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Subject: Series and Shunt Resistance

Posted by [Wayne Parham](#) on Fri, 25 Mar 2005 18:38:44 GMT

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Just a suggestion - You might want to use a resistor in shunt along with a resistor in series. Bypass the series resistor with capacitance for high frequency augmentation. If you just have a series resistance, it will raise the amount of midrange as well as the top octave or two. The highest frequencies are augmented by the rising impedance caused by voice coil inductance. The midrange peak is caused by various resonances, such as diaphragm mechanical resonance, horn flare 1/4 wave resonances and interaction of crossover capacitors and voice coil inductance. If you're familiar with Spice, you can use it to calculate a network that will work for you. There are some illustrations of this in the documents at the links below.

Crossover Electronics  
101Schematics and Response Charts

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