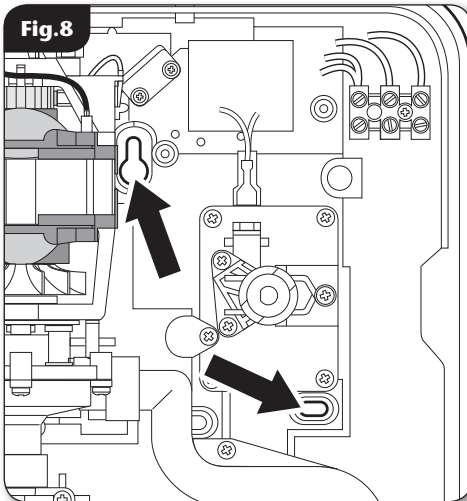


Fig.8



- Drill and plug the wall. (*An appropriate drill bit should be used. If the wall is brick, plasterboard or a soft building block, appropriate wall plugs and screws should be fitted.*)
- Screw the top fixing screw into position leaving the base of the screw head protruding 6mm out from the wall.
- Hook the backplate over the top screw and fit the bottom fixing screw into position.
- The bottom fixing hole is elongated to allow for out of square adjustment. Tighten both screws when correctly positioned.



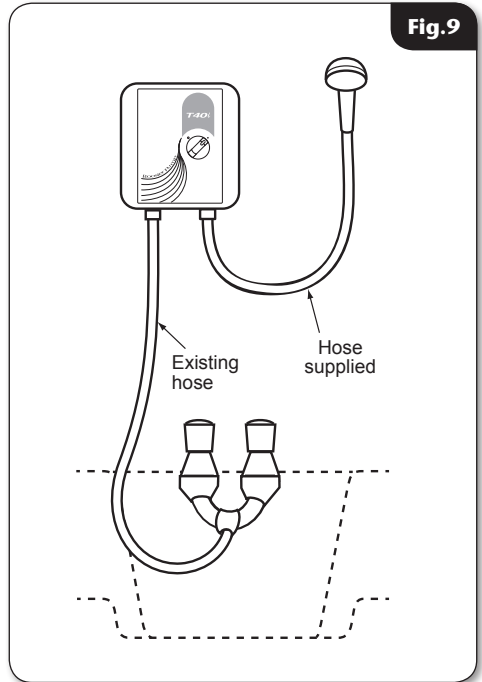
## HOSE CONNECTIONS

### Fitting to:

- Bath tap/mixer valve (fig.2)
- Mixer valve (fig.3)
- Push on with blender valve (fig.4)
- Remove the existing sprayhead flexible hose from bath tap/mixer valve/blender mixer arrangement.
- Screw one end of the flexible hose supplied, to the T40i inlet connection using one of the sealing washers to seal the joint.
- Screw the other end of the flexible hose to the mixer outlet using the washer provided to seal the joint.
- Screw the sprayhead flexible hose to the outlet of the T40i pump using the washer provided to seal the joint.
- Remove the sprayhead.
- Hold the end of the hose to waste and turn the water on to flush the system and to check for leaks. Turn off the water.
- Replace the sprayhead and turn the water on again. Leave running to waste until a smooth (even if poor) flow of water is obtained.
- Turn off the water.

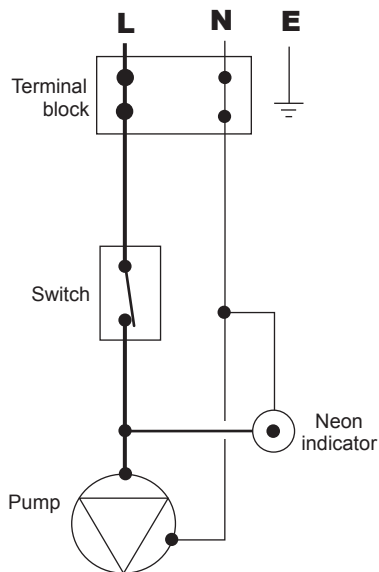
### Fitting to:

- Push-on type connection (fig.5) and (fig.9)
- Unscrew the sprayhead from the existing hose then connect the hose to the T40i inlet.
- **NOTE:** *This is only possible if the hose terminates with a 1/2" BSP connection. Connect the hose supplied to the T40i outlet using the washer provided to seal the joint.*
- Hold the end of the hose to waste and turn the water on to flush the system and to check for leaks.
- Turn off the water.
- Connect the sprayhead to the supplied hose using the washer provided.
- Turn the water on again and leave running to waste until a smooth (even if poor) flow of water is obtained.
- Turn off the water.



**⚠ IMPORTANT ⚠**  
**DO NOT OVERTIGHTEN FITTINGS,  
 OR KINK OR TWIST HOSES.**

Fig.10



## ELECTRICAL CONNECTIONS

**NOTE:** A double pole linked switch with a minimum contact gap of 3mm in both poles **MUST** be fitted in the circuit.

**IMPORTANT:** The T40i unit **MUST** be supplied by fixed wiring. The supply cable **MUST** conform to relevant tables in current IEE regulations. The electrical rating of the T40i is shown on the rating label within the unit.

Fig.10 shows a schematic wiring diagram.

- **SWITCH OFF THE ELECTRICITY SUPPLY AT THE MAINS.**
- The cable entry points are shown in **fig.1**. The cable can be surface clipped, hidden or via 20mm conduit.

**NOTE:** Conduit entry can only be from the rear. Route the cable into the unit and connect to the terminal block (**fig.11**) as follows:

Earth cable to terminal marked **E**

Neutral cable to terminal marked **N**

Live cable to terminal marked **L**

**IMPORTANT:** Fully tighten the terminal block screws and make sure that no cable insulation is trapped under the screws (**fig.11**).

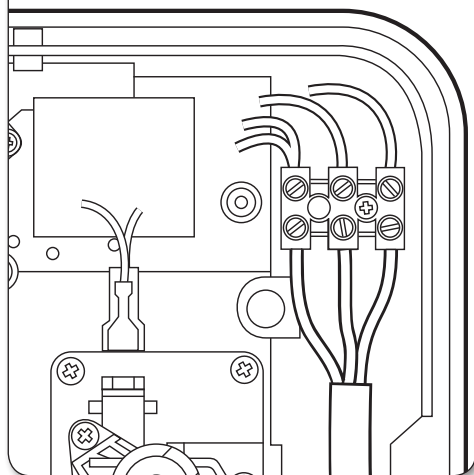
**NOTE:** The supply cable earth conductor **MUST** be sleeved.

The earth continuity conductor of the electrical installation must be effectively connected electrically to all exposed metal parts of other appliances and services in the room in which the T40i is to be installed, to conform to current IEE regulations.

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

**DO NOT switch on the electricity supply until the cover has been fitted.**

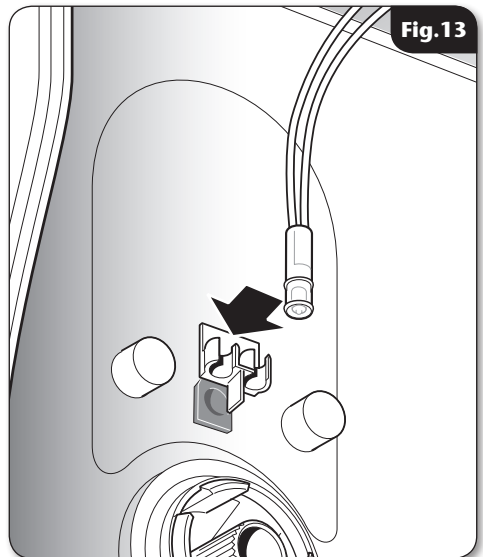
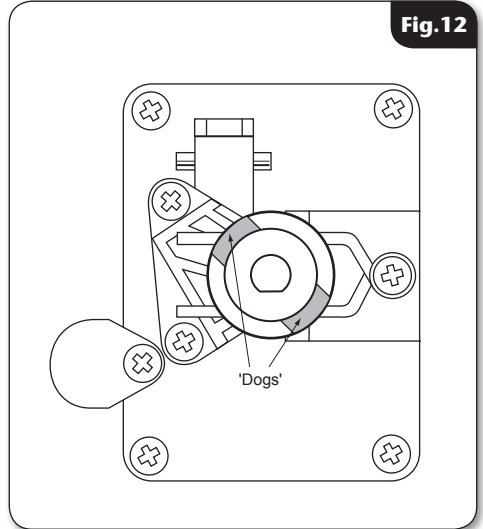
Fig.11



## REPLACING THE COVER AND TESTING

### Procedure

- a) Make sure the switch spindle adaptor 'dogs' are positioned as shown (**fig.12**).
- b) Position the control knob on the cover to 'stop' (**fig.15**).
- c) Offer the cover to the unit and plug the loose neon into the bracket that is inside the cover (**fig.13**).
  - Place the cover squarely over the backplate and guide into position so that the extended 'dogs' of the spindle adaptor slot into the recess of the control knob. Should any difficulty arise, recheck the points above.
  - Secure the cover in position with the two retaining screws.
  - Turn on the water supply at the mixer valve/tap and adjust to a normal showering temperature.
  - Make sure the control knob is at the 'stop' position. Switch on the electricity supply at the isolating switch.
  - Turn the control knob to the 'start' position (**fig.14**). The pump will start and the neon will illuminate. Check for an increase in water flow. Turn the control knob to the 'stop' position (**fig.15**). The water flow should decrease. Turn off the water at the mixer valve/tap.
  - The installation should be checked for any leaks from the hose connections.



### ⚠ WARNING ⚠

#### COVER RETAINING SCREWS

**ONLY** the **SUPPLIED SCREWS** should be used. The use of none supplied screws **WILL** invalidate product specifications & warranty.

Fig.14



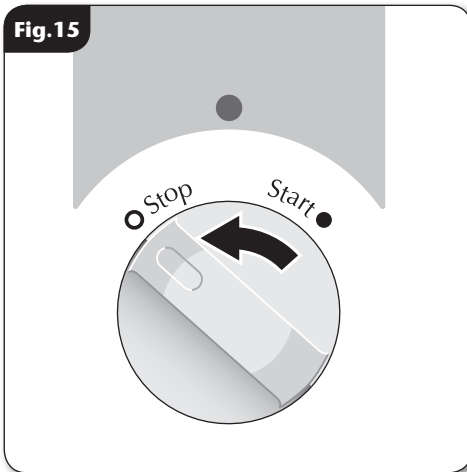
## OPERATING

- Turn on the electric isolating switch.
- Turn on the water supply at the mixer valve/ tap and adjust to a showering temperature.
- Switch the T40i control knob to 'start' (**fig.14**). The pump will start and the neon will illuminate.
- Adjust shower temperature as normal.

**NOTE:** With the push-on hose systems the T40i pump should not be switched on until water flows from the sprayhead.

- When showering is completed, switch the T40i control knob to 'stop' (**fig.15**).
- Turn off the mixer valve or taps.
- Turn off the electric isolating switch.

Fig.15



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

## MAINTENANCE

Before cleaning, turn off the unit at the isolation switch to avoid accidental switching on of the booster pump.

**IT IS IMPORTANT TO KEEP THE EXISTING SPRAYHEAD CLEAN IN ORDER TO MAINTAIN THE PERFORMANCE OF THE SHOWER.**

The hardness of water will determine the frequency of cleaning. For example, if the shower is used every day in a very hard water area, it may be necessary to clean the sprayhead on a weekly basis.

If the T40i pump is not used for lengthy periods, it is recommended to turn on the water at the mixer valve/tap then switch the pump on for two or three minutes periodically to prevent the motor shaft seals from seizing.

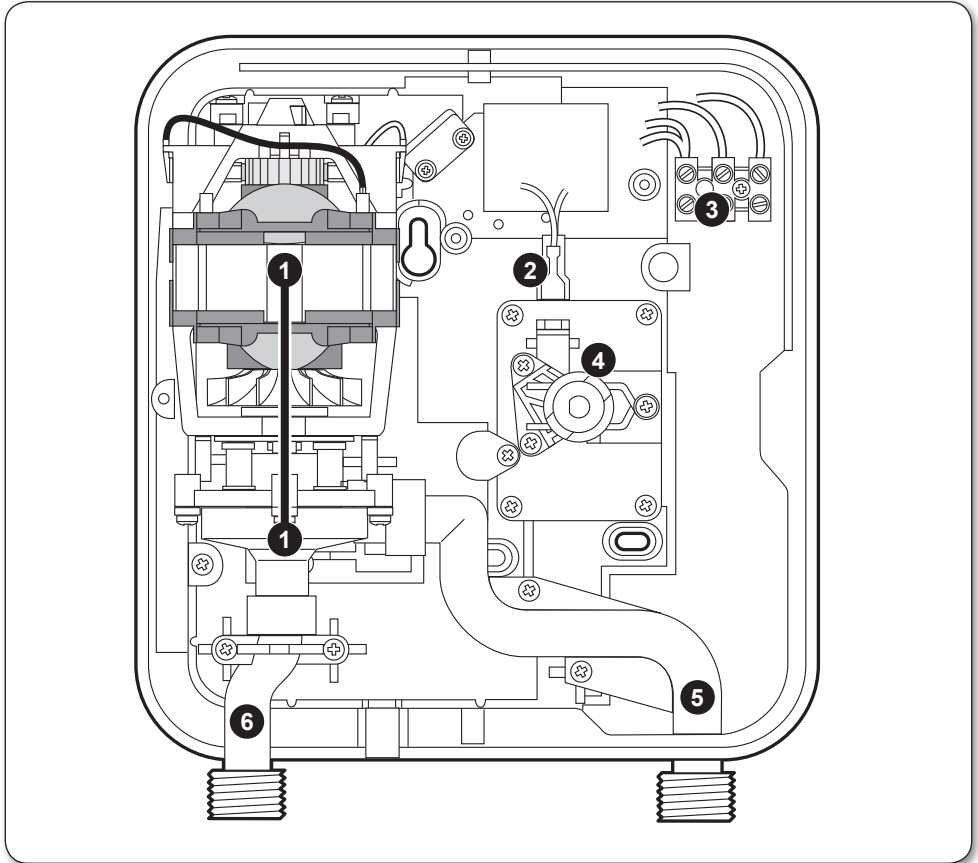
**DO NOT RUN THE T40I PUMP DRY.**

## ADVISORY - CLEANING

It is recommended that all products are cleaned using warm, soapy water.

**DO NOT** use abrasive or aggressive chemical cleaning products as this may affect the product surface finish and invalidate your guarantee.

## SPARE PARTS



<b>Ref. Description</b>	<b>Part No.</b>
<b>1</b> Pump & motor assembly .....	83100060
<b>2</b> Microswitch .....	22012460
<b>3</b> Terminal block & wires.....	82200380
<b>4</b> Switch assembly .....	82500130
<b>5</b> Outlet pipe assembly .....	7052027
<b>6</b> Inlet pipe assembly .....	7052443
– Cover assembly.....	80400020
– Flexible hose (chrome).....	28100240

## FAULT FINDING/TROUBLESHOOTING

**Important:** Switch off the electricity at the mains supply and remove the circuit fuse before attempting any fault finding inside the unit.

Problem/Symptom	Cause	Action/Cure
<b>1</b> During use, the water flow drops to a reduced rate. Pump stops running.	<b>1.1</b> Interrupted power supply.	<b>1.1.1</b> If the power neon is extinguished, check consumer unit fuse or circuit breaker. If blown, renew or reset as applicable. If it fails again, consult a qualified electrician.
		<b>1.1.2</b> If the power neon is extinguished, check if a general power cut. Check other appliances and if necessary, contact local Electricity Supply Company.
	<b>1.2</b> Pump motor faulty.	<b>1.2.1</b> If the power neon is lit, have pump motor checked by a qualified electrician or contact Triton Customer Service.
<b>2</b> During use, the water flow ceases but the pump continues to run.	<b>2.1</b> Water starvation in the system.	<b>2.1.1</b> Stop pump motor by switching to 'stop'. Check the cold water cistern is full. Ensure water pipes are not blocked. Check there is no simultaneous demand from the cistern while showering.
	<b>2.2</b> Air lock in pump.	<b>2.2.1</b> Prime pump by running water through unit without electricity switched on.
<b>3</b> Water too hot or too cold.	<b>3.1</b> Not product related but problem with existing water heating system.	<b>3.1.1</b> Consult qualified electrician or plumber.

**It is advised all electrical maintenance/repairs to the unit should be carried out by a suitably qualified person.**

**In the unlikely event of a fault occurring please contact Triton Customer Service. DO NOT remove the shower from the installation.**

# Entry Points

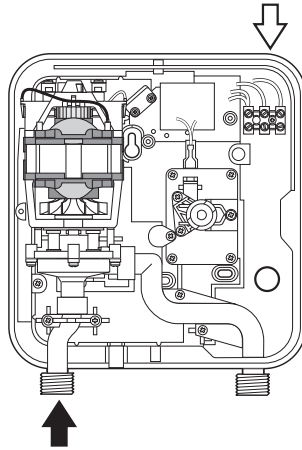
## Diagram Key:



Water Entry Points



Cable Entry Points



## WEEE Directive – Policy Statement

As a producer and a supplier of electric showers, Triton Showers is committed to the protection of the environment via our own environmental policy and the compliance with the **WEEE directive**.

Triton Showers is fully registered with the Environment Agency under the following schemes:

Repic: Producers take-back scheme (PTS), registration number WEE/EJ3466QV

Valpak: Distributor take-back scheme (DTS), registration number 9659

All our electric products are labelled accordingly with the crossed out wheeled bin symbol. This indicates, for disposal purposes at end of life, that these products must be taken to a recognised collection points, such as local authority sites/local recycling centres; this will be free of any charges. **Do not return to Triton Showers.**



## UK 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 and, where applicable, details of the particular fault.
2. If required, the Customer Service Advisor will arrange for a qualified engineer to call.
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](http://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.

Telephone orders are based on information given during of the call.

**Before contacting Triton, please verify your requirements using the information contained in the supplied user guide. Triton cannot accept liability for incorrect part identification.**

## TRITON STANDARD GUARANTEE

With the exception of accessories, Triton guarantee the product against all manufacturing defects for a period of **1 year** (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.

All accessories such as shower heads, hoses and riser rails carry a **1 year** parts only guarantee against manufacturing defects.

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 electricity, gas or water or incorrect setting of controls; **d)** failure to install in accordance with this 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 non-availability of parts.
5. Compensation for loss of use of the product or consequential loss of any kind.
6. Call out charges where no fault has been found with the appliance.
7. The cost of repair or replacement of pressure relief devices, showerheads, hoses, riser rails and/or wall brackets, isolating switches, electrical cable, fuses and/or circuit breakers or any other accessories installed at the same time.
8. The cost of routine maintenance, adjustments, overhaul modifications or loss or damage arising therefrom, including the cost of repairing damage, breakdown, malfunction caused by corrosion, furring,
9. Call out charges where the water supply cannot be isolated, this includes consequential losses arising from unserviceable supply valves.

**For the latest Terms & Conditions, please see:**  
[www.tritonshowers.co.uk](http://www.tritonshowers.co.uk)

Triton Showers  
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*Triton is a division of Norcross Group (Holdings) Limited*

**Customer Service:** ☎ **0844 980 0750**

**Trade Installer Hotline:** ☎ **0844 980 0730**

**Fax:** **0844 980 0744**

[www.tritonshowers.co.uk](http://www.tritonshowers.co.uk)

**E-mail:** [serviceenquiries@tritonshowers.co.uk](mailto:serviceenquiries@tritonshowers.co.uk)