
Subject: Theater 4 Pi project

Posted by [newsjeff](#) on Fri, 07 Nov 2003 23:44:16 GMT

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I am within a few weeks of starting my Theater 4 Pi speaker project. This will be my first attempt at speaker building. Needless to say, I am still a little unsure of what I need. A friend on mine is going to cut the MDF for me. Other than that, I am on my own. Here's a list of what I plan to buy. Any help and/or suggestions would be most welcome:

- (2) Theater 4 Pi speaker kits
- Porter-Cable 690 router
- Carbide router bit set
- Jasper Circle Jig model 200 3/4" MDF 1"x 2" bracing (Dumb question: What's the best way to attach the bracing to the MDF?)
- Saw horses
- Elmers wood glue
- Square Various clamps
- R-13 fiberglass insulation (Another dumb question: What's the best way to attach the insulation to the MDF?)
- NBL Wood-Backed cherry Veneer Sheets (Should I put polyurethane over the veneer?)
- Hide glue for attaching the veneer
- Double edge veneer trimmer
- Contact Cement
- Roller Covers
- Welborne Labs stranded copper 18 gauge speaker wire for hookup (Any idea how much I will need?)
- (2) 18" Economy speaker grills from Parts Express (any other, better looking options for grills?)
- (2) Large Grill Clamp Kit from Parts Express

**Do I need screws for cabinet construction? If so, any suggestions? Maybe 5/16" dowels instead? **Any other items I may have missed, may need or would be helpful in my project?

Jeff B

Subject: Re: Here's one to hang on the 'Fridge

Posted by [BillEpstein](#) on Sat, 08 Nov 2003 10:20:48 GMT

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Don't get a router bit set, just the bits you need, which are: 1/4" spiral downcut flush trim Woodcraft part #127466 for trimming the veneer, and 1/4" Straight plunge bit Amana part #45211 from Internationaltool.com for the Jasper Jig. The PC 690 kit is a great router that has the plunge base. Always on special near Christmas. Poplar is a good choice for the bracing. Cut the pieces for a pressure fit and put a dollop of PL400 Deck Adhesive on the ends. Follow the convention of breaking the cabinet up into unequal thirds to change the harmonics. JBLPro has a page on bracing and likes pine 2X4's. Here's a look inside a 4648 cabinet: I'm not sure if using the same material matters (altho' you could get some plywood just for this) an easy way to have just the right size heavy duty bracing is to make it as you cut the top and bottom pieces than rout or cut out the center like my sub-woofer: If you use screws or dowels, you'll only need a few clamps. If you believe in magic, you can always back the screws out after the glue dries. Be vewy, vewy careful not to leave panels proud of edges. Better to leave all edges proud of panels. Edges sand down easy, panels hard. Attach the insulation, after removing the kraft paper, with the PL400. If you use contact adhesive, don't roll it, brush it on. It's too easy to run over an edge with a roller and the glue that gets on the adjacent side veneer is near impossible to clean off. But do pay particular attention to the edges that you have enough. Apply 2 coats to both veneer and substrate. I haven't tried it but users of paper and NBL backed veneer like FSV and MPA glue from veneersystems.com and they have good advice. If you have enough clamps PPR is King. The former 2 types can be "hammered". Forget hide glue. I don't even use it anymore. "Pssst, wanna buy a kilo?" You won't be trimming any edgebands so you won't need the double trimmer. If you do

use contact, don't use a rubber roller, it doesn't allow enough pressure. Use a wooden wallpaper roller or better yet, steal mom's dough roller. If you can afford it, buy a finish nailer combo kit like the Porter Cable at the home centers, compressor and nailer for approx \$200. Much faster and more accurate than screws. Use 18ga. 1.25 nails, coated if possible. Wire depends on what church you worship at, the archives are loaded with wire evangelists rec's. Stranded vs solid comes down to whether the wire will be called upon to flex. It will. So use stranded. 18" plus another 12" or so from front to back of cabinet plus enough to reach from woof input to where you anchor Zobel resistor to terminals. Add enough, about 24" to get motor in/out of cabinet. 30 feet should be enough. Gonna run 1000 watts? Double the 18 ga to the Delta. If you use contact glue, polyurethane is good. Get Minwax Wiping Poly, it's less plastic looking. Most other finishes like Watco, etc will react with contact. With MPA or PPR, Watco is king of easy and beautiful. Or see my plagiarism of 300 years worth of wisdom on Tung oil and finishing cherry links on my website: Merry Pranks Website Creating is more like performing than listening

Subject: You are the man, Bill
Posted by [newsjeff](#) on Sat, 08 Nov 2003 18:30:24 GMT
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Bill, I cannot thank you enough for your time and help. I will be sure to post pics of my speakers when I'm finished. If you live in Virginia, or anywhere close, I'd like to buy you a beer or two ... or more. Thanks again. Jeff B

Subject: Re: Naaah! Just filling in for the Don.....
Posted by [BillEpstein](#) on Sat, 08 Nov 2003 20:40:38 GMT
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.....Don Horno.....who's in the Land of his Forefathers. You know, precision lathes, olives, vendettas and luparas. Creating is more like performing than listening
