
Subject: Re: Crossover help: more confused than ever!

Posted by [Wayne Parham](#) on Sat, 22 Dec 2001 05:06:30 GMT

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OK. Let's roll our sleeves up. First of all, the 16 ohm resistor across the crossover's tweeter output is exactly right. That's your R2 resistor. But now that one takes the full power of the amplifier across it from 2kHz up, so let's refresh ourselves on the "Happy Gilmore" ohms law thing. But this time without the Bob Barker scene. Resistors in series are simply added to calculate total resistance. Two identical resistors in parallel equal 1/2 the resistance value of either. The actual formula is: $R_t = 1 / (1/R_1 + 1/R_2 \dots)$ You don't have to connect networks of resistors together to form a single resistance, as I often suggest. I make this suggestion just so people can obtain the proper value resistors having the necessary power requirements. But a person can use a single resistor just as well, and it's much easier. Since music content is weighted towards the frequencies below 2kHz, you probably won't have full power across this resistor - but you could have. Still, you probably can consider that 1/10th power is sufficient for this part, for various reasons. If you're running a 100 watt amp, then a single 10 watt part is probably plenty in this location. If you're running a SET, you could put a little 1/2 watt part here. But just remember that this one takes the load. The 0.47uF capacitor C1 is connected in parallel with the 16 ohm resistor R1. These are placed in series with the compression driver. If you cannot remember how series and parallel connections are made, it might be worth your time to search for a book or another reference to show you. You can probably even find a "thigh bone is connected to the knee bone" type thing on the internet. The schematic shows C1 and R1 connected in parallel, and the actual, physical connections are just like they are shown on the schematic. An example of a series connection is shown as R3 and C5. These are two devices that have been connected in series with one another, and they are also connected physically exactly as they are represented on the schematic. I hope this helps. If not, I would suggest that you go to a television repair shop in your area and ask for assistance. Certainly you can find someone there that will solder your crossover together, and ensure that it is done right.