INSTALLATION & OPERATION INSTRUCTIONS

Ultrasonic algae removal

ULTRACRAB™

Ultracrab is a product resulting from the research and development of Toscano Linea Electronica SL, designed to prevent the growth of algae and barnacles and to reduce biological activity in ship hulls, underwater structures and submerged marine components. From Toscano we wish to thank the confidence you deposited as a customer and, for any assistance you may need, please contact us.

This manual contains important information that you must read, understand and follow.

1.- Safety instructions

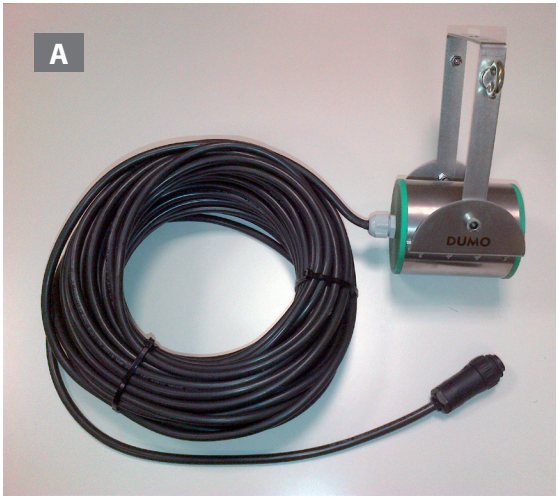
1. It involves risk of injury to children. Do not let them play with the appliance or one of its components.
2. Check that the voltage of your electrical network, matches the Ultracrab voltage before use.
3. Before starting up the appliance, check that any of the components is not damaged.
4. Check at regular intervals that the emission indicator lamp of the equipment lights up the power cord, the control unit, the power of the emitter or the emitter is not damaged. Do not use the device in case of damage. Repairs may only be performed by a service recognized by Toscano.
5. Risk of electric shocking: connect the appliance to a power socket with earthing. Never use extension cords with 2 wires. In case of outdoor connections, the socket has to be watertight in accordance with local regulations.
6. If the plug does not fit into the socket, never replace the cable by yourself, but contact to technical service recognized by Toscano
7. The equipment includes 30 meters cable from the emitter. Check if you need a longer distance, and contact to your dealer.
8. Risk of injury: Do not place the transmitter against your body during operation.
9. Do not connect the power while the emitter is out of the water.
10. Install the control unit only in accordance with the requirements of this manual.
11. Use this appliance only for its intended purpose and in the manner indicated in this manual.

12. Never immerse the control unit or the connectors into the water.
13. Connect the device to the mains only after the installation has been done entirely according to this manual. Unplug the equipment before handling the control unit.
14. If the emitter is temporarily or permanently out of service, wash it with fresh water and store in a dry place.
15. Do not use accessories not recommended by Toscano. This may pose a hazard to the user and damage the appliance.
16. Never pull the emitter cable to unplug it.
17. Keep this manual in a safe place.

2.- Parts List

The package contains:

A. Ultracrab submarine emitter with 30 meters cable.
B. Ultracrab Control Unit made of ABS plastic.
C. Ultracrab bow buoy float, specially designed for attachment to the keel and application in boat hull.
D. Nut and washer to attach the emitter to the float.
E. Inflating nozzle.



B

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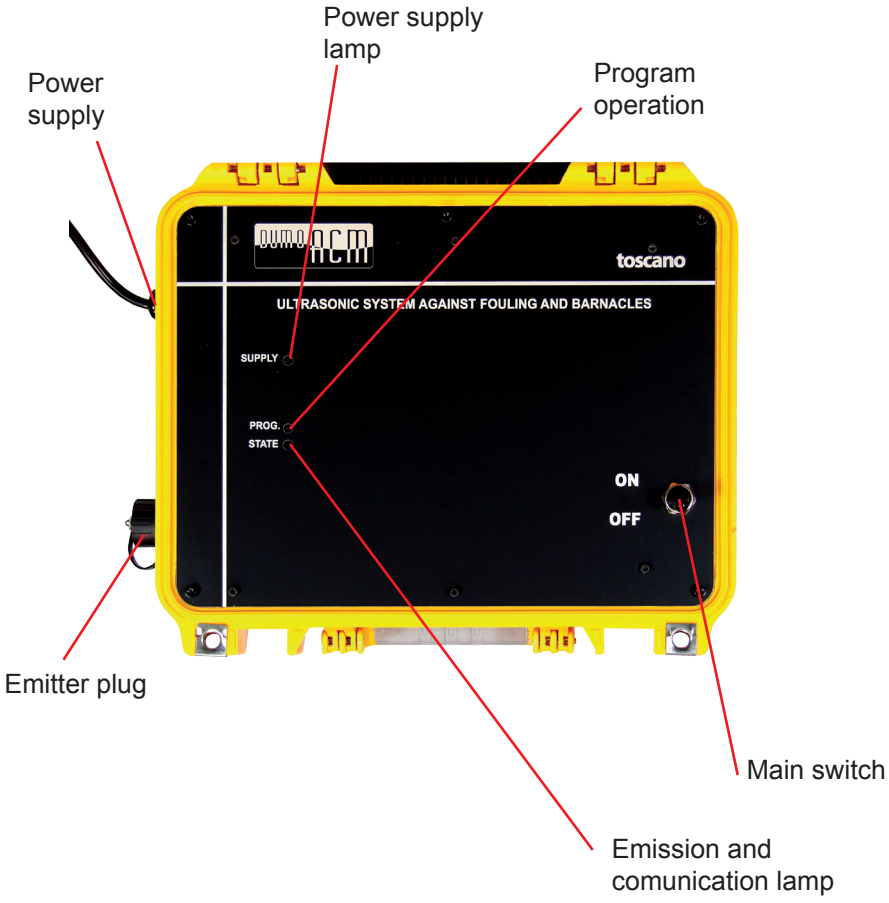
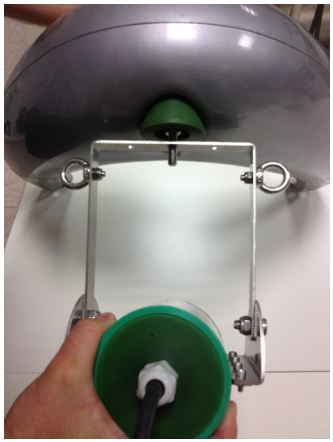
3.1.- Control Unit

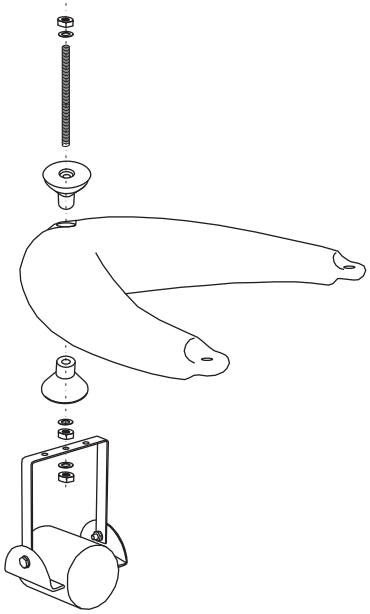


4.- Emitter Assembly

For the float assembly it is only necessary to screw it to the emitter. At the bottom of the float you will see a threaded end. Pass through the central hole of the emitter fork and tighten the nut.

It is important that emission membrane is oriented as shown in the picture.





Connect the emitter to the control unit.

Pay attention to the guide

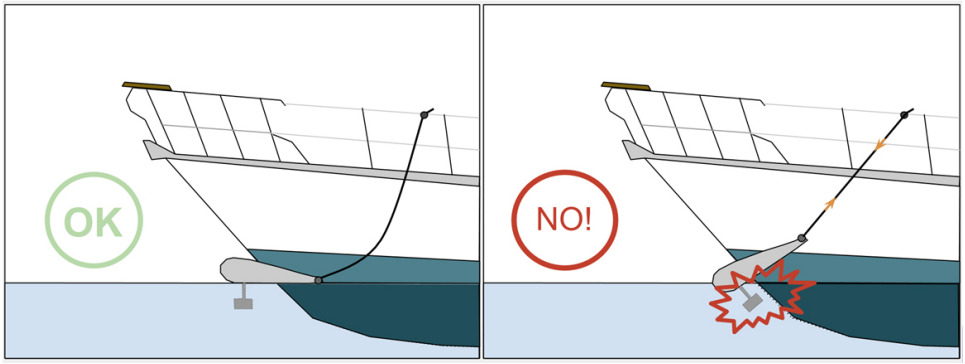
Confront and plug.

Screw.

5.- Starting up

Ultracrab is designed to be installed on the bow of the boat or mobile docking under tide level.

Toscano recommends NOT to leave the equipment installed during navigation. Ultracrab prevents algae to grow on the hull while the ship is docked.



Ultracrab deployment can be done with the help of a rope:

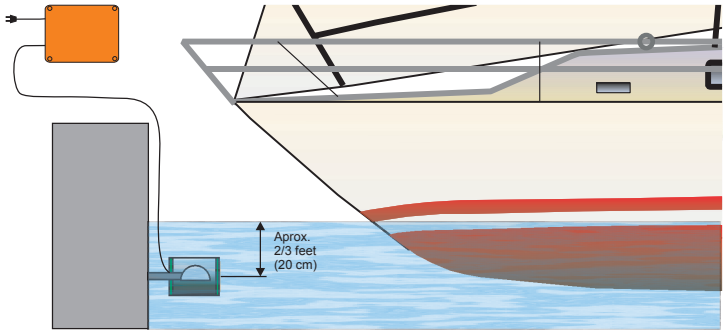
1. Attach one or two ropes to the holes of the emitter float . It is also recommended to set the emitter connector with a rope or connected to the control unit, preventing the connector to fall overboard. In the event that plug falls into the water, clean it with fresh water and dry before connecting it to the control unit.
2. With the two ropes on the deck of the ship, carefully haul the emitter down into the water making the float to fit the keel of the boat.
3. Tie the ropes to the deck allowing the emitter to float freely, without forces that push the float from water surface.

IMPORTANT: The ropes must be free of tension, just to keep the equipment in place.

5.1 Deployment at the dock:

Ultracrab can also be permanently mounted at the dock. In this case, the installation must be done by setting the transmitter to 20 cm (2/3 feet) deep approximately from water surface. This type of installation is required to be done on docks that move with the tides so the emitter is always under water at the same depth.

Once the equipment is in correct position, connect the emitter to control unit.



5.2 Ultracrab starting up

Connect the emitter to the control unit.

Attention: Do not turn on the equipment if the emitter is out of the water.

Once you have verified that the emitter is properly installed, switch on the equipment.

To check the correct operation of the equipment you will find a red light blinking over the control unit, showing the equipment ultrasound emission. You can also hear a low buzz from the float.

5.3 Picking Ultracrab up for navigation

Toscano warns to NOT NAVIGATE while Ultracrab is working. During navigation we recommend to keep Ultracrab stored leaving the bow of the boat free for sailing:

1. First, turn off the equipment.
2. Once the equipment is turned off, rise the emitter up to the deck.
3. Rinse the emitter with fresh water and store it in a dry place.

6.- Maintenance

The emitter must be cleaned with fresh water whenever it is out of water and at least once a year, with a cloth and mild soap. If you find that the emitter gets dirty in a short period of time, you will have to clean it more often.

Important: Always turn off and unplug the unit when cleaning and handling components of Ultracrab.

It is important to keep the sides of the control unit clear and ventilated to ensure good ventilation inside the unit.

The float can get deflated. To avoid this, regularly check the condition of the float and, if necessary, restore its state by inflating with the nozzle included with Ultracrab (Pg.4, **F**).

7.- Technical specifications

Power supply (factory set) *Please check before use*	115VAC (93...132VAC) or 230VAC (186...264VAC)
Supply voltage frequency	50 / 60Hz
Consumption	160W
Maximum range	up to 82 feet (25 m)
Operating temperature range	-10ºC to +70ºC
Operating basis	Multifrequency (automatic)
Surge Protection	Yes
LED Operation indicator	In control box
Electronic module protections	Yes
Cable protections	Yes
Environmental protection	IP67 (control box)
CE approval	EN 61000-6-1 (2007) & EN 61000-6-3 (2007) / A1 (2011)
UL approval	E183223 / E258355 Power supply
Weight	10,6Kg (complete set)

8.- Contact

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The contents of this guide may differ in some details from product or software. All the information in this document is subject to change without notice.

Online support

For online help or support in reference to Ultracrab contact us at Ultracrab-service@toscano.es or visit www.toscano.es.

9.- Warranty

This product is warranted by Toscano Línea Electrónica, SL for a period of two years from the date of original purchase against faults in materials and workmanship.

The warranty includes parts and labor. Transportation and travel expenses and taxes are not covered by Toscano.

Repairs under this warranty shall be accepted under the conditions described in this section.

This warranty does not cover damage resulting from accident, improper use, neglect, and modifications or repairs performed by unauthorized personnel.

The Toscano Línea Electrónica, SL warranty does not affect the statutory rights a consumer may have or not against the retailer from whom the consumer purchased the product.

Note: there are environmental biodiversity variables, which may temporarily affect the performance initially expected, even if the equipment is working properly.

Warranty application

For warranty and service, please complete these data

1)Product reference & serial number……..

2)Retailer Invoice or ticket…..

and send it to the following email: info@keelcrab.com

ULTRACRAB™