



# **BILGE MASTER**

MODEL:

29140-0000

#### **FEATURES:**

Water resistant Panel with 3-way switch and fuse holder. For any automatically controlled 12 or 24 volt DC electric bilge pump up to 30 amps.

- Water resistant switch and fuse holder allows mounting in exposed positions,
- Amber light shows that automatic mode is set whilst red light shows whenever pump runs.

#### INSTALLATION INSTRUCTIONS:

The Bilge Master is fully water resistant and may be mounted in exposed locations on any flat surface with a minimum depth clearance of 65mm.

Cut away the mounting surface and mark screw holes as shown in the template. Unless you have access to the rear of the mounting surface, you should make your wiring connections before mounting.

The Bilge Master is delivered ready for 12 or 24 volt operation.

Connect the negative ( - ) battery terminal to terminal 5 using black 1.0mm² cable and the red female connector provided.

For the rest of your wiring, select your wire size according to the amp draw of your pump and the total length of the positive and negative wires from the battery to the pump via the panel, and back to the pump. For example, 4.0mm² wire will limit voltage drop to 10% for total wire lengths of 20m at 10 amps, 15m at 20 amps, or 7m at 30 amps.

Connect the fuse holder to the positive (+) terminal of the battery with a red cable using the yellow male connector provided.

Provide a positive feed wire from terminal 1 to the pump, using the yellow female connector provided, selecting your wire size as described above.

Provide a positive feed wire from terminal 3 to the level sensing switch, and connect it to the pump. Finally, provide a negative wire from the pump to the battery.

The Bilge Master is supplied with a choice of 5 amp, 10 amp, 20 amp or 30 amp fuse. Select the correct size for your pump, pull off the fuse cover on the front of the panel and insert the fuse.

Before fixing the Bilge Master in place apply a bead of clear silicone sealant to the outer rim of the panel and screw it securely in place using 4 x no.6 countersunk screws.

### **OPERATION:**

The Bilge Master has three modes: 'off', 'automatic' and 'pump running'. With the switch in the 'off' position neither pump or level sensing device will operate. In the 'automatic' position there is power to the level sensing device and the amber light is on. If the level sensing device activates the pump, the red 'pump running' light will switch on. The third switch position 'pump running' is a manual over-ride to the system to allow the pump to be activated momentarily as a check, or if it is held down, will activate the pump in the event of a level sensing device failure.

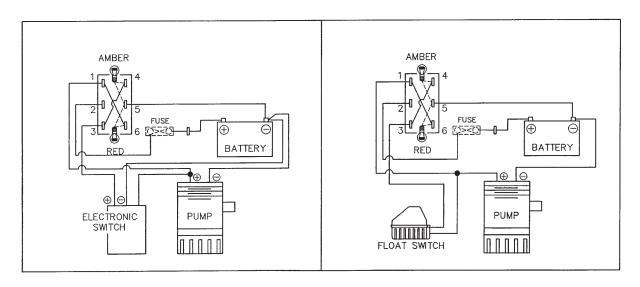
If you want to leave your pump switched to automatic whilst your boat is unattended for long periods, you will need to do two things:-

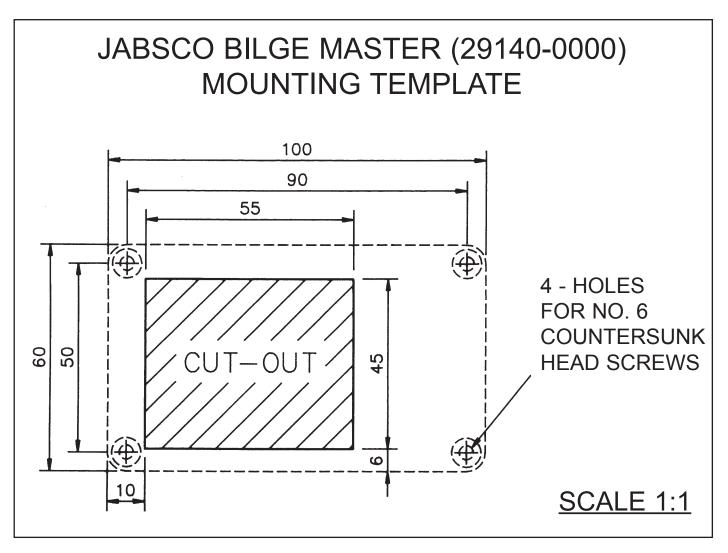
Firstly, the positive feed wire to the panel must run directly from the battery, by-passing any battery master switch, so that power is always available.

Secondly, remove the red wire linking terminals 3 and 4. This disables the amber panel light, which will otherwise consume 13 amp-hours per week on 12 volts, or 6.5 amp-hours on 24 volts.



## WIRING DIAGRAM







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