

# Testing for Presence of a Galvanic Isolator

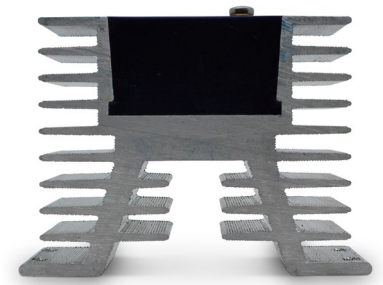
Any maintenance, repair, installation or testing of electrical wiring or equipment should only be carried out by a qualified and experienced marine electrician.

## WHY AND WHEN TO TEST FOR A GALVANIC ISOLATOR:

All vessels connected to shore power whether at a private or public marina are being effected by 3 types of corrosion; electrochemical, galvanic and stray current carried on the shore power lead grounding conductor. To help reduce marine corrosion a correctly installed standards approved galvanic isolator will block the stray current traveling through the incoming earth.

If you do not have a galvanic isolator installed, purchase a unit suitable and approved by authorities in your region.

If you do have a galvanic isolator or are unsure, you can have a qualified person follow the instructions below to test for the presence and/or performance of one.



## HOW TO TEST: This test will confirm your level of protection and correct earth system continuity:

Unplug the AC shore power supply from the Jetty and bring this end inboard to the primary AC Earth distribution bar (normally behind the AC distribution board). Leave the female end of the shore power cord plugged into the vessels shore power connection point.

Set your Digital Multi Meter to the diode test function. You should see approximately 3.3 volts on your DMM when the test leads are not touching each other (open circuit) and 0 volts (shorted) when the leads are touched together to test correct operation of your DMM before system testing.

Put one lead of the DMM to the earth pin of the removed AC shore power plug and the other DMM lead onto the AC earth bus bar. The reading should be approximately 0.9 volts and the same in the other direction when you reverse the DMM leads (forward biasing the diodes) confirming correct operation and fitting of an Isolator.

- A reading of approximately 0.45 volts in either direction means one of the diodes is shorted.
- A reading of 0 volts in either direction means both diodes are shorted or most likely that there is no isolator fitted.
- A reading of more than 0.9 volts means both diodes are open circuit or most likely that there is a break in the earth wire presenting a potentially life threatening situation.



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