

# CETACEAN RESEARCH TECHNOLOGY

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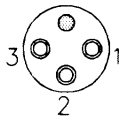
## C55 HYDROPHONE WIRING INSTRUCTIONS

**Power your C55 hydrophone with any voltage ranging from 5V to 32V DC.**

- Pin 1) **White wire** ➤ hydrophone output signal. The output signal will have a DC voltage offset equal to approximately one half of the power supply voltage. You should place a blocking capacitor between this wire and the input of your recording device. The low frequency limit of the hydrophone will be dictated by the input impedance, R, of your recording device and the capacitance, C, of the blocking capacitor. Low frequency signals will begin to roll off at a frequency  $f = 1/(2\pi RC)$ .
- Pin 2) **Red wire** ➤ hydrophone power. Apply between 5V and 32V DC to this wire. ***Power must come from a battery or from a regulated supply with no more than 0.5V ripple.***
- Pin 3) **Black wire & shield drain wire** ➤ common. This is power, signal, and shield common, and is connected to the stainless steel hydrophone connector shell. Connect black wire to the ground on your data acquisition or recording system. Leave shield drain wire disconnected, unless connecting it to ground improves noise rejection.

***Wiring connections must be made at static-safe workstation.***

Pin Configuration:



Male Face View

Your hydrophone has the following specifications.

Model Number:	<b>C55</b>
Serial Number:	<b>425</b>
Purchase Date:	23 December 2009
Transducer Sensitivity:	-185dB, re. 1V/ $\mu$ Pa
Preamplifier Gain:	20dB
Effective Sensitivity:	-165dB, re. 1V/ $\mu$ Pa
Linear Bandwidth:	16Hz to 44kHz ( $\pm$ 3dB)
Useable Bandwidth:	6Hz to 203kHz (+3/-20dB)
Power Supply:	5 to 32 Vdc
Overload Acoustic Pressure:	169 to 186dB, re 1 $\mu$ Pa

Cetacean Research™ hydrophones carry a 90-day limited warranty. Defective units will be repaired or replaced at the manufacturer's discretion. Assembly at other than a static-safe workstation, mishandling, or damage to the cable or connector will void the warranty.