

Revolutionary Speaker Technology

NlightN[®] (pronounced “en-light-en”) Flat Panel Speakers produce sound in a totally different way from conventional speakers – **warm, clear, and balanced** with **excellent vocal intelligibility**. The panels “excite” the surrounding air molecules and fill the listening area with an **expansive “sound field,”** eliminating the “beaming” of conventional speakers and immersing the listeners in a **wider audio “sweet spot.”** [Photo shows a panel without the **optional protective metal grille.**]



NlightN[®] is a new class of speaker, the **Distributed Mode Loudspeaker** or “DML,” in which the resonant modes of a lightweight, stiff panels (membranes) are actuated by a transducer (exciter) to deliver a truly remarkable diffuse “sound field” over a **wide audio frequency bandwidth**. Six Custom Designed Transducers (similar to a Voice Coil & Suspension) are used in place of the electromagnetic driver of conventional speakers to produce sound on a flat surface.

The flat panels have a **very wide dispersion pattern** of nearly 360 degrees. Sound is emitted from both the front and rear of the speaker, making NlightN[®] the first **omnidirectional** speaker. **No need for a monitor!** There is **no change in clarity**, irrespective of the listening angle. Unlike a conventional speaker, a listener situated several meters from the NlightN[®] speaker can still hear the sound without the person standing next to it being deafened. There is **less volume drop off** over distance, so the sound level will be nearly the same throughout the listening area, whether you’re close to the speaker or at the back of the room.

The NlightN[®] Flat Panel Speakers have twice the bandwidth of a traditional speaker and **nearly eliminate feedback** when working with a microphone, making them ideal for karaoke and live events. Each panel is **extremely efficient** and only requires **100 watts** of amplification. These speakers have a **built in protection circuit** to help prevent damage from excessive amplification. Due to the fact that there is no crossover, there are **no Phase Cancellations** associated with passive crossovers (as in conventional speakers).

The panels are fitted with metal front grilles that can be removed, so you can **paint** them or **apply your own artwork** (80/100gsm max weight) to them – with little effect to the sound. **Padded protective cases** are available.

The **unique sound dispersion characteristics** combined with **lightweight construction** and **flexible design** mean NlightN[®] Flat Panel Speakers represent a real alternative to conventional technology in the commercial audio marketplace.

Bass Speaker Reinforcement

Very low frequencies for dance music are best handled by a conventional subwoofer. As a rule of thumb, frequencies below 200 Hz are rolled off and routed to the subwoofer. The sound below about 200Hz does not carry much directional information and a low frequency drive unit is needed to maximize the overall effectiveness of the NlightN[®] Flat Panel sound system.

Speaker Stands

Use tripod speaker stands that have a pole diameter of 1 3/8” (35 mm), such as **QuikLok Model S-171**. Ultimate Support Speaker Stands with 1 1/2” poles may require an Adapter Stud (Part # TAD-138). A stand with a 1 3/8” pole will fit into the entire 8” length of the pole mount sleeve on the speaker cabinet and provide more stability than a 1 1/2” pole with a short adapter.