

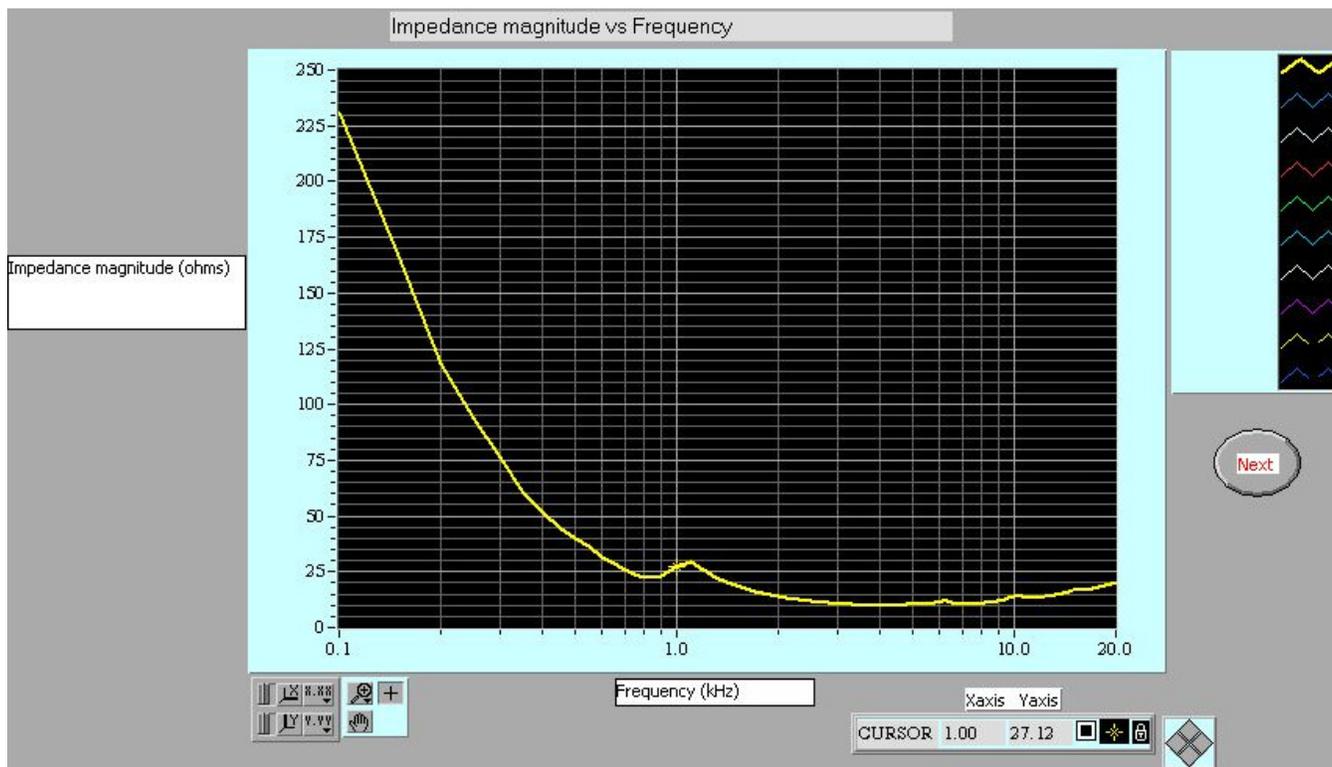


Lubell LL964C/H U/W Acoustic Transducer

1. The model LL964C (cage mount) and LL964H (harness mount) are portable piezoelectric underwater speakers intended for OEM integration with custom diver recall systems and underwater communication systems. The LL964C/H is designed for operation in the 200Hz - 20kHz frequency range, and provides output levels up to 180dB/uPa/m @ 1kHz. The LL964C/H is a higher impedance unit than the popular Lubell LL916C/H, allowing very long cable runs with minimal losses. The LL964C/H may be used in pool, river, and ocean at depth range of 1.83m minimum and 15.24m maximum.
2. The LL964C/H must be used with a 30 ohm 50 watt series resistor and a 1.5A fuse inserted in the white signal lead. Amplifier must have transformer isolated output not exceeding 40 Vrms. Since the LL964C/H presents a reactive load, a Class AB amplifier is recommended to insure stability. Obtain UL or ETL certification on AC operated amplifiers. Amplifier power cord must connect to GFCI protected AC outlet per National Electrical Code.
3. The TVR plot below indicates output level of the LL964C/H with 1 Vrms applied.
4. A rope or boom must be attached to the LL964C/H for raising and lowering the unit from the water. Do not use the electrical cable for this purpose, as damage will occur not covered under warranty. Lower the underwater speaker to a 6' - 50' (1.83m - 15.24m) depth during operation.
5. LL964C/H transducers fitted with optional IERD2F-BC bulkhead electrical fitting and IE2M mating cable require special precautions. Lubricate IE2M cable connector with silicone grease, and push firmly with slight twisting motion into the mating bulkhead connector. Strain relief the cable to the cage to prevent bending of the mated connection.
6. Be careful not to scrape the underwater speaker or cable against sharp objects as this will damage the finish and may lead to failure of the speaker. Wash speaker with dish soap periodically and store in clean dry area when not in use.
7. Inspect all cables before each use. Use a cord protector over the cables to prevent trips or damage. If cables become damaged, return equipment to Lubell Labs only for replacement.



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