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Subject: Sensitivity ratings for Delta 15 etc  
Posted by [BFP](#) on Thu, 18 Jul 2002 12:40:41 GMT

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Hi Wayne When I enter the Delta 15 parameters into a spreadsheet I have for calculating box volumes the calculated sensitivity comes out at 97.5 db not 101 as rated by Eminence. Unibox software that I have also calculates 97 db. I also noticed this difference with other Eminence woofers. Is this due to Anechoic versus half space ratings? Also, when building a speaker that will be used with High output Z amps, is it a valid strategy to include the increase in  $Q_e$  of the driver caused by the series output resistance of the amplifier, into the driver parameters that you input. It seems to me that using a lower  $Q_t$ s driver like a JBL 2226 would allow more room to allow for an increased  $Q_t$ s while maintaining a reasonable box size. In a theatre 4 with the Delta 15 the  $Q_t$ s is already quite high for a vented box. I know that the system seems to work well subjectively with tube amps with high output Z, but I am looking for ways to optimise a speaker for use with High output impedance amps. I had thought of using a jbl 2226 with a EBS type of alignment. This would still provide a reasonable box size. What strategies would you use in this case?  
Thank you Brian

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Subject: Re: Sensitivity ratings for Delta 15 etc  
Posted by [Wayne Parham](#) on Thu, 18 Jul 2002 16:35:30 GMT

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You're right, there is some ambiguity because there is no accepted standard. Eminence measures in a chamber with the driver mounted to the baffle board and the microphone on-axis one meter from the baffle board. They then average response over the entire range. This means the rising response from collapsing DI and breakup modes are factored in. All-in-all, it is a pretty reliable indicator of overall sensitivity, but it does not take frequency range into account.