Subject: Re: choices, choices
Posted by Wayne Parham on Mon, 26 Jul 2004 16:10:12 GMT
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You're right, there are lots of choices to consider.Here are some general rules:Long horns with narrow and gradually opening flares tend to improve low-end response.Shorter horns with more rapidly opening flares tend to work better at higher frequencies.Big horns with large mouths tend to have flatter response and better dispersion control, particularly at the lower end of their frequency range.Placement on baffles or contstrained space (like corners) helps reduce the requirement of horn size.The narrower the dispersion, the greater the concentrated energy and higher on-axis SPL.The pattern of curved-wall horns narrows as frequency goes up. This tends to lift high frequency energy on-axis, at the expense of frequency-dependent narrowing of energy distribution off-axis.The pattern of straight-sided CD horns is the same at high frequency as at low. Off-axis energy distribution is similar to on-axis response and coverage is uniform.If CD horns have 90o dispersion and are put in room corners, the reverberent field is charged equally throughout the room.There are lots of other things involved here, and these are only general rules that don't get into the important details. But that should give you a start.