Subject: Re: 4 Pi Build in San Luis Obispo - Progress
Posted by Wayne Parham on Sun, 05 Nov 2023 15:38:23 GMT
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The cabinet is pretty simple - it's a rectangular box - so cabinetmakers don't need anything more to be able to cut and build from these plans. They're not like the 12Pi hornsubs, which really is a complicated build, and needs more detail in the drawing. But you're right that the simple plans do leave some stuff out. Most of my plans don't even show the amplifier connection panel - largely because some use Cardas binding posts but others use a different kind of panel - so but I usually just tell people to center them on the back panel, three inches up.

Same thing with the cross-brace. I just tell people to place a cross-brace between the woofer and tweeter. I suggest a pair of sticks make from the panel material, one spanning front to back and the other spanning side to side. Most people do that, but some make a panel brace. Either method works just fine.

The stuff that's important acoustically is shown in the plans though. The crossover schematic, the cabinet dimensions and the placement of the drivers, the port and the fiberglass insulation damping material. Those are important because they determine things like internal standing waves and the shape of the forward lobe and positions of the vertical nulls.

Stylistic details are left to the cabinet builder. Some make a plain box with drivers mounted on the surface of the baffle. Others cut a groove in the front with a baffle with a router so they can recess the drivers and mount them flush. When doing so, the baffle becomes thin so more support is needed. Most cut a round or square panel, glue it to the back of the baffle and cut through it. That effectively doubles the baffle thickness in the area it is needed. Some people paint their cabinets, others veneer them. Some people make grilles, and others don't.

To tell the truth, I've seen some really nice cabinetry displayed here. There are some really talented cabinet makers that have posted pics of their work here. I asked to borrow one of 'em, and hade a cabinet built just like theirs. It's now offered as an option on the three Pi model.