

**Our Knowledge Base:-**

By using Maritime Systems you will have access to a wealth of hard won technical knowledge. We take our profession very seriously, there is no room for amateurs in our electrical world. On the practical side we can boast of working on just about every kind of vessel afloat. Commercial ships, deep sea oil & gas exploration vessels, warships and on and through super and mega yachts. (Even the odd square rigged training vessel)

**Our Workshop Facility:-**

Electronic & electrical diagnostics is a specialist skill, it requires the use of electronic test and measuring instruments., which we possess. Put simply we can measure electricity, the voltage & amperage, amplitude, frequency, even what it actually looks like. We can bring into play such instruments as a Time Domain Reflectometer which enables us to 'look' down a cable for faults or anomalies. The use of such instruments can greatly reduce time and cost when fault finding.

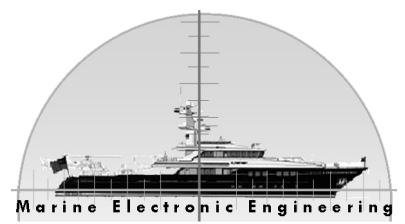
We have the capability to design and produce one off low density printed circuit boards. AUTOCAD is used to produce the required circuit schematic and PCB artwork

**Our Location:-**

On the Mediterranean island of Mallorca. Within close proximity to all of the Palma marinas and shipyards. Although based in Palma we are not limited to Palma and have provided services in such places as, St-Tropez, Antibes, Barcelona, Tarragona.

**Our Tariff:-**

	Man Hour Rate
Electrical, Electronic diagnostics & Repair	065.00
Workshop equipment testing & diagnostics	065.00
Equipment Installations	055.00
General Electrical Work	055.00
Mast Work (2 man team)	120.00
Cable Pulling (2 man team)	075.00



**Some Electrical Facts Did You Know**

The Offenbach weather FAX frequencies are:- 3.855 MHz. 7.880 MHz and 13.882.5 MHz

The first transatlantic radio signal was received by Gugliemo Marconi at Signal Hill, Canada on the 12th of December 1901.

Your X band radar horizon (NM) is calculated by multiplying the square root of the antenna height (meters) by 2.23.

To calculate a DC voltage drop through a cable:-

$$E = \frac{0.0164 \times I \times L}{S}$$

Where E = Volts, S = conductor cross section in sq.mm  
I = Load current Amps, L = Cable length Meters

Ohm's Law: I = E/R, R = E/I, E = I x R

AC Calculations: kVA to Amps [ (kVA x 1000) / E ]  
For 3 phase divide by 1.73

**Contact Details:-**

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## Marine Electrical Services We Can Provide

- Electrical & Electronic Refit Projects
- Equipment Selection & Procurement
- Installations & Commissioning
- Diagnostics & Repairs
- GMDSS Radio Testing
- MCA Approved Work Practices



- Electrical & MSB Refurbishments
- Electrical Safety Checks & Power Audits
- Technical Authoring & Drawings
- Comprehensive Electronic Workshop
- 'One' off PCB Design & Fabrication
- Electro Optical Surveillance Aids
- Competitive Rates



### Refits & Electrical Refurbishments :-

Over time on-board electrical equipment age and requires service or replacement. Interconnecting cabling becomes brittle with both age and heat. Insulation deteriorates. We can inspect main switchboards together with sub boards to determine which items require replacement. We can source, supply and install all components required to completely refurbish a main or sub switchboard.

Maritime Systems can undertake major electrical refurbishment work including, communications, navigation, control systems, alarm and monitoring, onboard cabling, lighting / power supplies. Fire alarms and flue fire suppression.

Working with project management, we can help identify the radar, communication and navigation equipment package suitable to the vessels requirements, plus carrying forward with the installation and commissioning of the equipment.

Combining the practicalities of installing the required navigation and communication package with the ascetics requirements of the owner and interior designer can sometimes be 'challenging'. However utilising our experience together with tact and diplomacy normally means that we can achieve an acceptable compromise.

### On-Board Electrical Safety Testing:-

Mains VAC electrically operated equipment, when mixed with water can be a lethal combination, more so with items such as washing machines, electric irons, air cond. fan coils. This risk can be minimized with routine HV insulation safety testing. A simple test that we can perform with tabulated test results. These can be compared year on year thereby exposing failures before they become dangerous.

### Electronics & Electrical Diagnostics:-

To offer this service requires practical experience based on formal technical training. We have both, encompassing over 40 years in the marine electrical industry.

Frequently we fault find down to PCB component level. Sometimes, with older or obsolete equipment, we can and do manufacture replacement PCB's.

### Technical Drawings & Documentation:-

We provide a service to inventory your technical documentation highlighting any omission's, and if required produce new documents and / or drawings. The cost of producing such documentation can vary enormously depending on the depth of information required. From basic system block diagrams to circuit schematics with circuit descriptions.