

Frequently asked Questions: We hope they help you!

Do your isolators work on 110 volts as well as 240 volts? Safeshore isolators work on any voltage worldwide & on 50 & 60 hz (cycles.) They are suitable for use with 3 to 63 amp shore power outlets. Onboard mcb (fuses) & rcd' (breakers) operate as normal for full protection.

I keep my boat in fresh water: do I still need an isolator?

Yes: The rate of galvanic flow increases with shorepower connection & is increased even more in salt & warm water. Fresh water still contains minerals which conduct the destructive currents creating corrosion.

What exactly does a galvanic isolator do?

Galvanic isolation controls the increase in corrosion experienced between moored vessels and metal pontoons due to shore power connection.

A galvanic isolator does not replace the anode protection of your boat but may significantly reduce expensive anode losses & corrosion.

You supply isolators with & without status monitoring : What is the difference?

The models Gi70 & Gi100 are standard isolators & control dc galvanic problems below 1.2 volts. (Most galvanic currents are below 1.2 volts). The models GI 70sm /smi & GI 100 smi are advanced isolators with fault indicators. They control galvanic problems up to 2.4 volts offering maximum protection .The status monitoring indicates and identifies fault conditions & allows easy testing of the galvanic installation All models offer protection against both "Galvanic" & "Stray" currents.

What is the difference between "Galvanic" & "Stray" current?

Galvanic currents are currents set up due to differing voltage potentials present on metals such as props / shafts/ anodes / skin fittings and between boats /pontoons etc They are the currents which flow from boat to boat or from boat to pontoons etc. The current flow increases rapidly when you connect to shore power. Stray currents are highly destructive currents which flow from leaky shore power supplies /defective a.c. or d.c. wiring, leaky bilge switches etc resulting in increased voltages finding their way to the metalware of your boat: This is a far more serious & destructive current than pure galvanic current & is the one that does serious damage in very short periods of time . Our status monitor models Gi 70sm / Gi70smi /Gi 100smi give advanced protection levels & inform you of the type of leakage potentially saving serious damage!

What does the remote monitor do?

The status monitor constantly watches for any current flowing through the "green" earth wire. If a fault occurs a warning led indicates fault

Why does the monitor have 2 L.e.d's? (light emitting diodes : infinite life & far more reliable than conventional bulbs)

The monitor indicates both d.c. leakage (indicating a fault on board the vessel) & a.c. mains leakage (indicating faulty shorepower or defective vessel mains leakage condition) One l.e.d .illuminates when d.c. fault condition is present : Both l.e.d's will illuminate when A.C. fault conditions exist. Fault conditions may be easily identified by turning off appliances or disconnecting fuses until led's extinguish.

I have 2 mains inlet sockets on board the boat : Do I need 2 isolators?

Not necessarily ; If the 2 earth wires are bonded together then 1 isolator is sufficient. If the supplies are designed to be individually earthed then 2 isolators are recommended. We supply excellent installation instructions & wiring diagrams with every isolator.

How can I test the isolator? : Do I need to disconnect it to test?

You do not need to disconnect to test. Simply check the isolator with a digital meter on diode check scale : The readings should be approximately the same in both directions. We supply full instructions for installation & testing all isolators. They can be fitted easily by competent d.i.y. persons We also have a helpline which does just that! A word of warning however! Some budget digital meters have an internal battery of 1.5 volts . These meters are unable to give accurate readings when testing galvanic isolators . Meters containing 9 volt internal batteries have the ability to "turn on " the internal diodes of the isolator & give accurate, reliable readings. Good quality meters are now available for under £15.00(check they have 9 volt internal battery) & are an essential accessory on board!

I have read that my neighbours boat can eat away my zincs! Is this true?

Yes it is! Something most boat owners don't realise : The fact that you make a connection to your neighbour's boat via the earth wire means that when his zincs are gone he has a perfect path to use yours!

I am never going to connect to shorepower . Do you recommend fitting an isolator?

Galvanic currents only flow **between** vessels when you use **shore power connections**. Shore power connections rapidly accelerate corrosion.

Do you offer warranties with your products?

Safeshore isolators carry a 3 year warranty in addition to your statutory rights. High specification & quality construction ensure maximum reliability.

My boat is fitted with outdrives : Can they corrode?

Unfortunately some aluminiums can corrode at an alarming rate accelerated by shore power connection.

I am worried about electrical safety if I "break into" the green earth wire. Will my safety trips still work?

Safeshore isolators have high fault current capability for continued reliability. (70 or 100 amp versions available) Rcd / mcb shore power safety trips both on board vessel & on the shore power distribution work as normal. Full specification sheets are available upon request.

What is the difference between a galvanic isolator & an isolation transformer?

They are different ways of doing the same job. They will both control corrosion but a transformer is heavy & expensive. It will not inform you of potential problems. Galvanic isolation is not a substitute for anodes : Regular inspection of anodes is essential to protect your vessel.

WE HOPE THESE F.A.Q. QUESTIONS & ANSWERS HELP. PLEASE FEEL FREE TO CONTACT US IF WE HAVE NOT ALREADY ANSWERED YOUR QUESTIONS.....WE ALWAYS VALUE YOUR INPUT!

[Need more help?](mailto:safeshoremarineuk@gmail.com) : Email to safeshoremarineuk@gmail.com or phone technical help: 01977 513607