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Subject: Symmetrical and asymmetrical slopes in crossovers

Posted by [Marlboro](#) on Wed, 30 Sep 2009 13:23:43 GMT

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Rick has made several references to the use of asymmetrical slopes in crossovers.

While I'm only knowledgeable about this aspect of crossover design by reading about it, but not in its use, I wonder if someone might share something about this.

As I understand it, this is something that is more important when one is using acoustic slopes as opposed to the filters used in an electronic cross.

Also, the reason for asymmetrical slopes is due to the path length difference between two drivers such as the woofer's acoustic center being behind the tweeter. The phase difference between the two different slopes can be used to accommodate this path length difference and bring the drivers back into phase alignment. But....if you have DSP or an analog crossover that can delay the tweeter then it makes much of this discussion a moot point.

Could someone(perhaps Rick Craig) expand on this is how its used, and could they please try to avoid falling into audio or electrical engineer language that us non-engineers would most certainly get confused and have to take a long time in trying to decipher it with our trusty electronic term dictionary.

This is more of a WHY question, not a HOW TO question.

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