

Lubell Labs LL916H & LL916C Pistic Piezoelectric Underwater Speakers



The portable Lubell Labs LL916C and LL916H are efficient full-range pistic piezoelectric underwater loudspeakers developed and manufactured by Lubell Labs of Columbus, Ohio USA. Their unique design (Patent # 3391385) provides the *highest output levels* and *widest frequency response* of any commercial underwater speaker on the market, making product suitable for synchronized swimming, lap swimming, diver recall, and dozens of other applications in the pool, river, and ocean. And unlike some competitors who cut corners and run over a thousand volts thru their underwater speaker cables, Lubell Labs follows safe engineering practices by operating at voltages of 20 volts or less on the underwater speaker cable. **No other brand compares!**

The LL916C is our cage mounted underwater speaker, which allows placement on bottom of swimming pools or lakes, or for mounting to piers, etc. in the lake or ocean. The cage also provides added protection to the sensitive internal electronics against breakage due to accidental drops. The LL916C is available with choice of 25' (7.62m), 50' (15.24m), 100' (30.48m), 150' (45.72m), or 200' (60.96m) cable lengths; Simply add cable length to part number (ie. LL916C-050'). The LL916C includes a transferable 5 year limited [warranty](#). The warranty does not cover failure of cable due to abuse, so please handle carefully and follow [instructions](#).

The LL916H is our harness mounted underwater speaker, which offers lower profile and lower cost, but offers no protection against damage from accidental drops or blows. The LL916H is available with choice of 25' (7.62m), 50' (15.24m), 100' (30.48m), 150' (45.72m), or 200' (60.96m) cable length; Simply add cable length to part number (ie. LL916H-025'). The LL916H includes a transferable 2 year limited [warranty](#). The warranty does not cover failure of cable due to abuse, so please handle carefully and follow [instructions](#).

Because the Lubell LL916C and LL916H underwater speakers have special safety requirements and present a capacitive load, they are always sold/used with [Lubell Labs AC series transformer boxes](#). These custom transformer boxes incorporate a tuned RLC circuit with isolated winding transformer and 50 watt series resistor in order to provide broadband performance, impedance matching, current limiting, and electrical isolation for safety. Some of the more popular boxes are the AC202C for use with

the Chiayo Stageman ([CAWSS](#)) system for synchronized swimming, and the AC205C or AC203E (same with air speaker jack and control) for use with the Phonic Powerpod 410 or 415 series powered mixers. Also available is the AC102C and AC211C (same with air speaker jack and control) for connection to amplifiers between 150 watts to 200 watts @ 8 ohms. Always match the wattage rating of the Lubell transformer box with the speaker output wattage rating of the amplifier that it will be used with.

NOTE: Lubell underwater speakers are incompatible with MiPro sound systems!

- **Transducer Type:** Piezoelectric Pistonic Underwater Acoustic Transducer
- **Housing Construction:** 150 mil PVC injection molded over die-cast AL pistons
- **Central Seal:** Silicone internal, EPDM external
- **For use in:** Pool water, freshwater, saltwater
- **Frequency Response:** 200Hz - 23kHz (500Hz-21,000Hz +/-10dB)
- **Maximum Output Level:** 180dB/uPa/m @ 1kHz
- **Maximum Cable Voltage/Current:** 20 Vrms / 3A (100% duty cycle)
- **Recommended Amplifier Power:** 78 watts @ 8 ohms (25 Vrms) max
- **Operating Depth Range:** 1 meter - 18 meters
- **Operating temperature:** 0°C - 41°C (32°F - 105°F)
- **Standard Cable:** 7.62 meter (25') 0,785 mm² (18/3) AWG PVC terminated with 3-pin [Conxall 3182-3PG-524 \(pin 3 hot\)](#). Other stock lengths available including 50' / 15.24m, 100' / 30.48m, 150' / 45.72m, and 200' / 60.96m.
- **Weight (in air):** **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
- **Documents and Data:** [Instructions](#), [brochure](#), [SPL plot](#), [TVR on/off axis plot](#), [Polar plot](#), [Impedance plot](#), [Receive sensitivity plot](#), [CE Certification](#), [RoHS declaration](#), [connector replacement](#), [warranty](#)
- **Warranty ([certificate](#)):** LL916H harness mounted underwater speaker: 2 year Limited; LL916C cage mounted underwater speaker: 5 year limited; AC series transformer boxes: 2 year limited
- **Accessories:** [Phonic Powerpod 415R or 415RW](#) 100W bluetooth mixer (\$353 - 120V / 60 hz); [EV ZX1](#) deck speaker (\$329); [25'](#) ZX1 cord (\$35) or [50'](#) cord (\$49); [SS7761B](#) ZX1 stand (\$49); ST95MKII hand mic w/25' cord (\$49); [ATW-901/H](#) wireless headset mic (\$220); [ATW-902](#) wireless hand mic (\$170); [Chiayo Stageman](#).

DISCOUNTS off MSRP available to dealers, schools, and USA Synchro members!



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