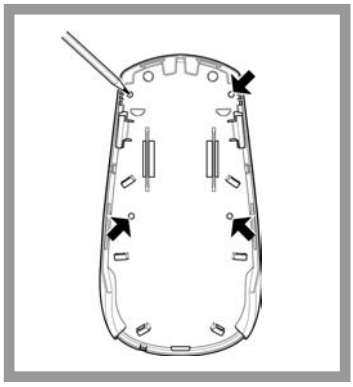
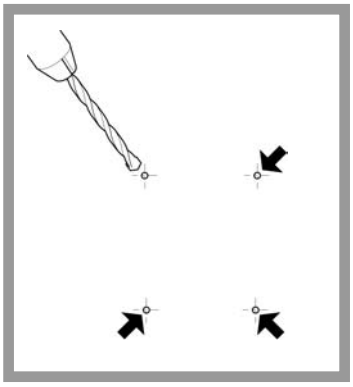
Whale® Instant match™

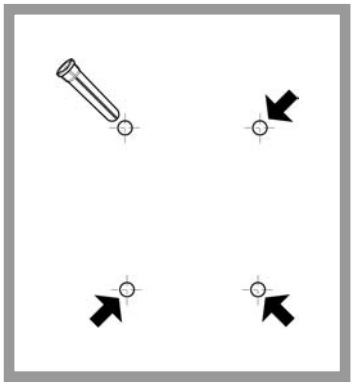
mira Advance ATL THERMOSTATIC

Pump Mounting Instructions
Quick Guide

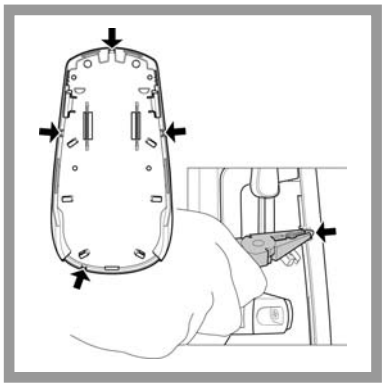


Place backplate in position on wall and mark pump mounting holes through it.

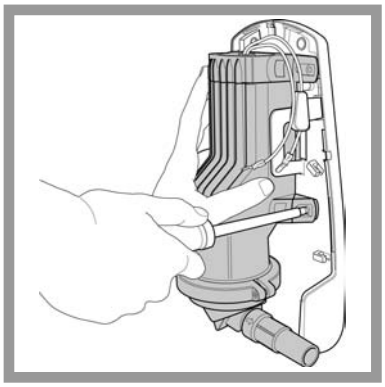


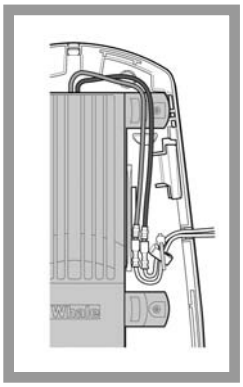


Use a 7mm bit to drill holes at marked points and insert No 8 wall plugs.

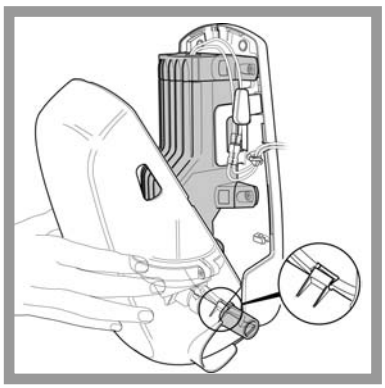


Use pliers to open up desired cable entry point on backplate.

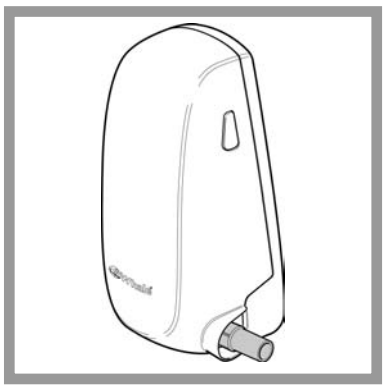


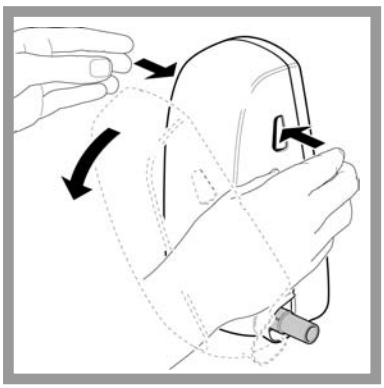


Fix pump to wall using No 8 screws. Use crimps supplied to terminate 24v cable from transformer, connect to pump and feed cable through entry point. Hold cable in place using adjacent cable bracket.



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





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

Technical Helpline **0845 0694 253**

Instant Match Transformer Setting Quick Guide for SDP124T / SDP134T

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: **Sensor Type (M/G)**
Select the type of sensor used:

M (Default Setting) for Mira Shower internal sensor.

G (Do not use)

Setting 2: **Off Delay (10, 30, 90, 180 seconds)**
Adjust the time that the pump will over-run to clear the shower tray/area to suit the installation.

10 Seconds: (Default Setting) Suitable for most Electric Shower installations.

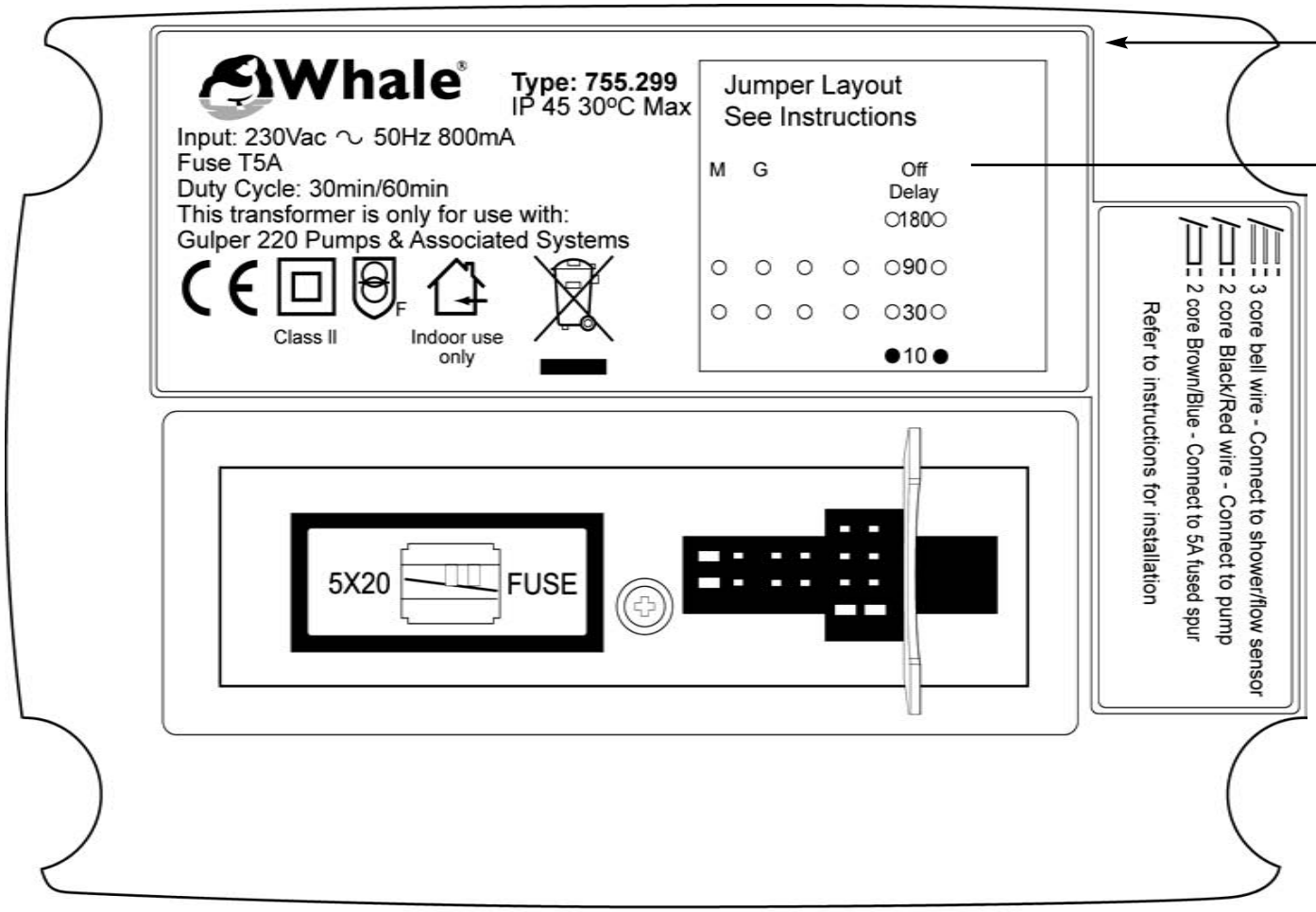
30 Seconds: Suitable for slow draining areas.

90 & 180 Seconds: These settings are available for exceptional situations.

Purge Cycle - After 15 minutes the transformer will reactivate the pump for 30 seconds to remove any run-off or condensation that has collected in the gulley to leave the shower area dry.

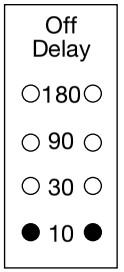
Test Button - The Test Button provides a quick and convenient way to test the transformer and pump operation.

Press, hold and release to energise pump.



Factory default settings

Recommended Off Delay is 10 seconds.*



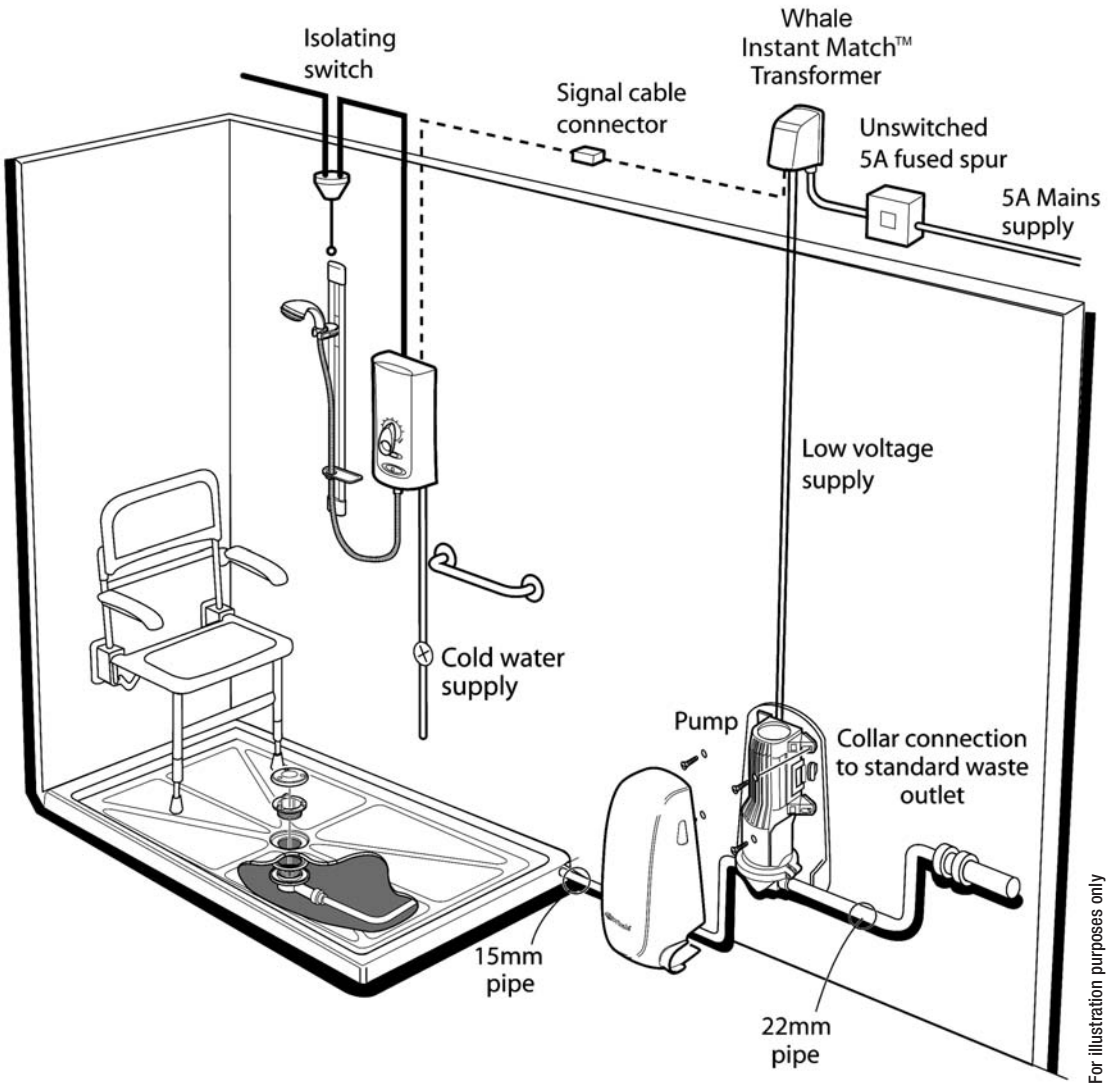
Specific installations may require the pump to operate for longer if the gulley area is not clear of water after the recommended 10 second Off Delay has passed.

Technical Helpline **0845 0694 253**

*These settings are only intended as a guide - all settings should be adjusted to suit the specific installation.

Ref No: 180.108/0308/v1

Whale Instant Match™ Pumped Shower **Drainage System**



Installation guidelines for

Model Number	SDP124T	Shower Tray Kit/Mira
	SDP134T	Wet Floor Kit/Mira

These kits may only be used with the following Mira Advance showers:

Model Number	1.1643.009	Mira Advance Extra 9.0 kW
	1.1643.010	Mira Advance Flex Extra 9.0 kW

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

The front cover illustrates the product in a typical Healthcare installation.

Assess your installation prior to fitting so as to ensure that the pump and transformer 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.

WARNING **Incorrect installation may invalidate the warranty.**

Principles of Operation

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

- When the shower is turned on the shower signals the transformer to supply dc voltage to the pump.
- Whilst showering, information about any variation of flow through the shower is sent to the Whale Instant Match™ Transformer. This modifies the dc voltage to the pump, maintaining optimum pump speed.
- When the shower is turned off the transformer stops the supply of dc voltage to the pump after a pre-set delay.
- 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: 2008 Part 7 (17th Edition).
- **Contact the Technical Helpline (0845 0694 253)** if you need further assistance.

Contents

Illustrations

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, Instant Match™	755.299	1
Tray Gulley Kit **(SDP124T)** – c/w fitting tool and cover	755.108	1
or		
Wet Floor Kit **(SDP134T)** – c/w clamping ring and cover	755.84	1
Tricupsid Valve Holder	755.59	1
Tricupsid Valve	755.57	1
Rubber Waste Adaptor 2 part, 22 mm-1½" fitting		1
22 mm-22 mm fitting		1
22 mm-15 mm fittings		2
Electrical connector block, two core		1
Cable ties		2
Fitting kit:		
Female crimp spade connectors		2
Mounting screws		8
Washers		8

Additional Parts

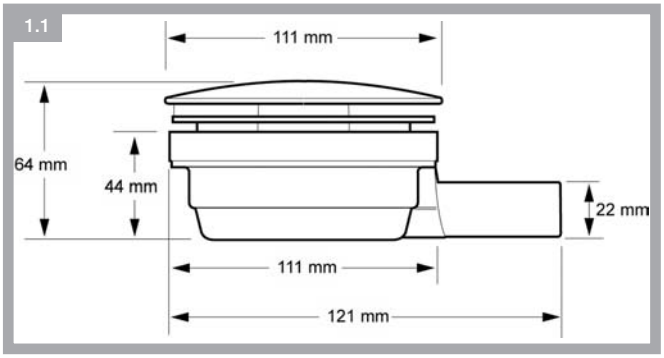
These parts are **not supplied** with the kit and may be ordered from your distributor or stockist:

- 90 mm Gulley
  (O/A dimensions 64 mm h x 111 mm dia)
  Part No. AK1695 **See Fig 1.1**
- Top suction fitting (Stem Elbow) John Guest
  Part No. PEM221515W. **See Fig 1.2**

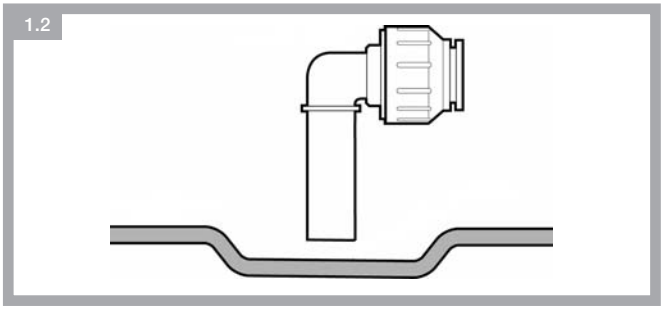
Service Kit

- Diaphragm and Valves Service Kit
  Part No. AK1550

1.1



1.2

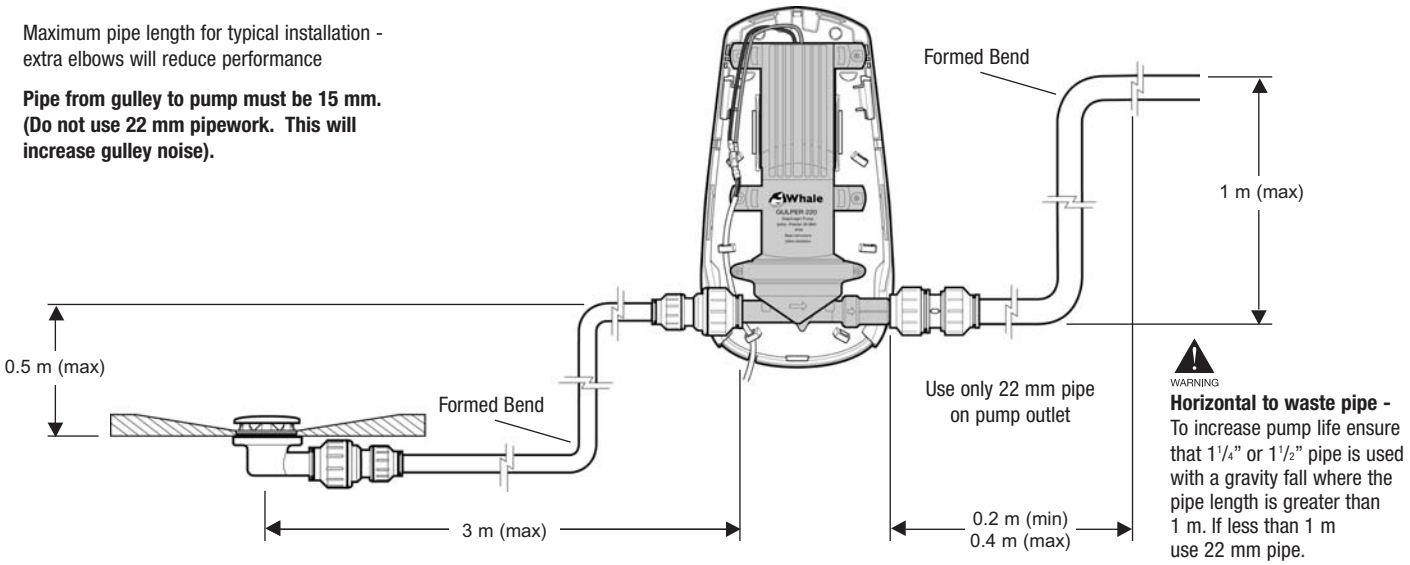


Plumbing Specification

1.3

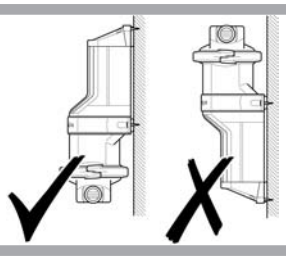
Maximum pipe length for typical installation - extra elbows will reduce performance

Pipe from gulley to pump must be 15 mm. (Do not use 22 mm pipework. This will increase gulley noise).



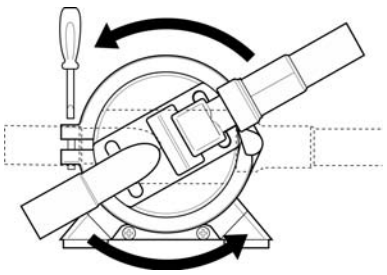
- Whale pump is IP45 compliant.
  Locate pump in accordance with BS7671: 2008 Part 7 (17th Edition).
  Pump may be installed in zone 1 or 2.
- Max flow rate **8 ltrs/min.**
- Use slow radius bends where possible.
- Ensure pipe edges are burr-free.
- Pipework must be secured.
- Push home pipe into push-fit fittings and 'Twist Lock'.

1.4

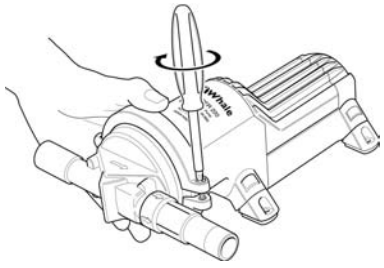


- Mount pump, head down, as shown.
- Mount the pump on a solid wall to prevent vibration. Use a back board if this is not possible. **See Fig 1.4**
- The shower floor must have a fall of at least 25 mm in 1 m.
- Pump and transformer must be accessible after installation.
- Use one vertical lift to the pump and one vertical lift from the pump. **See Fig 1.3**
- Inserts should not be used with plastic pipe.
- Rotate the pump head if necessary to connect the gulley to the pump by the most direct route. Loosen clamping ring screw, rotate and retighten as shown. **See Fig 1.5 and 1.6**

1.5



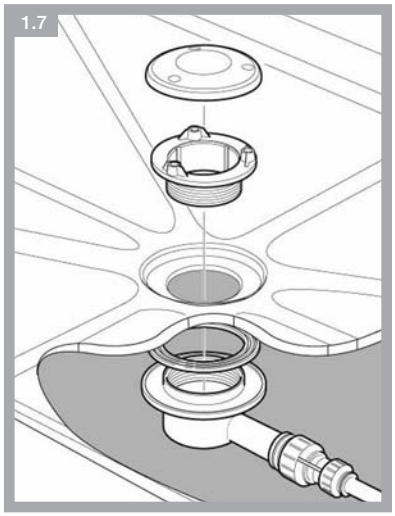
1.6



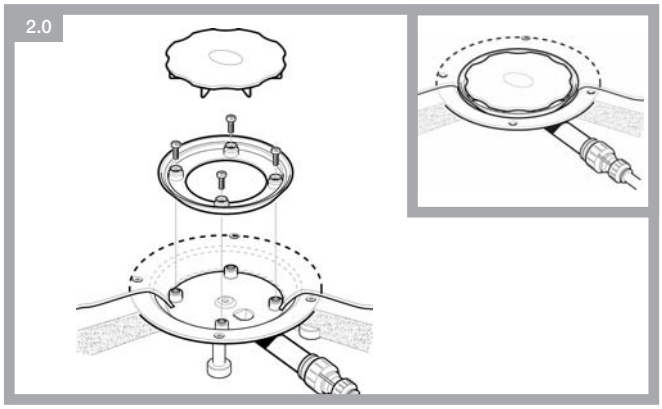
- Do not combine pump discharge with other appliances as there is a risk of induced syphoning. Use an antisyphon trap where necessary.
- Before running water through the system ensure that the shower area and gulley are completely free of building debris, especially tile grout.
- **See 'Quick Guide' for pump mounting instructions.**

Plumbing Gulley

- Gulley has a 35 mm profile to enable the shower drain to fit into a screed floor without penetrating the damp-proof membrane. **See Fig 1.7**
- When fitting in solid floors, copper pipe must be lined to prevent corrosion.
- Use silicone on top of the seal to ensure proper sealing beneath tray.
- Use the hand tool provided to tighten the locking flange. **See Fig 1.8**
- Fit the gulley cover into the sockets and push down to secure. **See Fig 1.9**
- The Wet Floor Kit (SDP134T) contains a gulley designed for use in wet floor situations.
- Gulley supports are provided to maintain the gulley level whilst being installed. **See Fig 2.0**



Top Tip: Leave the hand tool in place to prevent building debris, grout etc. falling into the gulley. Only remove the hand tool and fit the gulley cover when the installation is complete and the shower area has been thoroughly cleaned.

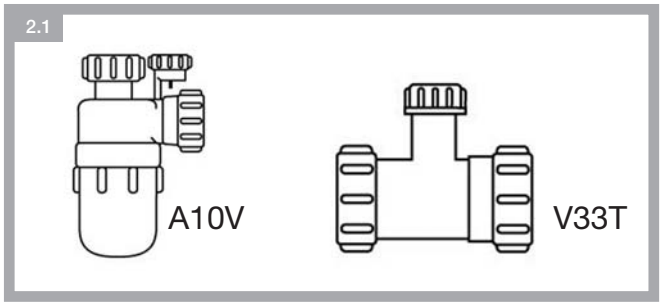


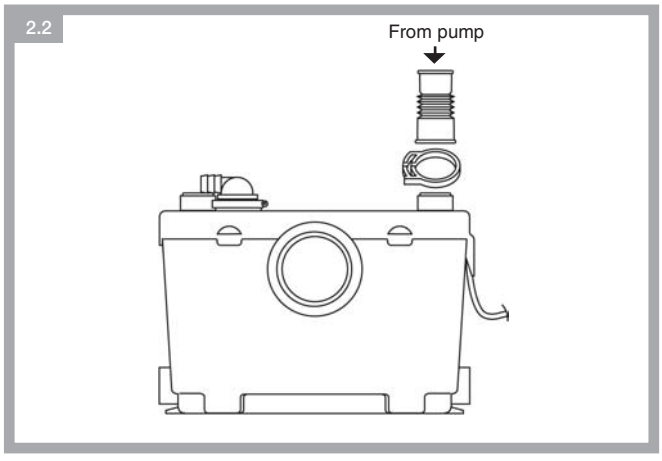
Plumbing of Waste Pipe

- 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 2.1** for McAlpine examples.

Use with a Macerator Pump

- Discharge from the Whale pump must go into the **top** of the macerator box, not into lower side entries. **Do not use** the bottom entries. **See Fig 2.2**
- 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.





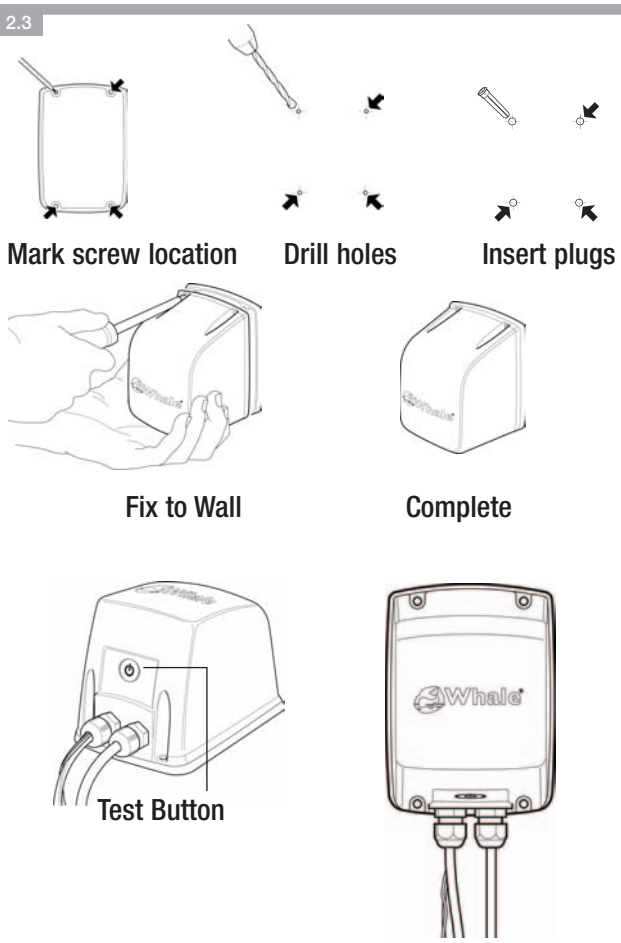
Transformer Installation

- The transformer is IP45 compliant with the base plate fitted and screwed to a flat surface.
- It must be mounted vertically with wires exiting from the base of the transformer. **See Fig 2.3**
- Locate the transformer in accordance with BS7671: 2008 Part 7 (17th Edition). Transformer may be installed in zone 2 or 3.
- **See 'Quick Guide' for optimum set-up.**
- Use only the brown and black sensor wires from the transformer to connect to the two core sensor wire on the Mira Advance Extra. **The 3rd transformer sensor wire (red wire) is not connected. See Fig 2.4**
- The Mira signal wire connections to the transformer sensor-wire are not polarity sensitive. Connection can be made using the electrical connector block supplied. **See Fig 2.4**

Test Button

- The transformer has a built in Test Button which provides a way to test the transformer and pump operation. **See Fig 2.3**
- Press Test Button and the pump should start at the low over run speed.
- When the button is released the pump should continue to run for the time set by the Off Delay jumper.

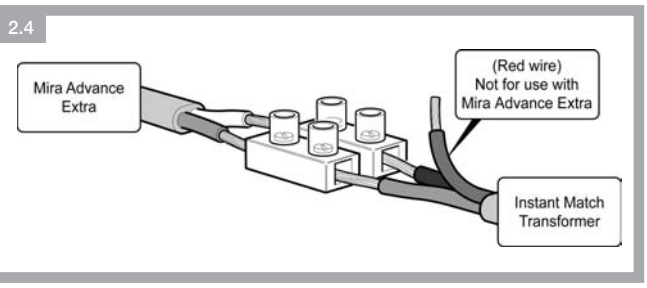
2.3



Electrical Connections

- Mains supply to the transformer should be made using an unswitched, 5 amp fused spur.
- The transformer 24v 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 2.5** shows pump inside cover with cable connected and routed using cable backets and ties supplied.

2.4



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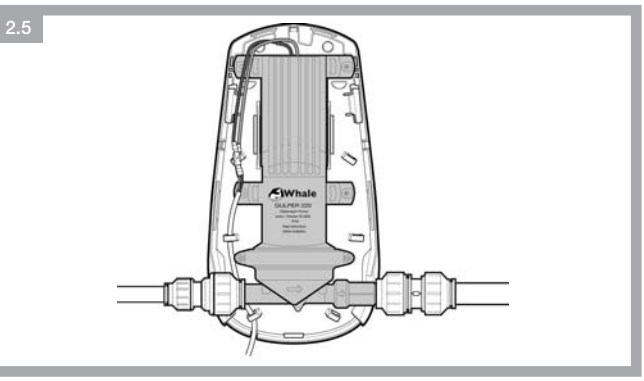

Safety Warning

The Transformer is for indoor use only.

The Transformer contains no user serviceable parts. External components for service are fuse and adjustment jumpers only.

Where there is damage to the transformer or cabling, contact your 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 BS7671: 2008 Part 7 (17th Edition).

Maintenance

Isolate transformer supply from mains supply.

Unscrew the clamping ring screw to release pump head. Do not take clamping ring apart. (Note: to catch water spillage, place tray under pump head).

Check diaphragm and internal valves and tricupsid valve for wear, damage or cracks and replace if necessary.
Service kit: AK1550.

Ensure the outer sealing edge of the diaphragm is located securely in the groove between the body and gear housing (failure to do this will cause the pump not to prime).

Refit clamping rings and tighten screws.

Check for leaks whilst pump is running.

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

Whale's policy is one of continuous improvement and we reserve the right to change specifications without prior notice.

Transformer

Model: 755.299
92 Watts intermittent rating
Double insulated
Thermal protected
Mains cable 1.8 m
(2 core, 0.5 mm^2)
Low voltage cables 5 m
(10 amp rating)
Pump control cable (3 core 5 m)
Shower type selector
Off Delay of 10, 30, 90, 180 seconds
5 amp Slow blow fuse

Warranty

The Whale Shower Drain System benefits from a full 2 year Warranty from date of installation. This Warranty is extended free of charge to a full 3 year Warranty when registered with Whale within 30 days of installation. If the system proves faulty, return it to your distributor with proof of purchase and purchase date.

The manufacturer cannot be held responsible for claims arising from incorrect installation, unauthorised modification or misuse of the product.

For full warranty statement please see whalepumps.com

EU Declaration of Conformity

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 60335-1:2001/A2:2006 Safety of household and similar electrical appliances

EN 60335-2-41:2003/A1:2004 Particular requirements for pumps

EN 55014-1:2000/A2:2002 Electromagnetic compatibility. Requirements for household appliances, electric tools and similar apparatus. Emission

EN 55014-2:1997/A1:2001 Electromagnetic compatibility. Requirements for household appliances, electric tools and similar apparatus. Immunity.

Signed

R. S. McFarland.

Stanley McFarland
Engineering Director

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SDP124T/SDP134T Fault Diagnosis Chart

What is the fault?

Pump will not start

Ensure power is connected, turned on and that the correct fuse has been fitted.

Press the **TEST** button above the cable entry on the transformer. This simulates the switching on off the shower. The pump will run for the period of time set for the off delay either 10, 30, 90 or 180 seconds.

Does pump start?

- **No** → With shower turned on, check for 10 to 20 volts at pump. Is voltage present?
  - **Yes** → Replace the pump (SDS021T).
  - **No** → Check pump cable is undamaged. Remove the transformer and check the fuse fitted on the base. Replace it if it has blown – 5.0A(T). Does pump start?
    - **No** → Replace transformer (755.299).
    - **Yes** → No further action

    Note: If fuse blows persistently, check the pump cable to make sure it is not damaged or short circuiting. Also check for pipe blockages.
- **Yes** → Check that the signal cable from the transformer to the Mira Advance Extra is undamaged and the connection between the two is good. If this is the case call Mira on: 0870 241 0888.

Pump will not stop

The transformer has an overrun to allow the pump to continue to run after the shower has been turned off. The overrun is factory set to 10 seconds and adjustable to 30, 90 or 180 seconds. Does pump continue to run even after the set over run time?

- **No** → No further action
- **Yes** → With the power supply switched on, disconnect the sensor wire between the transformer & shower. Do not allow the two disconnected wires to touch each other. This will simulate the shower, switching off. Does pump stop after overrun time has passed?
  - **Yes** → Check the Mira Advanced Extra. Call Mira on: 0870 241 0888.
  - **No** → Check sensor wire is undamaged. Switch off the pump at the mains and allow the transformer to cool and reset. If this does not solve the problem replace the transformer (755.299).

Pump does not pump properly

Ensure that no hair or debris blocks the gulley. Press the **TEST** button on the transformer to start the pump. Assess the suction at the waste fitting in the tray by placing your hand over it or over the gulley hole.

- **Strong** suction is felt → **Check flow rate of shower**. The pump is capable of 8 l/min with Mira Advance Extra Shower on 15 mm pipe.
- **Low** or **Intermittent** suction is felt → **Check suction at pump inlet.**
  - Low / no suction felt → **Ensure fittings are locked and airtight.** Check the tricuspid valve on pump discharge is closed and undamaged. Ensure outlet pipework is not blocked. Remedy any problems.
  - Strong suction felt → **Inlet pipe is blocked** with debris. (Often a screw cap, pivots in the pipe vertically to block it. Once the pump stops it falls horizontal and allows the pump to suck when used next). Rod or blow back down the inlet pipe until debris appears in the gulley.

Does this solve the problem?

- **Yes** → No further action
- **No** → Remove pump head by removing the blue retaining clamps. Examine the inlet and outlet flap valves for traces of hard debris such as grout. Wash out debris and ensure the valves are seated correctly. Check diaphragm is undamaged. These rubber parts are contained in the Service Kit (AK1550).