
Subject: Reverse Horn ?

Posted by [Anonymous](#) on Thu, 25 Jul 2002 19:34:13 GMT

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The question of the day is.. Lets compare two scenarios and perhaps you can tell me what is going on. Scenario one. You have an 8" midbass driver in a box crossed over from 70hz to 500hz. Scenario two. You desire to replace that 8" inch driver with a 12" midbass driver but don't have the space on the front baffle of the box because there is only 8" width available, so you compromise a little bit and you recess the 12" midbass ~6" to 12" inside the box and taper the wall so the energy squirts out of the 8" opening on the front baffle. Questions are; How much sensitivity will you lose, isn't this sorta like a reverse horn effect sensitivity-wise? How much more "punch" in the music do you gain, if any, vs. the 8" driver?

Subject: Re: Reverse Horn ?

Posted by [Adam](#) on Thu, 25 Jul 2002 19:48:54 GMT

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As long as you maintained the cross-sectional area, the design you are describing would almost be a transmission line listening from the end of the line.. I'm not completely sure what the effects would be, you'd probably have resonances within the chamber... Umm other than that I'm not completely sure what the effects would be. I'd say some beaming at higher frequencies, again depending on the design. You wouldn't really gain anything going from an 8" to a 12" midbass in this application. It won't necessarily sound any better, although the 12" would have more output capability because of the increased cone area and likely excursion as well. Still, a good 8" midbass, in the right box crossed at 70-80 Hz should be able to hit 105-110 db without overexerting, so it depends on your design goals... Why do you want to switch? Maybe you could use two 8's? Adam

Subject: Re: Reverse Horn ?

Posted by [Anonymous](#) on Fri, 26 Jul 2002 00:40:44 GMT

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Well, I did some crude tests with a 10" eminence beta 10. Putting this woofer in a box, then placing *it* inside another box that was about 3x longer to simulate the recessed part seemed to give me louder bass, more directional since it was shooting out the big box, similar to a horn loaded box but with no expansion horn. hehehe Placing a board to cover the opening (at a 45 degree angle) about 1/3 to 1/2 just seemed to suppress the SPL and alter the freq slightly. Appears that I choked the bass output - haha *BUT* it was still louder and more punchy than just having the box sit there in open space. Horn loading does rule, too bad I don't have the room to make what I really want to

make. There is no magic bullet. For now, I will stick with my traditional design, perhaps someday make a horn loaded system. hahaha do like the chest pounding midbass from concerts.
