



SONIHULL - MONO / DUO INSTALLATION MANUAL

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INSTALLING A SONIHULL SYSTEM

Congratulations on your purchase of the Sonihull ultrasonic antifouling system. This manual will help you go through the simple steps of installing either the Sonihull Mono or Sonihull Duo systems, or multiples thereof depending on the size of your yacht.

The Sonihull is suitable for fiberglass, aluminum, steel and cement hulls, where the transducer can be bonded to the inside of the outer skin of the hull. If your yacht is a sandwich construction we strongly recommend using the services of a professional marine engineer, as the outer skin will involve cutting through the inner skin and removing some of the inner core filling to expose the inside surface of the hull.

Please note that the Sonihull system is not suitable for wooden boats due to the poor transmission of the high frequencies through wood.

For concrete hulls to achieve the best result it is recommended that you double the number of transducers required compared to the illustrations in this manual to achieve the best results.

IMPORTANT SAFETY CONSIDERATIONS

It is highly recommended that the electrical installation of this system is installed only by a competent marine electrician.

When mounting the control box please find a suitable dry position above the water line.

Connect all AC connections in accordance with IEC wiring regulations, ensuring the correct plug and socket are used, or directly to a 5 amp breaker.

Color codes for main cable provided Brown = positive Blue = negative. If connected to DC supply please ensure that an inline 5 amp fuse is used.

IF IN DOUBT CONTACT A PROFESSIONAL

COMPONENTS INCLUDED



SONIHULL MONO

- Sonihull control unit
- 1 ultrasonic transducer with 18 feet of cable
- Mains cable with 3 pin US standard fused plug



SONIHULL DUO

- Sonihull control unit
- 2 ultrasonic transducers with 18 feet of cable
- Mains cable with 3 pin US standard fused plug

Items required but not supplied with the Sonihull Kit:

- 4 screws for mounting control box (*some people prefer to use strong Velcro to secure*)
- Marine grade epoxy glue (*Araldite or equivalent*)
- Medium grade sand paper

CHOOSE SONIHULL MONO OR DUO POSITIONING ACCORDING TO WHICH TYPE OF YACHT YOU HAVE



≤ 32 FEET = MONO

32 FEET - 55 FEET = DUO

49 FEET - 65 FEET = MONO + DUO

59 FEET - 72 FEET = DUO + DUO

For vessels in excess of the sizes shown please contact **PYI Inc** for recommendations.

NOTE: Twin hull vessels will require the recommendations on the image to the left to be doubled.

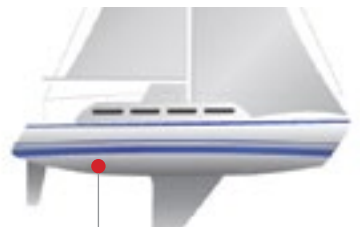
Positions shown are for illustration and guidance only. Actual mounting is on the inside of the boat hull.



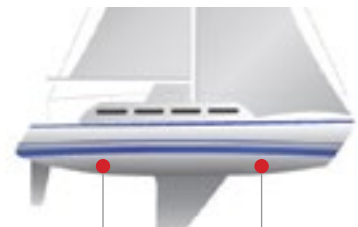
SONIHULL MONO POSITIONING



SONIHULL DUO POSITIONING



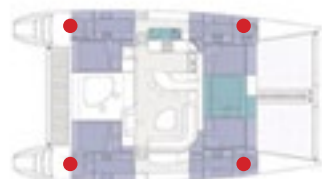
SONIHULL MONO POSITIONING



SONIHULL DUO POSITIONING



SONIHULL DUO POSITIONING



TWO SONIHULL DUO SYSTEMS
USE ONE FOR EACH HULL

LOCATION OF TRANSDUCERS & INSTALLATION OF THE SONIHULL CONTROL UNIT



LOCATION OF TRANSDUCERS

The following is a guide line for the best location to install on your yacht. The pictures are for illustration only as the transducers will be mounted on the inside of the hull.

The aft transducer should be mounted close to the center line of the hull in the rear 1/3 of the boat in close proximity to the propeller shafts, steering gear and trim tabs to provide the best possible protection.

For the Duo, the front transducer should be mounted approximately 2/3 of the way along the boat, again close to the center line of the hull.

For yachts over 60 feet please consult with PYI Inc for advise on the best location for the transducers.

For twin engine yachts we recommend that a Duo system be installed, with one transducer installed above close to each propulsion unit, thus providing protection to the stern drive itself as well as the hull.

INSTALLATION OF THE SONIHULL CONTROL UNIT

Once the Sonihull system is installed you will find that there is little maintenance required due to the systems sophisticated technology. Therefore your Sonihull Control Panel can be installed out of sight, in a cupboard or even in the engine room itself. As with any electrical appliance it is wise to check the system periodically to ensure that the system is powered and working.

Find a suitable dry location above the water line, with suitable access to either mains or DC power. Please also consider that the location should be suitable for access to the transducers.

MAINS AC supply only. 100-240 VAC 50/60 Hz. Replace lid and plug into suitable AC socket. If socket is not available please consult a competent marine electrician to carry out any electrical installation.

DC only supply. 12-24 V DC
SAFETY - ensure that the cables are supplied via 5 amp fuse.

ENSURE THAT THE SUPPLY IS ISOLATED BEFORE STARTING THE DC CABLE INSTALLATION

Mains cable can be totally removed or simply coiled for potential future use.

Connect to DC through a 5 amp inline fuse.

Please ensure correct polarity.



1. Once you have located a suitable location for the mounting the transducer, close to the center line of the hull, paying special attention to be sure that there is enough head room to replace the floor / deck plate, and that there is suitable access for running the cables back to the Sonihull controller.
2. Prepare the hull by sanding down the area to ensure a smooth flat surface, *(it is important that both the hull and the transducer surfaces are flat to ensure the best possible surface to surface transmission of the transducer pulse).*
3. Clean the hull and transducer faces to ensure there is no dust or grease.

TRANSDUCERS ARE TO BE MOUNTED DIRECTLY TO THE INNER SKIN OF THE HULL. IF THE HULL IS A SANDWICH CONSTRUCTION PLEASE CONSULT A MARINE SPECIALIST.

INSTALLING A TRANSDUCER



MOUNTING RING

1. Apply a thin layer of petroleum jelly to the thread of the mounting ring. Ensuring to keep the outer face of the ring free from any grease. *(This is to stop any epoxy from accidentally getting stuck in the threads).*
2. Prepare the marine epoxy as per the manufacturers instructions. You will note on the mounting ring that a gutter has been provided to try and capture any stray epoxy before it gets to the thread. Apply the epoxy to the face of the mounting ring, on the outside of the gutter and attach to the hull. It is important to epoxy the full "circle" of the transducer to make a complete seal with the hull once set.
3. Allow the epoxy to fully set prior to attaching the transducer.

ATTACHING THE TRANSDUCER

1. Prior to screwing in the transducer to the mounting ring cover, a thin layer (1mm) layer of petroleum jelly should cover the face of the transducer. *This will enable better contact between the surface of the transducer and the hull.*
2. Screw in the transducer fully into the mounting ring, ensuring a firm contact has been made with the hull. Do not over tighten as this could cause the epoxy to break.
3. Run cables to the Sonihull controller and then connect.
4. *If you have already run the transducer cables please wind the transducer back (counter clockwise) about 8 rotations so not to leave the cable twisted once you have screwed the transducer to the mounting ring.*

TECHNICAL SPECIFICATIONS

Power Supply Approvals: UL and CE

Voltage: 100 - 240 vAC 50/60 Hz
12-24v DC

Power: Sonihull Mono: 3.6 Watts
Sonihull Duo: 7.2 Watts

Ultrasonic Generator

Pulse Frequency: 17 kHz - 59 kHz

Control Box Rating: IP65

Transducer Rating: IP68

Transducer Cable Length: 18 feet

Weight: 6.6 lbs

Dimensions (inches): 6.8 x 5 x 3

Warranty: 1 year



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