Subject: downscaling midhorn
Posted by andreas paulsen on Tue, 07 Dec 2004 10:42:43 GMT
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HiWould it be possible to downscale the midhorn to an 8", i have a pair of suitable drivers (focal axiom 8) -- somewhat similar to jbl 2118. I see bill martinelli has used a pair of eminence 6" in a midhorn.the tentative plan is to use them with a pair of Pi-7 (with jbl 2245 18")Any tricks to this? CheersAndreas

Subject: Re: downscaling midhorn
Posted by Wayne Parham on Tue, 07 Dec 2004 21:31:30 GMT
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An 8" midhorn would work pretty well, I imagine. You might scale the horn I've done by 20% and give that a try. Or you could go with a more square aspect ratio like Bill Martinelli and Adrian Mack did on their horns for the Eminence Alpha 6.Since your plan is to use these with seven

cornerhorns. I'd probably keep the mouth area the same, and simply extend the horn back to where it makes a 4" x 4" throat. That will look nice, making the midhorn width equal to the width of the bass bin. And I expect a horn of those dimensions will have very nice response too.

Subject: Re: downscaling midhorn
Posted by Grant Marshall on Wed, 08 Dec 2004 14:01:44 GMT
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Hi Andreas.I used a 6 1/2 inch driver in the mid-horn and I'm satisfied with the results. I followed Waynes advice about keeping the mouth about the same size, the lengths close to the same as Waynes design and proportioning the entrance at the throat to the smaller speaker. I suspect too large an opening leaves the driver incapable of going as low as the horn allows it and it will flap around causing distortion. I suspect too small an opening would restrict sound. I'm sure I'll find out if I'm right ;-).From what I've read the length of the horn and size of the mouth have a lot to do with the frequencies the horn is capable of producing. A shorter horn, or smaller mouth would be suitable for higher frequencies. Longer horn, larger mouth, lower frequencies.Grant.

Subject: Re: downscaling midhorn
Posted by Grant Marshall on Wed, 08 Dec 2004 15:14:22 GMT
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I almost forgot.Not every driver is suited to horn use. I'm not sure what all the characteristics are, but a rising SPL level on a graph is an example of a "horn friendly" characteristic. I used a PHL driver which PHL suggests for possible horn use. Dr. Edgar played with a lot of drivers years ago to find the best to use. I'm sure Wayne chose his drivers for specific characteristics as well which the Focal's may or may not satisfy.Grant.

Subject: Re: downscaling midhorn
Posted by andreas paulsen on Wed, 08 Dec 2004 18:08:40 GMT
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The focal axiom 8 i have is - I think - electromechanically close to the 2123 10" jbl driver. it has a massive magnet structure - small Xmax - small magnet gap and an fs of around 100Hz. However I do not have the full TS parameters - I should measure them some day.Thanks for your commentsCheersandreas

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