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Subject: Check the distortion

Posted by [Wayne Parham](#) on Fri, 11 Jan 2008 15:51:23 GMT

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Have you ever measured the distortion of a tapped horn? For some reason, every distortion chart I've seen of a tapped horn shows high distortion, from 4x to 10x higher than a traditional basshorn through the passband. As an example, a popular commercial tapped horn sub produces 10% - 15% distortion at 28v. On that horn, 28v is approximately 200w, less than 1/100th of its 2400w rated power limit. Ten percent distortion at one percent power is not particularly impressive. Traditional basshorn subs are between 1% and 5% at the same drive level and push-pull driven folded horns have even lower distortion. I'm not sure what causes the increased distortion from tapped horns, if it's an unusual loading that does it or what but I am sure that the distortion measurements of commercial tapped horns have been noticeably higher than most other basshorn subs. Maybe DIY'ers will have better luck with them.

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