
Subject: cabinet maker screwed up again

Posted by [replay](#) on Sun, 17 Mar 2002 00:47:57 GMT

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okay, my cabinet maker just dropped off my (lima demo's) premium stage 4 pi's. they look gorgeous finished in mahogany veneer. here's the problem, i gave him exterior dimensions (based on 1" cabinets) but he made them in 3/4" and the port which was to be 10" in length is now 10 3/4" in length. so now my cabinet's have a little extra volume and the port is a 3/4" too long. will it matter? i plan on installing the drivers next week. wayne, i need your expert opinion. cheers, george

Subject: Re: cabinet maker screwed up again

Posted by [Wayne Parham](#) on Sun, 17 Mar 2002 02:18:26 GMT

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On the volume - It's no problem. For one thing PiAlign tends towards smaller cabinets and volume tolerance is pretty large, and for another, we could always add displacement material inside if we found it to be out of tolerance too much. On the port - Can you remove 3/4" length? Does the cabinetmaker have tools that could easily remove this much material from them? They are pretty close to the rear and side of the cabinet, so it might be difficult. But the port dimensions require much tighter tolerance. I honestly think that you're OK, and certainly this is true with the overall cabinet dimensions. You'll find that if you go one direction - towards overdamped - the bottom cutoff frequency strats to rise rapidly after a certain point. But until you reach that point, response doesn't hurt much by being a bit overdamped. And going the other direction, you'll reach a point where peaking starts to rise fast. Before that, you aren't going to have a bad response curve and can barely tell the difference and then suddenly, there's nothing you can do to remove the peak. So those two points - one towards the overdamped and the other towards underdamped - are what I'm talking about when I say "in tolerance." The window between these two events is pretty wide for PiAlign'ed cabinets. It's a very conservative alignment. So that 1/4" is almost nothing, so as long as its braced sufficiently, you're in business. And I'll check the response curve for the port and double-check my assumption on the cabinet volume too. I'll let you know by tomorrow afternoon.

Subject: Re: cabinet maker screwed up again
Posted by [Adam](#) on Sun, 17 Mar 2002 02:53:16 GMT
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Yep.If anything, I'd say it would even sound better. Larger cabinet, similar tuning... More deep bass.Adam

Subject: Re: cabinet maker screwed up again
Posted by [Wayne Parham](#) on Sun, 17 Mar 2002 03:06:39 GMT
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I think it will probably be alright too. The only thing I want to check is that it not slide off towards being underdamped, which would cause it to sound boomy. But I don't think the shift is all that great. The alignment has pretty wide tolerance, so the shift would have to be large to upset it.

Subject: Re: cabinet maker screwed up again
Posted by [bmar](#) on Sun, 17 Mar 2002 11:45:31 GMT
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Georgel can transport the drivers, if you would like to test the JBL 2226 in your new cabinets at Lima, Midwest Audiofest. I dont know if the hole and bolt up is a match or not.Bill

Subject: BoxPlot shows minimal difference in response
Posted by [Wayne Parham](#) on Sun, 17 Mar 2002 11:58:09 GMT
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I ran some simulations and you're going to be just fine. Response changes only imperceptively.

In fact, you've got a pretty large window of 30Hz and 10 cubic feet to 45Hz and 2.5 cubic feet where response is linear. So don't make any changes unless the port is too near the rear of the cabinet. As long as you've got a couple inches clearance, you'll have the same response with the dimensions you gave as with those specified in the plans.

Subject: Re: cabinet maker screwed up again
Posted by [replay](#) on Sun, 17 Mar 2002 14:37:46 GMT
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hi bill, i'm loading the cabinets with kilomax 15" and bringing along the psd2002 with the h290. i'd love to try the jbl's but am concerned if the box is right for this driver. the woofer cutout is 14" so it should fit. cheers, george

Subject: Re: cabinet maker screwed up again
Posted by [mikebake](#) on Sun, 17 Mar 2002 17:52:13 GMT
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Hey Bill, remind me what you are bringing.....if you want to use a pair of my 3115's so you don't have to haul yours, let me know.