Subject: Baffle Step Roll-off, electronics crosses, and ARRAYs
Posted by Marlboro on Sat, 04 Nov 2006 14:19:22 GMT
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On the diyAudio forum, someone brought up a question about the baffle step roll off issues. Go to here for an update on this issue:http://www.t-linespeakers.org/tech/bafflestep/index.htmlIs this an issue for array speakers? Is it an issue only for speakers with passive crossovers, but NOT necessarily an issue for those who are using electronic crossovers and equalization with bi- and tri- amping.I didn't think it was an issue for me since I equalized the whole system with the room(placing my microphone at the place of listening, not 1 meter from the speaker) and adjusted the amplitude of each of the speaker arrays within the confines of the whole room not individually as to sub lines in an anechoic chamber.Marlboro

Subject: 2nd part
Posted by Marlboro on Sat, 04 Nov 2006 18:42:34 GMT
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The issue is one where there is a drop in the frequency of a max of ABOUT 6db in an anechoic chamber or in a wide open placement of the speakers, according to a formula that includes the speed of sound in inches and the size of the baffle in inches and a certain fraction.I'm wondering if its a point source issue or whether the cylindrical wash of sound in the near field impacts it. And, how much of an issue it is in the scheme of things for most of us who have our systems in fairly small rooms where the back wall and the side walls are less that 2 feet from the speaker itself.In a large room, a theater, or a concert hall of some kind, its a horse of a different color.Is it like off axis speaker measurements? I mean do you actually know anyone who doesn't slightly at least angle their speakers to the listening couch so that they don't have any off axis problems? Nobody I know listens to their speakers off axis, except when they happen to b e walking around, and then its used as MUZAK, or dancing.Marlboro

Subject: Part 3
Posted by Marlboro on Sat, 04 Nov 2006 19:18:39 GMT
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Using a program called Edge from Dave Thomas(not related to Wendy), I discovered that the diffraction loss with only one speaker is a full 8 db loss. With 2 speakers, its a 5 decible loss, with three: its about 3. with 8-10, its about 2. With more than 15, its about 1 db.Super. I was pretty sure that the dynamics of an array would change things dramatically.Marlboro

Subject: Re: SWEET - good to know
Posted by hot.rod.audio on Wed, 08 Nov 2006 19:32:37 GMT
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I'm using 8 4 inch (vintage KLH) drivers in line arrays, and someone had brought this up. My baffle is only 12 inches wide, and OB, so I wasn't sure either . . . thansk for the research !