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Subject: Re: Inductive vs non-inductive resistors

Posted by [Wayne Parham](#) on Mon, 26 May 2003 10:05:41 GMT

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For crossover resistors, I'd prefer non-inductive parts, but a wire-wound resistor will do in a pinch. The inductance of a wire-wound resistor is pretty small, probably not really an issue in this circuit at audio frequencies. But generally, non-inductive resistors at this size cost no more than standard wirewounds. I like to use four 10-watt resistors in series/parallel to form a 40 watt part for the R1 and R2 values in the tweeter circuit. I use a 100 watt resistor in the Zobel woofer damper. As for inductors, I prefer air core coils for values under 3mH or so, and low hysteresis laminated iron cores for large inductors. I usually don't go smaller than 18 guage, sometimes even 15 guage. The DC resistance is what's important. Usually, the smaller resistance the better. About the formula to find the value of C5 for your Zobel, understand that voice coil inductance is usually given in millihenries, which is 1/1000th of a Henry. So if  $L_e$  is 0.17mH, then it is 0.00017H.

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