Subject: Inductor values for Theater 4 pi crossover (newby question)
Posted by Frank Mena on Thu, 06 Jul 2006 22:09:06 GMT
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Can someone tell me the inductor values in the 4 pi crossover? I'm thinking of changing them to an alphacore (air-gapped?) but keep the values the same. I'm looking at the 1600Hz crossover diagram but I see 4 inductors whereas the crossover board itself has only 2. Am I to assume the L2 inductor and the one in series to it is actually combined into 1 inductor on the board? Similarly, is the L1 inductor in parallel to the one for the tweeter at position D1 in the diagram, combined?To make this short what is the value of the circular inductor between the 8 & 22 uF caps and the other rectangular one?Sorry to ask such dumbass questions.CheersFM

Subject: Re: Inductor values for Theater 4 pi crossover (newby question)
Posted by Matts on Fri, 07 Jul 2006 03:15:55 GMT
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I got some North Creek inductors for mine, but haven't put them in yet. Are you looking at the drivers on the schematic as two of the inductors? I can't remember, but I thought they may have been drawn in that way- if that's the case, you can eliminate those two... I can check the values tomorrow if no one else puts them up. I remember one's in series for the woofer, and in shunt for the tweeter.

Subject: Re: Inductor values for Theater 4 pi crossover (newby question)
Posted by Frank Mena on Fri, 07 Jul 2006 11:26:32 GMT
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Thanks MattsThe value for L2 is 1.0 mH according to the schematic diagram and below it in the schematic there is another inductor in series with L2 (which is not labelled, which I assume to be another 1.0 mH coil? Is that correct? This is my confusion. Or is it just one 1.0 mH coil for the woofer and a 0.6mH in shunt to the tweeter for the other coil?

Subject: Re: Inductor values for Theater 4 pi crossover (newby question)
Posted by Wayne Parham on Fri, 07 Jul 2006 13:29:35 GMT
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That's right - 1.0mH in series with the woofer and 0.6mH shunt in the tweeter crossover circuit. The other two coils you see in the schematic are the drivers, shown as a coil with a cone; The coil

represents the voice coil.

Subject: Re: Inductor values for Theater 4 pi crossover (newby question)
Posted by GarMan on Fri, 07 Jul 2006 14:05:14 GMT
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Frank,The inductor in series with the woofer is more important than the one that shunts the tweeter because it's in the signal path. Rather than spend money to change the coil in the tweeter network, consider changing or bypassing the caps instead. The 8uF and 22uF are large values and may be too expensive to replace completely with boutique caps, but you can experiment with small value bypass. Another option is to experiment and replace the 8uF and 22uF with motor runs. You can pick them up for $4 a piece at Active Surplus on Queen W. Definately play around with replacement for the 0.47uF in the comp network. A lot of people appear to be happy with Northcreek.Gar.

Subject: Re: Inductor values for Theater 4 pi crossover (newby question)
Posted by Frank Mena on Fri, 07 Jul 2006 16:46:07 GMT
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Thanks!!!!!!CheersFM

Subject: Re: Inductor values for Theater 4 pi crossover (newby question)
Posted by Matts_ on Fri, 07 Jul 2006 19:00:11 GMT
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I've bought all new parts for my "boutique crossovers", but have only changed tweeter compensation network and the 10uF shunt cap in the woofer so far. I thought the 10uF cap wouldn't make much difference since it was a shunt, but it surprised me and made a big difference in the smoothness of the mids. Since then I got all the other new caps and coils, but haven't got around to replacing them. I did get a larger, more expensive coil for the one in series with the woofer than the shunt for the compression driver, though. I'll have to get around to that this weekend.... Since I have 2A3 amps, I don't need any protection either.
