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Subject: Re: Is this horn flare suitable for PSD2002?

Posted by [Wayne Parham](#) on Fri, 28 Dec 2001 16:20:51 GMT

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If I were planning to use a tweeter horn with a different pattern, I'd crossover at a different frequency to maintain DI matching. If the tweeter horn pattern is more narrow, crossover higher; If wider, crossover lower. The idea is to crossover in the frequency range where the direct radiating midwoofer pattern has narrowed to the same angle as the tweeter pattern in the horizontal. That way the sound is uniform throughout the room, within the vertical arc of the horn's pattern. Tweeter horns with asymmetrical patterns usually narrow more in the vertical than the horizontal, which is a good thing in my opinion so it doesn't waste energy on the ceiling and the floor. You want the midwoofer pattern to match the tweeter's horizontal, because that makes off-axis response as smooth as on-axis response, which also creates a uniform reverberent field.