
Subject: best horn for 2426h in Pi type system?
Posted by [tdc](#) on Thu, 21 Nov 2002 18:47:24 GMT

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What is the best horn for use with the 2426H in a Pi type system ? Currently I use a 2345 with a 4648 (dual 2226J's).The crossover is a Pi JBL pro type that Wayne helped me get together. The distance to my listening chair is 16 ft. The old JBL lit calls this a short throw horn but I have seen folks refer to it as a long throw type as well. Is there any horn that people have used which is significantly different or better then the 2345 for an average to large home listening room as opposed to an auditorium?I like the sound I am getting but changing the horn would be the only easy tweek I could do. Or should I just leave it as it is? Thanks TDC

Subject: Re: best horn for 2426h in Pi type system?
Posted by [Wayne Parham](#) on Fri, 22 Nov 2002 00:53:08 GMT

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I like the Peavey CH-3 and Eminence H290. They work well in my designs, and are actually interchangeable. Both are about the same length and have similar directivity, so they can be used with the same crossover.Have you thought about wood horns? The Martinelli horn is a great way to go. It sounds good and looks good too!

Subject: the smallest one?
Posted by [tdc](#) on Fri, 22 Nov 2002 22:52:52 GMT

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At the Pi 4 crossover point (1600 hz.) I assume you would use the smallest of the wood horns?
tdc

Subject: Re: the smallest one?
Posted by [Wayne Parham](#) on Sat, 23 Nov 2002 06:08:27 GMT

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Yes, you can use either the Martinelli 12" or the 17" horn at 1.6kHz with excellent results. The larger horn can be expected to perform well down to 800kHz but the smaller one cannot be used under 1kHz.

Subject: Re: best horn for 2426h in Pi type system?
Posted by [Tom Brennan](#) on Sat, 23 Nov 2002 14:01:48 GMT
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IME an Edgar saladbowl has much better high frequency response than Bill's horns. The collapsing directivity of the saladbowl lets one run a 1" driver without compensation. I've measured 1" JBL and Altec drivers flat out to 16khz on axis on saladbowls. In my experience and opinion the best horn for 1" drivers is the Altec 511B. Very extended high frequency response au naturale and just something "right" about the sound.

Chicago Horn Speaker Club

Subject: Re: best horn for 2426h in Pi type system?
Posted by [Rex Mills](#) on Sat, 23 Nov 2002 15:17:42 GMT
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Tom..since you like the 511 horns for 1 inch throat drivers what is your opinion of the 811B horns for the same. Thanks!

Subject: Re: best horn for 2426h in Pi type system?
Posted by [Tom Brennan](#) on Sat, 23 Nov 2002 17:44:39 GMT
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Rex---I think the 811 is very similar in sound to the 511, of course you have to cross it over higher. I've heard some most excellent systems using the 811 horn, Altec Valencias and Model 19s. I used 811s myself for awhile and liked them. Great horn if you want something compact and will crossover at 800hz or higher. Like the 511 the 811 benefits by damping the horn, non-hardening modeling clay in the "lips" and screwing the horn securely to a baffle will do the trick.

Subject: Edgar vs. Martinelli

Posted by [Wayne Parham](#) on Sat, 23 Nov 2002 17:58:18 GMT

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Both Edgar and Martinelli make excellent horns but I prefer using 90o horns for the home, particularly for cornerhorns. That makes the pattern equal for the entire audio band and charges the reverberent field equally. Narrower horns increase SPL on axis, but at the expense of having a narrower listening area. And collapsing directivity does weird things to the reverberent field, which I don't like. I'd also like to point out that compensation EQ making the power response flat doesn't abnormally increase energy in the room; Rather, it raises it to be equal throughout the audio spectrum. Acoustic EQ from collapsing directivity leaves the total energy in the room lacking at frequency extremes. So it is actually horns that employ collapsing directivity for acoustic EQ that have unequal energy distributions in the room.

Subject: Re: best horn for 2426h in Pi type system?

Posted by [Rex Mills](#) on Sun, 24 Nov 2002 00:22:12 GMT

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Tom..Thanks for the response.

Subject: Re: best horn for 2426h in Pi type system?

Posted by [D Kurfman](#) on Mon, 25 Nov 2002 20:50:28 GMT

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Tom,Are you saying that with a JBL 2426 on an Edgar "salad-bowl", all that is needed is level matching and flat response to 16K is achievable? Just want to make sure I am understanding you correctly. What, in your experience, is the lowest practical crossover in this configuration?Dan

Subject: Re: best horn for 2426h in Pi type system?

Posted by [Tom Brennan](#) on Tue, 26 Nov 2002 03:53:53 GMT

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Dan---Yes, that's what I'm saying. Though I haven't used my 2427s (same as 2426) on my saladbowls JBL 2420s and Altec 806s and 902s have run out flat to 16khz, the highest frequency my RTA can measure. My saladbowls are 550hz units, I crossed them at 700hz. The collapsing directivity of the saladbowls at higher frequencies crams the decreasing power from the

compression driver (all compression driver's power response starts rolling-off around 4-5khz) into a smaller angle, the result is extended response on axis. On axis mind. This is the same reason the Altec 511B has extended response. With constant directivity horns, such as the latest JBL and EVs, frequency response on axis tracks the falling power response of the compression driver and on-axis response is rolled off, thus the need for EQ (which is what compensation circuits are) with CD horns. Personally I think that the Edgar saladbowls are superb horns and I prefer them to any horn I've used with 1" drivers except the Altec 511B, a horn which I think is just as good. And I've used lots of horns over the years, heck I still own 7 sets of horns; JBLs, Altecs, McCauleys, Edgars and PAudios.

Subject: Final thoughts

Posted by [D Kurfman](#) on Tue, 26 Nov 2002 11:52:51 GMT

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Thanks Tom!! I thought that was what you were implying. The old "self equalizing" horn concept, which is part of what reduces the need for eq on the 2370 and was a characteristic of much of the Klipsch stuff. While I do like much of the CD stuff, particularly the JBL 2344 cheeks, I really don't like it for up close, in your face, listening. I think the issue is the narrow slot normally used to maintain hi-frequency response on one axis. This still basically comes down to a diffraction horn and never sounds as open and effortless as I would like. A 2426, or similar horn, without the need for a bunch of hi-frequency shaping would certainly make things simpler, while at the same time opening up additional options for bi-amping. Thanks for your thoughts! Dan

Subject: Re: Final thoughts

Posted by [Tom Brennan](#) on Tue, 26 Nov 2002 13:21:31 GMT

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Dan---Another thing, by the time one EQs a CD horn for flat, extended response on axis you're pushing alot more high frequency power into the room than with a "self-EQing" horn. This may or may not be a bad thing.
