



System Exclusively Eliminates Electrolysis Corrosion.

Registered trade mark of:

Podean Electronic Industries Pty Ltd.

*Service, Research, Design and Manufacturing of Specialised Electronics.
Workplace Agreement incorporating Quality Assurance to ISO9001.*

How To Prevent Corrosion, permanently - Training Course.

This document is best viewed on a Laptop or Desktop PC and will print.

Link to [Home page](#).

Stray current is the cause of 97% of all marine corrosion.

It is powered by Direct Current (DC as in batteries). It dissolves your hull and engine and the metal under coatings and plating so causing them to lift off the metal. SeaBis System prevents the cause of stray current. Permanently. No additional anodes, coating, plating or moving parts. Then the anodes, coatings and plating can work as designed.

Verification that we state is true:

Wikipedia. Note the electrolysis test instrument is supplied with Direct Current (DC). Batteries supply DC, only. The explanation details that specifically. [Wikipedia, electrolysis](#).

Marine corrosion learning will take an hour or two.

If you do not have spare time there is no need to read the following. [We will step you thru preventing marine corrosion](#). Contact: email your question to [Glen Bishop](#). Voice at [Skype](#) (free PC to PC) name: seabis1 or 61 (0)417 878 773.

There is a need to understand the difference between voltage and current.

Voltage is the POTENTIAL for current to flow.

Current is the ACTUAL energy flowing.

So, measuring voltage MUST fail. That failure will cost you increased corrosion in an ***exponential** manner.

***Exponential:** I often hear "I had no corrosion until a few weeks ago."

Explanation: As the metal becomes rougher so its surface area increases. That increases the current flow. So, increasing marine corrosion, exponentially. I have witnessed a 10-day time period from no to extreme corrosion many times.

SeaBis System prevents the CAUSE of marine corrosion.

SeaBis Master measures current as current to an accuracy of ten parts in one millionth amp. The System identifies the CAUSE and repairs it.

Technical explanation (easily understood)

SeaBis Master System eliminates the CAUSE of stray current corrosion termed electrolysis.

Rust, stray current, electrolytic action, marina corrosion, boat corrosion and galvanic are all common terms.

Rust is simply air carried current often vastly accelerated by stray current. All are CAUSED and / or vastly accelerated by the stray current that causes marine electrolysis. All can be prevented, permanently.

Galvanic corrosion is caused by two different metals being in very close proximity in a conductor such as water. Galvanic is a million times slower than stray current corrosion and is often accelerated by stray current. Anodes,

Phone: Australia 61 (0)417 878 773 Email: seabisbg@gmail.com

Skype: seabis1 Web: www.seabis.com

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when stray current corrosion is eliminated, will stop galvanic and should last 3 to 4 years. If they do not or are coated in a white hard substance or are dissolved far too fast then stray current is the cause.

Stray Current Corrosion



Stray current dissolves your metal



Stray current corrosion to engine leg in 14 days

Additional photos for identification of marine electrolysis at seabis.com

Stray current corrosion is caused by wiring or equipment defects onboard your vessel. I witness stray current destroy commercial propellers or hull in 10 days, many times every year. It is current flowing from your vessel to the Earth via the sea (the Earth we stand on, not mains/shore power earth). This is where SeaBis pays for itself, very quickly. SeaBis System prevents the stray current CAUSE. So saving you many thousands dollars.

The stray current thru electrolytic action, termed electrolysis, creates marine corrosion. So the original marine corrosion cause is your vessel creating stray current. If you need additional clarification contact us.

Our Guarantee, Warranty and diagnostic support:

The reasons we provide an 8-year money back guarantee (the equipment) and warranty (the function) are, we are 100% correct. We supply 8 years diagnostic support as causes will reappear with new equipment, water ingress, insulation failure, carbon build up. How To Stop Corrosion instructions must be complied with.

Testimonials at: <https://www.seabis.com/seabis-system-testimonials/>

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Do not waste your money:

Anodes? Can I add more to prevent corrosion?

A one kilo gram (1,000 grams) or two pound anode generates 1/(divided by)1,000,000 or one millionth of an amp protective current. Whereas stray current is 100 to at least 1,000,000 times stronger. Therefore, you would need 100 too at least 10,000 kilo grams of anode! So use SeaBis Master System to prevent the CAUSE, completely and permanently.

Multi meter, half cell, reference electrode or test lamp?

Can any of them prevent corrosion?

Sorry but no. The consequence will be to waste your time and money while corrosion escalates. The reason is corrosion is caused by CURRENT flow to the Earth. They will measure the COMBINED VOLTAGE of every vessel within 200 meters and that of the Earth. Not current. The result is misleading information. Therefore use SeaBis Master System to measure current flow to the Earth and correct the cause – it works 100%. That is why we provide an 8 year guarantee and warranty.

Why buy a Blocker?

Some will try confusion by calling Blocker a Galvanic Isolator!

Don't be deceived. AC – Mains / shore power CAN NOT be the cause.

VERIFY their claims.

Ask for their WRITTEN guarantee. Read it.

SeaBis WRITTEN 8-year money back Guarantee and Warranty at [SeaBis Guarantee](#),

AC or shore power cannot be the cause so what does the Blocker achieve?

Explanation of Blockers function:

AC is the abbreviation for Alternating Current. It reverses direction every half Cycle or Hertz. So IF a particle is removed in the first half Cycle it will be replaced in second half Cycle.

Therefore AC cannot cause electrolysis.

Some will claim there is DC (battery power) in AC (shore power). If so, then every AC appliance would burn out in a few seconds. The reason is: DC creates no Counter Motive Force (Back EMF). Verification: [Wikipedia – Counter Motive Force, Back EMF:](#)

So do not blame the shore connection. The SeaBis System will correct the cause.

My background:

My stray current knowledge started in year 1962 with my attempt to qualify for the next stage of my training. I was a tender 19 year old, had joined the Royal Navy 6 months previously and was determined to improve my prospects. I volunteered for a 3 month duty on HMS Venus. A warship – type 14 frigate and intended for training potential seamen. These were DC ships. DC – direct current – it flows in one direction only. That causes particles of metal to be permanently dissolved to the Earth via the sea.

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My duty on-board HMS Venus was very specific: To test the insulation of ALL the DC supply to all equipment. There was no live testing equipment, as SeaBis is now some 56 years later, so we had to remove power, disconnect the equipment being powered and insulation test. It was a compromise done in writing, signed and witnessed. My neck was on the chopping block. **Today we test and eliminate all causes on ENTIRE vessels.**

There is no compromise. We are accurate to 10 millionths of an amp (reference Ohms Law explanation on page 15). That is why we provide an 8 year money back guarantee. How To Prevent Corrosion must be complied with.

So the cause of stray current has been well known since prior to 1962. So why is it prevalent now? The same reason as profit in spare parts is vastly greater than whole equipment. We will correct this situation. The correction will be visible to you, permanent and at low cost.

SeaBis Master, explanation:

1: Is an industrial grade mini-computer with 20 years design life. It is the simplest and most direct way to eliminate the CAUSE of marine corrosion. You do not need a Blocker when you use SeaBis Master System.

2: SeaBis Master can be fitted with battery clips, moved to more than one battery bank and How to Prevent Corrosion will prevent all permanent CAUSE/S of stray current. Intermittent stray current (moisture, equipment or wiring failure) requires SeaBis be permanently installed. So if you use one SeaBis Master fitted with battery clips to move SeaBis to more than one battery bank, then every battery bank must be interrogated by SeaBis Master at a maximum interval of 10 days. Then no electrolysis corrosion can occur and galvanic corrosion is easy to prevent with anodes.

3: Full details supplied with SeaBis Master. SeaBis Master indications follows:

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Metal corrosion - CAUSE elimination system



Training and diagnostic assistance included

Normal no electrolysis

Caution very low current very slight risk

Serious visible corrosion in 6 months

Critical visible corrosion in 3 months

AC only alarm your batteries, electronics and yourself at risk

CAUSE of metal corrosion permanently eliminated using How To Stop Metal Corrosion

UPC 711599417321 EAN 0711599417321

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•SeaBis Master LEDs explanation:

GREEN you are absolutely safe from stray current causing corrosion

AMBER very small amount of low level current causing minor corrosion

RED serious (LED lit solid not flashing) high current causing stray current is present. Corrosion visible within 6 months

RED FLASHING large current causing visible corrosion within 3 months. Two \$5,000 propellers destroyed in 10 days

AC Only RED FLASHING warns you of excessive AC in your DC. That AC halves your battery life, kills electronics and vastly increases the risk of electrocution. The cause is usually shore / mains neutral and active reversed or a cheap inverter or 12 to 24 volts regulator, alternator or generator. Diagnosis is exactly same as stray current elimination

ALL battery positive red LEDs can be caused by a fire risk - contact us immediately. If you have both 12 and 24 volts there will be very accelerated corrosion and increased fire risk.

Marine stray current and electrolysis corrosion CAUSE prevention procedure.

As booklet supplied with SeaBis: How to Prevent Corrosion.

The SeaBis Master **Traffic Light System** that will instantly indicate the corrosive ability of all stray current.

Connect SeaBis brown to battery positive. Blue to battery negative. Green / yellow to hull if metal otherwise the engine metal body. Connections must be to clean metal with no paint or grease as those will stop SeaBis working.

Diagnosis:

Switch off *double pole breakers or find the brass connection strip that joins all the battery black wires together. Disconnect one wire at a time until SeaBis Normal light is green. Leave them disconnected.

* double pole breakers switch off both battery positive and battery negative with one horizontal lever. They have two vertical parts and one horizontal joining them. The horizontal lever is used to switch off the two verticals.

The last wire you disconnected was causing stray current corrosion.

Reconnect all those NOT causing stray current.

s. Any that cause other than Norma (green) are additional cause/s. Leave all wire/s causing stray current disconnected.

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All equipment causing stray current now has no power so is easily identified. Follow booklet supplied with SeaBis: How to Prevent Corrosion.

If you get any problems contact me: [email Glen Bishop](mailto:Glen.Bishop@podean.com.au)

• Procedure to repair CAUSE of stray current where engine ON hours exceed 200 per year - (Commercial use vessels)

Using SeaBis identify sensors that cause other than Normal. Sensors available at : A.S.A.P. Supplies in U.K. link: [ASAP-UK](http://www.asap-uk.com) sells Teddington senders and switches that are all correctly insulated.

To get thread exactly correct use a thread gauge link: [Thread Gauge](http://www.fastenerretailer.com) from Fastener Retailer.

Using SeaBis identify starter motor and alternator terminal insulation that causes other than Normal. It is commonly corrected by automotive starter motor and alternator re-winder. Obtain wire and crimps to replace the connections that used to be made by engine body.

If you have any difficulty we will talk you through entire vessel full insulation.

False promotions developed to sell products that will not prevent stray current:

“AC - shore power causes stray current”.

•Very very unlikely:

Stray current corrosion is caused by electrolytic action created by DC (battery current) between damp or immersed metal or cooling system via sea to the Earth (the Earth we stand on). Electrolytic action is particles of metal being dissolved from your metal. DC is abbreviation for Direct Current and always flows in the same direction. So continually dissolves metal.

AC (Mains/shore power) is Alternating Current that reverses direction every half cycle (Hertz or 1 divided by 50 or 60 of a second) so dissolved particles will be replaced every half Hertz. So AC cannot cause stray current corrosion. All stray current is eliminated by the SeaBis System under actual live use conditions - 8 year money back guarantee. Testimonials with verification.

DC in shore power AC? Please read the compliance plate on your kettle. There will be no DC compliance. IF there were DC in AC then there would be no Back EMF (Counter Electromotive Force) so every appliance would attempt to draw an infinite current and burn out within a few

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seconds – every appliance in the World burning out in a few seconds... Reference [Wikipedia - Is there DC in AC?](#)

One SeaBis may be used on multiple battery banks:

1: One SeaBis Master will eliminate all PERMANENT causes of stray current on the battery bank it is connected to. It may be fitted with battery clips and moved between battery banks. However that may not eliminate intermittent or new causes and stray current may occur without your knowledge, sometimes in 10 days.

2: To comply with How To Prevent Corrosion and validate our guarantee and warranty SeaBis must be permanently installed, one to each *independent battery bank. Explanation: Every battery is a source of stray current. So permanently install one SeaBis per *independent battery bank / DC source (including regulators, reducers and DC generated from AC).

*independent - All DC sources must be monitored by SeaBis more than 97% of ALL time to eliminate 97% of all causes. Parallel (joined together) battery banks - parallel sources of DC are actually one source so require only one SeaBis. Solution: Allow SeaBis to do its job by permanently connecting to every independent battery bank and DC source! If you have 12 and 24 volts then ALL DC sources must be permanently fitted with SeaBis Master - there will be 3 times the stray current probability, capability and severity.

Then you will comply with ABYC international marine Wiring Rules. Insurance then cannot use noncompliance as an excuse to refuse payment. Contact us and we will email them to you.

3: Time away from your vessel is excluded as we will take steps to ensure there is no stray current while you are absent - see How To Prevent Corrosion and/or contact us with SeaBis Master results.

4: Equipment, such as bilge pump/s you cannot turn off is treated separately. That absolutely minimizes the risk.
Solution: Contact us with SeaBis Master results.

5: As always, we will support you. However, for our 8 year guarantee and warranty to be valid you must comply with How To Prevent Corrosion, supplied with SeaBis. Then ALL CAUSES of stray current will be prevented.

6: Support. Training and diagnostic support are free with SeaBis Master System.

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Stray current corrosion is caused by electrical current, not voltage:

Explanation. Assuming you are sitting at your desk and the light is on. The element in the lamp is slowly dissipating (corroding) in the same manner as your installation / hull / engine / propeller. You grab a rag, and with the light still turned on, you remove the lamp. The lamp goes out and the element ceases to dissipate. The power to the lamp socket: 110 or 240 volts, is still applied. The current through the lamp element has ceased.

There is no point in measuring voltage – it has not changed. Measuring current would immediately show the element dissipation has ceased. The SeaBis System measures current through the metal being dissipated, your propeller, engine or hull. Only SeaBis measures current directly. All other methods measure voltage. How To Prevent Corrosion identifies the cause and provides sample methods of repair. Advice is free: [email Glen Bishop](mailto:glen@seabis.com)

In doubt? Ask any manufacturing jeweler how he plates gold onto base metal. The gold is your (engine / hull) damp / wet metal and the (jewelry) base metal is the Earth.

“Anodes will stop stray current”.

Impossible:

A one kilogram anode produces one micro amp or one millionth of an amp, of protective current. Stray current is commonly greater than 0.1 milli amp (1 / 10,000 amp) too several amps of current. So we would need a lot more than 1,000 kilograms of anode! I have personally measured 9 amps caused by a commercial VHF Transceiver with a 9 amp power supply - that would require 9,000 kilo grams of Anode. It is much easier to stop the stray current.

SeaBis Master System eliminates ALL stray current, permanently, without thru hull penetration or additional coatings or plating. When stray current cause is proven to be eliminated by SeaBis, anodes will stop galvanic corrosion.

“Stopping stray current is too hard”

Only for those who make a living repairing stray current corrosion. 25+ years ago stray current barely existed because marine equipment was correctly manufactured. Today, larger tugs,

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military vessels, professional vehicles, some train / signals and larger aircraft do not experience stray current because they are correctly manufactured. Most experienced Professional Fishermen whose family have been in the trade for generations know what **not** to buy. Use SeaBis to prove new equipment does not cause stray current.

Stray current causes:

- These are probable causes:

Please consider there were very few stray current problems 25+ years ago. The equipment was very much the same. So what has changed? Also consider there is far more profit in spare parts than whole equipment. We will correct this design situation.

Amongst all the causes are Planned Redundancy causing purchase of expensive parts, new equipment, moisture, cooling system, failing insulation, antenna damage and carbon brushes as in all motors, generators and alternators. We will eliminate ALL causes of stray current by using the SeaBis System. We will measure the stray current, irrespective of the cause **while fully powered** and with very good accuracy and total reliability without disturbing the circuit in any way. We will use the SeaBis System because it is totally accurate and reliable.

Whereas a multi meter must cause a circuit disturbance and vast inaccuracy: for a \$500 multi meter an inaccuracy of at least 2,000 to 1. Using a multi meter you will have one chance in greater than 2,000 of any accuracy whatsoever. To prove it to yourself:

Prove a Multi-meter cannot tell you the truth using 2 Multi-meters:

So as not to confuse them, take the battery out of multi meter A and switch it to milli amps. Put the multi meter B on ohms and measure the multi meter A milli amps range resistance (at milliamp and Common terminals). You will find 500 to 2,000 Ohms.

Compare that to the cause of stray current - electrical short circuits of less than 1 Ohm. If you use a multi meter your chance of success at best is 1 divided by 500 (for a \$1,500 combination meter) or at worst 1 divided by at least 2,000 (for most multi meters). Causing a failure rate of 2,000. A multi meter has unacceptable odds and they get worse - next paragraph. Use SeaBis: It is accurate and safe.

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If you use a multi meter you are measuring voltage developed across a resistor connected in series. Not only of no use but confusing and potentially lethal:

Add the risk of battery explosion because of explosive gasses. Batteries generate hydrogen gas. That is the smallest particle of everything and will permeate everything. The Zeppelins were filled with hydrogen gas they all exploded in flames. Use SeaBis Master. It is accurate and safe.

•All causes are electrically in parallel - the solution to locate the causes.

When, as is common, there is more than one cause, they are in parallel. So if A and B are causes and A is disconnected, B will continue causing stray current. If you then think "well, A was not the cause so I will reconnect A and disconnect B..." then you will never eliminate the cause. So the correct procedure is to disconnect connections / double pole until SeaBis indicates **Normal** or **Caution** then momentarily connect or touch on one circuit at a time to test it. Watch SeaBis respond.

•The same principle applies to diagnosis: Always disconnect until you have a **Normal** then momentarily connect one circuit at a time to test it. If it causes stray current disconnect it and label it stray current and then you have Normal again so test the next. Any that do not cause stray current (SeaBis stays on Normal) should be reconnected.

Caution LED: Is caused by an extremely low level of stray current. Corrosion may just be visible in a year. Common causes are a very small fall in insulation / very small coolant leakage in a sensor, poorly designed electronics such as in energy sensors in radars. It is eliminated in exactly the same manner.

The areas affected worse are those with increased temperature (headers) and softer metal such as radiators; and hulls and propellers. The water in the top 300 milli meter adjacent to the hull is always warmer than that deeper under water so carries most of the stray current. The air also carries stray current wherever Relative Humidity is greater than 10%. (humor - Gobi Desert has greater than 10% occasionally).

Ohms Law; the only electrical law you need to know:

I (current in amps) = V (voltage in volts) / (divided by) R (resistance in ohms)

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* is multiplication sign

/ is divide by sign

To transpose the formula:

Replace letters with numbers

$$4 = 8 / (\text{divided by}) 2$$

so

$$8 = 4 * (\text{multiplied by}) 2 \text{ so } V = I * R$$

so

$$2 = 8 / 4 \text{ so } R = V / I$$

That's it. Unless you want Watts(heat or energy) = $I * V$

Ohms Law graphic on the next page. It will make understanding easier,

All prices shown are RRP inc. GST.

The Formula Wheel

Using this formula wheel it is possible to calculate power, volts, amps or resistance for a given problem. ie. if you have two of the variables, for example power and volts, it is possible to find the amps in a circuit. This wheel expresses volts as V, however, in old text books you may see volts shown as E.

POWER (Watts)
This formula is used in many situations, from calculating the wattage of a resistor, to working out if an appliance will overload a particular power source.

POWER (Watts)

$$\text{Power (Watts)} = \text{Current (Amps)} \times \text{Voltage (Volts)}$$

$$P = I \times V$$
 Where: V = Volts, I = Amps

OHMS LAW
Ohms law is undoubtedly the most commonly used formula in electronics today. It defines the relationship between voltage, current and resistance. Its uses vary from calculating the value of a resistor to protect a LED (Light Emitting Diode) from destruction when run on a higher voltage supply than recommended, to calculating the current that a heater element will draw.

Voltage (Volts)

$$\text{Voltage (Volts)} = \text{Current (Amps)} \times \text{Resistance (Ohms)}$$

$$V = I \times R$$
 Where: V = Volts, I = Amps, R = Resistance

A useful variation of this formula is :-

$$P = I^2 \times R$$

•How do I wire up my Boat?

Noncompliance to ABYC Wiring Rules is used to remove Insurance Companies liability. Comply and you remove that excuse to deny liability. I talk to Owners who have just paid 50% to 90% of the value of their vessel in repairs caused by stray current. Totally preventable - follow ABYC Wiring Rules and check there are no faults in your vessel with SeaBis Master. A profit driven manufacturer has published their own ABYC Rules.

ABYC Wiring Rules must be complied with to eliminate the cause of stray current (metal corrosion) and so your insurance is valid. ABYC mandate a 3 wire system: battery positive,

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battery negative and Bonding. No battery connection must make electrical contact with Bonding. If you chose not to eliminate stray current you will have no insurance from stray current corrosion.

ABYC Wiring Rules are recognized by all authorities, World-wide as pre - eminent, correct and legally binding. They will be used to void insurance where there is noncompliance.

[Contact us](#) with SeaBis results and we will send you a link at ABYC Wiring Rules and How to Wire Up Your Boat.

What is rust and galvanic corrosion versus stray current?

Rust is caused by moisture in the air allowing electric current to flow from the metal to the Earth via the air causing the metal to dissipate. Air is a poor conductor of electricity so the process, compared to stray current caused marine electrolysis, is very slow.

Galvanic corrosion: Metals have natural voltages so different metals have different voltages. The maximum difference possible being 1.2 volts (one point two volts) so galvanic corrosion is equally slow. When SeaBis Master proves there is no stray current then anodes and bonding will stop galvanic corrosion.

Stray current is at least a million times stronger than galvanic. You are connected by the water to the Earth and every vessel within at least 180 meters. SeaBis Master System eliminates ALL CAUSES of stray current. Permanently and forever. You are disconnected (insulated) from the World so no current can flow. How To Prevent Corrosion must be complied with.

Stray current corrosion is man-made. The SeaBis System eliminates all stray current, no matter what the cause. Then anodes, coatings and plating can work as designed. That is why we offer an 8 year money back guarantee. The guarantee or warranty has never been claimed in 20 years with greater than 2,000 vessels.

•How do I know you are correct?

See [Testimonials](#) with verification for 20+ year. In addition, I know of no other stray current elimination product with an 8 year, publicly available written money back guarantee and warranty. We provide an 8 year guarantee because we know we are 100% correct.

Phone: Australia 61 (0)417 878 773 Email: seabisbg@gmail.com
Skype: seabis1 Web: www.seabis.com

2/5 Ninth Street, MILLICENT, South Australia 5280. Podean Electronic Industries Pty Ltd. t/a SeaBis.

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System Exclusively Eliminates Electrolysis Corrosion.

Registered trade mark of:

Podean Electronic Industries Pty Ltd.

*Service, Research, Design and Manufacturing of Specialised Electronics.
Workplace Agreement incorporating Quality Assurance to ISO9001.*

Bonding question:

" Should the fuel tank bonding as well as all other outer hull and thru hull mounted metal be connected to all metal, not the DC system?" •Yes. The Bonding connects all metal that can get damp to wet so reducing the inter-metal natural voltage so reducing galvanic corrosion. NEVER connect bonding or any metal that can get damp or wet to any DC as that will cause accelerated stray current. NEVER connect DC to fuel tanks - you will pass 80% of total current through the tank and its content - that has caused death by fuel explosion. The Bonding system is never connected to AC or DC whatsoever.

AC, Mains or shore power, question:

I am unqualified to offer advice. Get an A Class Electrician to do a SAFETY CHECK on AC! He must be on site and issue a Complying Certificate. I believe the Inverter AC Earth should connect to the Mains Earth but not the hull. The Inverter AC MUST be Open Circuit to all DC. It MUST NOT fire AC back into the battery - that will cause battery failure, electrocution risk and kill electronics. Ignoring AC Only LED flashing will cause very expensive damage and void your guarantee.

How do I use SeaBis with multiple battery installations?

Where the battery banks can be connected in parallel (connected together), usually for charging and reserve energy, often by "Both" or Emergency" battery switch positions, use one SeaBis Master connected to the House bank and parallel all banks at least 97% of time. When the other banks are switched in circuit SeaBis will automatically interrogate them. If they cannot be connected in parallel there are two choices:

1: This procedure will eliminate all permanent causes but battery bank monitored time will NOT be adequate to eliminate intermittent or new causes: Fit battery clips to SeaBis Master and move it between battery banks. That will identify stray current present at the time of monitoring, only. This procedure will void Guarantee and Warranty. We will not be responsible at all when batteries are inadequately monitored.

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2: When you want 100% elimination of stray current then permanently connect one SeaBis per battery bank and treat as commercial use with engine ON hours greater than 200 per year. Then you will get 100% elimination of ALL stray current, permanently and our Guarantee and Warranty will apply.

Remember: If you monitor all battery banks less than total time there is a proportional or greater risk of ongoing stray current without your knowledge. SeaBis can only monitor the circuit it is connected to.

Where the battery banks cannot be connected together, and for all vessels using 12 and 24 dual power supply, a SeaBis Master MUST be permanently connected to EVERY battery bank. Failure to do so will cause stray current and void Guarantee and Warranty. Rig / Platform and some industrial or ship installations, may need special actions, depending on SeaBis Master results: [Email Glen Bishop](mailto:Glen.Bishop@seabis.com) or phone +61 (0)417 878 773. We can set up a free World-wide audio / video link via Skype: seabis1.

If you use one SeaBis and move it battery bank to battery bank or use a switch to select or parallel battery banks there are risks of stray current and very expensive corrosion. Some get away without excessive corrosion. Some forget or wire incorrectly causing 1% to pay 90% to 95% of the value of their vessel in repairs when batteries are unmonitored for a CUMULATIVE time of greater than 200 hours (10 days) on one year.

Stray current electrolysis prevention 100% absolute method:

Permanently install one SeaBis per battery bank. This is the only method to obtain 100% and permanent protection. SeaBis will instantly alert you should ANY stray current occur. Then our Guarantee and Warranty apply.

My Rig/Platform/boat/industry has more than 5 battery banks, can you assist?

Yes. The cause/s are permanently eliminated by the SeaBis System. Contact: [email Glen Bishop](mailto:Glen.Bishop@seabis.com) or phone +61 (0)417 878 773. We can set up a World-wide audio / video link via Skype: seabis1.

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I or my Technician uses a multimeter, we have problem:

The use of a multi meter cannot find the cause. It will waste your time and money and risk your life while stray current corrosion will continue.

Using a multi meter on any current range not only cannot find the cause but is also taking an **immediate risk of causing death by battery explosion**. Never use a multi meter on milli amp or amp ranges near a battery.

Using a multi meter on ohms cannot eliminate stray current. The multi meter uses one volt (even if it has a 9 volt battery) at one millionth of an amp. It will waste your time and money while stray current corrosion will continue.

E-mail: seabisbg@gmail.com

Skype name: seabis1

Free computer to computer: [Download Skype](#)

Phone: Australia 61

Office or mobile (cell) (0)417 878 773

Best regards,

Glen Bishop RN rtd. Assoc. Eng. IREE

www.seabis.com

Podean Electronic Industries trading as SeaBis - registered trade mark.

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