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Subject: Re: 4pi Commercial Dinner Theater Build  
Posted by [dutchswan0311](#) on Fri, 22 Jul 2011 12:44:11 GMT  
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@justphil...I did end up purchasing those exact tubes that you linked to. While Wayne's opinion is well received, I do not think I will be veneering the 1pis, and think I will like the look of the flared port. If only I could find a 3 3/4" hole saw locally! It seems like they have everything but. It literally goes from 3 1/2, 3 5/8, 4, 4 1/8, 4 1/4. It's almost like the universe knew I was coming to buy the 3 3/4 and plotted against me.

On a different note: I did my first ever clamp and glue job. I must say this is much different than screwing things together. It went...poorly. Here is what I learned on my 1st 1pi:

1. Tightbond dries much faster than I expected
2. Tightbond is much runnier than PL Premium. I think I do not need to apply quite as much. I had the stuff dripping everywhere.
3. Even though the cabinet is small, 8 clamps is not enough. One needs at least 12 clamps. I will be purchasing 4 more tonight.
4. For some reason I am able to cut completely straight panels for larger cabinets, but smaller cabinets are harder to make exact. This point is still a mystery to me. Perhaps I was just having a bad day.
5. You cannot glue it together on a flat surface, as your clamps need space to hang. Another obvious point, but not so obvious until I started putting things together. I had to quickly figure out where to put the cabinet and balancing on a saw horse seemed like the best answer at the time.
6. When drilling the 1/2" holes before the tweeter cutout, make sure to have the back of the panel against another piece of wood that you do not care about. I found that the last layer of ply likes to break off instead of being drilled, even if you are careful. Drilling against another piece of wood should prevent that.

In the end, my first 1pi should be okay, I just have a lot of sanding in my immediate future. I used 3/4" Baltic Birch. Since the 3/4" Baltic Birch is actually 11/16", I adapted the extra thickness to Wayne's design by making the width 12 5/8" and the height 18 5/8". The depth is unaffected by the thicker wood, as the side panels need only remain at 7 1/4". Overall, these measurements (unless I am wrong) should maintain the same internal dimensions as the original design.

One last point. At first I could not figure out why the instructions did not identify the center of the port like it did for the tweeter cutout. Instead it showed the edges of the port 1" from each the right side and bottom of the cabinet. When I decided to go with a flared plastic port, I realized the reason for this, as the cut-out diameter increases from 2 1/2" to 3 3/4". If there were a fixed center for the port, the larger cutout would take me off the side of the panel. These points may seem immediately obvious to those of you who build these on a regular basis, but for the first timer they are not.

## File Attachments

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1) [lpi01.jpg](#), downloaded 6695 times

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