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Subject: Re: ART Array Crossover Question

Posted by [FredT](#) on Wed, 14 Mar 2007 00:48:09 GMT

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The first order crossover is very simple: A 1.2mH inductor in series with the woofers and a 10uF cap in series with the tweeter. You will also need a 16 ohm resistor across the tweeter terminals. I suggest you try both the first and second order woofer crossovers. Wayne did some measurements of the speaker with both, and the results indicated the 1st order woofer crossover makes the overall response much smoother. But he did the measurements the standard way, with the speaker laying on its side and the mike placed one meter away from the front baffle in line with the tweeter. Measuring a line array with the mike placed so closely can reveal some peaks and nulls that aren't audible from the typical listening distance of eight to twelve feet. Wayne said he prefers the first order; I don't like the sound of the first order woofer crossover at all - it sounds too forward to my ears. You will find a picture of the 2nd order crossover at the link below. In that picture the input is the inductor lead that has the white wire connected to it. The white wire connects to the tweeter crossover input. The black wires are connected to ground. The woofer output is the other lead of the inductor. The tweeter output is the other end of the black capacitor (opposite the white input wire). Click on the picture to enlarge it. The white capacitors are 5uF surplus GE poly caps I got from Madisound for 60 cents each. You will also find the wiring diagram in this picture gallery. I believe the Art array crossover design may be the weak link in these speakers, and if anybody has any ideas for improving it I'm open to suggestions.

Art Array Crossover

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