Subject: 4 pi speakers with existing cabs
Posted by Jerry Look on Wed, 01 Jan 2020 22:14:30 GMT
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I've been interested in building some 4 pi speakers for a while now. It's been on the back burner because of so many other projects. I just picked up some speaker cabs that are almost perfect for this.

I bought some TOA speakers that were installed in a church. They have no corner protectors, handles, or other junk like a normal PA speaker. They are 3/4" mdf construction. The cabs are
27" tall
19" wide
15" deep

Very close to the 4 pi dimensions. The speakers have two 3" ports. The cabs are pretty solid. I do plan to add some bracing on the sides and back.

My questions are these-

Can I sub the JBL 2225 in place of the 2226?

Can I sub the PRV D290py in place of the B&C DE250?

I assume I should keep only one of the ports per cabinet. What length would a 3" dia port need to be to tune the 2225 woofer? Or the equivalent cab tuning to the rectangle port that is on the 4 pi.

I appreciate any help you guys can offer. Here is a pic of one of the cabs I'm working with.

File Attachments
1) 3F93B747-F5B6-4C8C-A95E-BAF3EFB53341.jpeg, downloaded 732 times

Subject: Re: 4 pi speakers with existing cabs
Posted by Wayne Parham on Wed, 01 Jan 2020 23:48:19 GMT
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That looks like a really good speaker, but honestly, I wouldn't use it because it's an unknown variable. The four Pi loudspeaker has been designed and tested thoroughly and so we know how it acts. In particular, I'm concerned about the internal standing waves, because they tend to create modes in the lower midrange in a cabinet this size.

So I think you'll want to take advantage of the R&D that's already been done on the four Pi loudspeaker. It's worth more than the cost of the cabinets. Besides, you'd have to cut a new

baffle anyway, so I don't think you'll save much effort by re-using the cabinet.

Sorry to further disappoint you but the 2225 won't work in the four Pi loudspeaker. It's an excellent driver - and it works great in the seven Pi cornerhorn - but not on in the four Pi model.

Please see the Pi Speakers FAQ for more information.