



Grey Waste Tank with Integrated Intelligent Control

GK1512 / GK1514 / GK1522B

INSTALLATION & USER INSTRUCTIONS

Thank you for purchasing this Whale® product.

For over 60 years Whale has led the way in the design and manufacture of freshwater, bilge and waste management systems including plumbing, taps, showers and pumps, for low voltage applications. The company and its products have built a reputation for quality, reliability and innovation backed up by excellent customer service.

For information on our full product range visit: www.whalepumps.com

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1. SPECIFICATION

Model	Grey Waste Tank and Gulper Kit		
Product Codes	GK1512	GK1514	GK1522B
Capacity	8 Ltrs (2.1 US gals)		
No. of Sensors	1		
Voltage	12V d.c.	24V d.c.	12V d.c.
Electrical Connections	Tinned wire ends		
Inlet Hose Connections	19mm (¾") x 2 25mm (1") x 3 38mm (1½") x 3		
Outlet Hose Connections	19mm (¾") x 1 25mm (1") x 1		
Service Kits (Available Separately)	AK1005 - Replacement Lid AK1550 - Gulper 220 Service Kit AS1562 - Clamping Ring Kit		
Materials	Pump Body: Aluminium, Glass -filled Nylon, Clamp Ring: Acetal, Diaphragm: Santoprene®, Valves: Nitrile®, Feet: EPDM, Gearwheel: Delrin®, Fasteners: Stainless Steel, Brass; Tank: MDPE, Seals: EPDM/Neoprene, Monprene®, Lid: Glass Filled Polypropylene, ABS, Polyurethane		

2. PRINCIPLES OF OPERATION

The Grey Waste Tank enables the user to manage all grey waste on board easily, through one skin fitting. The Intelligent Control sensor integrated into the tank lid provides automatic operation of the grey waste pump. The sensor will detect water in the grey waste tank at a pre-determined level, and will automatically activate the grey waste pump. When the tank is emptied, the switch will automatically turn the grey waste pump off.

Read the following carefully before installation

WARNING: Please note that incorrect installation may invalidate warranty.

3. TO THE FITTER

To the Fitter:

Check that the product is suitable for the intended application, follow these installation instructions and ensure all relevant personnel read the points listed below. Also ensure that these operating instructions are passed on to the end user. The manufacturer cannot be held responsible for claims arising from incorrect installation, unauthorised modification or misuse of the product.

To the User:

Read the following instructions carefully.

4. APPLICATION

The Grey Waste Tank is designed to collect grey shower waste water. If it is intended for use for any other purpose or with any other liquid, it is the user's responsibility to ensure that the tank and switch are suitable for the intended use and, in particular, that the materials are fully compatible with the liquids to be used. The integrated Intelligent Control sensor is designed to operate at 12V d.c or 24V d.c. only. The sensor is suitable for use with pumps operating with current up to 20A, and is recommended for use with Whale Gulper 220 or Gulper 320 grey waste pumps (see www.whalepumps.com/marine for information).

5. WARNINGS

- With all applications, it is important that a system of safe working practice is applied to installation, use and maintenance. Ensure the electric supply is turned off and that the waste water system is drained before installation.
- The Grey Waste Tank is designed for the storage of grey waste water in recreational marine vessels. Your warranty may be invalidated if the product is used in other applications or outside the remit of the standards quoted on the product, its packaging / product literature.
- All pipework **must** contain a correctly installed anti-siphon valve/loop. (Figure 1)
- The pumped water **must** be evacuated through a skin fitting or seacock **above the waterline**. (Figure 1)



WARNING

- Do not screw directly to the hull – **must** be mounted on a bulkhead or an additional board.
- **WARNING:** Installation **must** be carried out by a qualified electrician. Improper wiring can cause a fire resulting in injury or death. Suggested wiring information (Figure 9) is given as a guide only, and wiring **must** comply in accordance with the applicable electrical standards. Appropriate size fuses or circuit breakers **must** be installed.

Contact Whale Support +44 (0)28 9127 0531 for specific advice on your installation.

6. PARTS

QTY: 1	Grey Waste Lid with Integrated Sensor
QTY: 1	Grey Waste Tank
QTY: 1	Gulper 220 Grey Waste Pump
QTY: 1	Screw Kit

7. INSTRUCTIONS FOR INSTALLATION

The grey waste tank is designed for use with grey waste water in recreational marine vessels. Typical installation is shown in Figure 1. For tank dimensions see Figure 2.

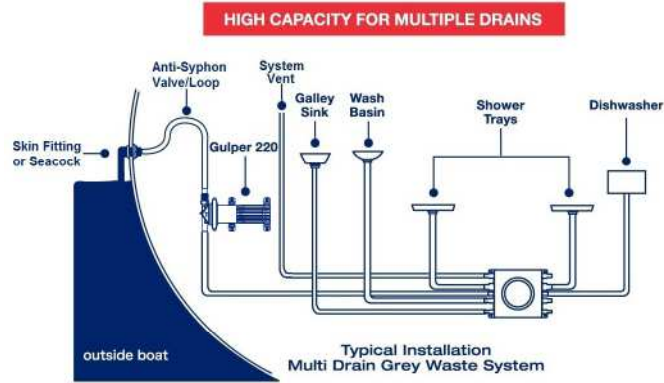
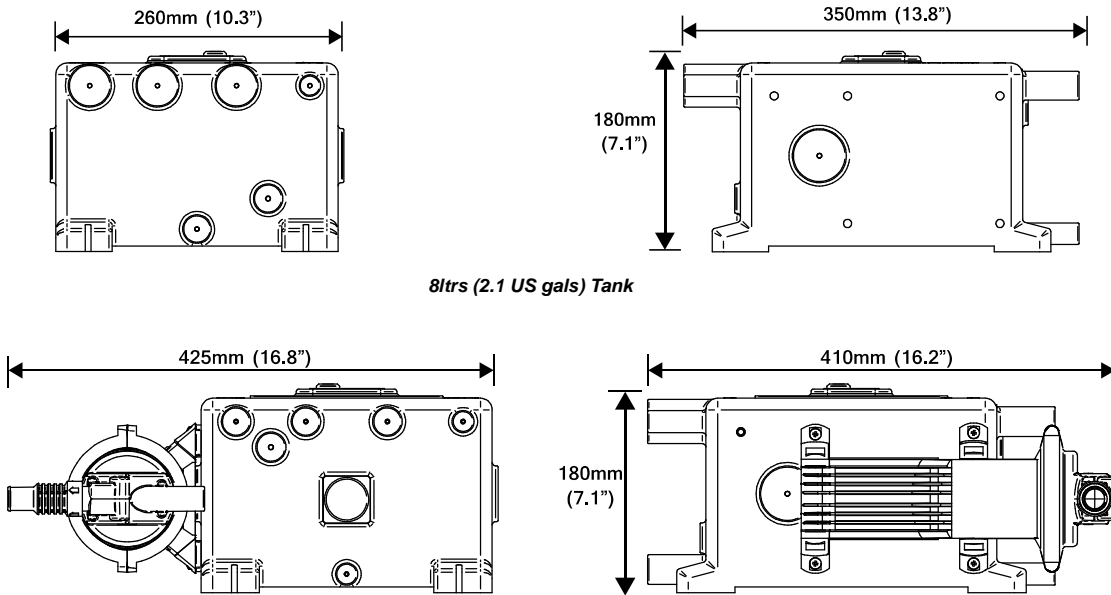


Figure 1 Typical Grey Waste Tank Installation in Multi Drain Grey Waste System



8ltrs (2.1 US gals) Tank

8ltrs (2.1 US gals) Tank with Gulper 220

Figure 2 Grey Waste Tank Dimensions

Step 1: Drill only the ports which are to be used in the installation. Port sizes and recommended drill diameters are shown in Figure 3 for 8ltr (2.1 US Gals) tank. Ensure all swarf is removed from inside the tank after drilling.

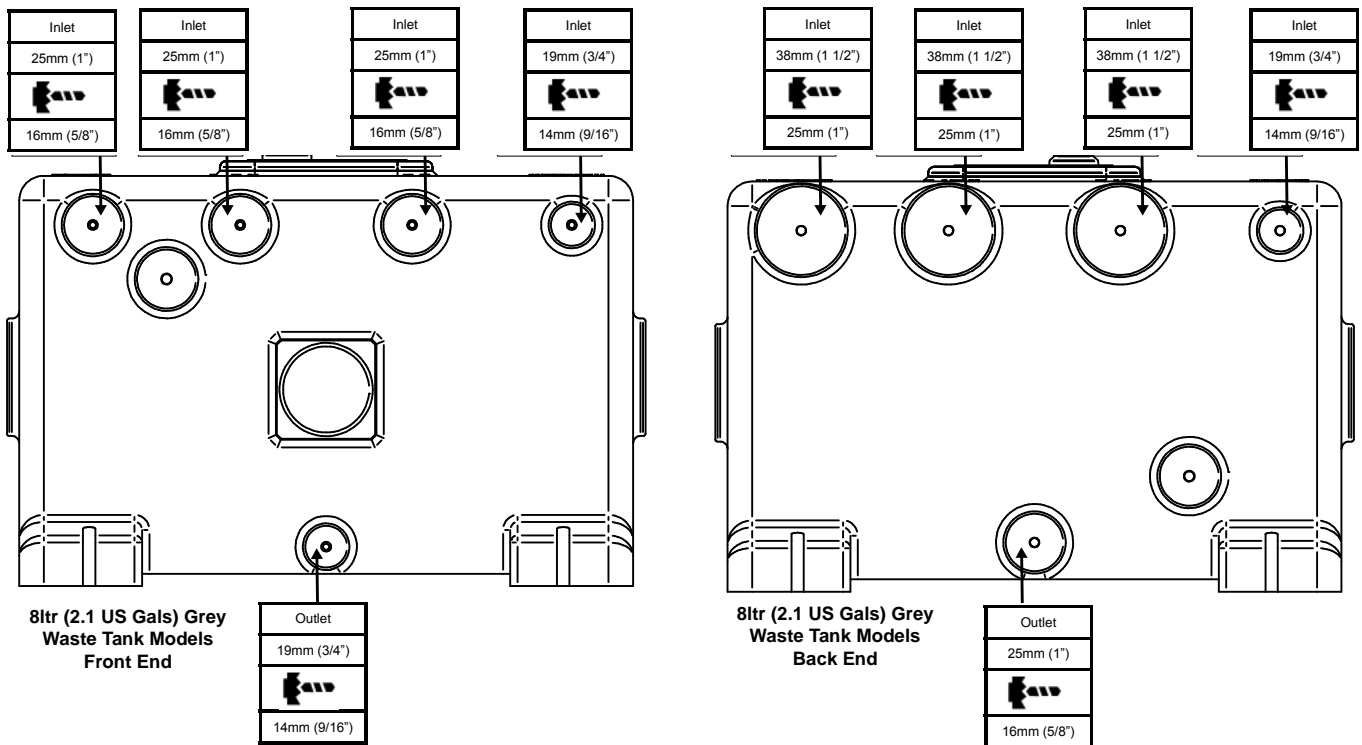


Figure 3 Port Sizes & Recommended Drill Diameters For 8ltr (2.1 US Gals) Grey Waste Tank

Step 2: The tank **must be** secured using 4 appropriate screws, through the feet of the tank as shown in Figure 4. **NOTE:** The angle of the tank **must not** exceed 10° (Figure 5). **NOTE: Do not screw directly to the hull – MUST** be mounted on a bulkhead or an additional board.

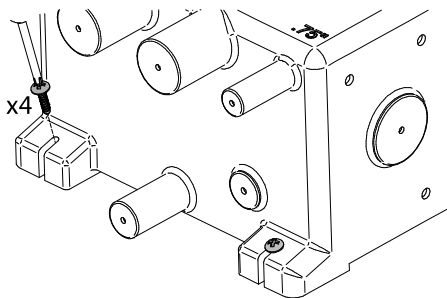


Figure 4 Securing The Tank

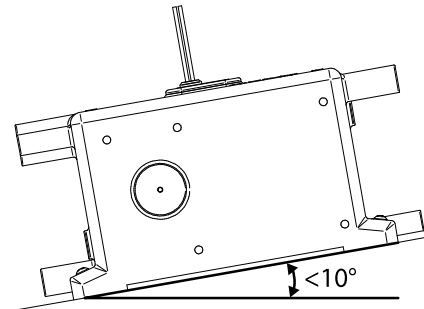


Figure 5 Maximum Possible Angle of Installation

Step 3: Rotate the head of the pump to suit the installation, and avoid tight bends in the pipe. Ensure that the screws are retightened after rotating the pump head.

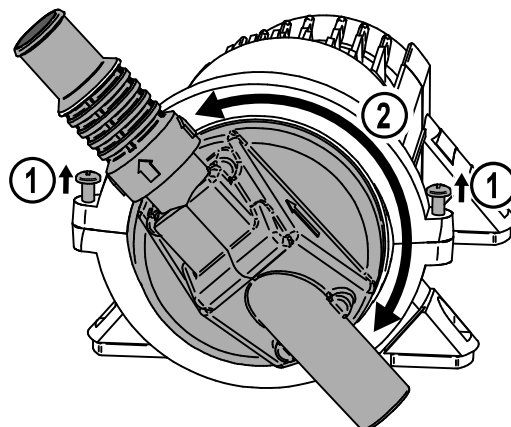


Figure 6 Rotating Head of Gulper 220 Pump

Step 4: The Gulper 220 can be attached to the Grey Waste Tank using the screws provided.

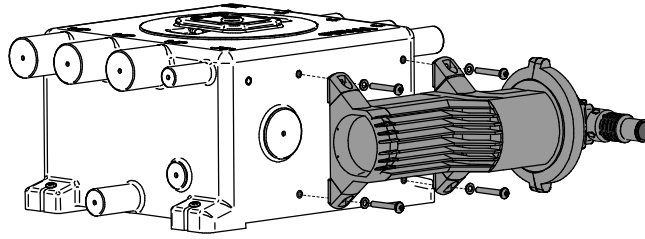


Figure 7 Attaching Gulper 220 to the Grey Waste Tank

Step 5: Secure all hosing onto the selected ports using appropriate hose clamps, as shown in Figure 8. Check no leaks occur. Do not overtighten hose clamps.

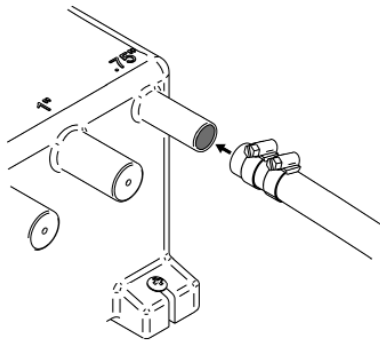


Figure 8 Securing Hose to Tank Port

Step 6: Wiring: See Figures 9 and 10.

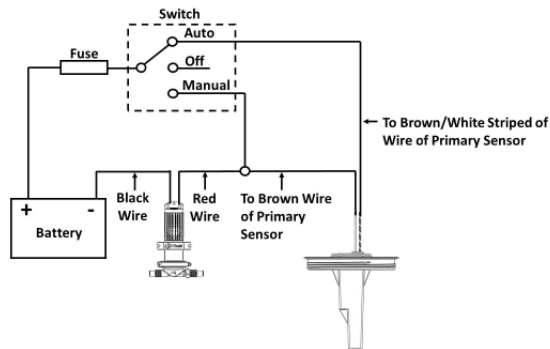


Figure 9 Wiring Diagram

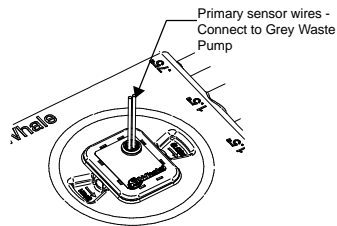


Figure 10 Wiring from the Lid

Step 7: Instructions for Use

Once installed, turn on shower or tap to fill grey waste tank. Ensure that the pump is operating and waste water is being removed from the tank. **Note:** If using a seacock, ensure it is open before use.

8. MAINTENANCE

For best performance, the sensor faces on the lid **must be** cleaned from debris/residue regularly, at least every 3 months. See Figure 11. Do not use an abrasive cleaner.

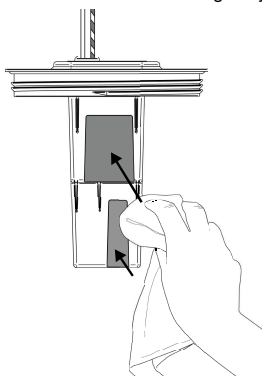


Figure 11 Cleaning of sensor faces

9. TROUBLESHOOTING

Problem	Possible Cause	Potential Solution
Sensor fails to operate pump	No power to sensor	Check power supply, leads and connections
	Fuse has blown	Replace fuse
	Dirt/debris has covered sensor	Carefully remove the lid from the tank, and clean debris from the sensor faces - Figure 11
	Pump is faulty	Replace pump (BP1552(B) for 12V / BP1554 for 24V)
	Sensor is faulty	Replace tank lid (see table Specification for appropriate service kit)
Sensor is operating pump continuously	Dirt/debris has covered sensor	Carefully remove the lid from the tank, and clean debris from the sensor faces - Figure 11
	Tank not emptying water	Check water supply level and pressure relief settings are appropriate for the system
	Incorrect wiring	Check wiring Figures 9 and 10
	Sensor is faulty	Replace tank lid (service kit AK1005)
	Pump is faulty	Remove pump and check non-return valve and remove any debris. Replace non-return valve if necessary (service kit AK1550).

10. WINTERIZING

The system must be fully drained, including the contents of the grey waste tank. If water is allowed to freeze in the system, serious damage to the plumbing, pump and/or accessories may occur. Failures of this type will invalidate the warranty.

11. SERVICE SUPPORT DETAILS

For installation or service advice please contact Whale® Customer Support:
 Whale Support
 Tel: +44 (0)28 9127 0531
 Email: info@whalepumps.com
 www.whalepumps.com

Whale Support (The Americas)
 Tel: +1 616 897 9241
 Email: usasales@whalepumps.com

12. EU DECLARATION OF CONFORMITY

We hereby declare, under our sole responsibility, that the enclosed 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.

CE mark affixed: May 2017

Basis on which conformity is declared - The above equipment complies with the protection requirements of the EMC Directive.

Standards applied
 2013/53/EU
 ISO10133:2012
 EN55014-1:2006
 EN55014-2:1997+A2:2008
 EN28846 :1993

Recreational Craft Directive
 Extra-low voltage DC Installation
 EMC Emissions
 EMC Immunity
 Ignition Protection

Richard Bovill
 Engineering Director

13. PATENTS AND TRADEMARKS

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

14. WARRANTY

This Whale® product is covered by a 1 year warranty. Please see the enclosed document for details of our Statement of Limited Warranty.

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