

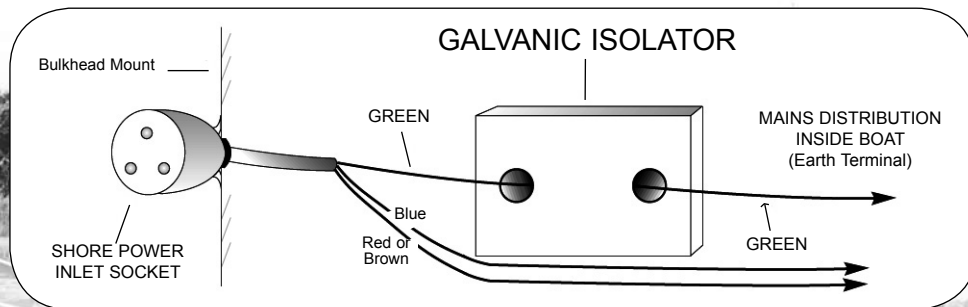
Marine Galvanic Isolator GI70SM

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&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:

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

With a digital multimeter set to the OHMS 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 1.65 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. 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 FOR USE WITH MODEL GI70SM

Carry out installation as for model GI70 & test as above. Mount the status monitor in a convenient position & feed the attached test cable through any bulkheads & clip securely.

Cut the cable provided to a suitable length & feed to isolator position. Fit the 2 gold connectors (provided) to the cable ends & at this point test the operation of the l.e.d.s by **briefly** applying the voltage from a 9 volt pp3 battery to the two gold plugs: **One led will light at full intensity.**

Reverse the applied voltage & the other led will light **at full intensity.**

Connect the gold plugs into the terminal posts of the isolator (either way round) & repeat the test with the 9 volt battery. This will simulate a fault condition & cause the isolator to conduct.

The leds will again light but now at **reduced intensity** indicating correct operation of the isolator.

Testing is now complete.

**Fault Indication: 1 led lit : dc current leakage
2 leds lit : ac current leakage**

Specification

Models GI70 & GI70SM 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. 70 Amps. Peak 400 Amps.

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

12 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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