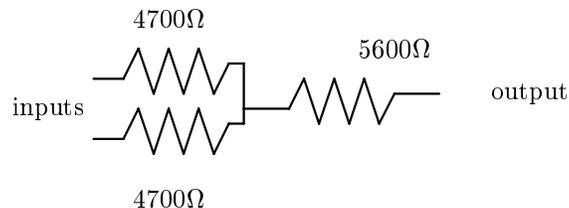


I see lots of posts from people who want to connect the analog audio outputs from two CD drives (perhaps CDRW or DVD) to one sound card input. I also see lots saying it can't be done... Last year I wanted to do this, found that PC Cables Direct sold a nice cable for the purpose. I got one and it works fine. But now I want another and they are at least having trouble with their web site and according to some reports they are out of business. So I made my own. It is extremely simple.

The cable needs to be a Y-cable with a passive mixer where the inputs come together. The point to the passive mixer is to isolate each of the CD outputs from being affected by the other output as part of the load it sees. A passive mixer is just a few resistors connected together: It introduces some signal loss, but if decently built it does not introduce any significant noise or distortion. (You could build an active mixer with transistors or integrated circuits but that would be a lot more complicated and would have to be carefully designed to avoid introducing noise.)

The cable is built of a couple of standard CD-audio cables I had lying around. I used the better grade, shielded, kind rather than the ones with three wires just twisted together. I cut one off near one end, to be the output leg of the Y, and the other one in the middle. The two pieces of the second one go from the drives to the resistors where all three pieces come together.

There are just six resistors in the cable. I used four 4700 ohm resistors and two 5600 ohm resistors, plain 1/4 watt resistors I had lying around: You could get some new at Radio Shack. You can change the values somewhat, but keep the four resistors all one value and the other two also one value. I looked at specs for several CD drives and the audio output was normally specified facing a 10K ohm load, and I assumed the soundcard input is a high impedance. You want to build two copies of this simple circuit: One copy merges the signals



from the right channels of the two drives and feeds it to the right input on the sound card, and the other copy does the same for the left channels and input.

Here is roughly what I did: If you cannot figure out how to do it from this you probably should find a friend who can. There is nothing dangerous in this, but presumably a nice CD signal is something you don't want to mess up so you do need to pay attention to how things are arranged, how the grounds are connected, etc.

In my cables there was an overall shield and inside it a red wire carrying the right channel and a white wire carrying the left channel. I made the two resistor networks by clipping all resistor leads to about 1/4 inch and soldering things together. One network gets as its inputs the two red wires from the drives and its output goes to the red wire to the soundcard. The other network does the same but with white wires. The three shields connect together. I used heat-shrink tubing and bits of electrical tape to effectively pot the whole thing, but did not bother to put it in any sort of box or to shield it.

The resulting cable works fine. Not only can I put a CD in either drive and hear the results, no degradation of the signal either audible or noticeable in statistics from CoolEdit, I found I can make a terrible noise by playing two different CDs at once. Of course to do that you need to run two programs, I used MS CD Player and the utility that came with my SoundBlaster card, since each program refuses to give orders to more than one drive at a time to do things like play, skip forward, etc.

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