

CAMBRIDGE SOUND MANAGEMENT



The What, How and Why of Sound Masking

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What is sound masking and why is it used?

Sound masking is the addition of a familiar sounding, air conditioning-like background sound to an environment. Masking covers up or “masks” human speech and helps mitigate the distraction of other sounds, making an environment more comfortable, workers more productive and creating speech privacy.

Here’s an analogy. Imagine that you are in a darkened room and a child is flicking a flashlight on and off. The light is noticeable and distracting. Now imagine, the lights are on. The same flashlight is being flicked on and off—but without notice—it has been “masked.” This is how sound masking works.

Where is sound masking used?

Sound masking is used anywhere speech privacy or speech confidentiality is desired or required and in any workspace to reduce distractions and improve productivity. The most typical installations are open office plans, private offices, and public spaces.

- **Open Office Plans**

Open offices are often either too quiet—hearing the occasional pin drop breaks concentration—or too noisy, the conversations of co-workers are distracting and affect productivity.

Installing a Qt *Quiet technology™*-based sound masking system is the first and most cost-effective step to improving speech privacy in your open office and a highly productive open office work environment with fewer distractions. Appropriate ceiling tiles and higher cubicle walls can further contribute to improved open office acoustics, but are often more costly and ineffective by themselves.

- **Private Offices**

Private offices and other enclosed spaces, while appearing to provide privacy, often do not. Frequently the walls are of lightweight materials or extend only to the ceiling tiles and not all the way to the ceiling deck. Often these decisions are made for cost reasons and for flexibility of reconfiguring the office space.

Adding a Qt *Quiet technology™* system to a private office greatly improves speech privacy by rendering private conversations completely unintelligible to listeners in the adjacent office, hallway or at the water cooler.

- **Public Spaces**

Reception areas, pharmacies, waiting rooms, banks and public hallways next to private offices are all great candidates for sound masking systems. Without sound masking, private conversations can be heard in the adjacent public spaces. Installing a Qt *Quiet technology™* sound masking system renders private conversations unintelligible by nearby listeners, ensuring speech privacy.

Installing a Qt *Quiet technology™* sound masking system is the most cost-effective way to ensure speech privacy and comply with the speech privacy requirements of HIPAA and GLBA regulations.

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What sounds can provide sound masking and why is one preferable to another?

Any sound can mask speech, if it is loud enough. Rain, water flow, background music, and HVAC systems and locally controllable sources like radios, “white noise” devices you can buy for \$50, or background music all can be used to mask unwanted sound.

However, as in the light analogy, you can mask the child’s flashlight with a floodlight or you can raise the light in the room only to a level where it simply dims the impact of the flashlight.

This is how a dedicated sound masking systems works. The sound produced with a Qt *Quiet technology*[™]-based sound masking system mirrors the spectrum of the human voice. It does not have to be loud to be effective.

In addition, Qt *Quiet technology*[™]-based sound masking systems provide a uniform sound throughout the targeted space. Listeners do not move in and out of “hot” spots as they would with an in-plenum system and notice the background sound. The sound, a pleasant, non-repeating “whoosh” blends into the background along with distracting and private conversations.

What is the “best” sound masking system?

The best systems are “direct-field” systems. Compared to previous generations of sound masking systems, they are far simpler; less expensive to install; provide more uniform, unobtrusive sound in a targeted space; and don’t overflow into unintended adjacent spaces.

Cambridge Sound Management’s patented Qt *Quiet technology*[™]-based systems are direct-field, a generation ahead of the competing alternative. In a standard office environment, miniature emitters are installed in ceiling tiles and deliver a pleasant, non-distracting, air conditioning-like sound into the targeted space. If your ceiling isn’t “standard,” emitters can be mounted to exposed beams or even embedded in furniture or other fixtures.

Cambridge Sound Management, LLC, located in Cambridge, MA, is the developer of Qt *Quiet technology*[™], a low-voltage distributed audio system for sound masking, paging and background music distribution in the workplace. Our systems are sold direct and by select partners worldwide; they are deployed in over 7 million square feet of space. Installations range from modest home offices to spaces of unlimited size. Applications range from providing acoustical comfort in open workspaces to settings such as doctor’s offices, where sound masking is used to ensure confidential speech privacy.

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