I NEED TREATMENT

By Kevin Becka

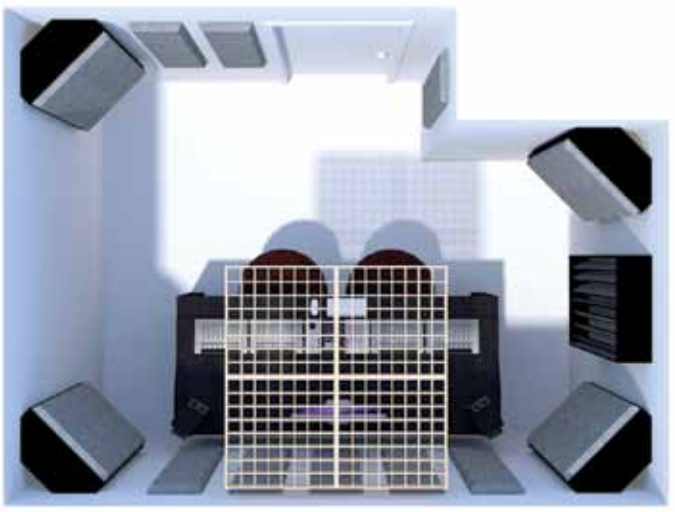
At this point in the construction of my room, I'm ready to tune up the acoustics. I shopped around and decided that for my mixing needs, Primacoustic's line of products provided the best blend of problem solving, aesthetic and budget options; plus, they offer a high level of service.

Before I started the build, I dabbled in Google's SketchUp application and made a basic 3-D drawing of the space. Jay Porter at Primacoustic asked me to send him the drawing, to which he could add some acoustic materials. The drawing you see on this page is the final iteration of this process. Jay came up with some solid ideas, although I tweaked them a bit. For instance, he suggested Nimbus clouds on my ceiling, but I wasn't wild about the look. Instead, I opted for a DIY approach and used four of Primacoustic's Radiator Birch diffusers hung from springs I bought at Lowe's. I then added some absorption in the space between the diffuser and the ceiling by simply laying in some Broadway panels. It gives me the perfect combination of diffusion and absorption with a great look. The entire Primacoustic order comprised four Max corner bass traps, a dozen Broadway panels, seven Radiator diffusers and one Flex diffuser for the wall opposite my window.

When the material arrived, audio tech Jeff Harris and I, along with two interns, took a day to build and mount the traps and diffusers. Jeff tested the room empty, and then again at every stage of install using ETF's Acoustic Measurement software. This gave us a good indication of the initial problems and how the Primacoustic material was helping, or not. Although there was a considerable amount of treatment, I expected this was step one in the process and was ready to move things around and add more if needed.

The first lesson learned was to not fall in love with what you believe is the best orientation of the gear in the room. Since the beginning, I pictured my desk against the empty wall you see in the drawing, which has a large window. However, once Jeff and I got all the material up and I set up two Focal CMS65 speakers, ETF and listening tests proved this to be a bad idea. There was too much low-end buildup in the middle where my head would live, plus the stereo image wasn't great with all that glass in my face. A 180-degree turn was worse: The stereo image fell completely apart at the other end. This led to the arrangement you see in the picture, which works very well.

I'm still toying with the acoustics as I work in the room. The day I was done installing all my gear, I started mixing a project, a collection



of 11 songs from Catholic singer/songwriter Gretchen Harris. This shakedown cruise gave me a great way to work out a few of the bugs.

First, while mixing, I was feeling reflections from my window looming over my right shoulder. So I had my contractor take my three remaining Radiator panels, plus a Broadway panel, and build me a rolling diffuser/absorber gobo—similar to my DIY "cloud," but vertical. This made a huge difference. Not only did it knock down the reflections from the glass; it broke up some of the low end in the room, giving me a wider sweet spot. Another big advance came after I had CRAS live sound instructor Keith Morris come over and run Rational Acoustics' Smaart so I could be sure I was phase correct at my listening position. He found some puzzling comb filtering and pointed out that my tabletop was causing some audio mischief. This was fixed by a $21 anti-fatigue rubber mat—like you'd see on the floor of a restaurant or bar—which now covers the top of my desk. The look is industrial and cool, plus it tamed a sibilance problem I'd been hearing in my tracks.

The bottom line with acoustic treatment in a space like mine is that experimentation is key to getting it right, along with some reliable tech feedback. Running ETF and Smaart, and having pros who know how to interpret the graphs, is essential. Take readings where your head will be, but also take them at the floor, ceiling, back wall and corners. And fixing room problems doesn't have to be expensive. Mastering engineer Gavin Lurssen told me to throw pillows in the corners to help break up standing waves and Jeff Harris makes tuned bass traps out of tubular concrete forms you can find at Lowe's. It's all a process that pays big in audio dividends. Next month: On to the gear. ■