



Grey Waste Tank with Integrated Intelligent Control - Service Kits

AK1005 / AK1006 / AK1007 / AK1008

INSTALLATION & USER INSTRUCTIONS

Thank you for purchasing this Whale® product.

For over 70 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.

1. SPECIFICATION

Model	Grey Waste Tank - Service Kits			
Product Codes	AK1005	AK1006	AK1007	AK1008
No. of Sensors	1		2	
Voltage	12V d.c. / 24V d.c.			
Electrical Connections	Tinned wire ends	1 x Deutsch DT06-3S-P012	2 x Deutsch DT06-3S-P012	Tinned wire ends
Materials	Seals: EPDM/Neoprene, Monprene® Lid: Glass Filled Polypropylene, ABS, Polyurethane			

2. PRINCIPLES OF OPERATION

Grey Waste Tank - Service Kits

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. The 2 sensor models include a second sensor which can be used to control a second grey waste pump. It is factory set to activate at a higher water level and will provide additional pumping capacity during periods of high inflow to the grey waste tank. Alternatively, the second sensor can be wired to a high level alarm, warning of a high water level within the grey waste tank.

Read the following carefully before installation.

WARNING: Please note that incorrect installation may invalidate warranty.

3. TO THE FITTER & TO THE USER

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.

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 packaging/product literature.
- **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 1A and Figure 1B) 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.

Pump Model	Recommended Automotive Fuse Size (Amps)
Gulper 220 (12V dc)	5
Gulper 220 (24V dc)	2.5
Gulper 320 (12V dc)	10
Gulper 320 (24V dc)	5
Gulper IC (12V dc)	10
Gulper IC (24V dc)	5



WARNING

6. PARTS

QTY: 1	Grey Waste Lid with integrated sensor(s)
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7. INSTRUCTIONS FOR INSTALLATION

Wiring: See Figure 1A or Figure 1B. For AK1006 and Ak1007 see also Figure 1C.

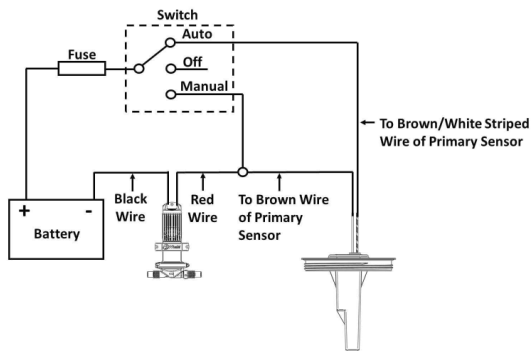


Figure 1A Wiring Diagram - For Single Sensor Models

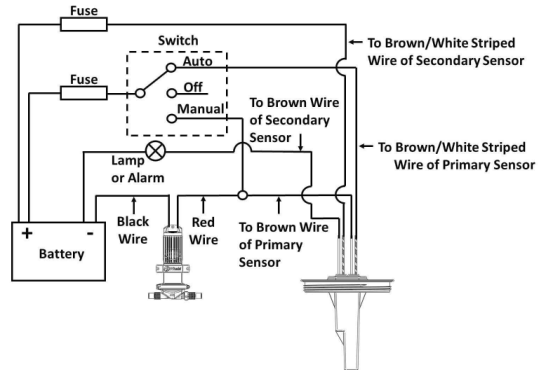


Figure 1B Wiring Diagram - For Double Sensor Models

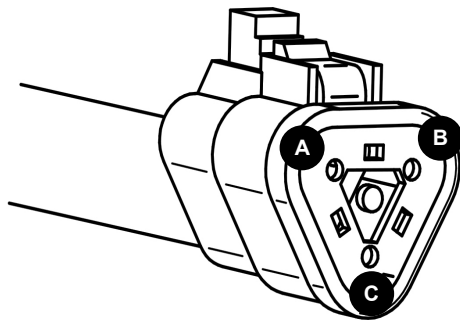


Figure 1C AK1006 / AK1007

Position	Wire
A	Positive from battery
B	Not Used
C	Positive to pump

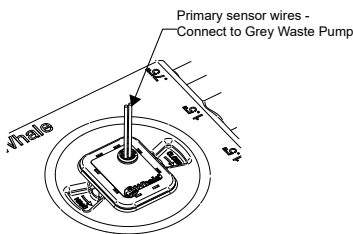


Figure 2A AK1005 / AK1006

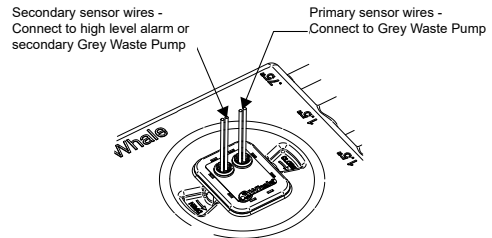


Figure 2B AK1007 / AK1008

Instructions for Use

Once installed, turn on shower or tap to fill grey waste tank. Ensure 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 3. Do not use an abrasive cleaner.

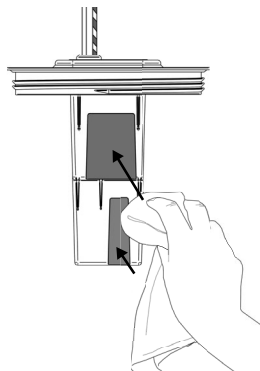


Figure 3 Cleaning / Maintenance

The lid is not a serviceable part. The yellow cover **must not** be removed and doing so will invalidate warranty. It is advisable to have an annual check on all plumbing and fittings to prevent leaks and blockages.

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 3
	Pump is faulty	Replace pump
	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 3
	Tank not emptying water	Check water supply level and pressure relief settings are appropriate for the system
	Incorrect wiring	Check wiring Figures 1A / 1B
	Sensor is faulty	Replace tank lid (see table Specification for appropriate service kit)
	Pump is faulty	Remove pump and check non-return valve and remove any debris. Replace non-return valve if necessary

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.

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

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