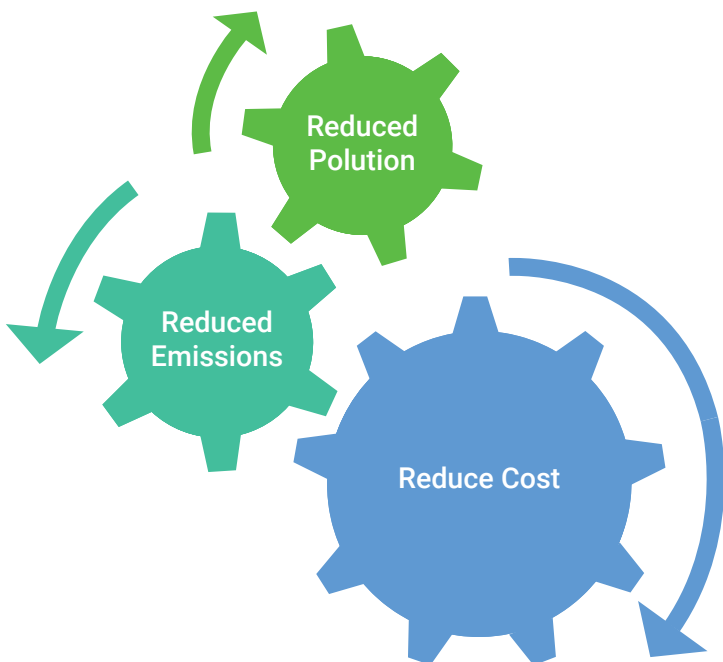


## ULTRAGUARD 100/28 COMMERCIAL UNTRASONIC ANTIFOULING TRANSDUCER



- Power: 100 watts
- voltage: +/- 100v
- Resonance Frequency: 28kHz
- 16 Pulses / Second
- Fuse: 6A quick blow
- WEIGHT = 0.8Kg
- ∅ 79mm x 80mm Height



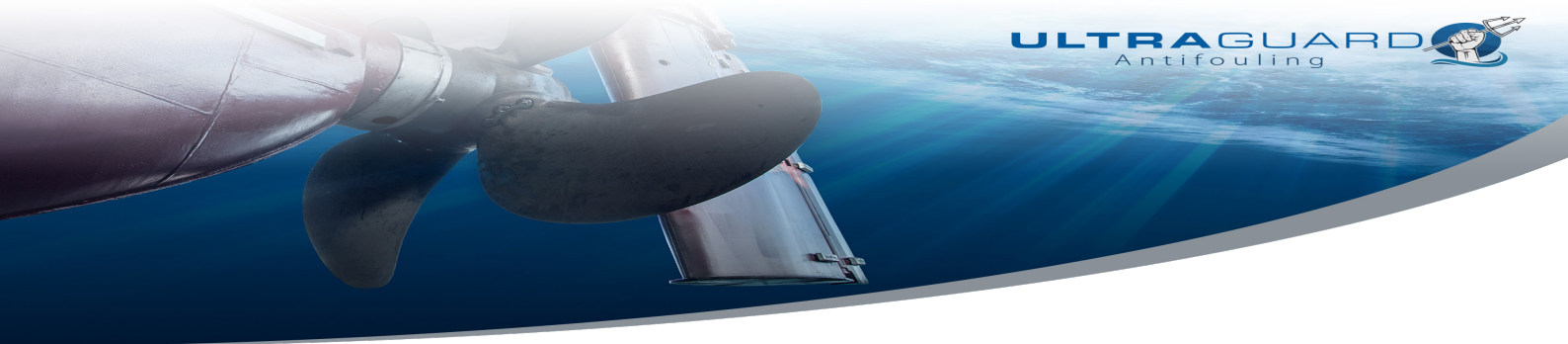
### ULTRAGUARD UG COMMERCIAL RANGE

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 100/28 COMMERCIAL UNTRASONIC ANTIFOULING TRANSDUCER

## INSTALLATION INSTRUCTIONS

### Transducer Location

Please first refer to our full installation guide available from [Ultraguard-antifouling.com/etc](http://Ultraguard-antifouling.com/etc)

Locate where your installation plan recommends fitting the transducers. For box coolers these should be on the top of the water manifold of the cooler taking care to avoid the flow directing baffles inside the manifold lid. On pipes the transducers should be attached with the use of a pipe adapter which Ultraguard can supply. On hulls you should locate the transducers as equidistant from hull frames as you can to allow the maximum resonance response.

- Remove the paint and any coatings right back to the bare substrate.
- Ensure the surface is smooth and free of gouges or dimples that could cause an air gap between the transducer and the surface.
- Clean the surface and the head of the transducer with acetone until both surfaces are, "Surgically," Clean.
- Once the surfaces are clean DO NOT TOUCH them again with fingers or skin as the oils in your skin affect the bond. If you do, re-clean thoroughly.
- Ensure you are happy with the location and practice dry fitting the transducer.
- Once you are happy with location, get into position to apply the transducer. The adhesive will cure in seconds and you have to place the transducer onto the surface IMMEDIATELY once the adhesive is applied. (You will not have time to move from a work bench or other location before the adhesive cures!)
- Fit the supplied nozzle to the adhesive syringe
- Have a spatula or similar implement ready to spread and smooth adhesive.
- Apply a serpentine bead across the face of the transducer and immediately smooth it across the transducer face with the spatula. The aim is to have an even coverage of 2mm-3mm thick with no bare spots which could form air gaps.
- IMMEDIATELY place the transducer into location and hold in place for 30 seconds.
- Leave the transducer to fully cure for 24 hours before connecting its cable to the control unit.
- Whilst waiting you can run the main section of transducer cable back to the control unit. Ultraguard recommends using suitable cable trays and conduits to achieve this.

## CONTROL UNIT INSTALLATION

- Find a suitable location for the control unit within 150m of cable run from the transducers. The control units should be located in a dry position off the deck that allows easy access.
- Using the dimensional diagram on the following sheet, set out the mounting points required on your vessel. You may need to manufacture a suitable bracket to mount the control unit on.
- Mount the control unit onto the vessel using the supplied mounting brackets.
- Run a fuse protected 240v AC 1 Phase power supply from the vessel's power distribution system into the control panel via the cable gland and connect it to the power terminals.
- Connect the transducer main cables in order to the transducer outlet connectors on the bottom of the panel.
- Once the transducers have had 24 hours to bond to the protected surface, Connect the transducer tail cable to the control panel via the main cables.
- Turn on the main RED isolation switch on the front of the control unit.
- Switch the transducer operating switches to ON one at a time. Wait until each LED turns green before switching on the next switch.
- Once every transducer is switched ON and the LEDs are GREEN go to each transducer and ensure that you can hear it operating. If they are located in a noisy environment put your ear to the back of the transducer. You should hear a high pitched tone as the transducer re-starts each frequency sweep. You may also hear a scratchy clicking sound as the transducer operates.
- If there is a problem or not all of the LEDs are GREEN, please refer to the Operators Manual supplied with your Ultraguard system.

## 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!**