



Whale® Supersub

360/500/500 Auto

Electric Bilge Pumps

Read carefully before installation and use.

To the Fitter: check that the product is suitable for the intended application, follow installation instructions and ensure operating instructions are passed on to the end user.

To the User: Read the following instructions carefully.

Application: This product is designed primarily for use as a bilge pump.

This electric bilge pump is designed to pump normal bilge water. Output capacity depends on installation and operating conditions.

If this versatile product is intended to be used for any other purpose or with any other liquid, it is the user's responsibility to ensure that the pump is suitable for the application and, in particular, that the materials are fully compatible with the liquids to be used.

Note: Supersensor and Supersensor 500 Auto will run for 10-20 seconds on startup to check water levels in the bilge. If water is present, pump will continue to run until water level drops below the sensor probes.

Only use Supersensor with 12 V centrifugal pumps with a maximum fuse rating of 10 Amps.

Installation:

360 / 500 / 500 Auto pumps:

1. The pump should be positioned where accumulated water is deepest. It should be located for easy access in a position which best protects the unit from damage and allows fitting without penetrating the hull.
2. For best performance it is recommended to mount the pump horizontally (Fig.1). Mark two hole positions using the template provided.
3. Rotate motor housing in direction indicated to remove it from the diffuser (Fig.2).
4. Use the 2 self-tapping panhead screws and washers provided to secure diffuser housing in most appropriate position for outlet direction (Fig.2). Refit motor housing into position (Keep probes HORIZONTAL on 500 Auto pump).
5. Fit 19 mm ($\frac{3}{4}$ ") reinforced hose onto outlet nipple while supporting the diffuser housing. Secure using jubilee clips.
6. Fit an in-line non-return valve to prevent back filling and on/off cycling with the 500 Auto.
(For reliable operation and to comply with warranty conditions, electrical connections must be kept dry. A submerged splice will render this warranty null and void). Use a 3 Amp fuse for Supersub 360 manual pump and a 5 Amp Automotive fuse for Supersub 500 and 500 Auto pumps.

Supersub 500 Auto can be switched manually or automatically (see wiring diagrams).

Supersub 360 and 500 manual pumps should be wired through either a float switch or a Supersensor for automatic operation or can be manually switched on and off.

Supersensor

Water Level detector

Installation

1. Position the Supersensor where accumulated water is deepest. It should be located for easy access in a position which best protects the unit from damage and allows fitting without penetrating the hull.
2. For best performance it is recommended to mount the unit horizontally (Fig.3). Mark 2 hole positions using template provided.
3. Use the 2 self-tapping panhead screws and washers provided to secure unit into position (ensure probes are HORIZONTAL).

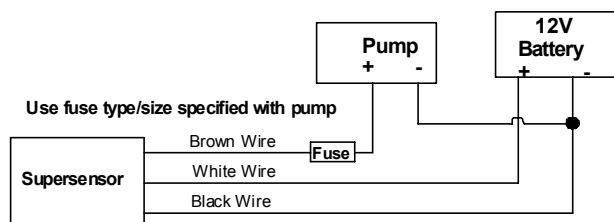
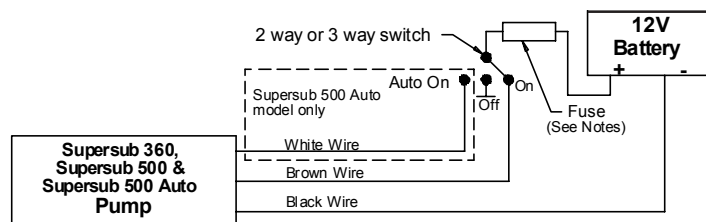
Maintenance

Warning: Turn off power before removing filter housing or motor housing from diffuser. Regular inspection and cleaning of the filter housing is recommended. Ensure that no fibrous debris are allowed to build up on the impeller and shaft as this will reduce performance and damage the pump.

Supersub 500 Auto and Supersensor:

Regularly inspect and clean, the stainless steel sensor probes using a cloth.

Electrical Wiring



For best pump performance wire lengths should not exceed one metre between Supersensor and pump.

Helpful Hints

1. For best pump performance ensure battery voltage does not fall below 10V dc, (Electronic Sensor will not operate below 10V dc). It is recommended to avoid connecting units directly to Alternator or Dynamo.
2. To avoid possible pump damage, ensure outlet hose does not become blocked or kinked.
3. For best pump performance keep the outlet hose and wire lengths as short as possible with wire ends above highest water level.
4. Ensure debris and dirt do not build up in the filter housing.
5. To clean, pull entire filter housing from pump and backflush.

Supersub 500 auto and Supersensor units will detect when the impeller becomes blocked and switch off the pump. Turn off power before cleaning impeller.

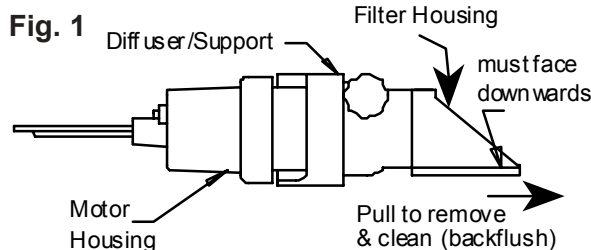
Warranty

Whale electric bilge pumps and automatic bilge switches are guaranteed for one year from date of purchase. This covers defects in materials and workmanship provided the pump case is not opened or the pump otherwise abused (see "Application"). If the unit proves faulty return it to your supplier with proof of purchase and purchase date.

The manufacturer retains the right to decide whether to repair or replace the unit. Warranty shall be void if motor housing is abused.

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

The above does not affect your statutory rights.



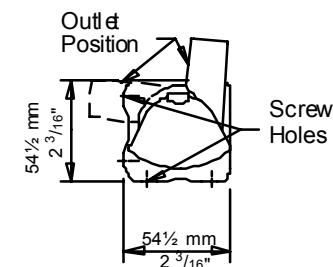
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Fig. 2

Front View



Rear View

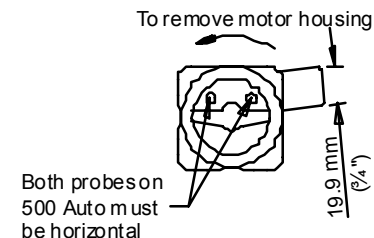
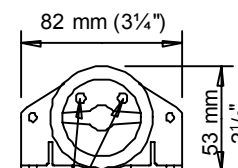
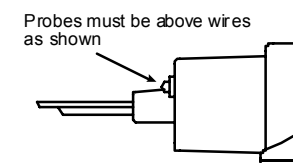


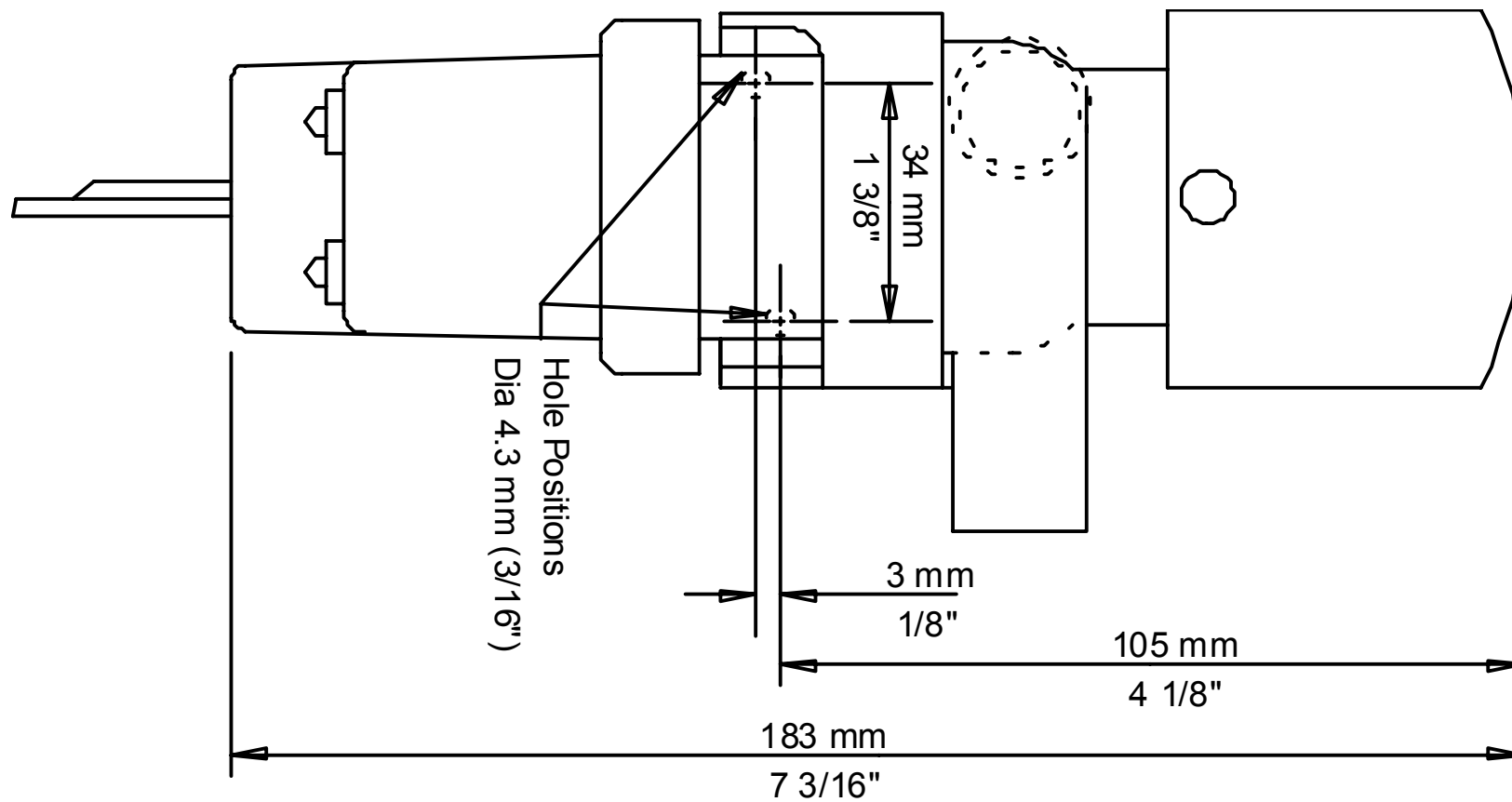
Fig. 3



Both probes on Supersensor must be horizontal



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EC DECLARATION OF CONFORMITY

We herewith declare that the Supersub 360/500/500 Auto and Supersensor conform to the requirements of the EC, EMC directive 89/336/EEC including amendments, and to the following other relevant Directives, and has used the following harmonised standards, European and national standards in the confirming assessment.

Other Directives

Standards

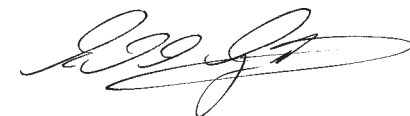
EN55014
(EMC limits & measurement)

Machinery Directive
89/392/EEC and
amendments

EN 292 PT 1 & 2
(Safety of Machinery)

EN28849 (ISO8849)
(Electrically operated bilge - pumps)
EN28846 (ISO8846)
(Small craft - Ignition Protection)

Signed (Authorised person):



Position: Engineering Manager

Ref No: 182.55