
Subject: Re: EV MC-8's???

Posted by [Wayne Parham](#) on Wed, 26 May 2004 11:29:28 GMT

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Since the specs came from a Niue website, I would assume Vas is measured in liters. 29.7 liters is a cubic foot which is consistent with the rest of the specs too. So from the numbers, I'd put the speaker in a little box 0.5ft³ to 4.0ft³ port-tuned to 50Hz. Boxes towards the larger end of this scale will get you response down to 50Hz. 3.5ft³ is a pretty good size, and when vented at 50Hz gives nearly perfectly flat response to 50Hz and with f₃ of 45Hz. Smaller boxes raise lower cutoff; 1ft³ port-tuned to 50Hz has f₃ of 75Hz. With a subwoofer, that's probably very nice. Without more data, tweeter selection and crossover design is just shooting from the hip. But sometimes that's the most fun way to shoot. I'd probably try a KSN1038 piezo or a dome tweeter like the Vifa D27, something like that. Use an 8 ohm resistor across the tweeter, which will provide a resistive load across the piezo or damping for the dome, so you'll want it either way but for different reasons. Use a 1uF to 5uF capacitor in series with the tweeter, depending on how high the EV will go. A 4.7uF cap will start bringing in the tweeter above the vocal overtone range and well before the top octave. A 1uF cap will pretty much limit you to 10kHz and up, nothing but air. A 2.2uF or 3.3uF cap will add some sparkle, and might be right where you'll want to be. Hard to say without more info. I'd run the EV wide open with no components to start. If voices sound too harsh, you might try a 0.1mH to 1.0mH coil in series. A small coil of 0.1mH will be barely audible but a 1.0mH coil will probably reduce the vocal overtone range too much. You may find that you like it best with no components whatsoever, especially since you are already familiar with the single driver sound. But you may prefer it with a 0.5mH coil or thereabouts. You might even try a little network having a 4-8 ohm resistor in parallel with the 0.1mH to 1.0mH coil. But without a Zobel, a series coil provides more of a shelved response curve than acting like first-order, so I find that a single series coil of small value is sometimes just what you want. Again, it's hard to say without any info. So getcha a small box ported for 50Hz and a handful of components. I'll bet that will make a mighty fine little speaker!
