Subject: 3 Pi subwoofer build
Posted by Audiozipper on Mon, 27 Mar 2017 19:22:26 GMT
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Hi All,

I'm building a 3 Pi subwoofer which is my first attempt at a speaker build so I'm sure my questions are pretty basic. I'm thinking about adding some bracing to stiffen up the baltic birch panels of this 20 x 20 x 20 enclosure. I'm using 3/4 x 1-1/2 maple as the bracing and am planning to add them to the top, bottom and sides then bridge the top to the bottom and the two sides to each other. The total length of the maple is 111" with a total volume of 0.072 cubic feet. This Is about 2% of the total volume of the enclosure. The question I have is is it better to stiffen up the enclosure with the bracing even though the plans did not specify bracing or would reducing the internal volume of the enclosure by 2% negatively impact the design or sound of this subwoofer.

On a similar note the plate amplifier I'm using is a Dayton SPA 500. The back of the amplifier has a plastic covering to protect the electronics. The size of the cover is approximately 9-½ x 9-½ x 5". I was planning on cutting a hole in the back of the subwoofer and mounting the amplifier flush with the back panel. The plastic covering of the amplifier would then protrude into the subwoofer decreasing the internal volume of the enclosure by approximately 5%.

Would this negatively affect the performance of the subwoofer? Would I be better to mount the plate amplifier in such a way that it wouldn't protrude into the enclosure.

Can the length of the port specified for the 3 Pi sub be adjusted to compensate for a decrease in the originally designed internal volume of the sub?

Thanks for any help/advice,
Lee