Subject: Relevant info
Posted by Wayne Parham on Sat, 09 Aug 2003 20:04:13 GMT
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The relevant issue is constructive summing in the listening area. If outdoors or in a large space,

it harder to group things close enough together to meet this condition.The first thing you must concern yourself with is on-axis summing. This is mostly a function of path length, although there are other sources of delay too. But regardless of that, you must get the arrival times from each subsystem the same on-axis.The second thing you must concern yourself with is off-axis

However, this is rarely the case. More often than not, they are vertically stacked so that path lengths remain the same with movement along the horizontal axis, but not along the vertical. This results in nulls forming at vertical angles above and below the forward axis. The position of the nulls is determinbed by the vertical spacing between sound sources and the frequency of sound they both generate.The third thing that may present itself is interaction with reflections from boundaries. This is usually only an issue indoors, although it will also happen outdoors near large walls or other obstructions. The sound reflected back from boundaries interacts with direct sound, and this causes pockets of sound to form in the listening area. If the walls are rigid and not well damped, room modes can be significant. In this case, there is no way to get sound sources within

multiple distributed subs.For more information, see the post called "Phasing and subsystem delay."