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Subject: One, Two or Two Tower  
Posted by [etet](#) on Thu, 08 Apr 2010 08:32:07 GMT  
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Wayne,

I'm just getting back into audio after a long hiatus. I'm currently building A SET amp and plan another PP amp with these running 3 to 15 watts. My question is which kit to build first...will the slightly larger pi two provide significant improvement over the Pi one...and what of the Tower. I'm looking for accurate reproduction. Plans for all three please, and your recommendations.

Thanks  
et

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Subject: Re: One, Two or Two Tower  
Posted by [Wayne Parham](#) on Thu, 08 Apr 2010 12:53:00 GMT  
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The differences between the three speakers are found mostly in the bass, as you might imagine. If you are planning these as main speakers, I'd suggest the towers. If they are to be used as

similar. Both are perfect for surrounds.

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Subject: Re: One, Two or Two Tower  
Posted by [etet](#) on Sat, 10 Apr 2010 06:03:34 GMT  
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OK, just ordered the 2Pi kit, I might build both bookshelf and tower, probably will...here's a dumb question, I saw reference to a left and right bookshelf enclosure, if this is correct does the port go to the inside or outside in use?

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Subject: Port position  
Posted by [Wayne Parham](#) on Sat, 10 Apr 2010 14:10:53 GMT  
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Port placement on my speakers is really just an aesthetics thing. I think they look better when made in mirror images. When someone orders a single speaker, I'll ask if they want one with the

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port on the left or the right. But this isn't all that important to the acoustics.

The sound coming from the port is so low in frequency that the position of the port is almost completely irrelevant. Now in the tower, its position matters because of internal standing waves and how pressure nodes line up inside the cabinet. But this is a different matter, and really only applies to the harmonics, not the fundamental. By the time the sound exits the port, what comes out is mostly the Helmholtz resonant frequency, and that's low enough that port position doesn't matter.

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Subject: Re: Port position

Posted by [etet](#) on Sat, 24 Apr 2010 03:22:04 GMT

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OK, well I got my kits yesterday and will start to build soon. So if I understand you correctly it's OK if I put the ports in the center under the woofers?

Thanks  
et

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Subject: Re: Port position

Posted by [Wayne Parham](#) on Sat, 24 Apr 2010 14:00:57 GMT

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Yes, that's fine. On some of the larger speakers, I would be a little hesitant to make changes without measurements. Larger cabinets tend to have internal standing waves at lower frequencies where they can cause problems. Port and woofer location within the cabinet, and sometimes port length and area matter in a cabinet like this, because they can fall on a pressure node in a frequency range where they'll be heard. But smaller cabinets have standing waves at higher frequencies where the internal insulation is very effective at damping them.