Subject: Small(ish) wall mount for H.T.
Posted by dwkurfma on Fri, 26 Aug 2005 14:40:45 GMT
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I was talking to a friend this morning that is building a new room out for home theater and is beginning to look at the speaker situation. He is interested in having speakers that mount on the wall with a slight downward tilt to ensure they stay safe in the future from little hands. He won't want this to be very deep, and not high end priced. I'm thinking a theater 3Pi in a 2 cubic foot *sealed* box would do the job rather nicely since this will be tied in to a pair of subs. This would permit a much more manageable size than vented. Something a little like a JBL 8340A, but less money. (The JBL is vented - http://www.jblpro.com/cinema/JBL_8340A.pdf)Thoughts, observations, suggestions?Dan

Subject: Delta 12LF alignments
Posted by Wayne Parham on Fri, 26 Aug 2005 17:41:15 GMT
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That sounds good, but I'd definitely run it vented. A Delta 12LF in a 2.0ft3 bass-reflex box tuned to 40Hz has f3 of 48Hz and f10 of 33Hz and the response curve is nice and flat.You can make it slightly overdamped if the room conditions merit it by tuning slightly lower, which gives rolloff slope similar to that of a sealed box. For example, tuning to 38Hz gives f3 of 50Hz and f10 of 32Hz, tuning to 35Hz gives f3 of 55Hz and f10 of 31Hz and tuning to 30Hz gives f3 of 60Hz and f10 of 30Hz.A Delta 12LF in a 2.0ft3 sealed cabinet is OK too, but f3 is 80Hz and f10 is 40Hz.

Subject: Re: Delta 12LF alignments
Posted by dwkurfma on Fri, 26 Aug 2005 19:14:20 GMT
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Thanks for the suggestion. I have a couple of different modeling tools I use and the one shows B4 as 3 cf @ 44 for f3 of 44; Bessel as 2.5 cf @ 35 for f3 of 53. When I run WinISD I get a slight bump (only about 1db) and then a faster drop than you are getting, but it isn't bad. (Using Fs 51, Qts .47, Vas 2.4) A 3" duct would run 6-8" depending on the tuning and could easily fire out the bottom of the box.I think of this as overdamped in the same sense that increasing size in a sealed box drops system Q. I have used this approach before in bookshelf systems. For instance dropping Fb from 55 to 42, knowing I wouldn't be sacrificing that much power handling above Fb and that I would now be safe on low 'E'.Dan