
Subject: Is this why JBL 2245 was discontinued ?
Posted by [Anonymous](#) on Tue, 03 Sep 2002 21:45:22 GMT
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Is this one of the reasons why JBL 2245 is history? WinISD says for ported box; 2245 = 7.7 cubic feet, 30hz, 95db; 2241 = 10.6 cubic feet, 35hz, 98db; but, in a sealed box, both have the same boxsize for $q = 0.7$ and 2245 f3's 10hz lower while 2241 has 3db more sensitivity.

Subject: Differences between 2241 and 2245?
Posted by [Wayne Parham](#) on Tue, 03 Sep 2002 22:28:26 GMT
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The 2245 is tuned lower but isn't as efficient as the 2241. Both are pretty good parts. The 2245 (like the 2235) is tuned deep and offers more extension. The 2241 (like the 2226) is tuned higher and is more efficient.

Subject: Re: Differences between 2241 and 2245?
Posted by [Anonymous](#) on Tue, 03 Sep 2002 22:46:00 GMT
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three things on my mind - lol#1 Is there a correlation between a woofers x-max rating and "tight bass" ? if you know what I mean (loose suspension and tight suspension). Do "tight coned" woofers sound better than "subwoofers", or is this just a myth?#2 Is there a correlation between a woofers voice coil diameter and "tight bass" and/or sound quality assuming similar woofers? or is the voice coil just a function of power handling, not sound quality ? ie, if JBL made a woofer with a 2" voice coil would it sound as good/bad as the same one using a 4" dia voice coil ?#3 What factors do you look at when trying to find a woofer with a strong motor ?

Subject: Motor strength
Posted by [Wayne Parham](#) on Tue, 03 Sep 2002 23:11:32 GMT
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This is a balancing act, and the parameters are set according to the intended application. But here is a generalized description of the interrelationships. Motor strength is set by magnetic flux, number of voice coil turns and amount of current passing through it. To make the motor stronger,

you need the most amount of magnetic energy, the most number of turns, and the highest amount of current in the smallest space. Mass and stiffness of the moving assembly combines with motor strength to set the electro-mechanical parameters like resonant frequency and Q. Radiator size and excursion set displacement, which affect overall maximum power levels. Even if the motor is very powerful, if the X_{max} is limited, then the total power output is limited. Making X_{max} larger means making a longer coil and spreading the magnetic energy over a larger area. This tends to make the motor less efficient, but it allows it to move the diaphragm further.
