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Subject: Re: Speedbump #1

Posted by [Adrian Mack](#) on Wed, 04 Feb 2004 09:10:11 GMT

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Hi GarThe H290 and H295 are both 90x40deg dispersion. I'm pretty sure the two horns are about the same in the horizontal plane - they both offer tight pattern control here. But the H295 constant directivity horn will have a little more uniform dispersion in the vertical plane at wider angles of dispersion. Technically speaking, that will introduce more possible floor and ceiling reflections than the radial H290. The H295 will need a little more compensation at high frequencies than the H290 - the radial horn has increasing directivity in the vertical plane to acoustically equalize the falling power response in the horizontal plane. The constant directivity horn doesn't do this. 40 degrees is still a very narrow coverage angle so both horn's will introduce only little floor and ceiling reflections anyway. If you want less reflections from walls, then choose a horn with a narrower horizontal coverage angle, or just put the speakers in a bigger room where the walls are far away. IMO, horizontal dispersion is the most important, so I would choose the H290 radial horn. This way less EQ compensation is needed, so sensitivity doesn't need to be lowered too much - the CD horn's need for extra compensation may make sensitivity of the compression horn less than the woofer, unless you start padding that down too, but that's just wasting more db's. Perhaps the H295 may have a different subjective sound than the H290, I don't know. I don't think they are that much different though. You could be pretty safe using the H295. Or you could just get a H290 and put it on top like Wayne suggested. BTW: The difference in physical size of these horns is only 1", actually a little less (except for depth). Can you really not fit a H290? You may find a reflection free sound to be rather "dull". Adrian

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