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Subject: Horn Loading

Posted by [cddeluca@telocity.com](mailto:cddeluca@telocity.com) on Fri, 20 Sep 2002 14:03:47 GMT

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I'm hoping somebody here can explain something about horns to me. I've seen comments about how ineffective the typical Altec (eg 816 or 828 enclosure) horn loading in the bass/midrange - statements that the bass cutoff is way too high. What I was wondering is this: isn't the horn cutoff the limit at which the horn effectively loads the driver (impedence matches it to the room)? Below that cutoff, isn't the driver basically a direct radiator (in the case of Altec designs, a typical driver operating in a bass reflex cabinet arrangement)? Is the problem really that the spl level below the horn cutoff will be comparatively too low resulting in a very unbalanced sound? And maybe more to the point, is there any real benefit to horn loading the bass/mid in a domestic environment where the needed "throw" is so very short anyway? I suspect that the "old" Altec cabinets were a necessary augmentation to the driver technology of the time; that all this is moot with modern 15" drivers since all the two-way cinema speakers that I know of use a bass reflex cabinet and do not horn load the bass/mid any longer.