
Subject: Pi 4 Stage Series plans, and a few questions?

Posted by [stgrenier](#) on Sat, 10 Mar 2007 16:14:39 GMT

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Wayne, could you send the plans for the Pi 4 Stage Series? Thank you!! I'd like to build some speakers for use in an audio and home theater setup. I like the idea of the Pi 4 Stage Series, as I can upgrade to JBL drivers at a later time when funds allow. I do have a few questions before I proceed, thanks in advance for any help. 1.) I'd like to stand these on top of the storage cabinets I use to store my music/movies, but I'm not sure if they're too high. The cabinets are 26.5 inches high, and my listening position is 10 feet away on a couch. Also, do you think standing them on cabinets will cause vibrations or other issues? I've included the URL to the actual storage cabinets, if anyone is curious. 2.) How heavy are these, if build with MDF? I'd like to use the Pi4 Stage as a center channel, too, which means I'll need to mount on the ceiling or the wall behind the TV. Are these too heavy to mount? If not, can anyone recommend specific wall mounting brackets? 3.) I'm a complete newbie to building speakers, is there a resource online that someone recommends that covers, in detail with photos, how to build these? I'm talking more about the basic construction, and leaving the physical look (wood veneer, paint, etc) aside for the time being. Basic box construction. What do you use to secure and seal the four sides, glue/sealant, screws, etc. Bracing. Where are the braces mounted, how many, of what material, how are they installed (glue? screws?). Installation of the driver. Do they have to be recessed, what tools are recommended, do you use a sealant, etc. Installation of damping material. What kind, how much, etc? As you can tell, I'm clueless about all this. I've actually read quite a bit in this forum the last few years, but many of you appear to have extensive experience, and tend to discuss design theory as opposed to the more elementary topics highlighted above. Any help would be greatly appreciated. Regards, Steve
Jewel Chest CD Storage

Subject: You've got mail! (And a few answers)

Posted by [Wayne Parham](#) on Sun, 11 Mar 2007 03:47:20 GMT

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I would prefer to see the speakers a little lower than 26". They'll work OK there, but floor bounce will give you a notch at 125Hz. Move the speakers down a bit and the notch will go away. It isn't a deal breaker, but I'd prefer the speakers to be lower than that, maybe on stands a few inches to

Pics When you get the plans, you'll see that cabinet construction is pretty basic. You can use butt joints, which are as simple as it gets. Just flat panels glued together at the edges. No diagonal cuts, no dados. You will want a brace from front baffle to rear, in between the woofer and tweeter. You can also run one from side to side. Put R13 insulation on the bottom, side and rear of the cabinet interior. That's all there is to it!

Subject: Re: Pi 4 Stage Series plans, and a few questions?

Posted by [dB](#) on Sun, 11 Mar 2007 23:11:03 GMT

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I like Wayne because he has lots of resources like this one (JBL) here. Also, just look around on google under the name "Rigging Speakers" or "Basic Principles for Suspending Loudspeaker Systems" (Picture from) <http://www.rigging.net/>
Basic Principles for Suspending Loudspeaker Systems

Subject: Re: Pi 4 Stage Series plans, and a few questions?

Posted by [dB](#) on Sun, 11 Mar 2007 23:16:52 GMT

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also check on page 7 of this document: "The FRi Series features internal heavy gauge steel reinforcing brackets that are not only designed to provide high safety factor support for the 3/8-16 forged eyeboltrigging, but also to unitize the internal panels for each enclosure. These corner braces are required to maintain the structural integrity of the cabinet to performance levels listed in this manual."

F R i electrovoice rigging

Subject: Re: Pi 4 Stage Series plans, and a few questions?

Posted by [dB](#) on Mon, 12 Mar 2007 01:09:11 GMT

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I would see under the names of DIY (speakers) and Enclosure Assembly. If you use screws with glue is better but you will be much more tired from that. The white glue (carpenters glue) is the best one. It all depends if you use wood, particle board or plywood, MDF and also about its thickness. MDF (and veneer) is very well accepted. YOU ALSO NEED GOOD LONG CLAMPS TO LET THE WOOD/GLUE DRY. "...you can never have too many clamps." CHECK ALSO WEBSITES LIKE

THIS http://happycarpenter.blogs.com/the_happy_carpenter/carpentry/index.html

PE - Browse Projects

Subject: Re: Pi 4 Stage Series plans, and a few questions?

Posted by [Wayne Parham](#) on Mon, 12 Mar 2007 01:46:23 GMT

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Great links, thanks!

Subject: Re: Pi 4 Stage Series plans, and a few questions?

Posted by [dB](#) on Wed, 14 Mar 2007 19:04:07 GMT

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My 10 cents. From Japan.
