Subject: Question for those who know!
Posted by Garland on Mon, 09 Jun 2003 15:12:08 GMT
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I was reading over on the SET forum a post by Tom Brennan relating his experiences with different dispersion horns. He feels that in smaller rooms a wider dispersing horn sounds better to his ears. I'm curious about this and was wondering two things: 1) Can anyone recommend a 120 deg. Horiz horn that could be made to fit the Eminence 2002 bolt on driver. If someone could provide a sketch or plans I could build one. and 2) what do you guys think about his idea. I love my Theater 4's with Eminence 290 horn but sometimes wish I had a larger listening room so I could pull back and not sit in the "nearfield" so much. Thanks!Garland

Subject: Wide dispersion horns
Posted by Wayne Parham on Mon, 09 Jun 2003 17:17:18 GMT
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I've always thought that horizontal dispersion was very important for home use. Narrow dispersion is more attractive for targeted patterns in prosound use.There are some 120o horns available, but since room corners represent a 90o angle, I always preferred this pattern. It covers the room very well when the speakers are positioned at each side of the coverage area, toed-in 45o with forward axis crossed just in front of the listeners. That arrangement offers the most uniform spectral balance and the best stereo imaging over the widest coverage pattern.

Subject: Re: Question for those who know!
Posted by ToFo on Mon, 09 Jun 2003 17:18:10 GMT
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Garland,I have thought about this also. In big rooms where you are 12 or more feet away, it is hard to get out of the coverage area, but in a small room it is hard not to. Do you want the coverage so you can have a wider listening area, or do you want to put more upper midrange in the front part of the room for reverb? I could probably glean this from Toms post, but I am too busy and tired to dig through posts right now :) The only reason I ask is some of the wide ones have bad top end dispersion, sometimes worse than standard 90 x 40's. If you are going to be in one spot it won't matter much, but if you want extra-wide and even coverage, be careful choosing.There are a few wide ones, a Beyma and some P-Audio models. I have possibly found every currently available production horn in the Pi size/frequency class, so I can look through my notes and point out a couple of links later this evening.later,Thomas

Subject: Re: Question for those who know!
Posted by Garland on Mon, 09 Jun 2003 19:36:55 GMT
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I am primarily intersested in focused sound at around 8 feet for one listener (me). Off axis sound is less important. I'm interested in your notes if you can dig them up sometime! Thanks.Garland

Subject: follow up
Posted by ToFo on Mon, 09 Jun 2003 20:13:11 GMT
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I was right that P-Audio has a wide, but it is 100x70, only 10 inches wide and very shallow. I was wrong about Beyma. There is a Selenium HC56-25 120x40. HUGE horn, awful highs, yuk! JBL has the 2382A, BIG! and two inch throat. I'm out of ideas (and bad ones at that). Anyone else?Not dispersion related but just a thought. Have you heard your speakers with a Peavey CH-3? I own some CH-3's and I have used some H-290's with the same speakers. While they are amazingly similar despite their appearance, I felt the CH-3 had more body and the H-290 had hotter presence range. I consider the CH-3 to be pretty neutral, while my impression of the H-290 was leaner, dryer and cooler sound. It may be a subjective taste thing and humans are full of opinions, but it was obvious to Jennifer and I. The CH-3 might sound like backing off a few feet from an H-290 to some folks, Maybe you.You would have to get screw-ons, but I think you would like them. To many these differences might be hair splitting, or trivial. If memory serves me, there have been a few specifics you have dialed in to what some would say is the hair splitting realm, which you noticed and appreciated. This "slightly" different horn may be just the ticket. One look at the throat and you will know you have never seen anything like it, in a good way. Do you know a nearby Pi guy you could trade horns with for a couple of days?I wouldn't want my armchair evaluation to get you spending money and not liking them, BUT I still feel based on what you said in SET forum that you will like CH-3 better. While I am still using 2370's for the incredible off axis top octave(lots of spread out chairs in here). Other than that 2370 sounds about as good to me as the CH-3 when compensated accordingly, but it's not a better horn IMHO. If they weren't so pricey on the Theater 4 scale I would suggest them as well.Thomas

Subject: Re: follow up
Posted by Wayne Parham on Mon, 09 Jun 2003 20:27:02 GMT
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I would characterize the CH-3 and H290 horns just as you have, and measurements indicate the Peavey CH-3 and H290 are similar, but with a lower cutoff and smooth, shallow rolloff in the bottom octave from the Peavey horn. That does translate to a slight difference in the midrange overtone region.

Subject: Maybe a wide dispersion wood horn?
Posted by Wayne Parham on Mon, 09 Jun 2003 21:01:49 GMT
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I just thought of a sweet idea. You're very good with woodworking, so maybe you can make your own horn out of wood. The side pieces are easy because they're essentially straight but with the entrance radiused to match the throat angle from the copmpression driver. This angle sets the horizontal pattern. The top and bottom pieces can be exponential or tractrix curves, making a radial horn, or they can be straight forming a conical flare. Either way, radius the entry to match the throat exit angle and you might want to radius the mouth edge too.

Subject: Horns
Posted by JLapaire on Tue, 10 Jun 2003 09:04:24 GMT
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Garland,You heard my CH3 knockoffs get smoked on axis by Bmar's horn over at Cope's the time that I brought the Karlsons. They do have even coverage though, out to around 90 deg. You're welcome to try them. I also have Altec 511Bs and will soon have JBL 2382 knockoffs you could try, but the JBLs will need 1"-2" adapter. I like Wayne's DIY idea too. That throat/flange section is the hardest part to DIY IME.John