

## Demo Series

### Model LD6



The Lencore Spectra® Sound Masking LD6 demonstration unit consists of an individual self-contained noise generator, audio amplifier, loud speaker, power supply unit in a damped metal enclosure, powered by an internal transformer.

The Demo model is used as a demonstration tool when presenting the system to prospective clients. The desktop unit, powered by a standard plug-in outlet, allows the presenter to make incremental adjustments to the volume. Using a small screwdriver, adjustments can be made to the spectrum of sound. The demo unit has an on/off switch on the unit.

Each demo operates as a main unit and is solid state and consists of a CMOS/MSI digital random sequence noise generator, electronic amplifier and filter for active spectrum shaping, and is equipped with a 10-step volume control plus an additional continuous volume control. Range of sound level: 56-86 dBA. Additionally contained is a continuous and completely separate volume control for paging/music.

The masking system can be uniquely adjusted to suit a variety of standard and non-standard ceiling conditions by making adjustments to the amplitude and spectra shapes. This adjustment can be made in increments of  $\pm 1/2$  dB. In addition, the system has the adjustment capability to provide the most unobtrusive sound while obtaining the maximum speech privacy that meets ASTM E-1130 standards for speech privacy and sound uniformity. The spectrum shape adjustment ranges from 1 dB at 125 Hz to 20 dB at 8,000 Hz (typical).

The Spectrum Graph above (measured in A-scale) depicts the range of spectra attained with standard fiberglass or mineral ceiling tile. The lower

spectra provide the most unobtrusive sound, while the upper spectra provide the maximum speech privacy.

Lencore's Spectra system can incorporate a high-quality paging and music system to handle all call paging, zoned paging, voice over IP, paging through the phone system, security and life safety paging.

Lencore's Spectra can work in conjunction with Lencore's SPEC™ software program that serves as a diagnostic and planning tool for sound masking and paging systems to qualify and analyze the acoustical performance levels of your space enabling a fact-based approach to predicting spatial and temporal uniformity of sound for sound masking.

:: TECHNICAL SPECIFICATIONS ::

:: PERFORMANCE SPECIFICATIONS ::

### **Enclosure:**

- Aluminum Housing
- Galvanized Perforated Grill
- Lightweight Mounting Chain - N/A
- Height: 6" LD6
- Width: 6" LD6
- Weight: 3 lbs. LD6

### **Loudspeaker:**

- 5-inch-wide dispersion
- Power Rating: 10 watts RMS
- Frequency Response: 50-12,000 Hz
- Pressure/ Sensitivity: SPL—at 1 watt/m-90dB
- Impedance: 16 Ohms
- Resonance: 82 Hz
- Magnet Weight: 10 oz.
- Magnet Structure Weight: 26 oz.
- Cone: Formed Fiber
- Cone Suspension: High Compliance Foam
- Voice Coil: 1-inch diameter
- Voice Coil Form: Anodized Aluminum

## **General Specifications:**

- Paging Input: 25v RMS at 12.5mW (50K ohms)
- Power Requirement: 120 v AC, 60 Hz at 100 mA (typical no page)
- With Paging: Up to 125mA
- Additional continuous control (56-86 dBA total), plus a remote volume control of 15 dB with a central volume control unit
- System can be tuned to +/- ½ dB

## **Wire Requirement**

- 18 gauge, plenum rated non-shielded 2, 4 or 6 conductor depending on application

## **The sound masking/ paging system must provide the following:**

- All masking/paging units must be UL Listed.
- Each self-contained masking (sound generating unit) must have individual volume and spectrum shaping controls and a paging/music volume control which are active and readily accessible for user adjustment to suit zones of 225 square feet or more.
- Each sound generating unit contains an independent sound generator to eliminate phasing effects.
- In open areas and larger enclosed spaces, the overall sound level produced should have spatial uniformity of no more than +/- ½ dBA between any two sound generating units.
- The sound generating units must have a step attenuator, a rotating volume control for precise sound level adjustment, a rotating spectrum shaping control, and a rotating volume control for paging/music.
- The units shall be able to produce up to 86 dBA to meet the requirements for all ceiling treatments.
- The sound generating units must have adjustable sound spectrum shaping controls in order to meet the varying spectral requirements of drywall ceilings, various types of ceiling tile, air return grills and openings around lighting fixtures, etc.
- The sound generating units must be random sequence sound generators and not produce a noticeable repetitive pattern or sequence.
- Sound masking must have E-sound® technology.

- The spectrum shaping ability shall be variable within the accepted background sound masking range.
- Units installed over drywall ceilings should be wired for spectrum control adjustment and remote sound level.
- Speaker housings/ enclosures must be damped to avoid undesirable resonance, etc.
- The system must have the capability to provide paging simultaneously, on an all-call or individually zoned basis.
- The paging volume control must be totally independent of the masking volume and smoothly override the masking. Paging power usage should be .0125 watts per 450 square feet.
- Paging system must have IndePage™ technology.
- All components and assemblies are to be production models of proven performance with continuity of the manufacturer throughout the system for individual component items.
- System shall be designed so that individual speaker or component failure will have no impact on the balance of the system.
- Design of system must be powered by low voltage of 16/18 volts. Power usage should not exceed 100 watts per 18,000 square feet for masking and 200 watts for masking and paging.
- System shall be warranted to be free from defects in materials, workmanship, and performance for a minimum of 10 years from date of installation.
- System must have a Privacy Reporting Feature and use SPEC™ software.
- Sound masking system must meet ASTM E-1130 standards for speech privacy and sound uniformity.
- System must use at least 50% recycled content.
- System must be manufactured in the USA.