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UNLOCKING THE BEST AUDIO PERFORMANCE FROM YOUR SYSTEM

How to improve sound quality with room acoustic treatments, or fun with foam.

BY GARY ALTUNIAN

Let it be known that, among the industry pros, there is no shortage of passion or opinions about the importance of room acoustics for achieving the best sound. They consider good room acoustics a no-brainer. It's the place to start creating a good audio system, not finish. Creating a good acoustic environment comes before components and cables, speakers and subs, because the ultimate goal is to listen to the speakers rather than the room. My experience with correct speaker placement and room acoustic treatments supports their passions.

As I learned, correct speaker placement helped immensely; but based on my audio memory of great-sounding systems, I knew my system could sound much better. Bass was more distinct,

yet it still lacked the crispness, tautness, and the intersonic silence between bass notes that I wanted to hear. It was also clear that the room was still too live, as revealed by the clap test. The clap test is a simple way to roughly determine a room's reflective characteristics. When you clap your hands and the reverberation of the clap continues bouncing around the room, it is an indication that the room is too live. The reflected sounds reach your ears at a different time than the direct sound from the speakers, thus affecting tonal quality, imaging, and soundstaging. Controlling reflections and reverberations is the job of absorbers and diffusers. The mirror test from Part 1 in last month's issue identified the reflection points on the walls in my listening room.

Before I covered my walls with foam or stapled egg cartons onto them like a high-school rock band, I sought advice from four manufacturers of acoustic treatments: Acoustic Sciences Corp., Auralex Acoustics, Echo Busters, and MSR, Inc. Each offers a variety of acoustic treatments, plus they provide advice and recommendations through a dealer, an installer, or directly to the customer.

Acoustic Sciences Corporation (ASC)

It's not often that the owner of a company picks up the phone, but that's what happened when I called ASC. OK, the owner didn't pick up first, but he answered quickly when my call was transferred. "Hi, this is Art." After a brief introduction and two hours later, Art Noxon, president of ASC, told me everything I needed to know about room acoustics, speaker placement, how to define good sound quality, acoustic treatments, and a bunch of great audio stories. If enthusiasm is a measure of wealth, Art is a very rich man. His knowledge and experience in the control of acoustics runs from recording studios to home theaters and listening rooms, and his company has long been known for the TubeTrap, an acoustic treatment product to tackle low-frequency room resonance problems.

For Noxon, it's all about the bass. Bass should be tight and well defined, and each bass note should sound distinct and articulate. Each bass note should be followed by silence, what he calls