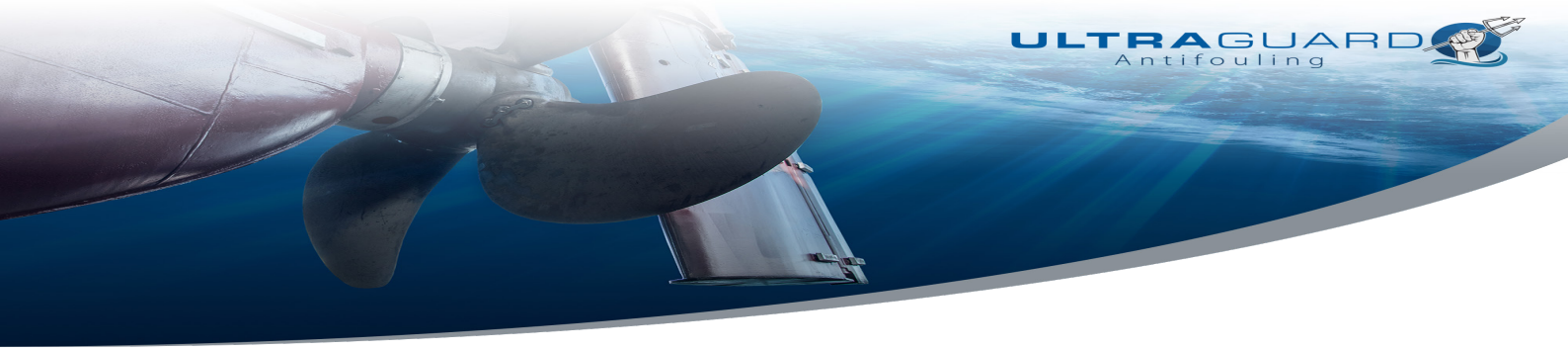
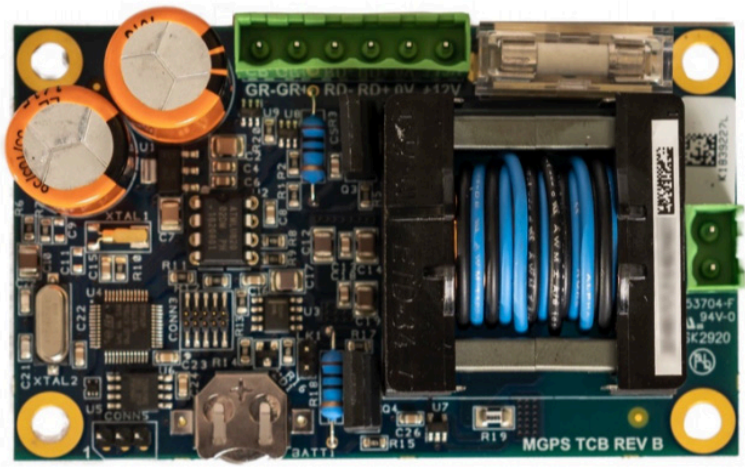
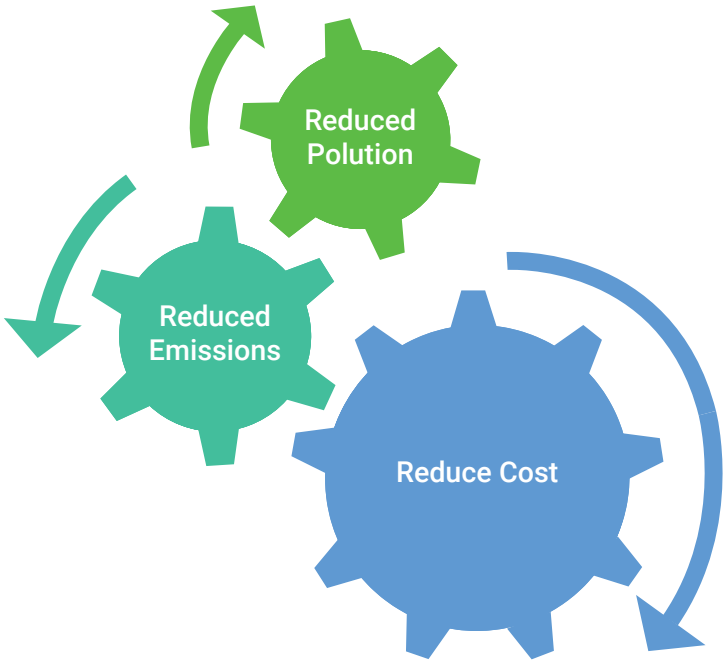


ULTRAGUARD CONTROL PCB
COMMERCIAL UNTRASONIC DIGTAL CONTROL UNIT



- Input Voltage 12v
- Output Voltage: +/- 100v
- Digital Control
- 16 Pulses / Second
- Fuse: 6A quick blow
- Data Logging Facility
- Easily Programmable



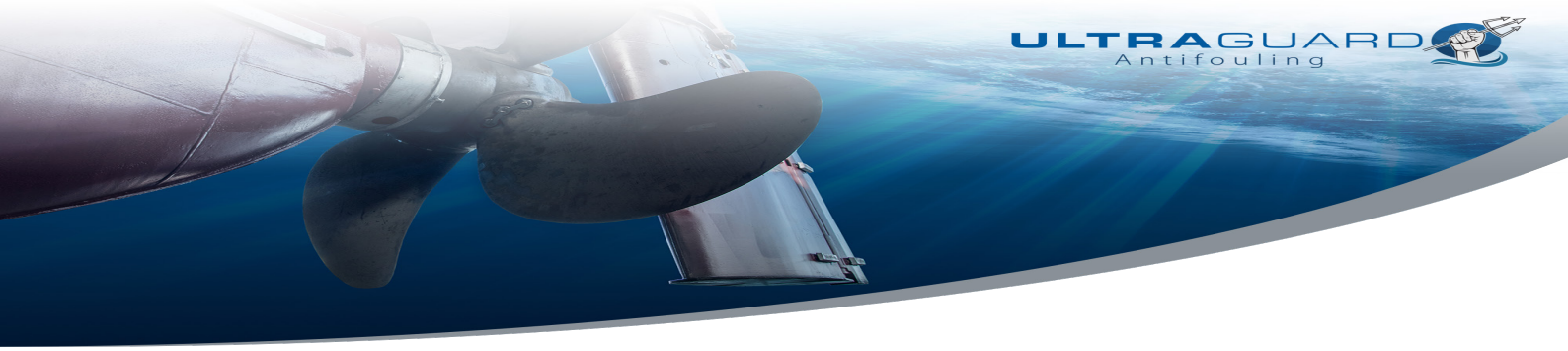
ULTRAGUARD UG COMMERCIAL RANGE

The UG commercial ultrasonic antifouling range from Ultraguard Antifouling is the World's premier next generation ultrasonic antifouling system.

The UG range incorporates a modular design to allow quick and pain free replacement of parts by ship's staff so as to avoid the need for expensive shore side technicians.

Advanced onboard memory and reprogramming functions.

Robust and reliable, Ultraguard's UG range is entirely designed and manufactured in the United Kingdom to the highest standards.



ULTRAGUARD CONTROL PCB
COMMERCIAL UNTRASONIC DIGTAL CONTROL UNIT

INSTALLATION INSTRUCTIONS

REPLACING A PCB

THIS PROCEDURE SHOULD ONLY BE ATTEMPTED BY PERSONNEL WHO ARE COMPETENT AND EXPERIENCED WITH ELECTRONIC COMPONENTS.
Before starting the PCB replacement procedure, switch off every transducer on the control panel one at a time then switch off the main RED isolator switch on the front of the control panel and lock the isolator switch off with a suitable padlock. Now switch off and lock out the system power supply breaker at the vessel's power distribution panel.

- Open the control unit panel door and locate the faulty PCB
- Unplug the green two pin transducer plug. This is located on the PCB inline with the transformer core.
- Unplug the green six pin power plug. This is located on the edge of the PCB next to the fuse housing.
- Unscrew the four Pozidrive hold down screws. These are located one at each corner of the PCB.
- Lift out the old PCB.
- Make sure any static charge you may have built up is minimised by touching the earth connection on the control unit door.
- Remove the new PCB from its anti-static packaging.
- Place the PCB into position and loosely re-fit the four Pozidrive hold down screws.
- Once you are happy with the final position of the PCB, tighten the four Pozidrive hold down screws to a firm hand tightness. DO NOT OVERTIGHTEN!
- Re-connect the green six pin power plug.
- Re-connect the green two pin transducer plug.
- Re-check everything is secure, remove all tools from the control unit and close and secure the control unit door.
- Unlock the power supply and the red isolator switch and re-admit power to the control unit.
- Switch on ONLY the new PCB circuit and watch the LED turn GREEN after the PCB goes through its automatic initialisation process.
- Turn on the other transducer circuits one at a time allowing each one to turn GREEN before switching on the next circuit.

SAFETY

Electricity is extremely dangerous! Ensure that only competent personnel undertake any work on Ultraguard antifouling systems.

Never open the Ultraguard control panel without first isolating power from the unit.

Never disconnect any transducer cables from the control unit while the transducer is switched on.

If a transducer cable is damaged, switch off the affected transducer IMMEDIATELY! The cable contains high voltage and should be isolated and disconnected from the control unit before attempting to remedy damage.

IF YOU ARE EVER UNSURE OF ANY ISSUE WITH YOUR ULTRAGUARD ANTIFOULING SYSTEM, CONTACT ULTRAGUARD TECHNICAL SUPPORT OR YOUR DEALER BEFORE ATTEMPTING ANY WORK OR REPAIRS ON THE SYSTEM!