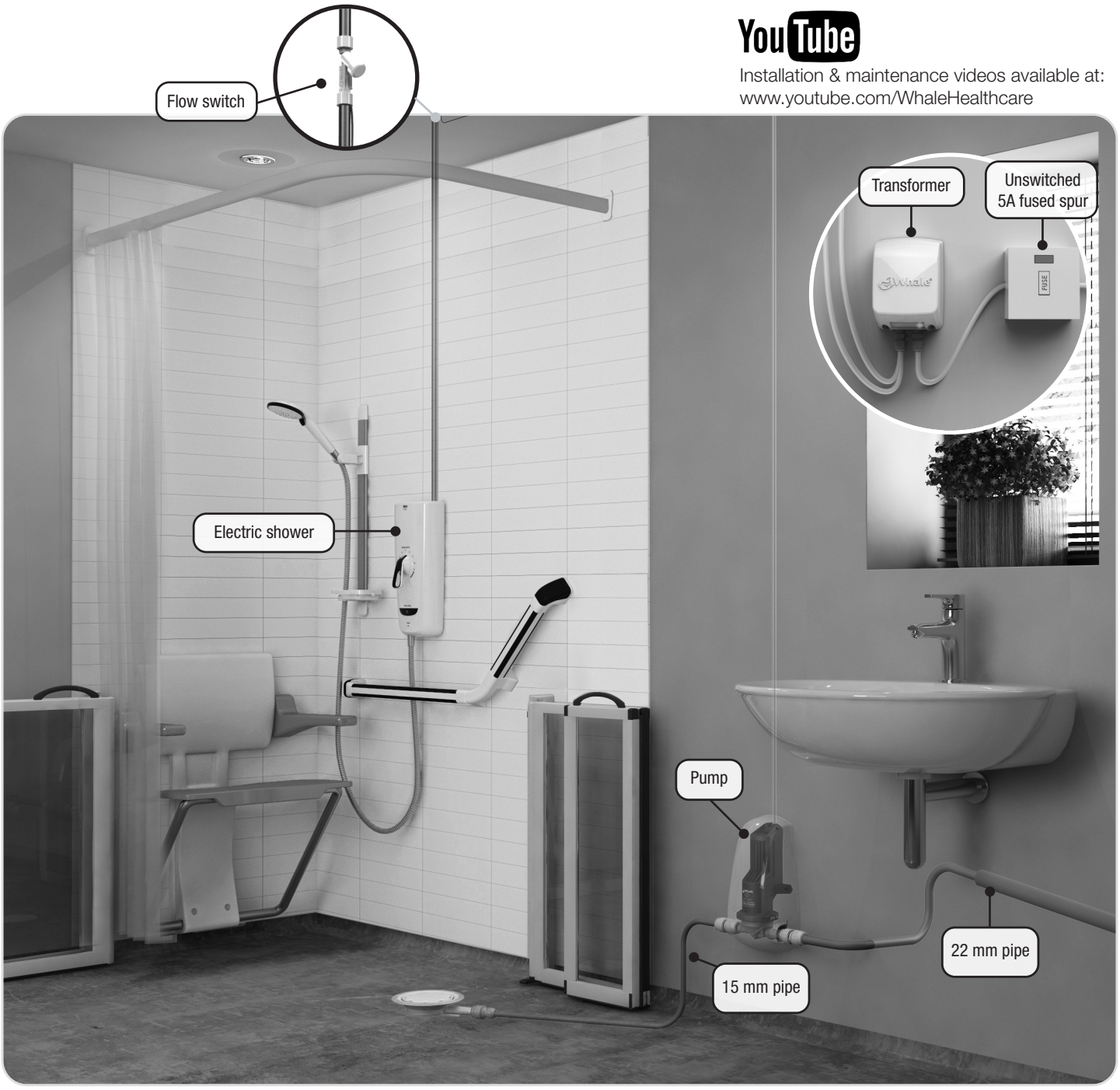
SWITCH CONNECT

Including **DIRECT CONNECT**

Whale®

YouTube

Installation & maintenance videos available at:
www.youtube.com/WhaleHealthcare



For illustration purposes only

Typical flow switch electric shower installation with tray gulley.

WITH Active Link

Installation guidelines for

Models:
BP1558B Shower Tray Kit
BP1578 Wet Floor Kit

FREE 5 Year WARRANTY

This booklet should be given to the customer after installation and demonstration

The front cover illustrates the product in typical healthcare installations.

Assess your installation prior to fitting to ensure that the pump, transformer and flow switch will be situated in an **accessible position.**

Typical installations would have these components in an adjacent cupboard i.e. airing cupboard or in a false wall with an access panel. The cover does not have to be used in such areas.

WARNING

Incorrect installation may invalidate the warranty.

Index

Illustrations

Principles of Operation

This kit has been designed for the pumping of shower waste water.

- When the shower is turned on the flow switch(es) provide a signal to the transformer to supply dc voltage to the pump*. The pump activates with a brief clearing cycle before the pump runs at its normal (often lower) pumping speed.

  *** For a direct connection to compatible showers with an internal on/off switch, please see Page 11.**

- When the shower is turned off, the flow switch sends a signal to the transformer and after a pre-set time delay stops the supply of dc voltage to the pump.
- After a further 15 minutes, the pump will switch on automatically for a short time at a reduced pumping speed removing any water pooled in the shower area.
- The pump has the ability to run dry without causing damage to the pump.
- Before installation read the instructions.
- Plumbing installation must comply with the plumbing regulation as specified in the latest WRAS leaflet for plumbing systems.
- The electrical wiring must conform to BS7671: 2018 (18th Edition)

Contact the Technical Helpline if you need further assistance

0345 9090 912

www.whalepumps.com/psd

A manufacturer with people, innovation and service at our heart.

Reliability

Designed and built to provide years of maintenance - free life

Innovation

Continuous product improvement

Service

Nationwide service network and dedicated technical helpline

YouTube

Video Support:
For Installation and maintenance tutorials visit:
www.whalepumps.com/psd
and click on the installation/support section, or:
www.youtube.com/whalehealthcare

List of Parts included in kit

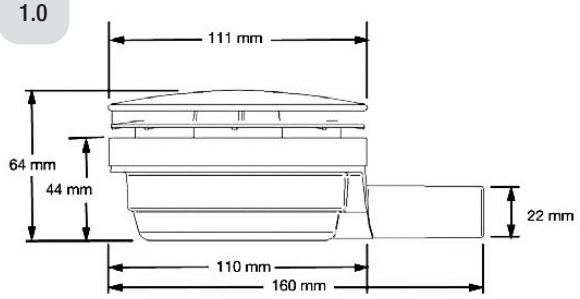
Item	Part No.	Qty
Shower Drain Pump	SDS021T	1
Pump Cover Base	755.178	1
Pump Cover	755.177	1
Transformer	755.210	1
Flow Switch/Filter	AK1568	1
Tray Gulley Kit (BP1558B) – c/w fitting tool and cover or Wet Floor Kit (BP1578) – c/w clamping ring and cover	755.108 or 755.274	1
Tricuspid Valve Holder	755.59	1
Tricuspid Valve	755.57	1
Rubber Waste Adaptor 2 part, 22 mm-1½"		1
22 mm-22 mm fitting		1
22 mm-15 mm fittings		2
Electrical connector block, two core		1
Fitting kit:		
Female crimp spade connectors		2
Mounting screws		4 & 3

Accessories and Spares

These additional parts may be ordered from your distributor:

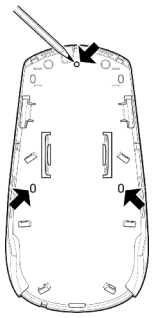
- 90 mm Gulley (O/A dimensions 64 mm h x 111 mm dia) Part No. AK1695 **See Fig 1.0**
- Top suction fitting (Stem Elbow) John Guest Part No. PEM221515W. Note: Top suction is not recommended
- Mixer Valve Conversion Kit Part No. AK1570
- Shower Drain Pump Part No. SDS021T
- Transformer 755.210 Part No. SDS081T
- Flow Switch/Filter Kit Part No. AK1568
- Tricuspid Valve Qty 10 Part No. SDS211B
- Pump Head Replacement Kit (including diaphragm and tricuspid valve) Part No. SDS071T
- Diaphragm and Tricuspid Valve Kit Part No. SDS061T

1.0

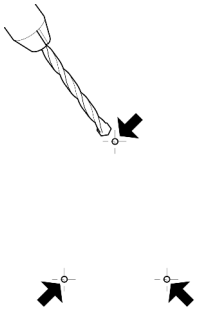


Pump Mounting Instructions

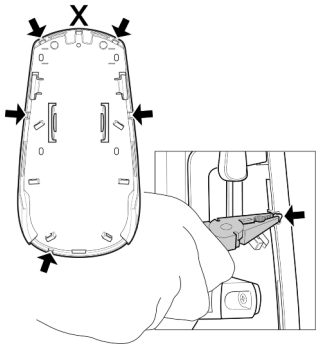
1.1



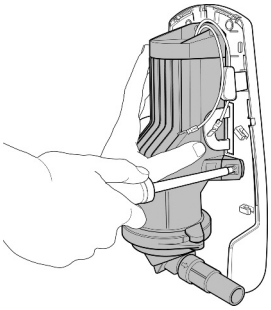
Use the backplate as a template to mark the position of the mounting holes.

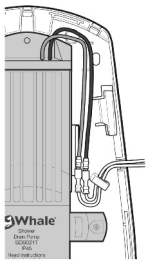


Use a 6 mm bit to drill holes at marked points and insert No 6 wall plugs.



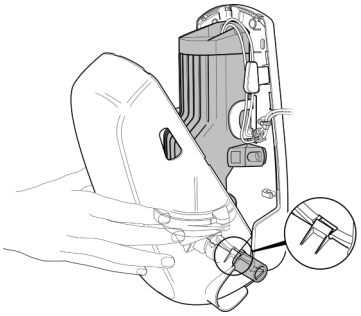
Use pliers to open up desired cable entry point on backplate. Don't use top centre entry. X = DO NOT USE





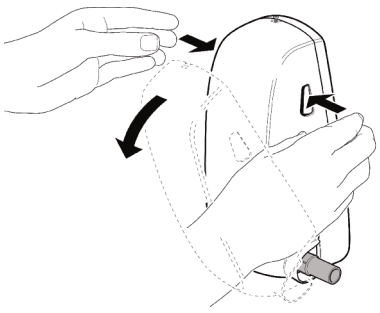
Fix pump to wall using No 8 screws. Use crimps supplied to terminate 24V d.v. cable from transformer, connect to pump and feed cable through entry point.

Hold cable in place using adjacent cable bracket.



To fit cover, locate bottom lug into backplate, and pivot cover forward until top clips click into place.

Secure with the screw (see below).



To remove cover undo screw and use two hands to push backplate clips together. As clips disengage, the cover will fall forward and may be lifted away.

NOTE

If the pump is misaligned on the backplate or pump head is not parallel with backplate the push-fit connectors may prevent the front cover from fitting properly. Adjust pump, pump head or connecting pipework to achieve a good fit.

Use of elbows on pump inlet and outlet should be avoided. If the situation demands that they are used, ONLY use John Guest push-fit elbows. Other types are not readily demountable and may foul the cover.

Plumbing Specification
Do Not Exceed This Specification

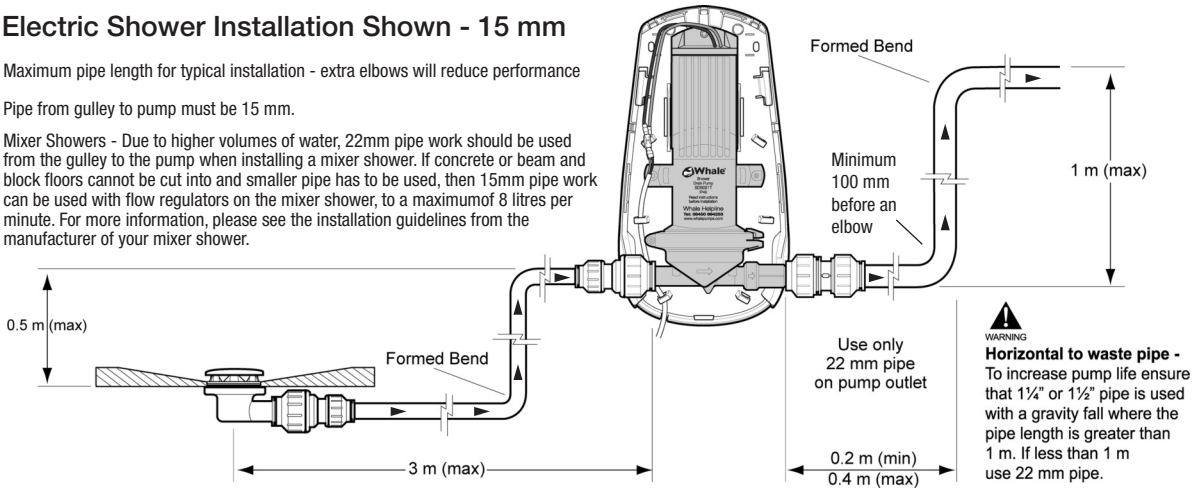
1.2

Electric Shower Installation Shown - 15 mm

Maximum pipe length for typical installation - extra elbows will reduce performance

Pipe from gulley to pump must be 15 mm.

Mixer Showers - Due to higher volumes of water, 22mm pipe work should be used from the gulley to the pump when installing a mixer shower. If concrete or beam and block floors cannot be cut into and smaller pipe has to be used, then 15mm pipe work can be used with flow regulators on the mixer shower, to a maximumof 8 litres per minute. For more information, please see the installation guidelines from the manufacturer of your mixer shower.



Do **NOT** use 22 mm pipework for **electric showers.** This will increase gulley noise.
Do not use solvent weld or push fit overflow pipe as this does not form a seal on the push fit fittings.
For mixer showers use 22mm pipework from gulley to pump inlet. (See below for additional accessory details)

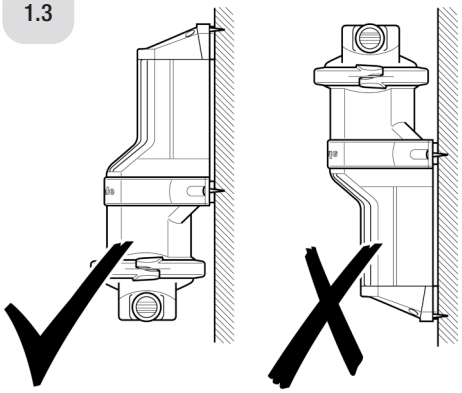
- Whale® pump is IP45 compliant. Locate pump in accordance with BS7671: 2018 (18th Edition) The Whale Pump is rated to IP45 and the Whale transformer (with the back plate fitted) is rated to IP65. We recommend the pump and transformer are installed in bathroom zones 2 and 3.
- **Electric Shower Installation** – Maximum flow rate 8 litres/min.
- **Mixer Shower Installations** – Pipework from the gulley to the pump must be 22 mm to achieve a flow rate of up to **12 litres/min.**

NOTE **An additional flow switch and 22 mm fittings are required. Order Part No. AK1570.**

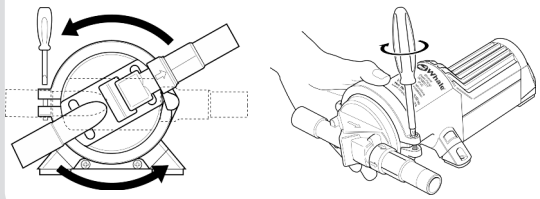
- **Pump, transformer and flow switch(es) MUST BE ACCESSIBLE AFTER INSTALLATION**.
- **Use slow radius bends where possible. Full size elbows are acceptable, not stem or Male/Female elbows. Avoid attaching elbows to the pump if possible.**
- Inserts **MUST NOT** be used with plastic pipe.
- Use push fit fittings supplied. Ensure pipe is **pushed home into the connections and 'twist locked'(Silicon spray should be used).** All fittings onto the pump

  must be demountable without the need for special tools.
- Ensure pipe edges are burr-free. Do not use a hacksaw to cut pipe.
- Use one vertical lift to the pump and one vertical rise from the pump. **See Fig 1.2.** Pipework must be secured.
- If the pump discharge is combined with other appliances there is a risk of induced syphoning. Use an anti-syphon trap where necessary.
- The shower floor must have a fall of at least 25 mm in 1 m (1 in 40).
- Mount pump, head down, as shown. **See Fig 1.3**
- Mount the pump on a solid wall to prevent vibration. Use a back board if this is not possible. **See Fig 1.3**

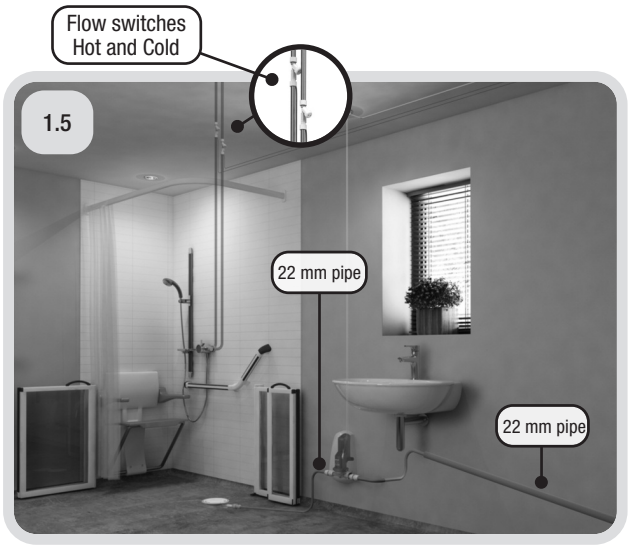
1.3



1.4



- The pump inlet and the gulley outlet should point toward each other to keep connecting pipework as direct and as simple as possible.
- Rotate the pump head if necessary. Loosen clamping ring screw, rotate and retighten as shown. **See Fig 1.4**
- Before commissioning the shower and running water through the system ensure that the shower area and gulley are completely free of building debris, especially tile grout, screed material and latex.
- **For pump mounting instructions See Fig 1.1 Page 5.**



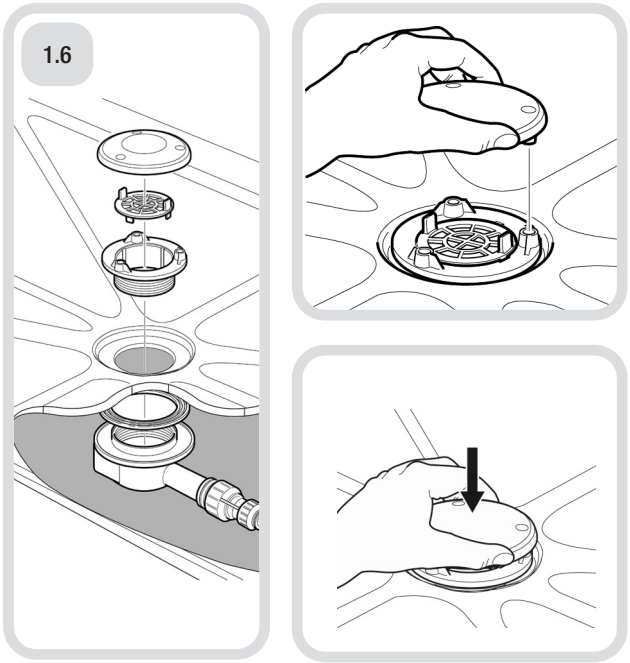
Typical flow switch mixer valve shower installation with tray gulley.

Plumbing Gulley

Orientate gulley so that it exits towards the pump inlet to avoid unnecessary bends.

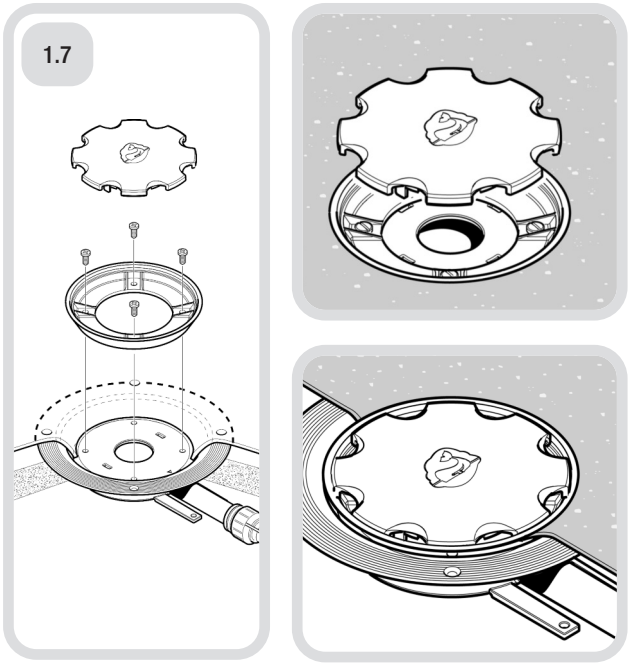
- When fitting in solid floors if copper pipe is used, it must be sheathed to prevent corrosion.
- The tray or wet floor gulley should be fitted under the shower head where possible. This reduces gulley noise.

Tray Gulley has a 35 mm profile to enable it to fit into a screed floor without penetrating the damp-proof membrane. **See Fig 1.6**



- Use silicone on top of the seal to ensure proper sealing beneath tray.
- Use the hand tool provided to tighten the locking flange and leave it in place to keep debris out of the gulley. Only remove it and fit the gulley cover when the shower area has been cleaned. **See Fig 1.6**
- Insert gulley grid and press it into place.

Whale Whisper Gulley for wet floors has a 40 mm profile to enable it to fit into a screed floor without penetrating the damp-proof membrane. **See Fig 1.7**



- Where a tray former is not used the gulley has two lugs either side of the discharge pipe to enable the gulley to be fixed to the floor whilst screed is laid.
- Where a tray former is used these lugs can be broken off easily to enable it to be fitted.
- The gulley has a conventional clamping ring to accommodate vinyl flooring.
- **Remove dust seal** and click cover into place once area has been cleaned and before shower is used.

Plumbing of Waste Pipe

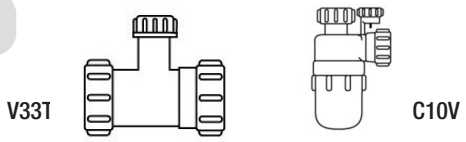
The outlet of the pump may be connected into the waste pipe, e.g. former bath waste. Black rubber fittings are provided for this.

- In confined bathrooms pump discharge may go into the sink waste pipe using suitable adaptors. **See Fig 1.8** for McAlpine examples and their catalogue for other variants.

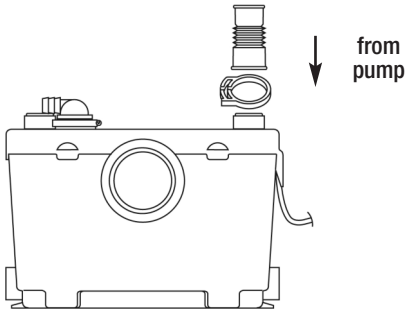
Use with a Macerator Pump

- Discharge from the Whale® pump must go into the top of the macerator box. Do not use the bottom entries. **See Fig 1.9**
- It is preferable to have two separate discharge lines to waste as any failure of the macerator will not be detected by the Whale® pump.

1.8



1.9



Fitting of Flow Switch/Filter

- The Whale® flow switch includes an internal filter which may be easily removed for inspection/cleaning when required. Ensure the water supply is turned-off.
- Ensure the flow switch is accessible and mounted in a 15 mm diameter. length of straight unstressed pipe.
- Prior to installation, flush through the pipe to remove any debris.

The flow switch must be fitted with the arrow pointing in the direction of the water flow. Ensure that the collet clips are fitted to lock and prevent pipe movement. See Fig. 2.0

- Install the flow switch in the water supply to the electric shower downstream of any other connections to the water supply.
- The flow switch connection to the transformer is not polarity sensitive.

Mixer / Blender Valve Installation

- If a mixer valve is being used then an additional Whale® flow switch must be installed in the hot water supply (Order Part No. AK1570). The wires must be joined together in parallel and connected to the transformer signal wire.

Chrome Pipe

- Connection can be made by means of copper. The connection between the copper and chrome pipe can be made by using a compression fitting.

Flow Switch Operation

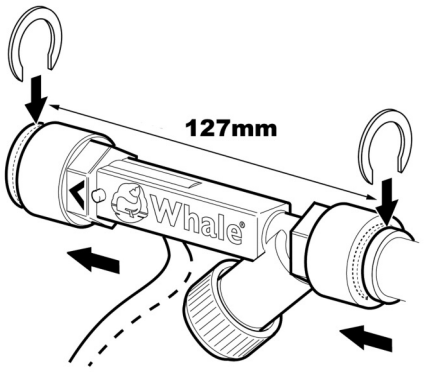
The flow switch operates when a flow rate of above 1.5 litres/min passes through it.

NOTE

The transformer and the pump create a strong magnetic field which can hold the reed switch open or closed.

We recommend the flow switch is not placed within 300 mm of the pump or transformer.

2.0



Transformer Installation

- The transformer is IP65 compliant with the base plate fitted and screwed to a flat surface using all of the four screws provided **See Fig 2.1**
- The transformer may be installed in zones 1, 2 or 3 with base plate fitted.
- If mounted vertically wires must exit from the base of the transformer.
- For transformer set-up please see 'Transformer Settings' section. **See page 10.**

Electrical Connections

- Electrical Connections are shown in **Fig. 2.3**
- Mains supply to the transformer should be made using an unswitched, 5 amp fused spur.
- The transformer 24V d.v. RED and BLACK cable supply to the pump should be terminated using the crimp connectors supplied. Connect to the pump RED and BLACK male crimps. The polarity of the connection must be correct for the pump to operate. **Fig. 2.2** shows pump mounted with cable connected, routed using cable brackets.
- The 2-core bell wire used to connect the transformer to the flow switch has no polarity. Connect either way. Two flow switches are used in mixers and they must be connected in parallel so either switch will activate the transformer.

Active*Link* Diagnostics

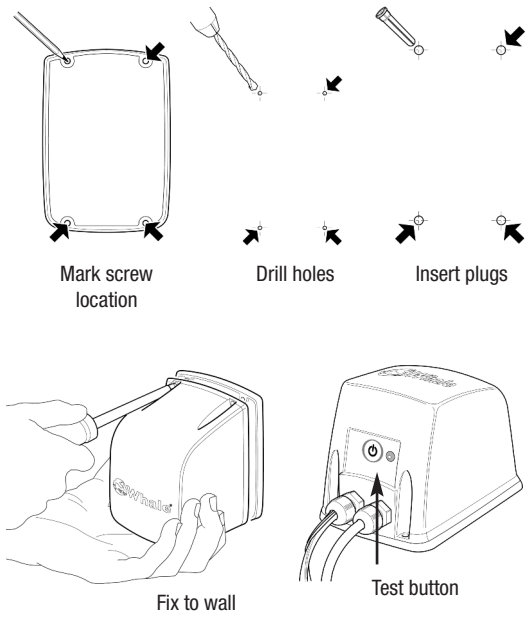
The 755.210 transformer includes **Active*Link*** diagnostics to aid installation and maintenance.

1 If the connection to mains power is made and the Test Button is pressed, the green LED will illuminate. If this does not happen check power source, fuses and that all connections compress or contact the electric wire and not the wire insulation.

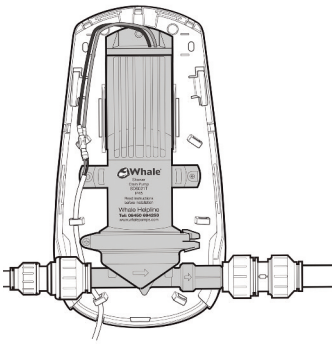
2 With the pump connected, pressing the Test Button will activate it and the green LED. The light will go out as the pump stops after off delay time set on the transformer. Used to clear tray or test pump.

3 When the shower is turned on, as water flows through the external flow switch(es) or the internal shower switch is closed, the green LED will illuminate to indicate correct operation of switch.

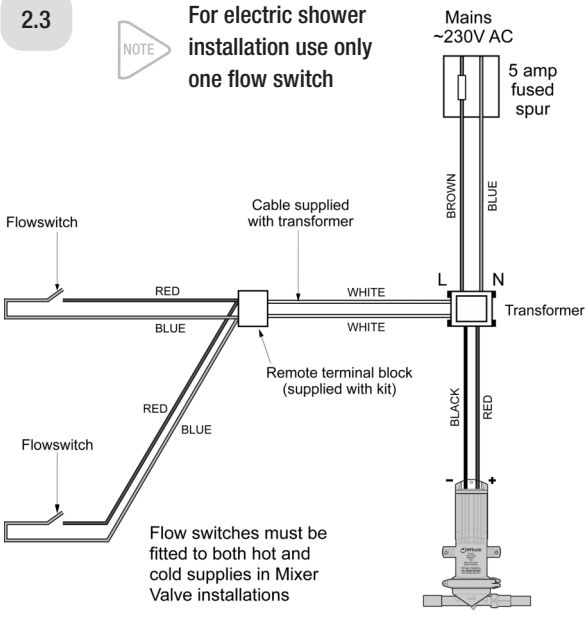
2.1



2.2



2.3



Transformer Settings

The transformer is factory set for a typical Electric Shower installation. **See Fig 2.4**

Settings should only be adjusted to suit a specific installation where required.

To make adjustments, move the jumpers on the base of the transformer to connect pairs of contacts to suit the particular installation as follows:

- **Setting 1: Mixer / Electric (M / E)**
  Select your type of installation.
  M Mixer Valve shower setting.
  E **(Default Setting)** Electric shower setting.
- **Setting 2: Flow Setting**
  ≡ **(Default Setting)** With **Setting 1** set to **E** the pump runs at the optimum speed to remove water delivered by a healthcare electrical shower whilst keeping gulley noise to a minimum.

  With **Setting 1** on **M** the pump will remove water from a mixer/blender shower fitted with the 10 ltrs/min restrictor contained in Mixer Valve Conversion kit AK1570, whilst keeping gulley noise to a minimum.

  -0.5, +0.5, +1.0, +2.0, +3.0 Ltrs/min (approx.)
  These settings are used in conjunction with Setting 1, E or M, to enable pump speed to be fixed faster or slower to deal with the maximum flow from any shower up to 12 ltrs/min whilst keeping gulley noise to a minimum.
- **Setting 3: Off Delay** (10, 30 Seconds)

  10 Seconds (Default Setting) is the recommended setting for Electric Shower and Mixer Shower installations.

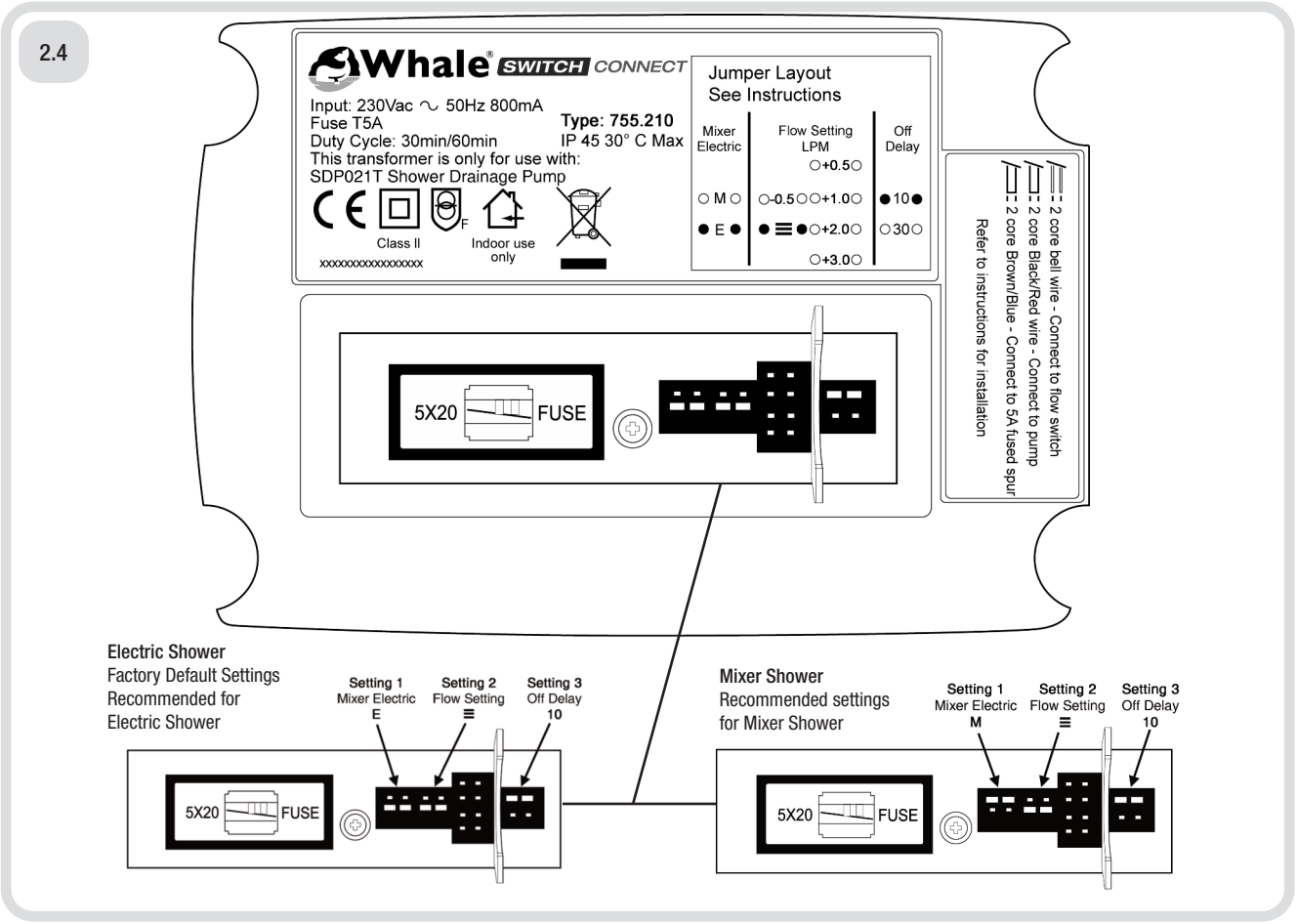
  30 Seconds This setting is suitable for installations where water is slow to drain into the gulley.
- **Purge Cycle** - After 15 minutes the transformer will reactivate the pump for approx 30 seconds to remove any run-off or condensation that has collected in the gulley.
- **Test Button** - The Test Button provides a quick and convenient way to test the transformer and pump operation. Press, hold and release the Test Button. The GREEN LED should illuminate on the Test Button and the pump should run.

DO NOT MAKE THE PUMP RUN FASTER THAN NECESSARY

DEFAULT SETTINGS SHOULD NORMALLY BE USED

SWITCH *CONNECT*

2.4



DIRECT CONNECT

The Whale Switch Connect Kit may also be installed without using a flow switch when used with a compatible shower – Direct Connect. These showers provide a direct connection from the Whale transformer to an internal switch within the shower. This internal switch then activates and deactivates the pump when the shower is switched on and off.

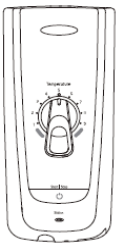
Here are the compatible showers and connection methods.

Mira Advance Flex Extra	**1.1785.005 (J09N)**
Triton Omnicare Design 8.5kw Electric Shower With Extended Kit	**TEOMND81**
Triton Omnicare Design 9.5kw Electric Shower With Extended kit	**TEOMND91**
Triton Omnicare Design 8.5kw Electric Shower With Grab Kit	**TEOMNDG81**
Triton Omnicare Design 9.5kw Electric Shower With Grab kit	**TEOMNDG91**
Triton Omnicare Design Digi 8.5kw With Extended Kit	**TEOMNDD81**
Triton Omnicare Design Digi 9.5kw With Extended Kit	**TEOMNDD91**
Triton Omnicare Design Digi 8.5kw With Grab Kit	**TEOMNDDG81**
Triton Omnicare Design Digi 9.5kw With Grab Kit	**TEOMNDDG91**
Triton Omnicare 8.5kw Electric Shower	**TEOMN81**
Triton Omnicare 9.5kw Electric Shower	**TEOMN91**
Triton Omnicare Ultra 8.7kW	**CINCULT08W**
Triton Omnicare Ultra 9.8kW	**CINCULT09W**
Triton Omnicare Ultra+ 8.7kW Standard Kit	**CINCULTP08W**
Triton Omnicare Ultra+ 9.8kW Standard Kit	**CINCULTP09W**
Triton Omnicare Ultra+ 8.7kW with Grab Kit	**CINCULTP08WGRB**
Triton Omnicare Ultra+ 9.8kW with Grab Kit	**CINCULTP09WGRB**
Triton Omnicare Ultra+ Digi 8.7kW	**CINCULTPD08W**
Triton Omnicare Ultra+ Digi 9.8kW	**CINCULTPD09W**
Triton Omnicare Ultra+ Digi 8.7kW with Grab Kit	**CINCULTPD08WGRB**
Triton Omnicare Ultra+ Digi 9.8kW with Grab Kit	**CINCULTPD09WGRB**
Omnicare SR Pumped Electric Shower	**GEOSRP81**
Selectronic Premier Thermostatic Plus 8.5kW with waste pump connectivity RSELP85WPC	**100115**
Selectronic Premier Thermostatic Plus 9.5kW with waste pump connectivity RSELP95WPC	**100122**

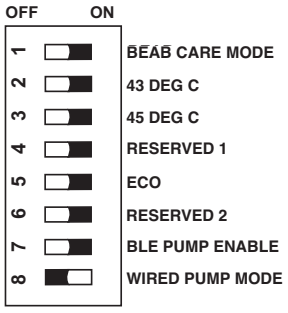
Thermostatic Electric Shower Connections

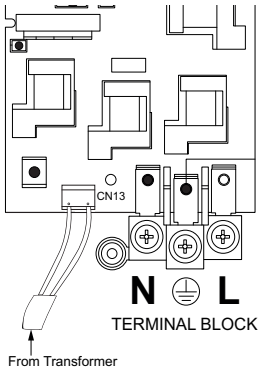
- **Mira Advance Flex Extra:**

Connect the two core bell wire cable from the Whale transformer to the Mira shower. Ensure 'Wired Pump Mode' is in the 'ON' position. See diagram opposite for connections. This connection is not polarity sensitive.



2.5





NOTE

See Fig 2.5

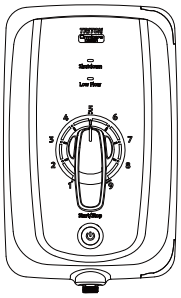
Please ensure the Mira DIP switch setting (inside front cover) has 'BLE Pump Enable' in the 'Off' position.

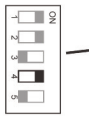
- **Triton Omnicare:**

Connect the two core bell wire from the Whale transformer to the Triton Omnicare circuit board. **See Fig 2.6** This connection is not polarity sensitive. Please ensure the dip switches are set as shown in **Fig 2.6** The Whale transformer model is 755.210.

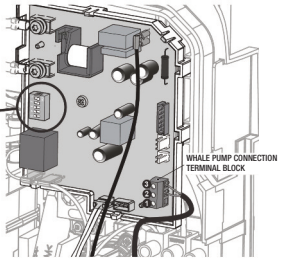
Note: For other Triton showers check Triton instructions for configuration.

2.6





DIP SWITCH 4 **ON**
WHALE SWITCH
CONNECT SETTING



Connect the **'Bell'** wire from the Whale Switch Connect transformer as below:

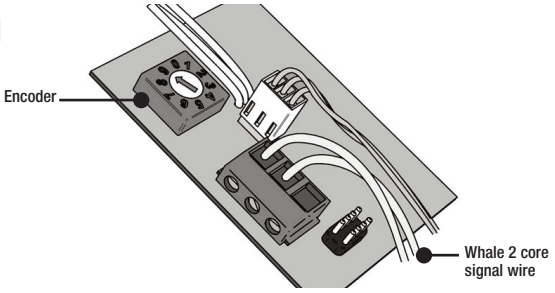
1 - Not Used
2 - 0V (White)
3 - Signal (White)

Note: The wiring is not polarity sensitive.

- **Redring Selectronic:**

Connect the two core bell wire from the Whale transformer to the three way connector in positions 'Sig' and 'Gnd. **See 2.7** The connection is not polarity sensitive. Please ensure that position '9' is selected on the Selectronic encoder. The Whale transformer model is 755.210.

2.7



Safety Warning

- The transformer is for indoor use only.
- The transformer contains no user serviceable parts. External components for service are fuse and adjustment jumpers only. **Do not** attempt to access the transformers internal workings.
- Where the transformer or cabling is damaged, contact a Whale® distributor for a replacement.
- **Do not** connect mains to the pump as this will cause permanent damage and result in an electrical hazard.
- Installation must conform to 2018 (18th Edition)

Installation Testing & Repair

The pump system is designed not to require maintenance. If the pump runs but water builds up in the tray, first establish the nature of the problem by following the following procedure:-

NOTE **This should only be carried out by a qualified contractor.**

TEST PUMP SUCTION - remove the pump inlet coupling and press the test button to get the pump going. Place a finger in the inlet hole and sense how much the pump is sucking. If strong suction is felt, inspect the installation and clear the blockage or check for air leaks as follows:-

RODDING PIPEWORK: when blockage is apparent disconnect the pump from the waste pipe, insert and attempt to push blockage through pipe with a separate piece of pipe 1 size smaller than installed. For example: for a 15mm pipe use a 10mm piece of pipe as you rod to clear blockage, and likewise for a 22mm pipe use a 15mm rod. This is an effective way of ensuring any blockage is removed from the waste pipe run. An alternative option for a rod is a 6mm drain rodding spring if one is available.

EXTERNAL PIPEWORK TEST: Make up external pipe work from the pump directly across the bathroom floor and elbow into gulley. Use elbows as required and up to 3 m of pipe. **See Fig. 2.8**

Turn the shower on. If water is extracted problems with existing pipe work are confirmed.

AIR LEAK TEST: Put a clear tube from discharge to sink. If water builds up and fills the gulley, yet air is seen in the clear tube on discharge, the air must be coming from the pipe work and should be investigated to the extent of lifting the floor/tray. **See Fig. 2.9**

FLOW RATE TESTING: A convenient way to measure flow rate is to get a 2 ltrs plastic jug and mark the 2 ltrs level in black pen.

Turn shower on to where customer normally uses it – often maximum.

Put jug under shower head and measure how long it takes for jug to fill to 2 ltrs line.

Longer than 20 seconds indicates flow rate of less than 6 ltrs per minute – typical for electric showers.

Shorter than 15 seconds indicates a flow rate of more than 8 ltrs per minute – normal for mixer valves.

CHECK TRICUSPID VALVE - remove the tricuspid valve holder screwed onto the pump discharge. If it is 'gapping', worn or stiff, change it and re-test. It is good practice to replace the tricuspid valve when doing any routine service.

CHECK INSIDE PUMP HEAD - remove the clamping ring and pump head carefully so as not to disturb the seating of the diaphragm. Check valves in pump head are clear of debris. Remove any debris and rinse out head before refitting head and clamping ring.

Do not pinch the diaphragm bead. This is the primary cause of poor pump performance.

If the diaphragm has become unseated:

- Disconnect one low voltage lead at pump.
- Press the test button and make an instantaneous contact between disconnected leads.
- This will change the position of the diaphragm. Do this until the diaphragm is at its lowest position. The diaphragm bead will now push easily into the groove on the pump body and the head will also fit easily onto the diaphragm bead, without pinching it.
- Replace and tighten clamping ring.

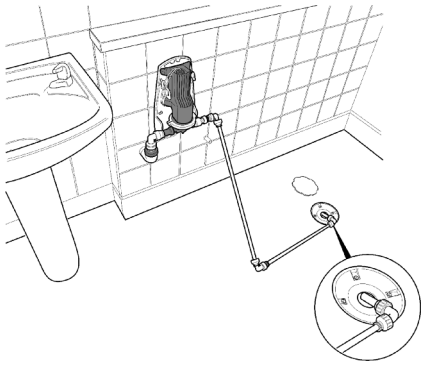
Check for leaks whilst pump is running.

CHANGING FLOW SWITCH

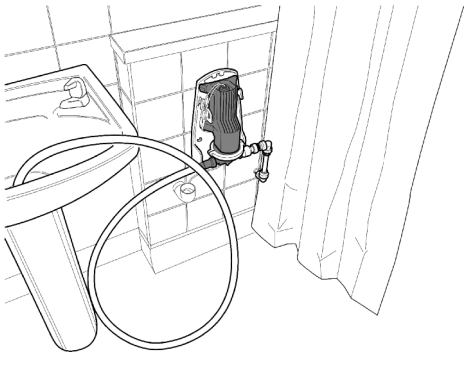
- When necessary to change the switch or to inspect/clean the filter, ensure that water supply is turned-off.

Spare parts and kits are listed on Page 4.

2.8



2.9



EU Declaration

Description of Equipment: Shower Drain System

Manufacturer's Declaration
We hereby declare, under our sole responsibility, that the above equipment complies with the provisions of the following EC Directives.

Electromagnetic Compatibility Directive 2004/108/EC, on the approximation of the laws of the Member States relating to electromagnetic compatibility.

Low Voltage Directive 2006/95/EC on the harmonization of the laws of the Member States relating to electrical equipment designed for use within certain voltage limits.

CE mark first affixed: 01/03/08

Basis on which conformity is declared
The above equipment complies with the protection requirements of the EMC Directive and the principal elements of the safety objectives of the Low Voltage Directive.

Standards applied
EN 60335-1:2002/A11:2004 Household and similar electrical appliances - Safety - Part 1: General requirements

EN61558-1:1997/A11:2003 Safety of power transformers, power supply units and similar - Part 1: General requirements and tests

EN61558-2-6:1997 Safety of power transformers, power supply units and similar - Part 2-6: Particular requirements for safety isolating transformers for general use

EN60730-1:2000 Automatic electrical controls for household and similar use - Part 1: General requirements

EN 55022:2006. Electromagnetic compatibility. Requirements for household appliances. Emission

EN 55014-1:2000/A2:2002 Electromagnetic compatibility. Conducted disturbance power.

EN60529:1991/A1:2000 Degrees of protection provided by enclosures (IP45)

Richard Bovill, Engineering Director,
Whale® 2 Enterprise Road, Bangor,
BT19 7TA, N.Ireland

UK Technical Helpline: 0345 9090 912

whalepumps.com drainagesupport@whalepumps.com

Statement of Limited Warranty

The products manufactured and supplied by the Company ("**Products**"), are warranted to be free from material defects in design, workmanship and material under normal use ("**Defects**") for (unless otherwise extended in advance in writing by the Company) a period of 3 years from date of purchase, save that this warranty shall not apply where the Defect is attributable to defective materials supplied by third parties. In such event, the only remedy of the buyer of the Products ("**Buyer**") will be against that third party.

This warranty applies only to Products that are properly installed and used in accordance with all oral and written maintenance, installation, and operation instructions provided by the Company. The Company shall not be liable for a breach of any of the warranties in this Statement of Limited Warranty if the Buyer makes any further use of the Products after giving the Company notice of any Defect or the Buyer alters or repairs such Products without the written consent of the Company. Products that have been disassembled or modified (without prior written approval of the Company), are not covered by this warranty.

All Products are covered by a 3 year limited warranty (detailed below) from (unless otherwise extended in advance in writing by the Company) date of purchase ("**Standard Warranty**"). In addition to the Standard Warranty, these Products will be covered by a further warranty of 2 years but only when the registration form is completed and returned ("**Additional Warranty**"). The period of such Additional Warranty shall commence automatically the date the Standard Warranty expires.

In the event that any of the warranties offered by the Company are breached, the Company shall (at its discretion) repair, replace or issue a spares kit for the defective Product subject to prior examination at Company premises. If the Company complies with this paragraph, it shall have no further liability for a breach of the warranties in respect of such Products. Adjustment or replacement of defective parts made under this warranty will not extend the warranty period applicable either under the Standard Warranty and/or the Additional Warranty.

The Company shall not bear any costs of removal, installation, transportation, or other charges that may arise in connection with a warranty claim by the Buyer. Such costs shall be the Buyer's sole responsibility.

No claim in respect of defective Products will be valid unless the alleged defective Products are returned at the Buyer's expense to the Company for inspection, together with proof of purchase.

Non- stock/ special order items are non- returnable by the Buyer in any circumstances, and this warranty does not apply to prototype models.

EXCLUSIONS:
The Company shall not be liable for any indirect loss or for any special, incidental, punitive or consequential damages suffered by the Buyer and/or any third party, whether this loss arises from breach of a duty in contract or tort or breach of a statutory duty or in any other way, including, without limitation, loss arising from the negligence, default, breach of duty, non-delivery, delay in delivery or defects or errors in the work undertaken by the Company pursuant to the terms of this Statement of Limited Warranty or in connection with any other claim arising in connection with manufacture and/or supply of the Products.

In particular, the Company shall not be liable (without limitation) for:

- Loss of profits, increased production costs or other economic injury or loss;
- Loss of contracts or opportunity; and/or
- (insofar as is permitted by applicable law) damage to property of the Buyer or any third party.

The Company shall under no circumstances be liable for any breach of its obligations hereunder and/or under any contract governing sale and purchase of the Products ("**Contract**") resulting from causes beyond its control including but not limited to fires, strikes, lockouts, insurrection or riots, terrorism or civil disorder, embargoes, wrecks or delays in transportation, requirements or regulations of any governmental authority, tempest, earthquake or other natural disaster, flood, bursting or overflowing of water tanks, failure or shortage of power, fuel or other utilities, or loss of data and/or communications due to causes such as those referred to in this paragraph.

This statement sets out the Company's entire liability in respect of the Products and the Company's liability under this statement shall be in lieu of all other warranties, conditions, terms and liabilities, express or implied, statutory or otherwise howsoever except any implied by law which cannot be excluded.

All warranties, conditions and other terms implied by statute or common law (save for the conditions implied by section 12 of the Sale of Goods Act 1979) are, to the fullest extent permitted by law, excluded from the Contract.

Subject to the remaining provisions of this Statement of Limited Warranty, the Company's total liability in contract, tort (including negligence or breach of statutory duty), misrepresentation, restitution or otherwise, arising in connection with the performance or contemplated performance of the Contract and supply of the Products shall be limited to the Contract price.

Nothing in this Statement of Limited Warranty shall operate so as to exclude or restrict the Company's liability for death or personal injury caused by its negligence.

The Company shall **NOT** be liable for any condition, warranty or representation made by a distributor or other person acting on behalf of the Company unless expressly confirmed by the Company in writing.

This Statement of Limited Warranty shall be governed and construed in accordance with Northern Irish law and all disputes arising in connection hereto shall be submitted to the exclusive jurisdiction of the Northern Irish Courts.

DISCLAIMER
Any performance / specification figures shown have been calculated using standard testing procedures. Where maximum output is stated, such maximum output refers to pumps acting at zero lift and zero head. Actual performance may vary depending on the application, installation and environmental factors. Neither the accuracy nor completeness of the information contained in this or any Product literature is guaranteed by the Company and may be subject to change at its sole discretion. The Company may, at its sole discretion, change the technical performance, dimensions or appearance of any of its Products without prior notification to purchasers. The Company shall not be liable to a purchaser for any indirect or consequential loss or damage (whether for loss of profit, loss of business, depletion of goodwill or otherwise), costs, expenses or other claims for consequential compensation whatsoever (howsoever caused) which arise out of or in connection with the use of a Product. Where dimensions are stated, such dimensions are for guidance only. Inch measurements are conversions from millimetre dimensions and are shown to the nearest 1/16". US gallons volumes are conversions from litres and are also shown for guidance purposes only to the nearest 1/16. Please contact the Company directly if precise measurements are required.

WHALE® and WHALE INSTANT MATCH® are registered trademarks of Munster Simms Engineering Limited, Bangor, Northern Ireland trading as Whale.

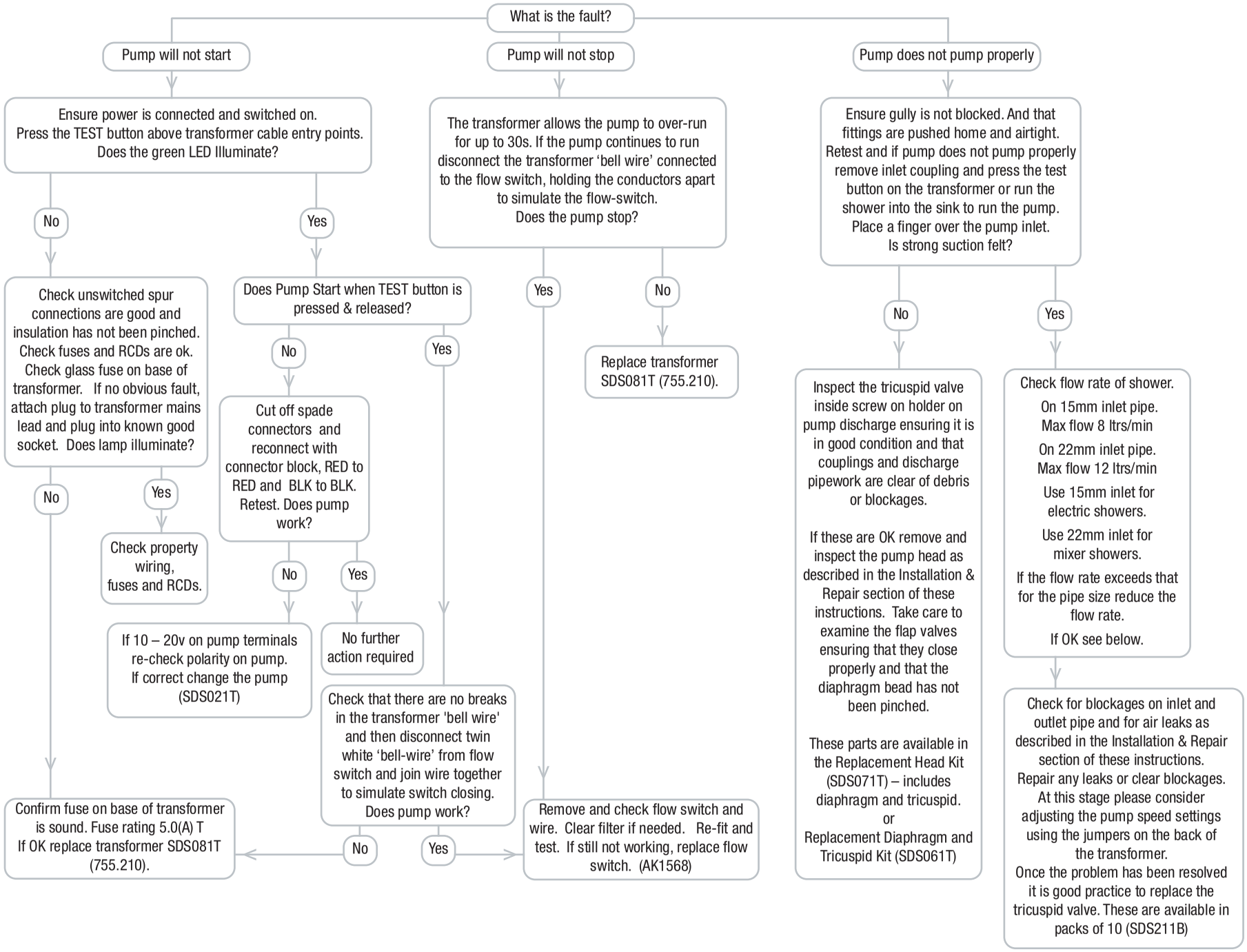
Whale's policy is one of continuous improvement and we reserve the right to change specifications without prior notice. Illustrations are for guidance purposes only. Neither the accuracy nor completeness of the information contained in this or any product brochure is guaranteed by the Company and may be subject to change at its sole discretion.

MIRA® is a registered trade mark of Kohler Mira Limited.
TRITON® is a registered trade mark of Triton Showers.
REDRING® is a registered trade mark of Redring Xpelair Group Limited.
Other trademarks and trade names are those of their respective owners.

Specification

Pump
Model: SDS021T
Dry running current: 1.2 amp
Maximum Head: 1.0 m
Maximum Lift: 500 mm
Maximum Head & Lift: 1.5 m

Transformer
Model: 755.210
92 Watts intermittent rating
Double insulated
Thermal protected
Mains cable 1.8 m (2 core, 0.5 mm2)
Low voltage cable 5 m (2 core, 10 amp rating)
Transformer/Flow Switch wire 5 m (2 core)
Shower type selector
Off Delay of 10 and 30 seconds
5 amp slow blow fuse


What is the fault?
Pump will not start
Pump will not stop
Pump does not pump properly
Ensure power is connected and switched on. Press the TEST button above transformer cable entry points. Does the green LED Illuminate?
No
Yes
Check unswitched spur connections are good and insulation has not been pinched. Check fuses and RCDs are ok. Check glass fuse on base of transformer. If no obvious fault, attach plug to transformer mains lead and plug into known good socket. Does lamp illuminate?
No
Yes
Check property wiring, fuses and RCDs.
Confirm fuse on base of transformer is sound. Fuse rating 5.0(A) T If OK replace transformer SDS081T (755.210).
Does Pump Start when TEST button is pressed & released?
No
Yes
Cut off spade connectors and reconnect with connector block, RED to RED and BLK to BLK. Retest. Does pump work?
No
Yes
If 10 – 20v on pump terminals re-check polarity on pump. If correct change the pump (SDS021T)
No further action required
The transformer allows the pump to over-run for up to 30s. If the pump continues to run disconnect the transformer 'bell wire' connected to the flow switch, holding the conductors apart to simulate the flow-switch. Does the pump stop?
Yes
No
Replace transformer SDS081T (755.210).
Check that there are no breaks in the transformer 'bell wire' and then disconnect twin white 'bell-wire' from flow switch and join wire together to simulate switch closing. Does pump work?
No
Yes
Remove and check flow switch and wire. Clear filter if needed. Re-fit and test. If still not working, replace flow switch. (AK1568)
Ensure gully is not blocked. And that fittings are pushed home and airtight. Retest and if pump does not pump properly remove inlet coupling and press the test button on the transformer or run the shower into the sink to run the pump. Place a finger over the pump inlet. Is strong suction felt?
No
Yes
Inspect the tricuspid valve inside screw on holder on pump discharge ensuring it is in good condition and that couplings and discharge pipework are clear of debris or blockages.
If these are OK remove and inspect the pump head as described in the Installation & Repair section of these instructions. Take care to examine the flap valves ensuring that they close properly and that the diaphragm bead has not been pinched.
These parts are available in the Replacement Head Kit (SDS071T) – includes diaphragm and tricuspid.
or
Replacement Diaphragm and Tricuspid Kit (SDS061T)
Check flow rate of shower.
On 15mm inlet pipe. Max flow 8 ltrs/min
On 22mm inlet pipe. Max flow 12 ltrs/min
Use 15mm inlet for electric showers.
Use 22mm inlet for mixer showers.
If the flow rate exceeds that for the pipe size reduce the flow rate.
If OK see below.
Check for blockages on inlet and outlet pipe and for air leaks as described in the Installation & Repair section of these instructions. Repair any leaks or clear blockages. At this stage please consider adjusting the pump speed settings using the jumpers on the back of the transformer. Once the problem has been resolved it is good practice to replace the tricuspid valve. These are available in packs of 10 (SDS211B)

SWITCH CONNECT

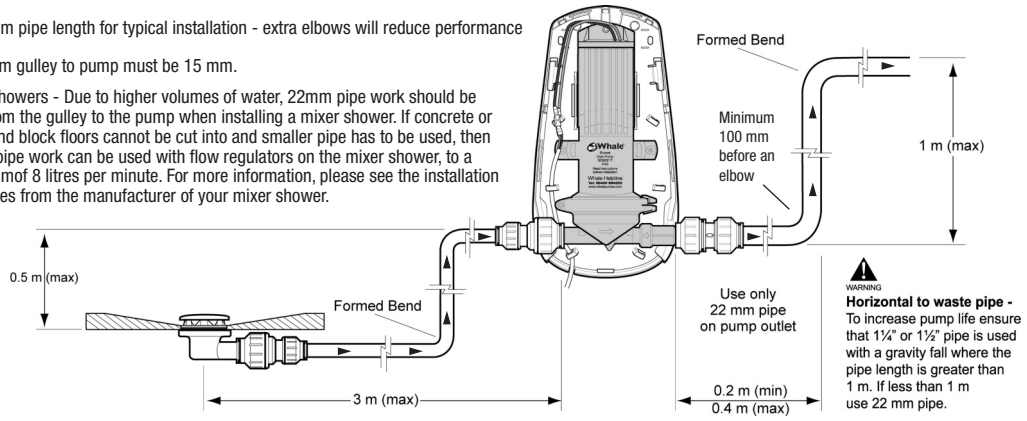
Plumbing Specification - Electric Shower

Electric Shower Installation Shown - 15 mm

Maximum pipe length for typical installation - extra elbows will reduce performance

Pipe from gulley to pump must be 15 mm.

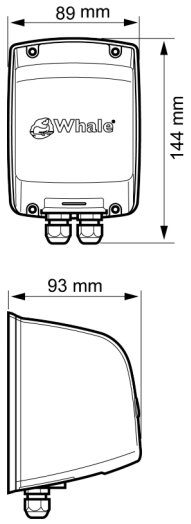
Mixer Showers - Due to higher volumes of water, 22mm pipe work should be used from the gulley to the pump when installing a mixer shower. If concrete or beam and block floors cannot be cut into and smaller pipe has to be used, then 15mm pipe work can be used with flow regulators on the mixer shower, to a maximumof 8 litres per minute. For more information, please see the installation guidelines from the manufacturer of your mixer shower.



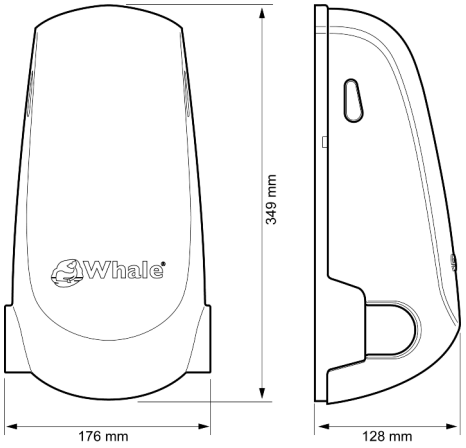
Do **NOT** use 22 mm pipework for **electric showers.** This will increase gulley noise.

For mixer showers use 22mm pipework from gulley to pump inlet. (See below for additional accessory details)

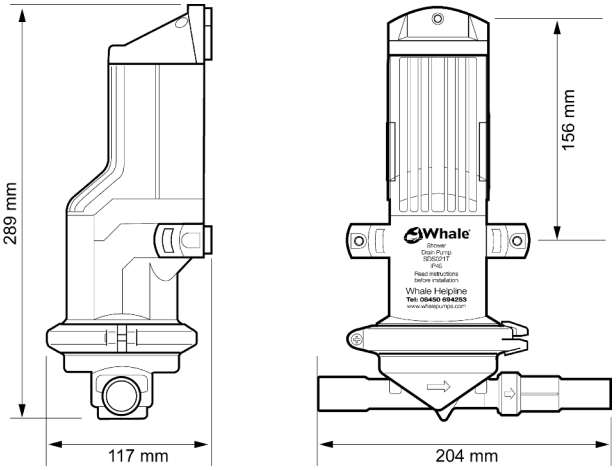
Transformer - 755.210



Pump Cover and Base SDS291T



Pump - SDS021T



Whale®

Contact us

Whale 2 Enterprise Road
Bangor, BT19 7TA, N.Ireland

www.whalepumps.com / drainagesupport@whalepumps.com

Contact the Technical Helpline
If you need further assistance

0345 9090 912

Ref 182.78_v12_1022