



Lubell LL964H and LL964C Underwater Speakers

The LL964H (harness mount) and LL964C (cage mount) are high-performance piezoelectric underwater speakers developed, patented, and manufactured by Lubell Labs of Columbus Ohio. The LL964C/H continue to set the world record for having the widest frequency response and output level of *any* commercial underwater speaker made, at a price that is both reasonable and affordable. Because of its rugged die-cast aluminum housing with 150 mil PVC overmold, the LL964C/H may be used in rivers, lakes, and ocean without worry of corrosion. Because of the higher impedance of the LL964C/H, long cable lengths with minimal insertion loss are possible using standard SO cable. For instance, four LL964C/H underwater speakers each having a 1.5km long 14/2 AWG cable may be connected in parallel (14 ohms) to an amplifier rated at 200 watts @ 8 ohms (40 Vrms) resulting in a sound pressure level of 177dB/uPa/m at each transducer.

- **Type:** Piezoelectric dual-piston Tonpiz (US Patent number 3,391,385)
- **Frequency Response:** 200Hz - 20kHz
- **Outlet Level:** 177dB/uPa/m @ 1kHz
- **Nominal Impedance:** 32 ohms (varies with frequency and cable length/gauge)
- **Maximum Voltage:** 40 Vrms
- **Maximum Current:** 1.5A (100% duty-cycle)
- **Required External Resistance:** 20-30 ohms (round-trip cable, or cable + resistor)
- **Operating Depth:** 6' - 50' (1.83m - 15.24m)
- **Finish:** Blue PVC
- **Cable:** 25' 18/3 PVC jacketed
- **Net Weight:** **LL916H** - 5.4 kg (12.0 lbs); **LL916C** - 8.0 kg (17.6 lbs) with standard 25' (7.62m) cable
- **Dimensions:** **LL916H** - 233.68 mm (9.2") diameter x 147.32 mm (5.8") axial length; **LL916C** - 279.4 mm x 279.4 mm x 198.12 mm (11"x11"x7.8") HWD
- **Country of Manufacture:** USA
- **Harmonized Tariff Code:** 8518210000
- **Documents:** EU Declaration of Conformity ([CE Certificate](#)); Printable [LL964C/H brochure](#)
- **Suggested Retail Price:** **LL916H-025** (standard 25 foot cable) - **\$1285**; **LL964C-025** (standard 25 foot cable) - **\$1501**

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