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Dear GoldenEar Fan,

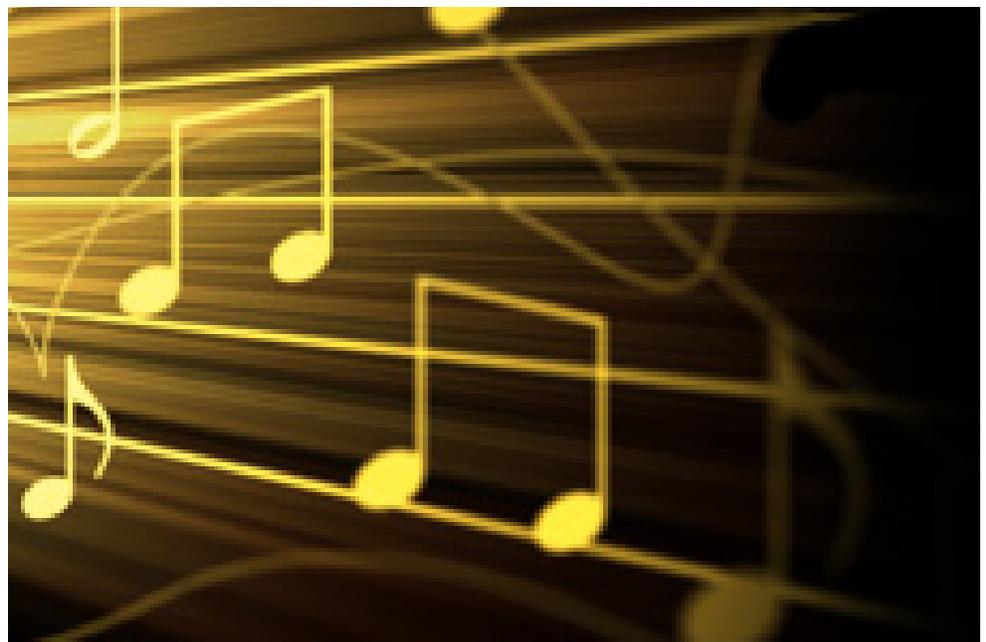
Since the last two issues of this Newsletter were pretty intense explaining how to set the levels of your surround sound system using an SPL meter or app, we thought we'd lighten up a bit with some audio history. If you're really old, like a few of us, the main article below will bring back some fond memories. That's, of course, assuming you can remember those foggy days during the 60's and 70's. And then a quick trip back to the present for some info on high definition music downloads from HDTracks.

We hope you're finding this kind of information informative and worthwhile. But the only way we'll know if you are (or what else you'd like to read about) is if you give us some feedback regarding these newsletters. We'd like to pick a topic of broad general interest to cover from the ones sent in.

So what are you waiting for? Send your comments and suggestions (and if you have any questions regarding this content) to info@goldenear.com right away and we'll address them in the next issue. Of course, if you have immediate set-up questions regarding your system you can call our Tech support line at 410-998-9134, or email support@goldenear.com.

Happy setup and happy listening!

The GoldenEar Team



Loudspeaker History with a GoldenEar Ending

Join us now as we cruise through the Fog of Ages to the early days of home High Fidelity systems. Please keep your hands and arms inside the STM (Sonic Time Machine) as we whiz past myriad artifacts of sounds and equipment past. Quick! Look! There's an 8-track tape deck. And over there, a reel-to-reel recorder. My, how quaint they look now. Oh, do you recognize those round black discs? They're called "records" and you play the music encoded on them by placing a tiny needle in their grooved surfaces and spinning them round and round. Honest. Why, did you know you can't even control the "record player" using your smartphone? Who'd believe it!



The AR3a - a Classic East Coast Sound Speaker

Ah-ha. Now we've passed through the DMP (Discrete Mono Period; none of that synthesized mono using left/right speakers with a push of the Stereo/Mono button for us) and the Plasticine Disc Era. Ah, look there, a Tubed Monophonic Console Radio with record player. Can you believe our forefathers, the Cro-Monorockers listened to this stuff? Well, on we whiz, to the Golden Age of High Fidelity Audio, during the 50's and 60's.

Through these two decades there were several developments that expanded the reach of High Fidelity to a much broader population than had been exposed in the past. The introductions of stereo; stereo long play records; FM Stereo

broadcasting; relatively compact acoustic suspension speakers that delivered deep, powerful bass; solid state high power amplifiers instead of tubes; and many more developments, made it possible for music lovers to get good fidelity that would fit in their rooms (and lifestyles) at reasonable prices. Interestingly, many of the aforementioned technical sound quality developments were the result of improvements in movie theater sound and not initially intended for the home market.

[Read the Full Article ...](#)

How About Some High-Definition Music with that System?

Computer Audio - It's All The Rage, Are You In?

It seems the transition from analog and physical media to digital (computer-stored) music has happened overnight. For the first time, in 2011 music sales tipped in favor of digital media. Nielsen's 2011 point-of-purchase figures indicate digital record sales grew almost 20 percent over 2010 numbers, while CD sales slipped just about 6 percent. I'm sure you have all come to the realization that it's imperative for audiophiles and music lovers to understand the world of digital audio and to have the ability to use music's newest delivery



methods. I imagine everyone reading this already has computer-stored music, the starting point for moving toward high-fidelity digital music and distributed music throughout the home. And of course, the addition of the always popular smartphone/tablet control of your digital music library.

Our favorite part about all this is that it makes people listen to music more, hopefully on a new pair of GoldenEar Speakers! And if you're audiophiles like us, then computer audio has another big advantage - HIGH DEFINITION AUDIO!

[Read the Full Article ...](#)

Sandy's Place – A Little Technology for the Technically Minded ...

GoldenEar's High Velocity Folded Ribbon tweeter (HVFR) is an exceptional high frequency driver. We'll be devoting a column to its design and performance in the near future. During the development process of our first speaker, the Triton Two, we realized the HVFR's outstanding performance demanded a midrange driver its equal in terms of output, speed, low distortion, smooth response and high power handling ... a very difficult prescription to fill. Yet GoldenEar's engineers delivered in a big way with the 4.5" MVPP Midrange or Mid/Bass Drivers found in all our speakers.

Critical to any speaker's performance is all the drivers must integrate seamlessly in order to achieve accurate reproduction. Although it sounds simple, that goal isn't easy to accomplish. Essentially you're attempting to get different mechanical devices with differing acoustic performance to reproduce a sonic picture as a single element would. Here's an overview of how we created the MVPP, a component critical to our exceptionally accurate sound:

To start, the driver has a rigid cast magnesium frame (basket) with small, extremely strong "spiderleg" ribs to allow free airflow from the back of the cone - so the frame itself doesn't impede cone movement. The cone itself is attached to the frame with a soft, synthetic butyl rubber surround that (along with the spider, or rear suspension element) helps tune the driver for accurate response as well as giving it surprisingly long excursion.



The cone itself is made from a non-resonant (it doesn't ring, like a bell, which many cones do) co-polymer and has an optimized and very unusual shape (take a look from the side of the driver to see its curve). Our proprietary Multi Vaned Phase Plug (MVPP) contributes to the driver's excellent off axis (off to

[GoldenEar's MVPP Midrange and Bass/Mid Driver](#)

the side) response even at high frequencies, improving dispersion while lowering distortion even further. By blocking standing waves that would normally set up across the cone, we get very wide dispersion even at the limit of the driver's high frequency response.

These features give the driver very smooth response, up to nearly 20,000 Hz and with extremely low distortion! Although not required in the system, this wide response insures tremendous linearity within the operating range in the speaker systems. These characteristics, along with our high quality crossover components, assure great performance. But what if you're not listening in the traditional sweet spot? Why do GoldenEar speakers still sound so good? It is because both the HVFR tweeter and this 4.5" MVPP midrange and mid/bass drivers have terrific off axis response. It is this great off-axis dispersion that helps make sure everyone in the room hears great music, not just those sitting in the sweet spot.

To handle power and have wide dynamic range, the driver uses a 1" high-temperature Kapton voice coil former wound with hundreds of turns of high purity copper wire. Together, our high-definition midrange driver, HVFR tweeter and sophisticated crossover design give listeners the purity, clarity, lifelike imaging and coherence that is normally found in much more expensive audiophile speakers.

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