



100% certified organic free range hi-fi

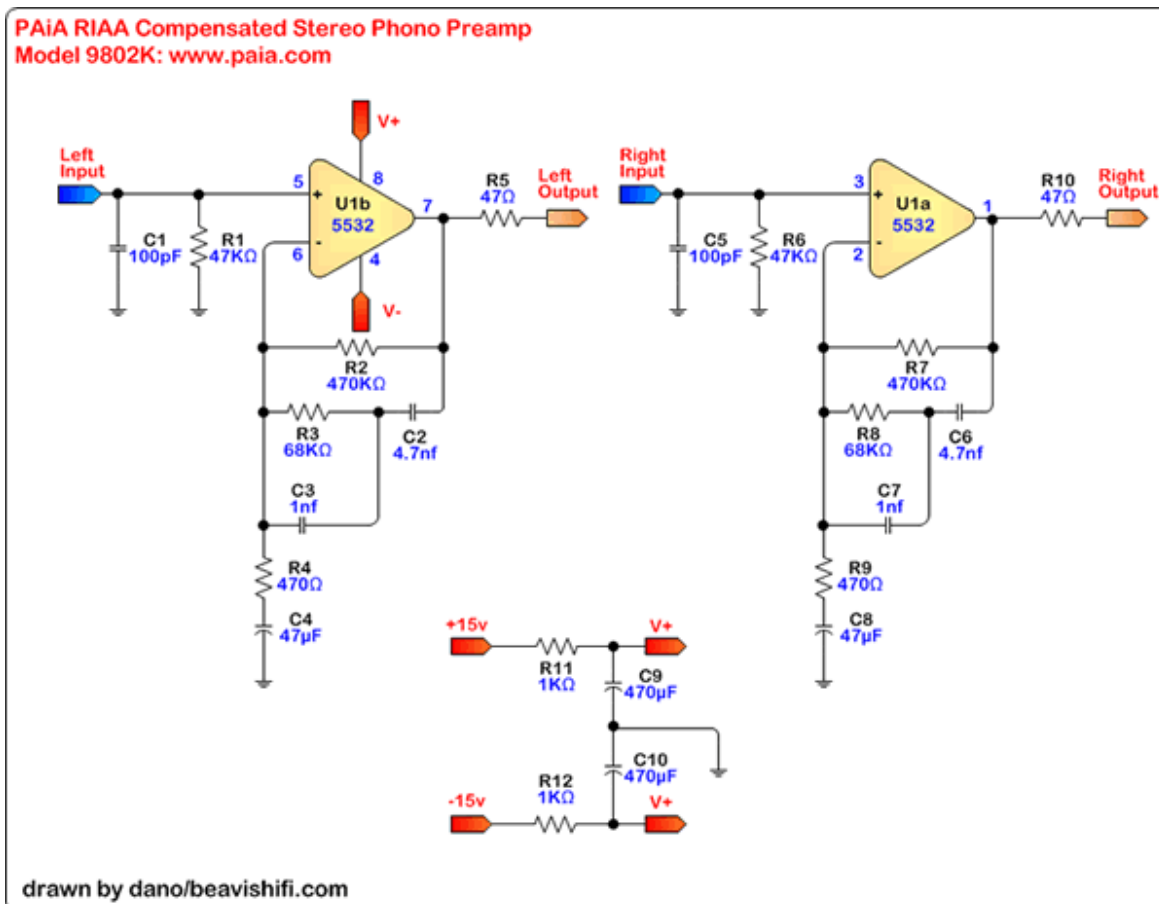
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## Phono Preamplifier Scrapbook - Schematics and Snippets

I have this problem with phono preamplifiers. The problem is that I spend hours and hours poring over different designs, building them, and comparing them. It seems like a pretty obscure thing to spend so much time on, but for some reason, I find it fascinating. This page contains the results of such late-night meanderings.

### PAiA RIAA Compensated Stereo Phono Preamp Model 9802K

PAiA has a long history of creating great kits for analog music tinkerers. And their FracRack enclosures offer a great way to box up modular gear. One of their fine kits is the Model 9802K phono preamplifier. This simple design uses a dual opamp along with a split power supply. The offered kit is designed to be used in a modular system, almost as an afterthought. As such, the simple passive design does not offer a huge amount of hi-fi-, more like convenient-fi.



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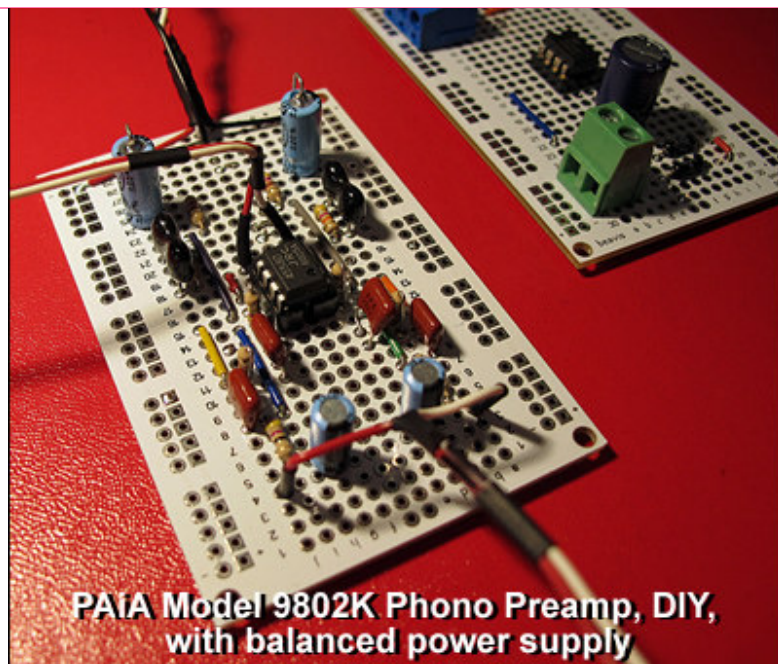
### Build Notes

- I built this design on protoboard and compared it against several other DIY



designs. The sound quality is good, if not stellar.

- There are certainly better opamps to use, I tried the recommended 5532, a JRC4558, and a TI/Burr Brown OPA2227. If you build with sockets, it's easy to taste-test different opamps.
- C1/C5 are generally optional if you are into measuring the capacitance of your RCA cables. As with any preamp design, consider a [cartridge loading section](#) if you want to fine tune the input impedance.
- This unit really needs a full 15v+/15v- power supply--don't try getting by with a 12v wall wart split supply or even two 9-volts in series.
- More [info](#) from PAiA
- Interesting [thread](#) on modification ideas

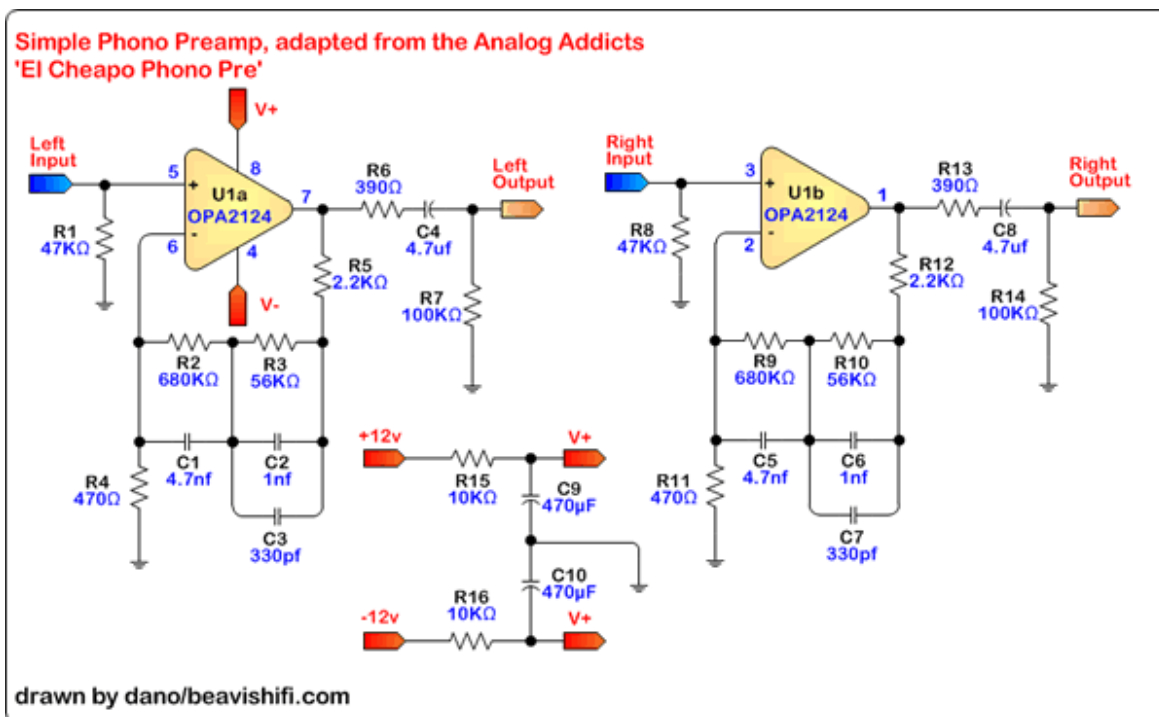


PAiA Model 9802K Phono Preamp, DIY, with balanced power supply

### Modified Analog Addicts EI Cheapo

This basic design is a perennial favorite amongst DIY builders. Shown here is a slightly modified/simplified version of the Analog Addicts 'EI Cheapo' phono preamp circuit. As with many designs of this type, it is a pretty standard dual opamp design with fairly standard RIAA curve values. Compare this one with the PAiA design above and you'll see lots of similarities.

- Original Page: <http://www.fortunecity.com/rivendell/xentar/1179/projects/aaphono/aaphono.html>

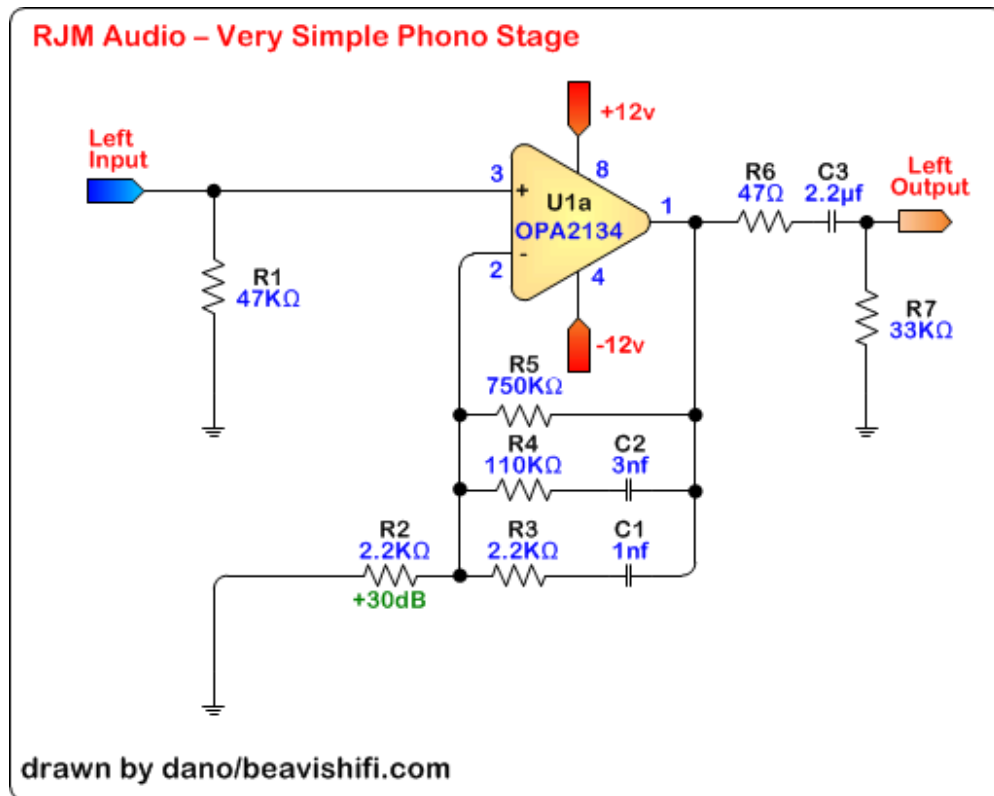


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### RJM Audio - Very Simple Phono Stage

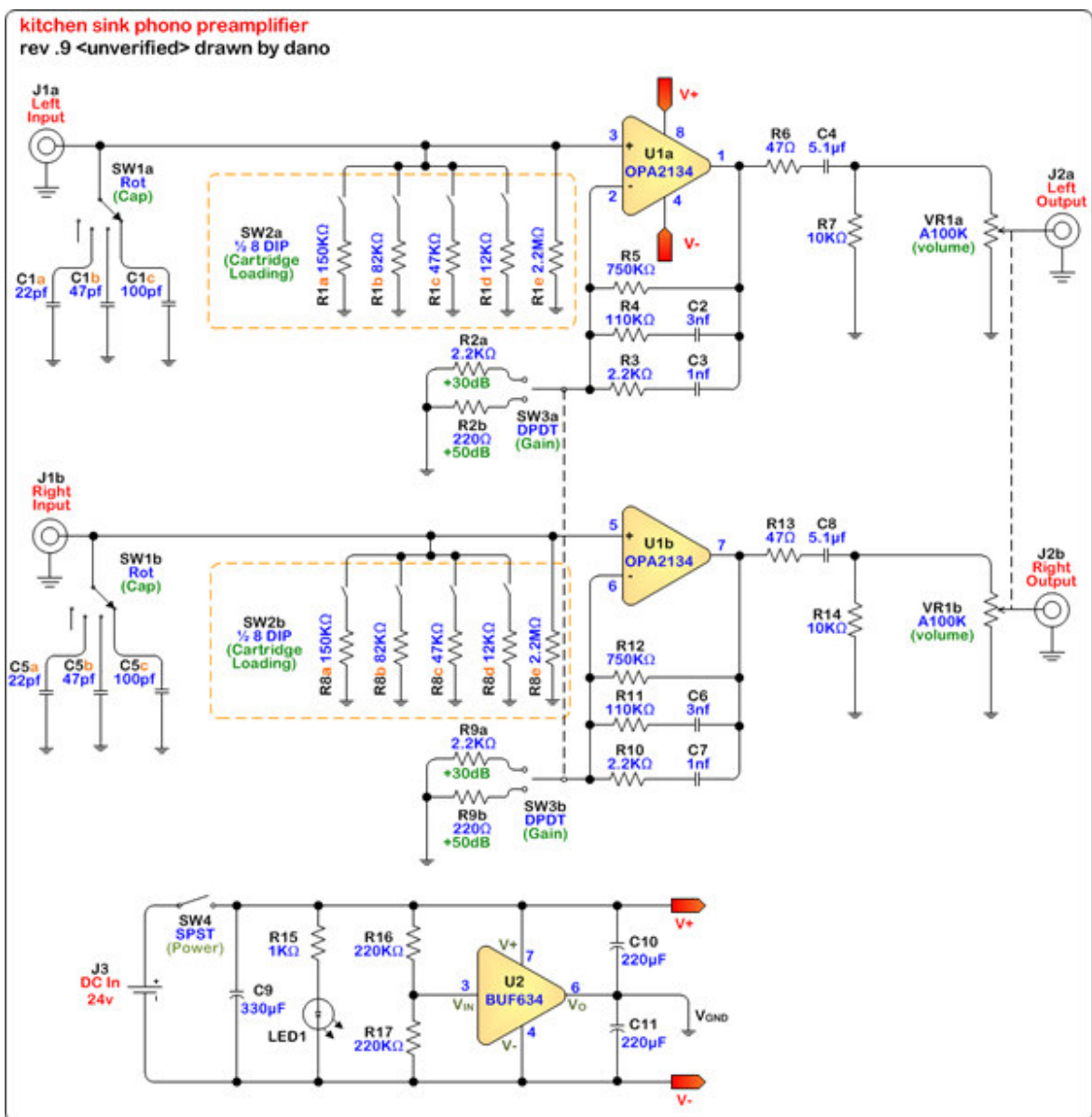
For simple passive opamp-based designs, this design from [RJM Audio](#) is one of my favorites. As with the designs

above, the topology should be very familiar. However, the Very Simple Phono Stage (VSPS) has a very nice RIAA curve to it. For a basic passive design, it sounds very good. The following schematic shows one channel. The original VSPS schematic shows a range of values for R2 to set the gain. Check out the original [RJM page](#) for more information.



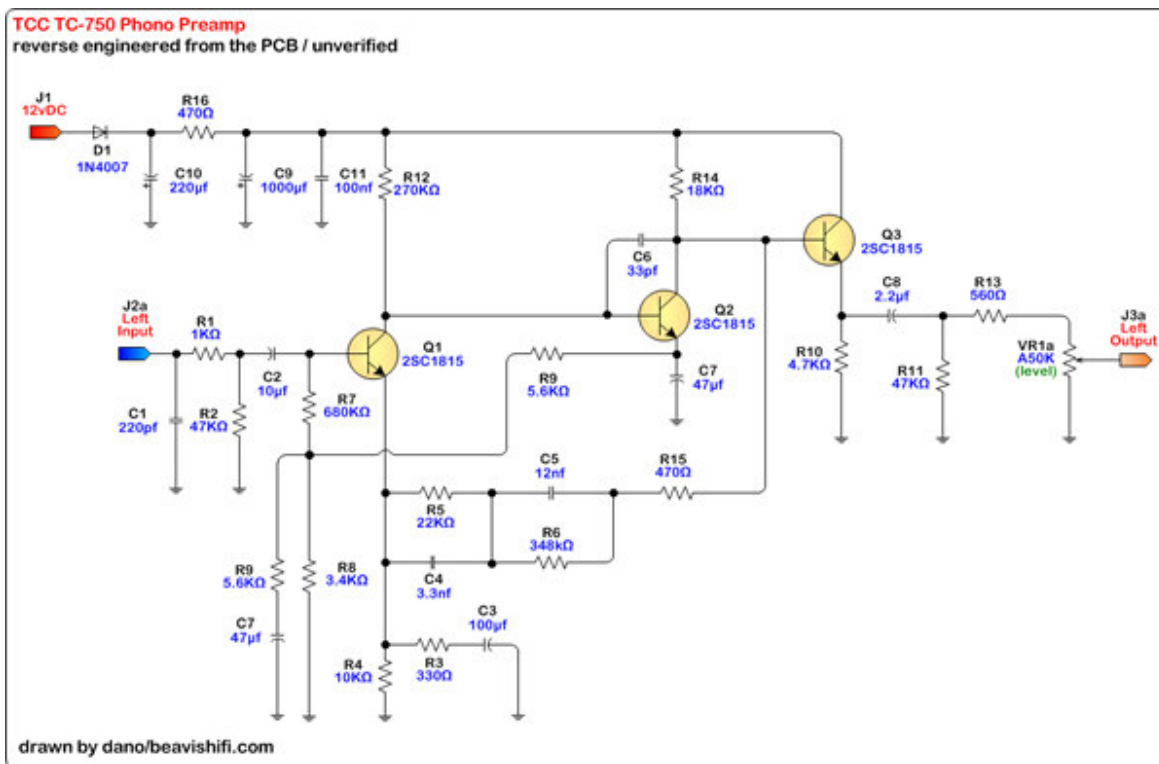
### The Beavis HiFi Kitchen Sink Phono Preamplifier

This one is a combination of all the things I like in a phone preamp: great audio performance, a good power supply, and lots of tweakable options.



### TCC TC-750 Phono Preamplifier

This is a low-cost unit available commercially from [phonopreamps.com](http://phonopreamps.com). I've used this unit for a while and am pretty happy with the sound quality. It is a discrete design using 2SC1518 transistors and runs off a 12 volt DC wall wart. I spent a few evenings poring over the PCB, check part values and tracing the routes. Here is the resulting schematic. I haven't verified this yet by building one, but I'm pretty sure it is accurate. If you want to take a look at the PCB with parts notations, [check it here](#).



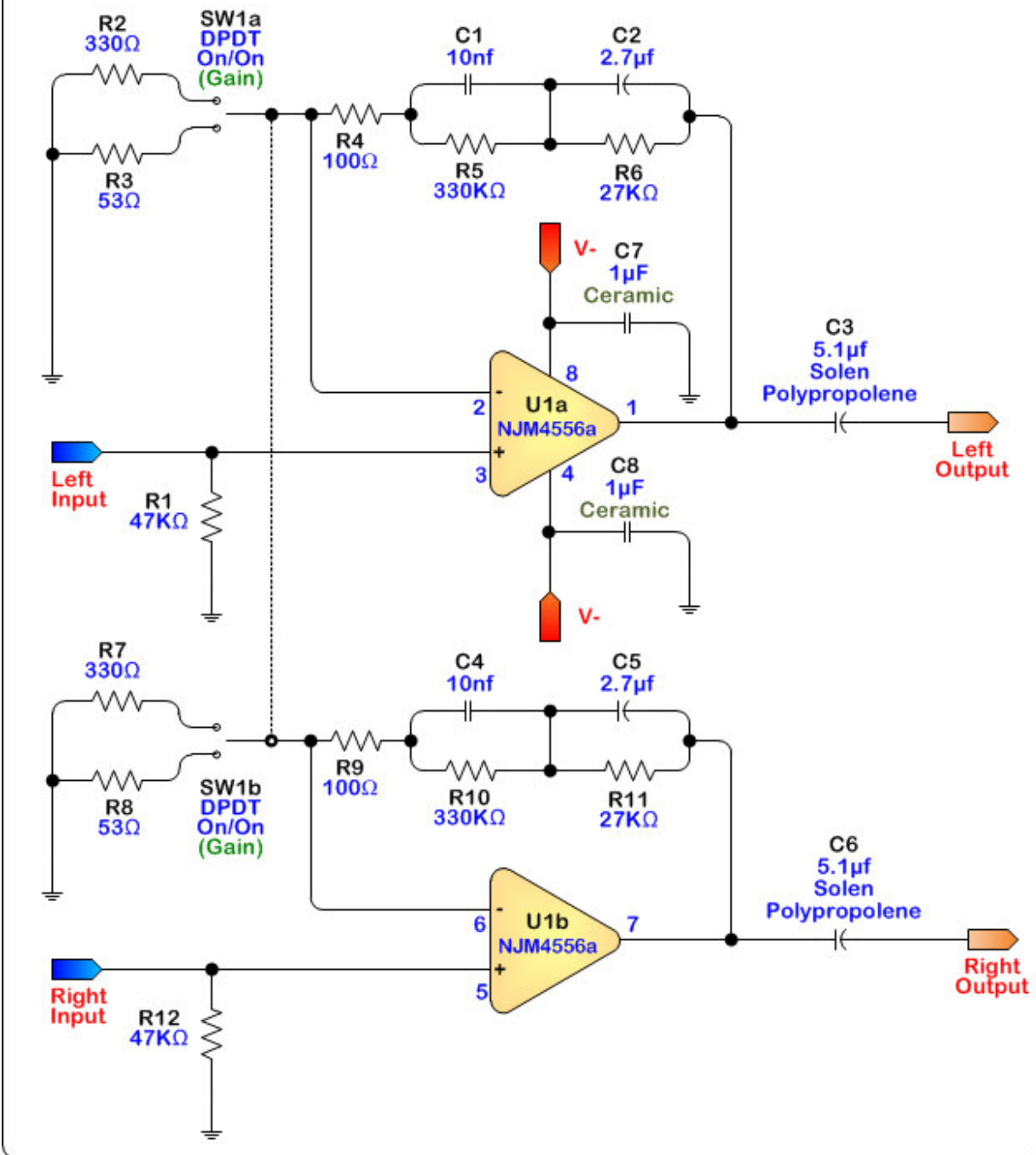
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## Grado PH-1

The Grado PH-1 is a compact phono preamplifier [offered commercially by Grado](#). There has been a lot of speculation on the web as to its innards, but unfortunately Grado chose to goop the PCB, thereby making reverse engineering a bit of a pain. One enterprising fellow on the web claimed to have de-gooped one and provided a schematic. I can't vouch for the veracity or accuracy of this schematic, but it appears to be the only one available on the interwebs. Here is a [great thread full of details](#) (as long as you speak French).

## Grado PH-1 Phono Preamplifier

Unverified



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