



Architectural & Engineering Specifications Air & Water Sound System

The portable air & water sound system shall fill a natatorium and 25 yard or 50 meter pool with pleasing wide-range sound suitable for synchronized swimming, lap swimming, swimmer-diver-cetacean instruction and training, diver recall, diver communication for movie production, pool and tank maintenance, military diver training. The underwater speaker shall have a range of 500 meters average.

The portable air & underwater sound system shall be a solid-state AC-DC 150 watt self-contained sound system on wheels having integrated multi-channel microphone and source mixer, UL listed switch-mode universal power supply for AC mains connection anywhere in the world, internal battery operation, cage-mounted blue high-efficiency underwater speaker with external isolation transformer and power resistor in gray die-cast aluminum enclosure, optional wireless microphone capabilities, optional wireless repeater feature allowing scalable system for large venues.

The self-contained sound system on wheels shall have the following specifications: 150 watts on AC, 125 watts on battery power. THD: <0.5%. SPL Max: 120dB (at 1 W / 1m). Frequency Response: 40Hz - 20kHz +/- 3dB. Integrated Source: CD/USB Player with pitch control, CDR/CDRW/MP3 capability with USB thumb-drive input for mp3 tracks, shuffle, repeat, play, memory program, quick search function. Inputs: MIC 1, MIC 2, LINE IN L/R, USB Digital In. Inputs Impedance: MIC 1-2 = 250 ohm balanced, Line In = 47 K ohm. Outputs: LINE OUT L/R, External Speaker. Speaker System 3 Way Triaxial: 10" Heavy Duty Full-Range, 4" Mid-Range, High Efficiency Tweeter. Controls: 2 Microphone Volume, 1 Auxiliary/Line In, 1 DVD Audio Output Level, Bass, Treble, Voice Priority Switch. Voice Priority: Microphones (including optional Wireless) have priority over Line Input and CD. Power Supply/battery charger: External 90 - 260V AC 50-60Hz with UL listing. Internal Rechargeable Battery: 2 X 12 Volt, 4.5 AH (in series for 24V). Battery Charge Time: 10 hours. Battery Operating Time: 3-5 Hours Music, and 5-6 hours Speech (may vary with use). Power Consumption (without external speaker connection): AC 170VA, DC 150W. Antenna: Built-in UHF Diversity Antennas. UHF Receiver Port: Four provided for optional UHF Receiver and Transmitter Module. Cabinet Material: Extruded Aluminum and ABS, Color Finish: Matte Black. Front Grille: Heavy Gauge Coated Steel. Casters: Built-In Wheels with three position locking pull handle. Dimensions: 19.75" H, 13.75" W, 11.8" D. Net Weight: 37 lbs. Floor Stand Mount: Integrated Stand Cup.

The underwater speaker shall have the following specifications: Maximum Voltage: 20 Vrms. Maximum Current: 3A. Maximum Output Level: 180dB/uPa/m @ 1kHz. Frequency Response: 500Hz-20kHz +/- 10dB. Housing: Twin-piston PVC clad die cast aluminum. Transducer Type: Piezoelectric Tonpilz. Driver: 8 element stack. Patented: Yes. CE Marking: Yes. Protective Cage: Stainless steel coated with black PVC. Cable: 25' black 18/3 PVC UL listed fitted with 3-pin proprietary connector. Dimensions: 10.75 H, 10.75" H, 7.75" D. Net Weight: 15 lbs.

The transformer box shall have the following specifications: 50Hz-20kHz response +/- 3dB. Input Impedance: 8 ohms. Maximum Voltage: 20 Vrms. Maximum Current: 3A. Finish: Gray epoxy paint. Housing: Die-cast aluminum. Input Jack: .250" Phone. Output Connector: Proprietary 3-pin. Dimensions: 6.0" L, 3.7"W, 2.4" H. Weight: 2.2 lbs.

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