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Subject: Re: Horns, transmission lines and reflex cabinets

Posted by [Wayne Parham](#) on Sun, 07 Aug 2005 13:36:06 GMT

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Here's the thing, Ed. It isn't fair for you to pounce on Bob's statement, "Single-driver full-range speakers have a limited dynamic range." That was a statement of fact, and you shouldn't use it to launch a campaign. It isn't a statement about horns or transmission lines, it is a statement about single drivers. A backloaded horn doesn't increase efficiency through most of the passband. It only increases output at low frequencies, to augment where the driver is getting weak. So it doesn't help efficiency. The reason I've suggested comparing the horn and the transmission line is that I believe that they are more alike than different. When used at bass frequencies, a horn has to be pretty large. When it is made small, it is really a tuned pipe. Cornerhorns are small tuned pipes that use the corner as the mouth. The physical construction of a small backhorn is very similar to that of a transmission line. They act pretty much the same. Put a transmission line in the corner, and it acts very much like a backhorn placed in the corner. Alternately, take a backhorn out of the corner, and it becomes a tuned pipe. I think it is productive to look at these things, even if just done in models. That will show you what I say is true. You know how I know? Because I've done it.

Basshorn or Transmission Line

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