



OWNER'S MANUAL GALVANIC ISOLATORS

Models	Current Rating	Voltage Rating
4531001	30A	115/230VAC
4531011	50/60A	115/230VAC

WARNING

- **USE A RING TERMINAL WITH A 1/4" HOLE SIZE**
- **WHEN TIGHTENING THE TOP NUT THE NUT ADJACENT TO THE PLASTIC CASE MUST BE HELD IN PLACE.**
- **TOP NUTS MUST BE TORQUED TO 50IN-LBS.**

IMPORTANT SAFETY INSTRUCTION

This manual contains important safety and wiring instructions for the galvanic isolator. Read the entire manual before using.

INTRODUCTION

The Guest Galvanic Isolator when installed on your boat, electrically connects the boat's AC panel ground and the shore power ground wire.

The Galvanic Isolator is designed to permit AC ground currents to pass safely between the boat and the dockside, but to block the small DC currents that can flow in seawater between boats in a marina because different metals on the boats are in the water.

Experience has shown that the different metals (steel vs. aluminum, for example) actually become the electrodes of a battery. The battery fluid is the seawater. A direct electrical connection of your boat's hull ground to the dock ground passes on to the hull of a nearby boat, and becomes a short circuit to the seawater battery. So currents flow between the different metals, and actually cause movement of metal just like a plating bath. You may lose metal off your prop shaft or prop blade because of these currents, or you may suffer accelerated corrosion of some boat parts. If zincs protect your boat, they may erode very quickly.

The Galvanic Isolator is a passive device in that it has no control functions, but only serves to block the Galvanic currents between boats. It stops the accelerated corrosion caused by these currents and preserves the usefulness of important boat accessories and zincs.

INSTALLATION

Choosing the Galvanic Isolator Location

The correct placement of the Guest Model Galvanic Isolator is in the boat hull adjacent to the shore power connector. You want to route the incoming Green or Green/Yellow wire from dockside ground directly into the Galvanic Isolator's SHORE GND terminal, and connect your boat's Green or Green/Yellow safety ground wire to the BOAT GND terminal on the Galvanic Isolator.

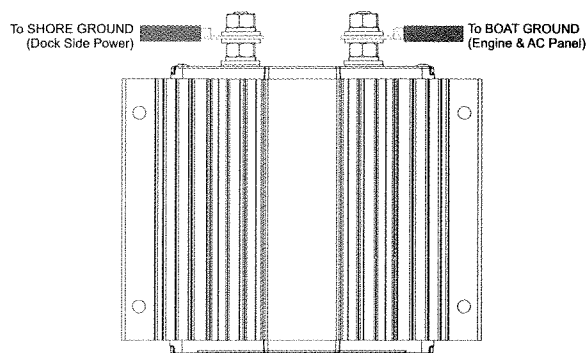
INSTALLATION (continued)

Mounting the Galvanic Isolator

1. Use corrosion resistant #10 sized screws or bolts, backed by a flat washer, and secured to the mounting surface with a split-ring lock washer.
2. Hold the isolator to the mounting surface and mark the holes.
3. Remove the isolator and drill the mounting holes.
4. Align the isolator and assemble the mounting hardware.

Connecting the Galvanic Isolator

Crimp your ground wires into a ring terminals with a 1/4" hole size, and clasp between the external gold plated bolts, nuts and washers on the Guest galvanic isolator. The diagram below is an aid for your correct connections:

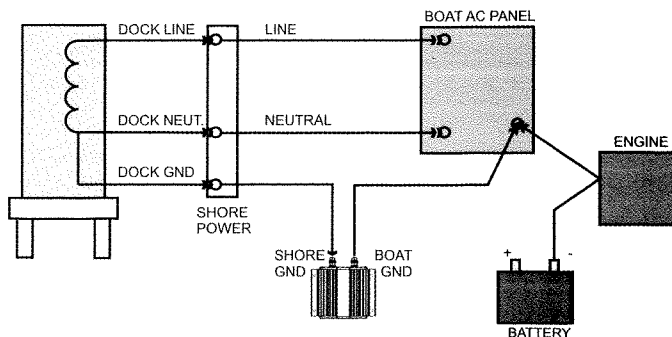


CIRCUIT DESCRIPTION

The Models 4531001 and 4531011 has been designed to the full requirements of the American Boat and Yacht Council (A.B.Y.C.) A-28 standard for Fail-Safe. The basic ratings include:

- Rated current of 30 and 50/60 Amps AC continuous @ 50 / 60 Hz;
- AC surge (fault) current of 3,000 and 5,000 Amps;
- DC (Galvanic) blocking of ± 1.1 VDC at 30 mA, including the effects of a 3 Amp AC test current superimposed;
- Ignition Protected
- Fail-Safe

The operation of the Galvanic Isolator is blocking the galvanic current generated by dissimilar metals, while maintaining a safe ground bond back to shore power in case of a fault. See system configuration below:



GALVANIC ISOLATOR TESTING

1. Remove all wire connections from the isolator.
2. Setup a digital multi-meter (DMM) in the diode test mode.
3. Connect the red probe from the DMM to the SHORE GND terminal and the black probe from the DMM to the BOAT GND terminal. A good isolator will show a reading of 0.7 to 0.9VDC. There is a large capacitor inside the unit, so it may take about a minute for the voltage to completely settle.
4. Connect the red probe from the DMM to the BOAT GND terminal and the black probe from the DMM to the SHORE GND terminal. A good isolator will show a reading of 0.7 to 0.9VDC. There is a large capacitor inside the unit, so it may take about a minute for the voltage to completely settle.

LIMITED WARRANTY

For five (5) years from the date of original purchase, The Guest Co. will, at its discretion, repair or replace for the original consumer, free of charge, any parts found defective in material or workmanship.

Proof of purchase is required: A computerized register receipt is required. Hand-written receipts are not accepted for warranty proof of purchase. In the absence of a receipt, warranty period will be calculated from date of manufacture printed or stamped on the product.

There is no other expressed warranty. Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to two years from the date of purchase. This is the exclusive remedy and consequential damages are excluded where permitted by law.

Tel: (707) 226-9600

Email: info@marinco.com

Fax: (707) 226-9670

Website: www.marinco.com