Subject: "Crossover Electronics 101"
Posted by Wayne Parham on Mon, 25 May 2009 02:29:39 GMT
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I'll be doing the "Crossover Electronics 101" seminar at the Lone Star Audiofest this year. We'll examine crossover components and networks, showing the effect each component has. Several crossovers are illustrated with schematics and response charts. We'll actually listen to speakers with each network shown, so you can hear what each circuit sounds like.
Crossover Electronics 101
Handouts are provided at the seminar that describe each circuit and some basic theory like Ohms Law and reactive circuit formulas. We start off by going through some basic electronics and move quickly into things like low-order crossovers, high-order crossovers, resonance, peaking and damping. Then we examine various circuits and see why they act as they do.

Keith Larson will also give a seminar on acoustic measurements and speaker design using the Smith & Larson WT/ST/WTPro family of measurement products. He'll show how to measure the electro-mechanical parameters of speaker drivers, which is what the WT2 is well-known for. He'll go on to show how to use this kind of information to design a loudspeaker, including other advanced design tools built in to the ST and WTPro systems.

The two talks pair nicely with one another. My talk introduces electronics concepts needed for an understanding of loudspeakers and the crossovers used in them. I depend heavily on Spice and use it to model and describe circuits. This leads right in to the ICD used in the Smith & Larson ST and WTPro systems.

The Crossover Electronics 101 seminar is Saturday at 11:00 and the Smith & Larson seminar is at 1:00.