Subject: Comments on this 3-way layout?
Posted by Bill Epstein on Sat, 16 Dec 2006 01:05:54 GMT
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I'm torn between sandwiching everything inside the 21x32x13 cabinet and having a net 3.5 cu ft for the 2226 very close to the ports and .5 cu ft for the 2123. Or building a separate box to sit on top with spikes for the 2123. The tweeter shown will not be the one used but that is the position available.

Subject: Re: Comments on this 3-way layout?
Posted by spkrman57 on Sat, 16 Dec 2006 12:50:50 GMT
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Bill, JBL learned as they went that the "vertical" alignment proved best.I would also think of separate boxes for each driver. That would also allow for voice coil alignment.Just my 2 cents worth!!!Ron

Subject: Re: Comments on this 3-way layout?
Posted by Wayne Parham on Sat, 16 Dec 2006 14:42:24 GMT
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I'd be careful with position and spacing between the mid and tweeter. As crossover points get higher, this geometrical relationship becomes more and more important. At woofer to mid frequencies, the position of the two drivers is less important, they can usually be as much as a foot apart front-to-back or side-to-side without ill effects. If a midwoofer is used and the tweeter crossover point is in the upper midrange overtone region, you don't have feet to play with but you do have a few inches. But once you get into the upper frequencies, it gets harder and harder to sum properly at the crossover point and spacing and position becomes more difficult. So I'd put the midrange and tweeter as close together as possible, keep them in the same vertical plane and use a crossover slope that sums properly considering the driver position on the baffle. This usually means asymetrical, but sometimes a simple first-order will do.

Subject: Re: Comments on this 3-way layout?
Posted by Bill Epstein on Mon, 18 Dec 2006 08:01:20 GMT
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Okay. Going modular. Thanks for reminding me about juxtapositioning the tweet and mid.One box for the 2226, another for the 2123 and tweeter.It didn't occur to me until after I did the design and cut the plywood but the big box is proportioned very much like the 3677 box.Gonna start with the Vifa 'cause it's on hand and then try the Morel MDT-37 horn-loaded as soon as I have the funds.I ordered 6.2uF Obbligato oilers and 2.2uF Obbligato aluminum foil for the 3500Hz tweeter cross. 6mH Erse for the 2226. All the X-over components on the outside so I can play with'm.Should I try a small value resistor across the tweeter terminals?

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Subject: Re: Comments on this 3-way layout?
Posted by Wayne Parham on Mon, 18 Dec 2006 14:50:27 GMT
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Oooh, sounds sweet!  Let us know how it sounds!As for the shunt resistor, I'd use a non-inductive resistor, 2x to 4x the Rdc of the driver.  On some drivers it's more important, some less, but it cannot hurt to have additional damping.  Values in this range won't reduce impedance much at all, but will give additinal damping.  That's important when there is a capacitor in the circuit, because the voice coil is inductive and the two combine form a tank circuit.  The shunt resistor helps damp the resonance.

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