

Primacoustic Recoil Stabilizers

by Paul Gross

One of the constants over the last few decades in the professional recording studio or in the home studio environment is the use of nearfield monitors as the main playback for the audio sources. Typically, the easiest location for placing these monitors is on top of the console meter bridge or a similar structure on the console. Usually, a wooden speaker stand is built to accommodate these speakers, and there is usually no isolation from speaker to stand to console. Sometimes, foam or neoprene rubber is placed on speakers to isolate them. In my experience, this decoupling method can cause more problems than it cures by actually magnifying the speaker's motion, resulting in image smearing and resonance from the console to the listener.

In any case, the physics of a monitor pumping out music at high levels can drastically change what really is in the mix if the speakers aren't set up and isolated properly – as the console becomes a sounding board for the audio and the console's own frequency response becomes a large part of how the mix is balanced and EQed, rather than actually what is in the mix. Most high-end mixers and producers bring their own monitors with them to studios, as they are comfortable with past results with them and know what to expect mix-wise from artist to artist and studio to studio. Ideally, monitors are designed and built in strict acoustic environments, but this all changes when they are placed into the recording studios.

The most common problem is that the console resonates and creates sympathetic frequencies that colour and change phase relationships of the audio source, depending on the size and configuration of the console. Ideally, we want to take away any resonance through the console and isolate the speaker source as much as possible; this will enable the speaker to perform as close as the original characteristics that it was purchased for in the first place. If the console resonance is artificially putting a lot of 300-1 kHz into your mix, you will likely not add these frequencies – but, more importantly, you may overcompensate by adding other frequencies. This just exacerbates the missing sonics of your mix, and this incorrect playback can play a part in the balances of other instruments as well. It's no wonder mastering engineers who usually have good listening environments shudder when they hear a lot of projects.

Recently, I was given the opportunity to evaluate the Primacoustic Recoil Stabilizers and did it on a working situation while judging final mixes for a national award show. I really needed to have an accurate playback to identify each product as close to what the engineers and producers were looking for. The initial test I set up was a blind listening study of playback of selected tracks with or without the Primacoustic Recoil Stabilizers. The speakers I selected to use were KRK V8s and Yamaha NS10Ms with a Bryston power amp. I actually blindfolded myself so as not to know if what I was listening to were speakers placed on stands, on the meter bridge, or on the Primacoustic Recoil Stabilizers.

Over a series of test listenings, it became apparent there was a substantial difference between non-use of the Primacoustic Recoil Stabilizers and when they were in play. The improvement in general frequency response, especially in the extreme bottom end, was my first observation. Not only was I able to hear the frequencies below 100 cycles better, but also the tightness of the bottom end was observed. The top end was also

more open. Overall, the stereo imaging was clearer as well as I was able to pick out instrument spatial placement much better. In general, the Primacoustic Recoil Stabilizers just work really well in letting the speakers do their job. They give the speakers a natural sounding board, and by taking away the outside physical elements from the musical equation, you get more accurate results all around. I rate the Primacoustic Recoil Stabilizers a 10 out of 10 and a must for all studio applications.

Paul Gross' background is producing records, having been nominated for various Juno awards throughout his career and having won in 1993 for Hard Rock Album of the Year. He also was the past owner of Phase One Recording Studios from 1974 -2001 with over 100 gold and platinum records. He is now Studio Manager for Metalworks and its Recording, Mastering, and DVD authoring facilities. In March of 2007, Metalworks had garnered its 11th consecutive CMW award for Canadian Recording Studio of the Year.