
Posted by [Adam](#) on Mon, 14 Jan 2002 14:06:54 GMT

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Thanks for the response Wayne, makes me feel better about the whole setup. I should tell you exactly what I did... PIALIGN recommended an overall horn size to me that was within an inch or two of 24"x24"x48", I just fudged the numbers a bit to fit that which is fine. Pi Align *also* recommended a 2.2 cuft ported chamber which it said was like 10"x17"x23" or something like that. Now, when I apply the 24"x24"x48" recommended horn size into the ratios in the plan, the result is a ported enclosure that is 8" deep, 16" high and 24" wide, which is *different* then what PIALIGN gives me. This chamber is only 1.77 cuft in internal volume. After factoring in about 0.4 cubes of displacement for the woofer, 0.4 cubes for the horn lense and compression driver plus a bit of extra for bracing and port, the result is a 0.77 cuft enclosure for the woofer, which is wayyyy too small! The only thing the top chamber does is compensate for these two discrepancies by adding an additional 1.4 cuft of box volume, to bring things up to the desired 2.2. I currently have about a .5 cuft of old books inside the box to displace the volume that the compression driver lense would normally take up. Unless I made a significant design error, the overall horn size that PIALIGN gave me is correct as is the internal box volume and tuning. It's actually more correct then if I had made the entire design bigger (increase box volume without the extension and thereby increase the proportions of the bass horn). Anyway, I'm not a bit surprised about the other things and I'm glad they'll be cleared up. Right now I can't afford all that hardening foam, so I am going to attempt to use some conventional bracing on the two reflector panels... But I doubt it'll work. If it would, I suppose you would have done it that way! :) Anyway that's the story on the enclosure volume, I hope you can provide some input. I know I didn't mention the discrepancy between what PIALIGN told me and what the ratio plan was telling me, but I felt I had asked enough questions of you for the time being and didn't want to be a bother. Thanks! Adam