

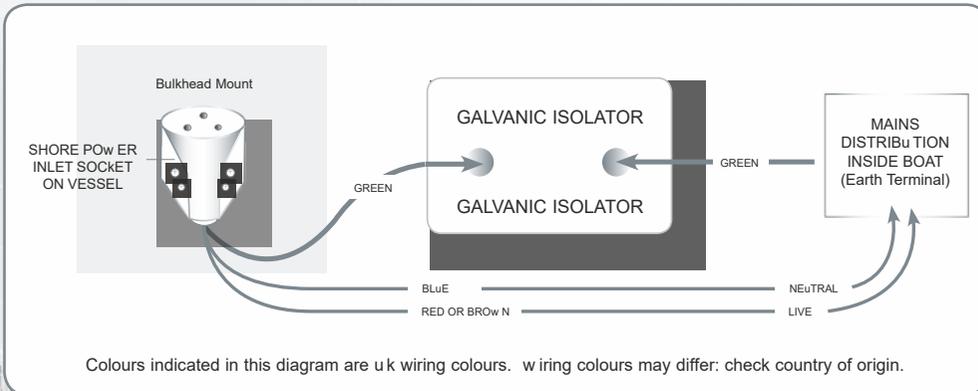
# Marine Galvanic Isolator GI100SM

The function of this isolator in the ground circuit can be critical to safety. If you are not confident in your ability to install this unit please seek professional help.

## Installation:

1. **Remove the external AC power cord from the shore power AC inlet socket.**
2. Locate the green (or sometimes yellow and green) earth wire immediately behind the AC inlet socket (this is the wire leading from the large pin) and cut the wire at a convenient point. It may be necessary to remove the outer sheathing of the 3 core cable to find the green wire. **Please ensure the other two cables are not damaged in any way when you remove the sleeving.**
3. Connect one end of the green cable to the screw terminal of the isolator and the other green wire to the other terminal (either way round: the isolator works in both directions).
4. Mount the isolator in a well ventilated position (minimum 4" airspace around the unit) away from inflammable materials and preferably on solid wood or metal battens (not directly on g.r.p.): In **extreme fault conditions** the unit **may** become hot for a short period before the trips operate (milliseconds!) so a little extra care in mounting is essential. Regular inspection is recommended so mount in an easily accessible position for testing.

It may be necessary to mount the isolator away from the AC inlet socket: Simply remove the green earth wire from the rear of the socket & fit a new piece of earth cable (green min 4mm) & connect this cable to one terminal of the isolator. Continue from the other terminal with green cable to the brass earth strip on the mains distribution outlet.



## Testing installation

This unit is a solid state device constructed with high grade components and requires no servicing. Testing can be carried out with a simple multimeter as follows:

### STATUS MONITOR FOR USE WITH MODEL GI100SM

Mount the status monitor in a convenient position and feed the attached cable through any bulkheads and clip securely. Cut (or extend) the cable provided to a suitable length and feed to the isolator position. Attach the wires to the terminal posts of the isolator using the 2 blue terminal rings provided and lock into position with the brass nuts provided. One wire to one brass terminal post and the other wire to the second terminal post. The isolator is a bi polar device so the connections are not polarity conscious. The installation is now complete. Connect the mains A.C. shore power lead to the vessel and observe the leds.

**Fault indication:** Both leds are extinguished: Correct operation

**1 led illuminated:** DC current leakage: Turn off DC appliances to locate fault source and rectify.

**2 leds illuminated:** A.C. current leakage: Turn off A.C. appliances to locate fault and rectify.

### Remove the mains input cable to disconnect the AC Supply Connection to the vessel.

Connect a fully charged PP3 battery to the battery clip (provided in the installation kit).

Touch one wire to one terminal of the isolator and the other wire to the second isolator terminal: a single LED will illuminate.

Reverse the battery wires: the other LED will illuminate.

This has tested the operation of both the isolator and the status monitor.

Should the LED illuminate briefly and extinguish the test, the PP3 battery is poor and should be replaced with a fully charged one.

Failure of either LED to illuminate indicates a defective unit – refer to manufacturer.

Should the isolator become warm after initial connection, this indicates conduction of the internal diodes resulting from defective mains shore power or internal wiring fault. Under these circumstances please remove the mains shore power lead and consult a qualified electrician. To ensure continued protection we recommend performing this quick test on a regular monthly basis together with checks on the shore power / vessel rccd test facility.

## Specification

**Models GI100 and GI100SM** (MCB/RCCB) Solid State Construction. Isolated Heatsink. Epoxy sealed. Suitable for use with rccb protected shore power outlets of 3 to 63 amps.

Operating Range 0.9 -250 volts AC/DC. 100 amps fault current capability. Peak 400 amps.

No user replaceable components. Conforms to EC/73/23/EEC and 89/336/EEC

36 months warranty subject to correct installation and operating conditions.

Liability limited to replacement of operating unit only. The manufacturers do not accept responsibility for injury or loss sustained through incorrect installation or operation of this unit, defective shore power or faulty A.C. mains / D.C. installations on board the vessel.

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