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Subject: Filter Q

Posted by [Wayne Parham](#) on Fri, 19 Jul 2002 13:13:22 GMT

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I think a lot of guys have run active and been pleased with their results. The thing that is most important is using a crossover that has CD compensation. This provides 6dB/octave boost. The

up to about 4kHz. Only after that point does 6dB/octave augmentation start. This is important because the goal is to conjugate the driver's power response, which is flat up to 4kHz mass rolloff, where it begins to droop by 6dB/octave. The way it works is this: The (R1/R2/C1) compensation circuit acts as a damper for the tweeter's (L1/C2/C3) crossover filter, and sets filter Q. Without those components - as if the load were purely resistive - the output of the compensation circuit would be a nearly straight diagonal line of rising response. Resistor R1 sets the Q of the L1/C2/C3 filter to be just slightly peaked, enough to raise output at the crossover frequency so that the response curve isn't a diagonal line there. It is lifted so that the first couple of octaves are flat, and

crossover document, and the resulting response curves are shown. Certainly this can be implemented in an active filter too. I'm sure some of them already do this, but I know some don't. When in question, it might be good to check and see.

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