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Subject: More info and help with the 1pi speakers

Posted by [jillvalentineforever](#) on Mon, 28 Jul 2014 06:33:42 GMT

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First and foremost what is the lowest frequency I can get out of 1pi speakers?

Eminence alpha 8 drivers frequency range is 58hz-5khz is but their resonance is 73hz.

I heard things about speakers won't produce frequencies loudly below their resonance frequencies, but they will still produce it.

So if the plan gives me between 60hz-65hz I'll be happy! I'll also be using them in the bookshelf mounting very near a wall, so might give some bass extension.

When I get the plans and parts required, I will start measuring up and cutting the required pieces.

I'll be using 18mm structural plywood which is in great condition, but what concerns me is finishing the edges off.

I'd much rather use wood stain than veneer( as decent stuff is too expensive and difficult to apply) to finish the cab off.

I don't own a router, so I can't round the edges off, but might be able to achieve it with an orbital sander?

Also what crossover parts are needed for this plan when using the Motorola KSN1038A piezo (very luckily for me an ebay seller still has genuine parts in stock) instead of the dome tweeter?

The reason for going for the piezo is they will be used for house parties too, so don't want to blow a dome tweeter.

Plus piezos sound crisper and give that certain sparkle needed for roots reggae vinyl which I'm be mostly playing/mixing.

My building skills are not too great, so I hope decent wood glue and a corner pine support screwed on both sides with be adequate?

I cannot build anymore advanced joints.

I'm unsure whether to use t-nuts or just wood screws to hold the Eminence alpha 8 driver in, hence it being a small 8 inch driver with a 20 oz magnet.

Last but not least how would I successfully join and mount crossover components?

I normally use off-shelf crossovers when building pa enclosure designs. Such as Eminence, Beyma and others.

I've made simple custom crossovers sometimes though.

Joining I guess a good solder joint and heat shrinking for connections would do?

For mounting them, I know a hot glue gun would work well and cable ties to hold larger components down.

Is it acceptable to use a piece of say 12mm plywood to mount the components to? Then glue and screw that to the bottom or back of the enclosure?

As I've never used pcb's when making my own custom crossovers.

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Subject: Re: More info and help with the 1pi speakers  
Posted by [Wayne Parham](#) on Mon, 28 Jul 2014 15:53:16 GMT  
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speakers are that way - Best if used with subs.

may not have the SPL capability for what you're trying to do.

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Subject: Re: More info and help with the 1pi speakers  
Posted by [steve f](#) on Tue, 29 Jul 2014 17:03:56 GMT  
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The PI one is a nice little speaker. I've made it exactly as Wayne designed it, and I've made a couple of alternative alignments too. I personally prefer it to the model two just because I find the upper midrange to be a bit smoother.

JVF I'd suggest you build the ones just because they are very good. That said, they aren't a good house party speaker, unless you cross them over to subs. The two is a bit "punchier" sounding, still very portable, but if really loud or bass heavy music is going to be played, subs are recommended.

That said, both the three and four are great speakers. Both are big, heavy, and will outperform almost anything out there. The trade offs are lower bass response for the three and more efficiency for the four.. In either case, your costs go up significantly over the one and two PI's.

BTW the one and two speakers are easy builds. The woofers can be attached with screws. So go with Wayne's suggestion. The four is probably an ultimate party speaker, that happens to work great as an audiophile speaker too. But, since you have the parts for the ones, build them too. You'll enjoy them..

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Subject: Re: More info and help with the 1pi speakers  
Posted by [jillvalentineforever](#) on Sat, 02 Aug 2014 00:04:01 GMT  
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If I say went for the dome tweeter option over the piezo, what is the dome tweeter make and model called?

And does the mid/bass driver crossover have 2 inductors on it or just one?

Also the plans say to use 15mm wood, but I have only got TONS of 18mm birch plywood sitting around.

Would the 3mm extra thickness make much of a difference?

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Subject: Re: More info and help with the 1pi speakers

Posted by [steve f](#) on Sat, 02 Aug 2014 03:07:03 GMT

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You are fine with thicker birch ply. Just keep inside volume the same as the plans.

Only one coil on midwoofers.

The dome tweeter is still the Vifa.

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Subject: Re: More info and help with the 1pi speakers

Posted by [jillvalentineforever](#) on Sun, 03 Aug 2014 18:04:47 GMT

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Which model of Vifa tweeter is that?

And for the 0.5mh inductor I can only find RF chokes in that value, are they suitable?

Or whereas in the UK can I get suitable crossover component parts?

Thanks

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Subject: Re: More info and help with the 1pi speakers

Posted by [Wayne Parham](#) on Sun, 03 Aug 2014 23:23:19 GMT

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RF chokes usually have tiny conductors, and you really want larger guage coils. I'd suggest looking further, because a 0.5mH air core coil is not rare.

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