
Subject: 8 inch co-ax Mello Monster

Posted by [Mark Korda](#) on Thu, 03 Feb 2005 00:26:10 GMT

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Hi, first I'd like to thank Wayne Parham for directing me to this site. Somewhere in my piles of audio literature I have the plans for a small 8 inch horn enclosure from Popular Science, 1963 called the Mello Monster. It would be perfect for a 8 inch Fostex FE207E co-ax. Until I find it, it could be built with 2 sheets of plywood, I was wondering if anyone out there had ever run across the plans, thank you Mark Korda (mark.korda@verizon.net)

Subject: What would a horn do for a full range 8" like a Fostex?

Posted by [akhilesh](#) on Thu, 03 Feb 2005 15:22:50 GMT

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Great Post Mark, and welcome! It got me wondering: what would a horn enclosure do for a driver like the fostex? Will it increase the bass and leave the higher frequencies alone? My guess, from using a megaphone in my childhood (those tpys) is: a horn emphasizes a frequency range depending on its length and cross sectional area. If that is the case, then it should be possible to design a horn for the fostex's freq curve that will emphasize the right freq range, upto about 2000 HZ to make the whole thing at least somewhat flat. How big would such a horn be? -akhilesh

Subject: Re: What would a horn do for a full range 8" like a Fostex?

Posted by [kloss](#) on Thu, 03 Feb 2005 19:32:20 GMT

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oris and azura make such horns they are around 31in plus

<http://steinman.mesls.org/stereo/J%20Kalinowski%20Loudspeakers%20101.jpg>

Subject: Re: What would a horn do for a full range 8" like a Fostex?

Posted by [roncla](#) on Sun, 06 Feb 2005 03:28:12 GMT

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Depends on the lowest frequency that you were designing for. In reality a true FR horn would be front loaded with maybe a smaller chamber on the rear (to provide two sided loading). If it was floor/wall loaded (cant tilt it back to a great degree) and you were aiming for a true spherical wave at 50 hz then the x and y mouth axis would be 21.49". If it was just wall loaded then the min dimension for the x/y axis is 43". That's why it's so much easier to have a good LF woofer and a

front horn, saves on space. I find it much easier to just use a BLH up to and around 360-380 hz and let the FR driver do its direct radiator thing.ron

Subject: Re: What would a horn do for a full range 8" like a Fostex?

Posted by [JLM](#) on Sun, 06 Feb 2005 12:07:25 GMT

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Horn loading should only affect mid-bass (150-500 Hz for front loading, 50 - 300 Hz for rear loading) and is best suited for drivers with Qts of around 0.2 like Lowther or most Fostex. But at these lower frequency limits horns get BIG. High pressures that compress air and flex enclosures are additional problems related to horns and produce colorations. Finding a "fast" enough sub to match up is a real challenge and a common gripe with the Oris front horn designs. Phase integration gets to be another problem as the bass horn has to get bigger and the distance through the horn becomes significant. There is not a single driver horn design that does deep bass. The only "practical" deep bass horn I've ever heard was 3 feet high x 2 feet deep x 7 feet long and used two 15 inch drivers per channel. But still the bass wasn't musical. Note that I was considering this option with Oris horns at one time but costs, added complexity, and the phasing issues kept me away from adding it to my dedicated listening room. But IMO except for efficiency and dynamics my Bob Brines designed/built FTA-2000 that use a single Fostex F200A per channel in a moderately sized mass loaded transmission line cabinet does better for less money. Check out Bob's forum here. No perfect speaker, each must pick his own compromises. Single drivers are simple, provide active connection to the amp, provide point source imaging, no crossover issues, no phase issues, and do a good job in the all important mid-range frequencies.

Subject: Re: What would a horn do for a full range 8" like a Fostex?

Posted by [akhilesh](#) on Sun, 06 Feb 2005 13:04:20 GMT

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Thanks, JLM. Nice post. -akhilesh

Subject: f200a or oris

Posted by [kloss](#) on Sun, 06 Feb 2005 14:07:15 GMT

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I prefer front horns to f200a I have been using f200a for 5 years now have much experience Bob picked my brain before building his system. F200a is a wonderful driver and has near full range response. I get 30hz out of cab in link. But it doesn't have the dynamics of front horns doesn't sound as at ease. Doesn't have the image size. But is much cheaper to build due to cab design. I have

bass horns and other cabs that have mated great with front horns but you are right its not easy. But is worth it in the end I have both f200a and front horns plus others in my systems. I have also used f200a in front horns sounds very nice but no treble gets lost in the horn.
<http://www.audiocraftersguild.com/Xtreme/xtreme.htm>
