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Subject: Re: It seems that the problem is the rear chamber  
Posted by [Wayne Parham](#) on Tue, 29 Aug 2006 14:18:13 GMT  
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That's exactly right. The rear chamber volume sets the resonant frequency along with the mass, because rear chamber volume determines overall compliance. In my basshorn design, I've balanced the rear-chamber and front-chamber with the driver to get better response than the LABhorn, but it does take a pretty small rear chamber to do it. Brad Litz did this too. It's actually slightly larger than what is used in the LABhorn, large enough to build a box around the driver. The frequencies are low enough that everything is pretty large, and even a small rear chamber is big enough to work with. What's really difficult to work with are rear chamber volumes so small that the box has to contour around the magnet. I run into this with midbass horns. On midrange horns, I'm not usually worried about excursion, so I sometimes design them for open backs or large rear chambers, which act the same. I'm not usually looking for LF from a midrange horn. But midbass horns can potentially have cone excursions that make me want to use reactance annulling with a smaller rear chamber. On those, sometimes the rear chamber size required to do that is so small it's practically a sealed back driver.

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