Subject: Professional Four Pi Plans
Posted by Hakn on Sat, 19 Aug 2006 22:38:06 GMT
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Wayne,Could you provide me with a copy of the Professional Four Pi plans.I have JBL 2226H woofers and 2446J compression drivers that I would like to build a box for. Actually, I have a 7 ft3 enclosure (~2 Pi Towers) that I am going to partition to drop the volume down to ~3 ft3 per your Pi Align specs unless advised otherwise.Planning on using a pseudo first order crossover, with an inductor rated at ~1.5mH to arrive at 800Hz. Can I get by with only the inductor for the LF crossover or does the natural roll-off of the woofer occur higher thereby requiring a capacitor as well?Jim

Subject: You've got mail!
Posted by Wayne Parham on Sun, 20 Aug 2006 03:22:45 GMT
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I've sent plans to your Yahoo address. If that's not current, let me know your new address and I'll send them along.The coil in the woofer circuit interacts with the woofer's voice coil to form a sort of shelved response with attenuation that kicks in at 1kHz. It doesn't really provide 6dB/octave attenuation because the load is inductive rather than resistive. That's why I call it a pseudo-first-order, since there is no Zobel to fix load impedance. But as you've inferred, the woofer's natural rolloff helps out in this regard.If you move everything down to 800Hz, you may or may not be able to use this arrangement. The woofer won't be rolling off yet, in fact, it's still climbing on axis because of collapsing directivity. You might add a Zobel, see how that works. Or you might go with a higher crossover slope.