



Supersub Range

The original low profile narrow electric bilge pump.

Please Note: Pump operates with a 5 second on delay on automatic setting



Model shown: SS5212

Installation Guidelines for:

Standard Pumps (separate bilge switch required)

Model Number	SS5012 (B)	Supersub 500 (12V d.c.)
Model Number	SS5022 (B)	Supersub 650 (12V d.c.) with N.R.V.
Model Number	SS1012 (B)	Supersub 1100 (12V d.c.) with N.R.V.
Model Number	SS1024 (B)	Supersub 1100 (24V d.c.) with N.R.V.

Automatic Pumps

Model Number	SS5212 (B)	Supersub Smart 650 (12V d.c.) with N.R.V.
Model Number	SS1212 (B)	Supersub Smart 1100 (12V d.c.) with N.R.V.
Model Number	SS1224 (B)	Supersub Smart 1100 (24V d.c.) with N.R.V.

Mounting wedge is supplied with automatic pumps only.

* B Suffix refers to bulk packed versions

N.R.V. = Non Return Valve

This booklet must be read prior to installation

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.

CONTENTS

1. Principles of Operation	6. Instructions for use
2. Application	7. Trouble shooting
3. Warning	8. Winterization
4. Optional Extras	9. Service Support & Warranty
5. Installation Instructions	10. Declaration of conformity, standards, approvals

LIST OF IMAGES

Figure 1.	Installation & Recommendations
Figure 2.	Fitting Instructions
Figure 3.	Fitting Instructions - Into Existing Drill Holes
Figure 4.	Typical Installations
Figure 5.	Wiring Diagrams
Figure 6.	Plumbing
Figure 7.	Maintenance

To the fitter

Read the following carefully before installation. Check that the product is suitable for the intended application, follow these installation instructions and ensure all relevant personnel read the points below. Also ensure that these operating instructions are passed on to the end user.

WARNING: Please note that incorrect installation may invalidate warranty.

To the user

Read the following instructions carefully.

1. Principles of Operation

All Supersub models are uniquely designed, specifically for fast and efficient removal of bilge water from leisure craft. The Supersub range fits into narrow and low spaces that other bilge pumps cannot reach. **SS5012, SS5022, SS1012 AND SS1024 ARE NOT AUTOMATIC PUMPS.** (Please refer to Section 4 for the switches and optional extras that can be used with these products).

Supersub Smart 650 and 1100 are automatic. The pump will sense the presence of water and will switch on, then will turn off again when the water level has dropped. The switching is solid state hence there are no moving parts. The Supersub Smart models allow waves of water to pass over, without turning the pump on every time, as it has a built in time delay.

2. Application

- The Supersub and Supersub Smart range of products are designed to pump normal bilge water. Output capacity depends on installation and operating conditions. If this 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.
- This product must only be used in the bilges of leisure craft. If this product is to be used as the sole and/or primary bilge pump, the Supersub 500/650/1100 and Supersub Smart 650/1100 pumps **must** only be used in boats up to 24m (78.8 ft).
- The bilge water **must** only be evacuated through a correctly installed skin fitting above the water line of the boat.

3. Warning

- 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 waste water system is drained before installation.
- The Supersub range is designed only for the removal of normal bilge water in leisure boats and personal watercraft (as explained in Section 2 - Application). Your warranty may be invalidated if the product is used in other applications or outside the remit of the standards quoted on the packaging and pump body.
- NOTE:** Bilge pump capacities may not be sufficient to prevent flooding from rapid accumulation of water due to storms, rough weather and/or rapid leaks created by hull damage and or unsafe navigational conditions.
- The pumped water **must be** evacuated through a skin fitting above the water line (see typical installation diagrams). The Supersub and Supersub Smart range is not for use in systems evacuating water through a skin fitting or seacock below the water line. All pipework must contain a correctly installed anti-syphon valve / loop.
- In order to securely fasten the unit, ensure that the mounting surface is a minimum thickness of 19mm (3/4") (screws supplied with retail models only). **NOTE Do not** screw directly to the hull - **must be** mounted on a bulkhead or on an additional board.
- NOTE - DO NOT** unscrew the rear section, as interference with the internal electrics will render the pump unfit for use. - this is a non-serviceable part of the pump.
- WARNING:** Fire hazard. Wiring must comply with applicable electrical standards and include a properly rated fuse or circuit breaker. Improper wiring can cause a fire resulting in injury or death. Switch off the power while making connections.

4. Optional Extras

LV1219	Non-Return Valve (recommended for SS5012 models) .
BE9003 / BE9006	Automatic, water activated, electronic switch (For use with SS5012, SS5022, SS1012 and SS1024 models).
BE9002	Automatic, water activated, floatswitch (Please see Figure 5, Supersub Automatic System).
SF5131	3/4" Skin fitting (for use with SS5012, SS5022 and SS5212 models)
SF5204	1" Skin Fitting (for use with SS1012, SS1024, SS1212 and SS1224 models)

5. Installation Instructions

See diagrams (page 4)

6. Instructions for Use

SS5012, SS5022, SS1012 and SS1024 - Manual System:

Step 1: When fitted on their own, these pumps **must be** activated by putting the switch into the ON position (Figure 5, Supersub Manual System).
Step 2: The Supersub **must be** turned off as soon as the water has been evacuated from the bilge, as running the pump when it is dry will shorten the life of the pump.

SS5012, SS5022, SS1012 and SS1024 - Automatic System:

Step 1: When used with BE9002, BE9003 or BE9006 the pump can be left on automatic or switched to manual activation (Figure 5, Supersub Automatic System).

SS5212, SS1212 and SS1224:

Step 1: Set the 3 way switch to Automatic (Figure 5 Supersub Smart 650/1100), the pump will run when necessary. Place fingers over sensor area to check pump is activated (wait 5 seconds), remove fingers and wait for the pump to stop (25 seconds). Check pump regularly to ensure no clogging occurs (Figure 7).

7. Trouble Shooting

PROBLEM	POSSIBLE CAUSES	POSSIBLE SOLUTIONS
Limited flow	Blocked or dirty filter and / or impeller	Check for blockages in filter/impeller. Clean with warm soapy water (Do not use any chemical cleaning agents)
	Blocked or dirty pipe work and/or connections	Disconnect pump and check flow through pipe work, unblock or clean as necessary
	Narrow pipe work or connections	Replace narrow aperture connections and any crushed or collapsed pipe work
	Low battery power	Check battery level, refill or recharge as necessary
No flow	Completely blocked filter and / or impeller	Check for blockages in filter/impeller. Clean with warm soapy water (Do not use any chemical cleaning agents)
	Blocked or dirty pipe work and/or connections	Disconnect pump and check flow through pipe work, unblock or clean as necessary
	Blown fuse	Check above two remedies first. Replace with appropriate fuse
	Flat battery	Check battery level, replace, refill or recharge as necessary
	Incorrectly located sensor	Consult Installation Instructions, available with product or on website
	Pump failure	Check within 1 year warranty. Contact retailer and replace pump
Runs continuously	Switching error	Faulty on/off switch
		Incorrectly located automatic switch
		Faulty float switch/ electric field switch
	Float switch stuck upright (Manual version)	Check there are no moving bodies within the bilge that may prevent movement of the float
		Ensure free movement of float switch
	Electric field sensor remains activated	Wrong pump orientation, consult Installation Instructions, available with product or on website
		Check there are no moving bodies within the bilge that may cover the area where the sensor is located
		Sensor too close to pipe work, boat structure or other body of mass
		If there is thick debris on sensor - wipe clean

8. Winterization

Freezing in winter may cause damage to the Supersub range of products. To avoid this damage, ensure water is removed from the bilge on a regular basis, especially before and during winter months.

Figure 1. Installation Recommendations

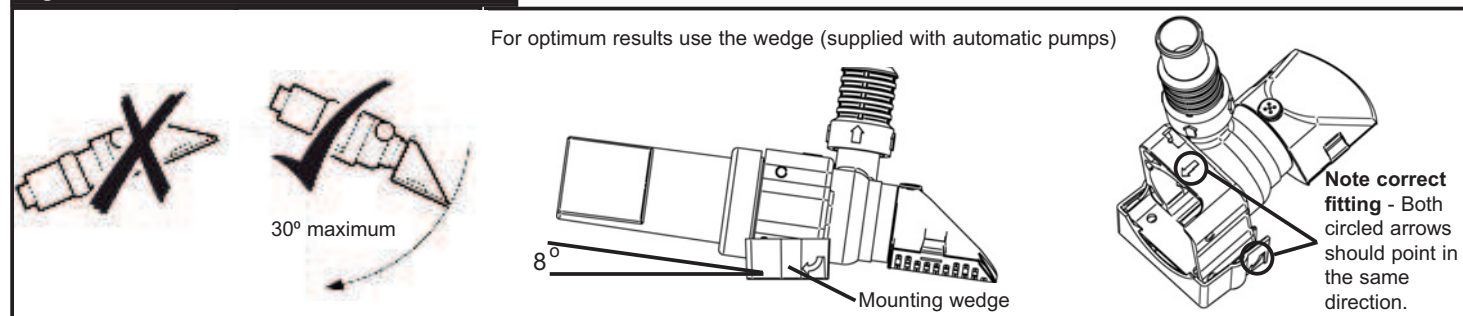


Figure 2. Fitting Instructions

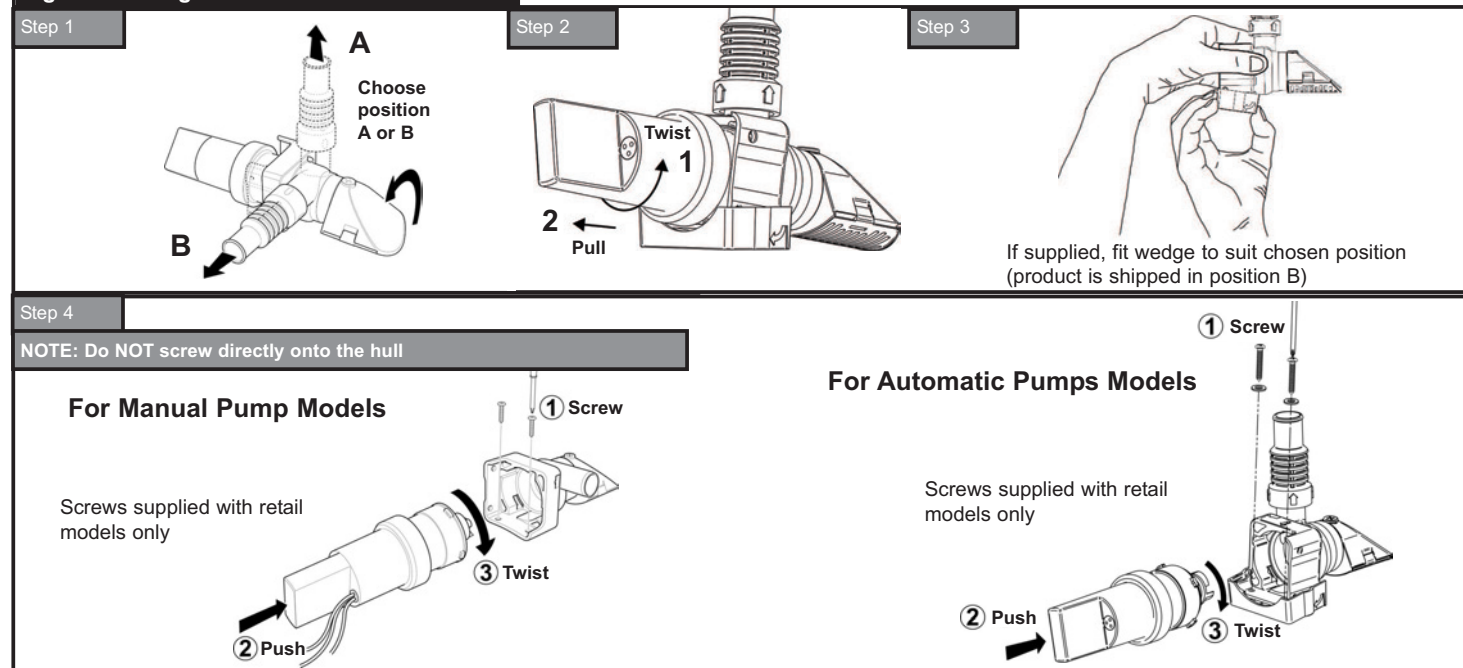


Figure 3. Advantage of Using Mounting Wedge Part When Retrofitting In Place Of Competitor Pumps (Supersub Smart only)

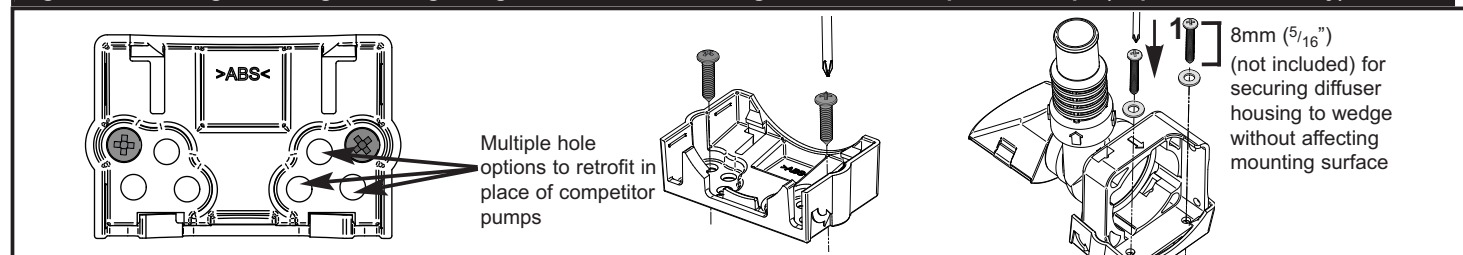


Figure 4. Typical Installation

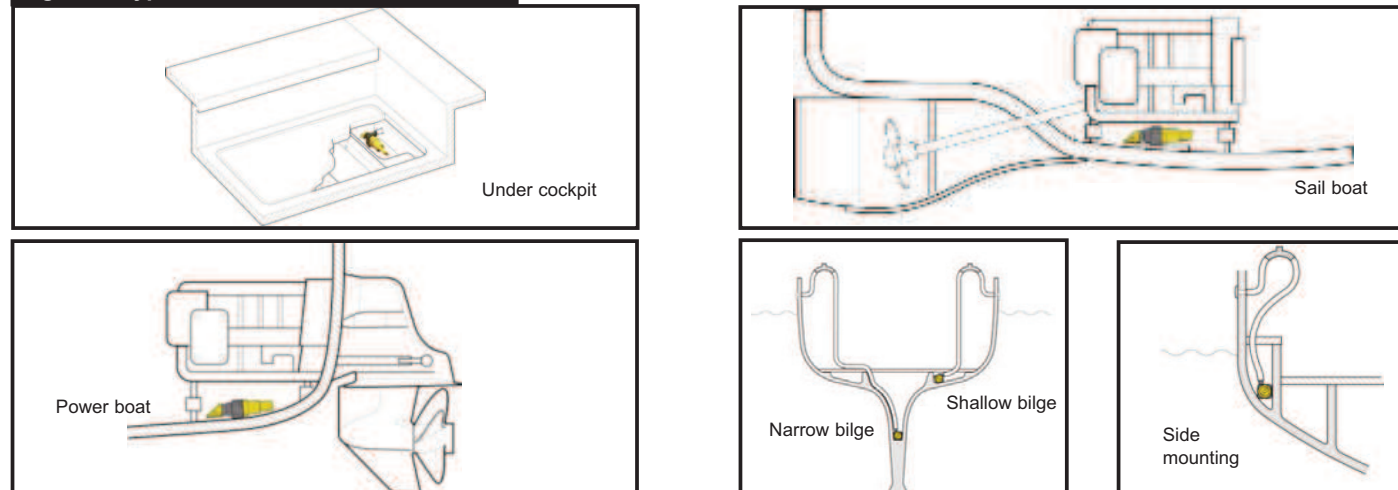


Figure 5. Wiring Diagrams

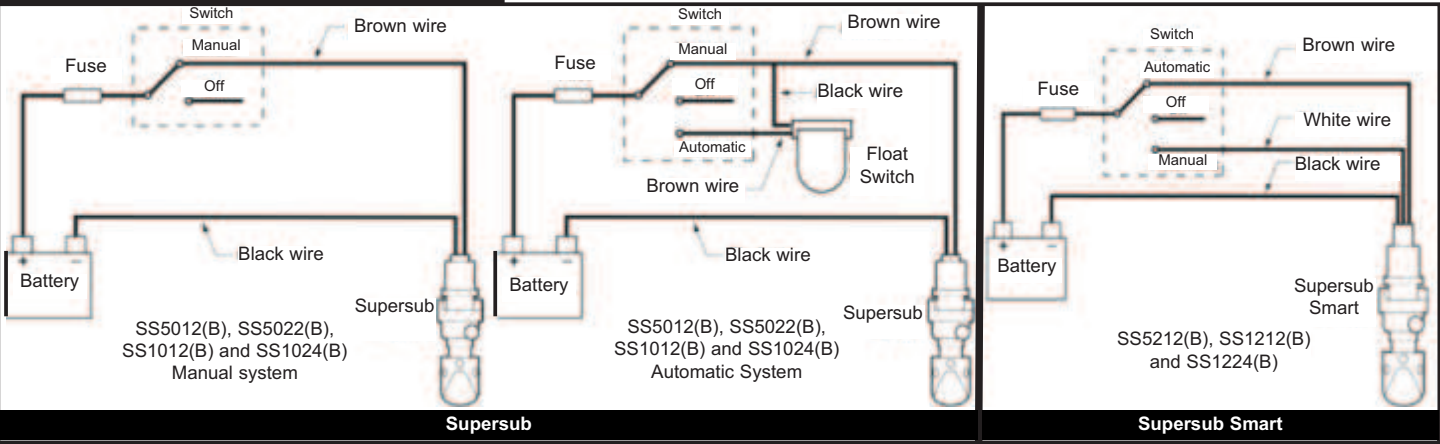


Figure 6. Plumbing

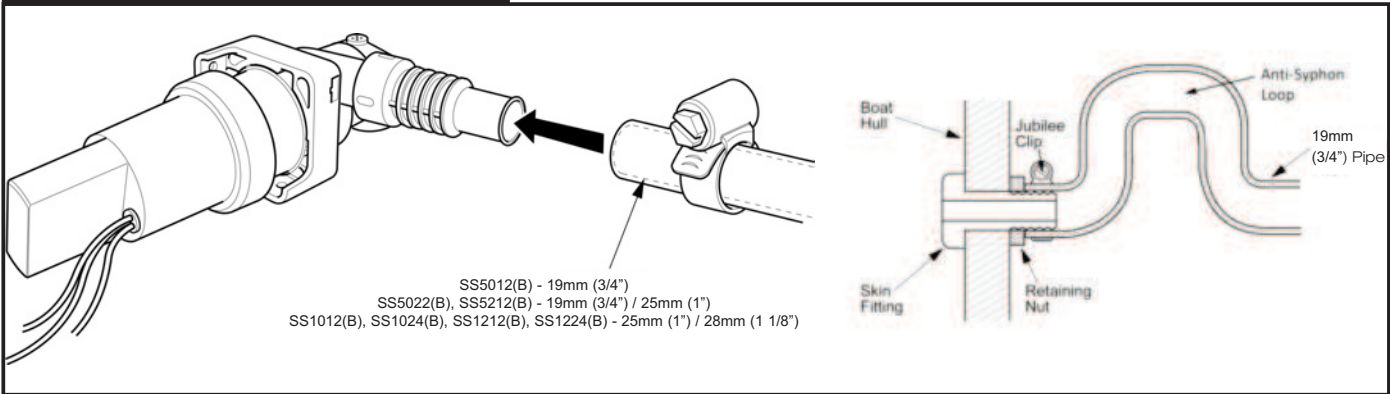


Figure 7. Maintenance

