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Subject: Help a newbie! Please?

Posted by [Claudio Rocco](#) on Sun, 25 Jun 2006 00:25:40 GMT

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Hello speaker builders, thank you in advance for all the help you are willing to give. I just purchased a pair of Two Pi Tower kits, and want to make the cabinet using 13/16" marine plywood with 1/2" natural wood around the inner plywood box, on all sides plus a plinth or base for the tower. My questions are: 1.- What inner dimensions should I respect in a Two Pi Tower box? The plans detail only outside dimensions of 46"x16"x13". 2.- The thicker or stiffer the baffle, the larger the port hole must be? Why is that? 3.- The "General Tips" file says "Remember, you can't overbrace!". Does that mean I should use as many braces as possible? Or does that mean only to use enough bracing as recommended in the plans?

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Subject: Re: Help a newbie! Please?

Posted by [Wayne Parham](#) on Sun, 25 Jun 2006 02:54:15 GMT

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baffle thickness changes is because the baffle thickness sets the length of the port. A thicker baffle makes a longer port, and that changes the Helmholtz frequency. There are some alternate port sizes in the post called "Port size for thicker baffles", so that may help you find the right size cutout if you use a thicker baffle. But you might want to reduce baffle thickness in the area around the port cutout to keep it in range. Bracing is important in that it keeps panel vibrations to a minimum. It is important that the cabinet not add sound of its own, and you should be able to strike the cabinet with your knuckles and not hear a resonant "drum head" sound. That said, the

another a third of the way down. They should be cross braces or window braces and they should double as a place to hang partitioning pieces of insulation across the cross-section of the cabinet. You want insulation to line the top, one side and the front (up to the woofer) and then you want two pieces of insulation to span the cross-section, resting on the braces. This breaks the cabinet into three partitions, and midrange energy cannot pass through, only bass. The cross-section insulation impedes standing waves from setting up inside the cabinet.

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Subject: Re: Help a newbie! Please?

Posted by [Claudio Rocco](#) on Sun, 25 Jun 2006 18:54:14 GMT

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Thank you Wayne. I understand now, and will use a single 13/16" plywood for the rear side, with the right diameter as described in the "Port size" post. Should I flange the port hole on one or both sides using a router bit? Would that change the length required for the right Helmholtz frequency?

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Subject: Re: Help a newbie! Please?

Posted by [Wayne Parham](#) on Mon, 26 Jun 2006 04:07:44 GMT

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Slight rounding would be fine, but not necessary. The port isn't even close to being turbulent because it is so large.

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