Subject: Alpha 8 measuring: wacky results
Posted by AudioLapDance on Sat, 08 Sep 2001 12:53:16 GMT
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Hey Wayne et all,I tried to measure my Alpha 8s to see if the specs are closer to the "new" ones or the "old" ones (specs are quite different!). I knew I wasn't going to get accurate specs but I was hoping that they would indicate which of the Eminence specs to use.I used a fairly good Fluke Multi meter and the signal generator software I mentioned before.I first made a calibration table in Excel to compensate for the meter not being able to accurately measure RMS voltages at low frequencies. I made a table for 1V across my 0.5 ohm resistor and a table for 0.1V. They were pretty close and showed that the meter is accurate down to about 30 Hz (5% off) and looses it by 10 Hz (35% off)I tested with 2.8 V across the driver and measured at every 5 Hz from 100 Hz to 10 Hz. The results were put in a table, compensated and graphed. The results around 50 Hz (resonance) were too grainy (5Hz increments) so I decided to zoom in on the 40 to 60 Hz area and use 1 Hz increments.I also placed another 0.5 ohm resistor in parallel with the test resistor giving me a total test resistance of 0.25 ohms in series with the Alpha 8.The results were:Measured Alpha 8Qts=0.13, Qd=7.7Fr= 51 HzZmax= 79 ohmsZmin= 5.3 ohmsVad= 0.67 cuft"New" Alpha 8Qts=0.53, Qd=1.887Fr= 76 HzZmax= 45 ohmsZmin= 5.3 ohmsVad= 0.5 cuft"Old" Alpha 8Qts=0.5, Qd=2Fr= 75 HzZmax= 125 ohmsZmin= 5.34 ohmsVad= 1.5 cuftI was disappointed that my results didn't correspond with either! Any interpretations would be welcome.Cheers,Jeff

Subject: Measuring drivers
Posted by Wayne Parham on Sat, 08 Sep 2001 20:13:43 GMT
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Re-run your tests using a larger series resistor, at least 10 ohms. You don't have the resolution to use a smaller resistor. It is not uncommon to use a resistor betwen 100 ohms and 1K for measuring speaker impedance and T/S specs.

Subject: Re: Measuring drivers
Posted by AudioLapDance on Sat, 08 Sep 2001 20:38:18 GMT
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Hey Wayne,I'll try again with a larger series resistor...Cheers,Jeff

Subject: Re: Measuring drivers
Posted by Wayne Parham on Sat, 08 Sep 2001 21:33:11 GMT
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I think that will give you better results. Let me know if you have any other problems.