Subject: low volume total enjoyment
Posted by elvis-pa on Mon, 19 May 2003 00:41:20 GMT
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What kind of speaker or speaker/amp combination does it take to get full "bloom" from a recording? I have a 300b amp with 15 watts of power and 87db speakers and in order to really enjoy the music I play I need to crank the volume up to 95db or I lose some of the enjoyment of the piece. I have though of more sensitive speakers but is that enough or does it take a particular type or design of speaker to get full enjoyment without blasting my family.

Posted by Wayne Parham on Mon, 19 May 2003 01:12:22 GMT
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really great, so if you've got two good corners in your room, I think they would be excellent.If you

speaker is the most popular large-format model, and that or the Stage or Professional Series four

Subject: Re: Audiophile series seven-pi, and general question
Posted by Sonar_Vermin on Mon, 19 May 2003 18:59:51 GMT
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Wayne -What are the subjective differences between the 3-way and the 2-way corner horns? I notice that your designs tend to be 2-ways, with a big woofer. My experience with this layout has not been good in the past, with the woofer at it's narrowest dispersion handing off to the tweeter at it's widest.Granted, I've heard mostly cheap speakers done this way, but even the few good ones all suffered from driver integration issues, even with good drivers. The one that sticks out most in my mind was a Heil AMT / 12" combo that did really good things down low and up high, but the crossover region was a nightmare.How have you avoided this problem in your 2-way designs?Thank you,--Shannon

Subject: Two-way and three-way loudspeaker systems

Posted by Wayne Parham on Mon, 19 May 2003 20:05:38 GMT
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Until about 1990, almost every speaker I built that had a woofer bigger than 10" was a three-way

started experimenting with two-way designs and I found that a compression horn run from about 1kHz up and a large-format midwoofer with good, clean midrange performance made an excellent sounding two-way speaker. The idea is to match the collapsing directivity of a direct radiating midwoofer with the horizontal directivity of a CD horn. The vertical pattern is a little more narrow, matched by the vertical nulls.

corner it's set in tends to direct HF content towards the listener. So I tried an experiment, running the system as a two-way. The sense of envelopment and spaciousness is very pleasant in this configuration, given the right midwoofer. And frankly, most of the woofers used in the DI-matched two-ways work well for this, having extended upper midrange response.

When a direct radiating midwoofer is matched to a tweeter horn, crossed over where their directivities match, then the woofer directivity below that point gradually widens. When put in the cornerhorn configuration, this is no longer the case. The walls contstrain the radiating angle, limiting it to 90°. In this case, directivity is the same at LF and at HF, with the only exception being the modal region, where room modes set the position of energy pockets. If the room is large or well damped, the cornerhorn becomes truly constant directivity across the entire audio bandwidth.

Subject: Re: Two-way and three-way loudspeaker systems
Posted by Sonar_Vermin on Mon, 19 May 2003 21:06:19 GMT
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Thanks for the quick reply, Wayne. I wonder if you could answer another question for me:What motivated your choice of drivers? I notice that you favor the use of drivers from the professional / musician world, rather than from the audio world. This is a very different choice than other designers are making. Of course, your designs are rather different too. What has led you to your rather idiosyncratic driver choices?Not intended as a criticism, as I have never read you to be anything other than a careful, thoughtful engineer, but you have gone in a different direction, and I'm curious...Thanks,--Shannon

Subject: Re: Two-way and three-way loudspeaker systems
Posted by Wayne Parham on Tue, 20 May 2003 00:09:28 GMT

Rarely do I find a commercial product that performs as well as the better professional products. It's kind of like comparing race car parts verses family car parts. Even if we're not talking about output levels, the quality of speaker build is generally better. Good pro gear has about 1/10th the distortion and better response curves too.Check out the specs of JBL Professional Series and TAD products and you'll see what I mean. Eminence is very good too.The bottom line is performance is what motivates me when choosing components. If I found that I could get better parts from the carsound or home theater markets, then I'd use them instead. Nothing matches the dynamic range, low distortion and uniformity of response of good prosound components in a properly designed and implemented loudspeaker system, in my opinion.

Subject: Another reason might be...
Posted by mollecon on Tue, 20 May 2003 05:46:47 GMT

Quote: "Of course, your designs are rather different too."The above quote probably is the key to another reason why Wayne is using the drivers in question. Wayne's designs aim at reaching a true high efficiency/sensitivity. This is virtually impossible with conventional hifi drivers, since these are usually aiming at making deep bass possible from small(er) boxes. This in effect excludes the possibility of high efficiency - it's simply a matter of the laws of physics. Putting it in simple terms (a bit oversimplified, actually, but...): If you wanna have a 10 times better efficiency, & still reach the same level of bass, you have to accept a box that is 10 times larger!