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Subject: 2 Pi tower build questions

Posted by [OneBean](#) on Sun, 05 Jan 2020 05:26:47 GMT

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I'm working on building cabinets for a pair of 2 Pi towers now. I have been reading through old posts, looking for guidance and tips. Barryso posted a great follow up on his 2 Pi tower build, and the details it took to get them sounding their best. Thank you Barryso. This answered a few of my questions, and gave me a couple more. Any help with the following topics would be appreciated.

Can I flush mount both the tweeter and mid/woofer? I saw a post mentioning that when the tweeter is below flush, it caused some harshness in the sound. I have the capability to cut steps in the front baffle to allow both drivers to be flush, but should I?

I read some messages about adding rope caulk to the basket of the mid/woofer, to clean up the sound. Does anyone have a picture of this? How much should I use, and where should it be applied? I have some left over dynamat from another project. Would it be effective to cut some strips of dynamat and stick it on the legs of the basket? Would one side be enough, or should I put a strip of dynamat on the inside and outside? Should I dampen the tweeter at all?

I read where Wayne prefers R-13 fiberglass insulation. I plan to use the type with no paper face. How should I attach it to the top, side, and front of the cabinet? Staples? Spray contact cement? Something else? I just don't want it falling off after the speaker is assembled.

I'm a little confused on the placement of the insulation attached to the bracing. Does the insulation attach to the top, bottom, and each cross brace, creating a "wall" between the front and back? I assume the main function is to stop higher frequencies from coming out the port on the back. Sorry if this is a dumb question, I just can't quite visualize it.

I'm planning to build these with the crossovers external, so I can swap caps and resistors (brands and types, not values) to see if it changes the sound. Once I have a combination I like, I'll solder all the components solid. Are there any rules to follow with external crossovers? I am planning to build them on some small scraps of 3/4" plywood, and add some small rubber feet to the plywood.

Please share any other details you think made a visual or sonic difference to your 2 Pi's. Thank you.

Onebean

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Subject: Re: 2 Pi tower build questions

Posted by [Wayne Parham](#) on Mon, 06 Jan 2020 14:48:01 GMT

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The woofer and tweeter can be flush mounted, yes. Some people apply rope caulk, but I cannot measure or hear any difference. But you just stick it on the frame. It's like modeling clay. As for the insulation, remove the paper barrier and glue the insulation to the cabinet panels and on the

braces. You can staple it, but I wouldn't because one of the staples might come loose and bounce around in the cabinet. Install the insulation on the braces like shown in the thread below:  
two Pi tower insulation

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Subject: Re: 2 Pi tower build questions  
Posted by [Barryso](#) on Tue, 07 Jan 2020 13:45:04 GMT  
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Hi Onebean,

Glad you're having success with your build.

I've used rope caulk for many speakers and find it works well to dampen pressed steel woofer frames. It's also helped to put a bit of felt on top of the rope caulk where the frame faces the woofer cone. It's easy to secure the felt in place with long plastic ties.

The felt and the rope caulk are removable if you don't like the changes. I've tended to like the effect.

The one place I can tell you not to use the rope caulk is to seal the 2 Pi woofers to the cabinets. The back of the Eminence driver has a paper gasket and adding the rope caulk will bond to the paper gasket over time. Then when you try to remove the woofers they'll require too much force and you'll find the paper gasket gets torn up. It's a mess. Better to use weatherstripping (stuck to the cabinet rather than the woofer) or cut gaskets from shower pan liner like Wayne recommends.

Or, if your woofer cuts in the cabinet are clean don't even mess with additional gaskets. I only used the filler because the woofer cutouts are very uneven.

But do try it on the woofer frames. It's a fun, cheap tweak.

The crossover part swaps are interesting, too. The inductor got swapped for a 14 gauge unit and a small 0.1 cap was bypassed on the tweeter cap. Did both of the changes at once and found the towers sounded a bit richer. Bet if you had 10 people in the room 1/2 would like them better as they were and the other 1/2 would like the changes.

Fun to play, though.

Barry

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Subject: Re: 2 Pi tower build questions  
Posted by [OneBean](#) on Tue, 07 Jan 2020 17:02:37 GMT  
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Thanks for the advice Barry. Did you build the tower or the bass reflex?

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Subject: Re: 2 Pi tower build questions  
Posted by [Barryso](#) on Tue, 14 Jan 2020 23:29:21 GMT  
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I've got the 2 Pi Towers. They are just sublime with a 2A3 amp. Heard them both at the 2007 Lone Star Audio Fest and couldn't convince myself not to buy them.

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