

INTRODUCING EFFECTIVE, COMFORTABLE SPEECH PRIVACY

Businesses saving billions of dollars annually by recapturing lost man-hours due to the lack of speech privacy. Proactive acoustic management through sound masking in workplace environments is a cost-effective way to increase productivity and affect your bottom line.

What are the benefits of sound masking?

Sound masking is an effective tool that achieves speech privacy. Speech privacy is achieved when individual voices or conversations cannot be understood. This is important for two reasons. When you achieve speech privacy, you simultaneously improve productivity and confidentiality.

How does sound masking work?

So how does adding sound solve your noise problem? The answer lies in the type of sound you're masking. For example, imagine a trip to the beach. Even though many sounds compete to be heard – waves, birds, and other people – the broadband sound of the waves covers or masks the other sounds. Because there is sound at all frequencies, the waves fill in the sound spectrum and your mind easily tunes the more distracting noises out.

At the beach, this might mean relaxation or even a nap. In the workplaces, this means a less stressful and more focused environment for maximum employee engagement.

Modern offices are built around the priorities of teamwork and collaboration, with open plan configurations, lower partition walls, and smaller cubicles. While these offices are often aesthetically pleasing, there are acoustic privacy tradeoffs inherent in such designs.

When a worker speaks in their cubicle, the sound of their voice can be heard and understood several cubicles away. Those in enclosed offices are also affected by a lack of privacy, and confidential conversations in offices or conference rooms often carry much farther than the intended audience. This lack of privacy is not a subjective thing – it's measurable and quantifiable according to ASTM standards.

With the addition of the VoiceArrest™ sound masking system, there is a significantly higher level of privacy as the speaker's voice becomes less intelligible.

The benefits of sound masking aren't limited to office environments. Hospitals can use the VoiceArrest™ system to meet their privacy obligations and increase patient comfort and satisfaction. It helps patients sleep better and to converse privately with their doctors, which can lead to a significant increase in a hospital's HCAHPS scores.

Libraries and educational facilities can use the VoiceArrest™ system to meet privacy obligations and to provide a better, more comfortable environment for students and researchers.

Sound Masking Essentials

Speech privacy may seem too good to be true when unwanted sounds seem to be everywhere in modern offices full of cubicles, low partition walls, and hard surfaces such as wood, glass, and metal. Fortunately, even modern offices can employ a sound masking system to check unwanted noise.

Achieving speech privacy is all about using the right kind of sound. Anyone can add a ton of noise and drown out just about anything. But we all know that blasting sound into a workplace can be even more detrimental to productivity than just leaving the distractions alone in the first place. Conversely, employing a no-talk zone just heightens workers' senses of hearing, as in a very quiet library, so that even a proverbial pin dropping breaks concentration. This is why it's important to remember we want privacy and comfort.

Effective Sound Masking Adapts to the Environment

Modern offices are dynamic environments, with workplace acoustics depending not only on the materials used in construction, but also the culture and function of the workforce using it.

Virtually all modern sound masking systems are designed to treat the static acoustic environment of walls, doors, and ceilings. While these are critical components of any acoustic treatment, such plans miss the most important variable: people.

Unlike most acoustic components, the people in a work environment aren't static. Throughout the day, there's an ebb and flow to the conversations and related workplace noise - and an effective sound masking system has to be flexible enough to adapt to such changes.



Comfortable Sound Masking

Sound masking systems also have to be comfortable for people to listen to. In technical terms, this means the sound produced must hit not only the higher frequency ranges of human speech, but also the lower register of 100Hz to 300Hz. It has to be seamless, with no perceptible changes from one area to the next, no “hot or cold” spots. And it has to be properly tuned. A jet engine can provide effective privacy – but who could work in such an environment? Effective sound masking must be comfortable sound masking.

Introducing the VoiceArrest™ Sound Masking System

The VoiceArrest™ system represents the next generation in workplace privacy. Like the previous generation of enterprise privacy systems, it's a networked system built on speakers hidden in the plenum space that produce a high-quality, broadband sound that comfortably and effectively masks speech. That's where the similarities end, however. To a flexible, cutting-edge, great-sounding system, a patented adaptive sensor has been added, and is placed in the sector to be treated. The sensor detects when more masking is needed (or less), and the spectrum can be easily tuned via a tablet with a wireless interface by an approved technician. The result is a sound masking system that is both adaptive and adjustable.

This system represents sound masking at its best in that it is highly effective all day. Imagine your typical open office. The lack of walls, partitions, and even doors allows sound to travel unchecked. Private conversations are overheard, and countless workers are distracted and eventually disengaged.

Now imagine that same office with the VoiceArrest™ system. An invisible solution produces just the right amount of ambient noise so that conversations stay private and workers stay focused. It's a win for everyone.

VoiceArrest™ Networked Smart Sound Masking System

Flexibility, simplicity and unrivaled sound masking quality WiFi and state-of-the-art Graphical User Interface

Each VoiceArrest™ unit provides:

- True random noise generator (no repetition)
- 4 independent sound masking channels (100Hz to 6.3kHz)
- 340 narrow bands automatic equalizer
- 1/3 octave bands automatic or manual equalizer
- 4-channel amplifier providing 88 dBA at 1m
- 1 to 6 speakers per channel for a total of 24 speakers per unit
- 2 music and paging inputs with independent 1/3 octave equalizers for each output channel
- 2 inputs for wall-mounted volume control knobs



The VoiceArrest™ sound masking system includes exclusive features that improve the quality of sound masking technology and are the reference in the industry:

- Adaptive volume adjustment for optimal efficiency and comfort (US Patent 8116461 B2)
- Automatic equalization that guarantees optimum sound masking spectrum (US Patent 7460675 B2)

Graphic Interface Project Management Software

The VoiceArrest™ Project Manager Software allows the user to easily **see**, **access**, and **control** each loudspeaker or group of loudspeakers with a state-of-the-art graphical user interface.

Designed with touch screen features in mind, the VoiceArrest™ Project Manager Software integrates the design and calibration stages. The intuitive interface allows the user to:

- Place VoiceArrest™ unit speakers, zones and the wiring schematic directly on the office layout
- Calibrate and set up the system (select the target sound masking spectrum and calibrate, set up active volume control, setup paging level, etc.)
- Change volume on any speaker or groups of speakers by the end-user.

The VoiceArrest™ WiFi networked system:

A breakthrough in sound masking technology

- Wireless network simplifies design and reduces installation costs (no proprietary cables required)
- Adaptive volume control, an exclusive feature that provides unparalleled comfort and efficiency of the sound masking system.
- State-of-the-art graphical user interface that integrates the design, setup, and calibration stage directly on the office layout plan.
- 24/7 monitoring and diagnosis features.
- LEED v4.1 Points - Better sound masking is better for the planet

MPS™ sound masking contributes to LEED v4.1 points in several categories:

EA Prerequisite 2: Minimum Energy Performance

EA Credit 1: Optimize Energy Performance

MR Credit 1.3: Building Reuse: Maintain 50% of Interior Non-Structural Elements

EQ Prerequisite 1: Minimum IAQ Performance

EQ Credit 6.1: Controllability of Systems: Lighting

EQ Credit 6.2: Controllability of Systems: Thermal Comfort

EQ Credit 7.1: Thermal Comfort: Design

EQ Credit 8.1: Daylight & Views: Daylight 75% of Spaces

EQ Credit 8.2: Daylight & Views: Daylight 90% of Spaces

EQ Credit 8.3: Daylight & Views: Views for 90% of Seated Spaces

