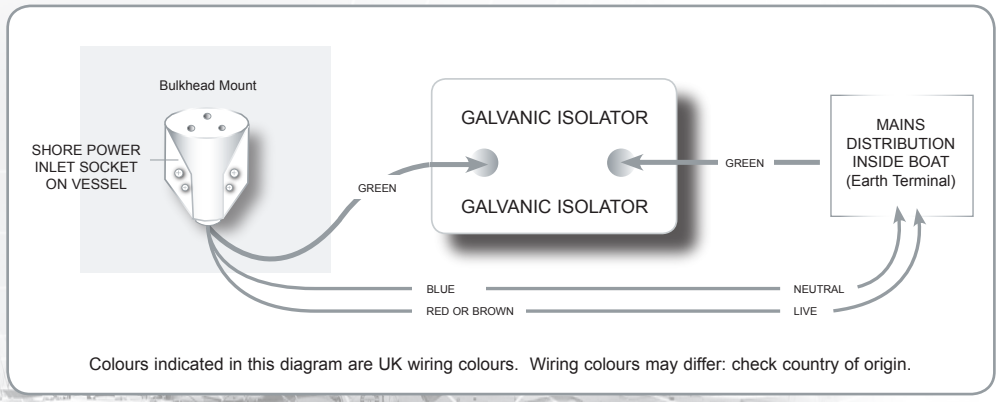
Marine Galvanic Isolator GI100

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) and 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.



Colours indicated in this diagram are UK wiring colours. Wiring colours may differ: check country of origin.

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:

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

With a digital multimeter set to the MEGOHMS position connect the probes to either terminal of the isolator and note the reading. Now reverse the probes:
The meter should show a similar reading within 12% in both directions. If your meter has diode check facilities performing the same operation will result in a reading of approx 1.85 volt in both directions. Any **significant** difference between the two readings indicates component failure. An ohms reading of "infinity" or "zero" would indicate failure of the isolator: Refer to manufacturer. **Please note** your test meter **must** have an internal 9 volt battery. Budget meters with 1.5 volt battery may result in inaccurate readings.

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 / MCB rccd test facility.

Specification

Solid State Construction. Isolated Heatsink. Epoxy sealed
Suitable for use with MCB/RCD 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
24 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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