

BSW-1000 Single Bilge Controller

INTRODUCTION

Thank you for purchasing the BSW-1000 Bilge Pump Switch. **Smartswitch** is proud of the quality and innovation that goes into all of our industry leading products. Our Research and Development team has spent considerable time and effort designing a quality range of monitors and controllers that allow our customers to keep their eye on all the important onboard operations - *accurately, reliably and simply*. It's this kind of thinking that makes **Smartswitch** the provider of the worlds most advanced Marine Monitoring and Control Technologies.

Smartswitch recommends installation of this product be carried out by a suitably qualified Marine or Auto-Electrician. This document contains information to ensure accuracy and safety in the operation of your vessel's equipment. For further information or queries please contact your Smartswitch distributor or visit www.smartswitch.co.nz

OPERATION: BSW-1000 BILGE PUMP SWITCH

NOTE: The High Float switch DOES NOT need to be fitted for the system to operate.

OPERATION WITHOUT AUTO/MANUAL SWITCH FITTED:

If the low float switch turns on and the programmable delay ON time has been reached (factory setting is 5 sec's) the pump will turn ON. When the low float switch turns off the pump will stay ON for the programmable delay OFF time (factory setting is 5 sec's).

OPERATION WITH AUTO/MANUAL SWITCH FITTED (Important – See programming note 5 below):

- **Auto / Manual switch in the AUTO position:** If the low float switch turns on and the programmable delay ON time has been reached the pump will turn ON. When the low float switch turns off the pump will stay ON for the programmable delay OFF time.
- **Auto / Manual switch in the MANUAL position:** The pump will turn ON and stay ON until the switch is placed in either the Auto or the Off position.
- **Auto / Manual switch in the OFF position:** The pump will NOT turn ON even if both the low and high floats switches are activated.
- **ALARM – Audible and Light:** The A/M station alarm light and audible signal will turn ON if the pump has been ON for more than one minute or will turn ON and OFF (flashing) if the high float switch is activated. Pressing the "Alarm/Mute" button will silence the audible alarm, however, the light will stay on (or flash if high float alarm) until the condition is resolved. (Note that the auxiliary alarm terminal on the BSW control module will follow the same protocol)

PROGRAMMING THE DELAY ON & OFF TIME:

This product is factory set for a 5 second delay ON & OFF time and unless a different time is required the product does NOT require programming, but can be changed as follows:

1. **Place two jumper wires one from 'Common' to 'Auto' and one from 'Common' to 'Manual'**, the LED between the Pump connections will blink three times indicating the unit is now in Program mode.
2. **For the ON delay time setting**, activate the Low float switch. The Pump LED will blink every second. Each blink indicates one second in delay time. When the required time is reached deactivate the float switch. (**Tip!** You can activate the float switch by turning it upside down or simply place a jumper between "low float" and "common" terminals). You have now set the Delay ON time. (max time = 3 minutes)
3. **For OFF delay time setting**, activate the High float switch. The Pump LED will blink every second. Each blink indicates one second in delay time. When the required time is reached deactivate the float switch. (**Tip!** You can activate the float switch by turning it upside down or simply place a jumper between "high float" and "common" terminals). You have now set the Delay OFF time. (max time = 3 minutes)
4. **Remove the jumper wires installed in step 1.**
5. **If fitting the AM-100 Auto/Manual/Off switch** remove and discard the jumper between the terminals 'Auto' and 'Common' and connect the switch as per the diagram below. If NOT, ensure the jumper is fitted between the terminals 'Auto' and 'Common'.

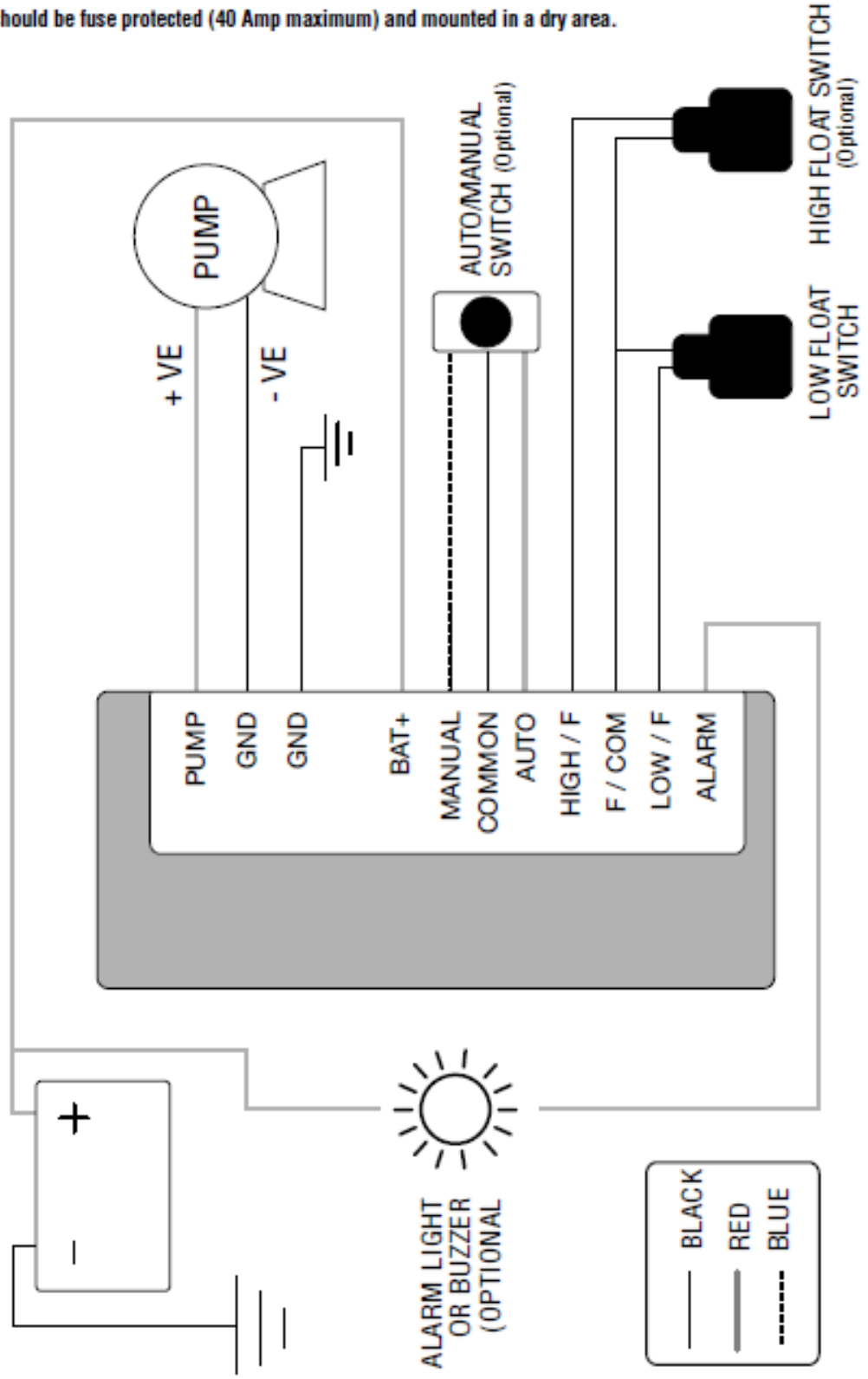
Important note on the BSW-1000 alarm.

*Note that the **ALARM** terminal on the BSW-1000 will sink up to 200ma - sufficient to drive an LED alarm light or low power audible alarm device. For any alarm device which requires higher current draw than 200 ma, use an interposing relay.*

If using the AM-100 Auto/Manual Station, an alarm light and audible buzzer is included on the station, however, if desired, an auxiliary alarm device may be connected to the BSW-1000 controller with the above caution.

BSW-1000 Bilge Pump Switch - WIRING DIAGRAM

This device should be fuse protected (40 Amp maximum) and mounted in a dry area.



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