

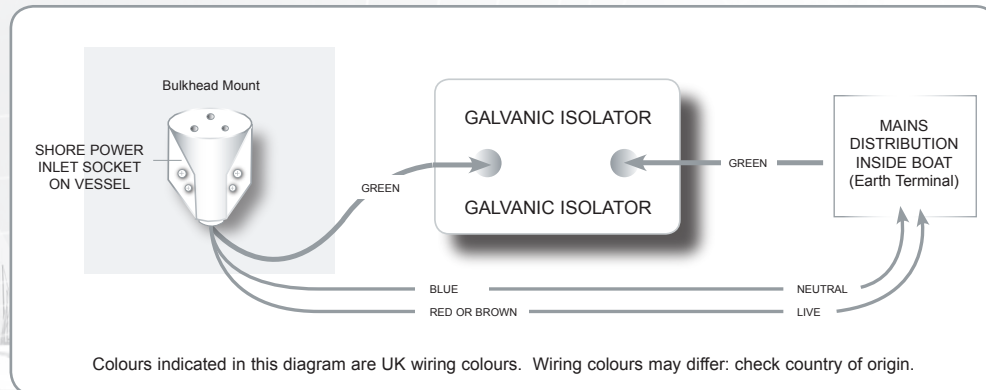
Marine Galvanic Isolator GI100smi

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 and 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.



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 Connection 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 volts 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 / rccd test facility.

STATUS MONITOR OPERATION

Fault Indication: Single LED: D.C. Current Leakage.
2 LED's: A.C. Current Leakage.

LED's Extinguished: Correct operation of isolator.

Quick test of completed installation can be performed as follows:

REMOVE THE MAINS INPUT CABLE TO DISCONNECT THE AC SUPPLY CONNECTION TO THE VESSEL.

Attach a fully charged PP3 battery (9 volts) 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 and touch onto isolator terminals: 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.

Specification

Models GI100 and GI100smi Solid State Construction. Isolated Heatsink. Epoxy sealed. Suitable for use with RCD/MCB 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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