

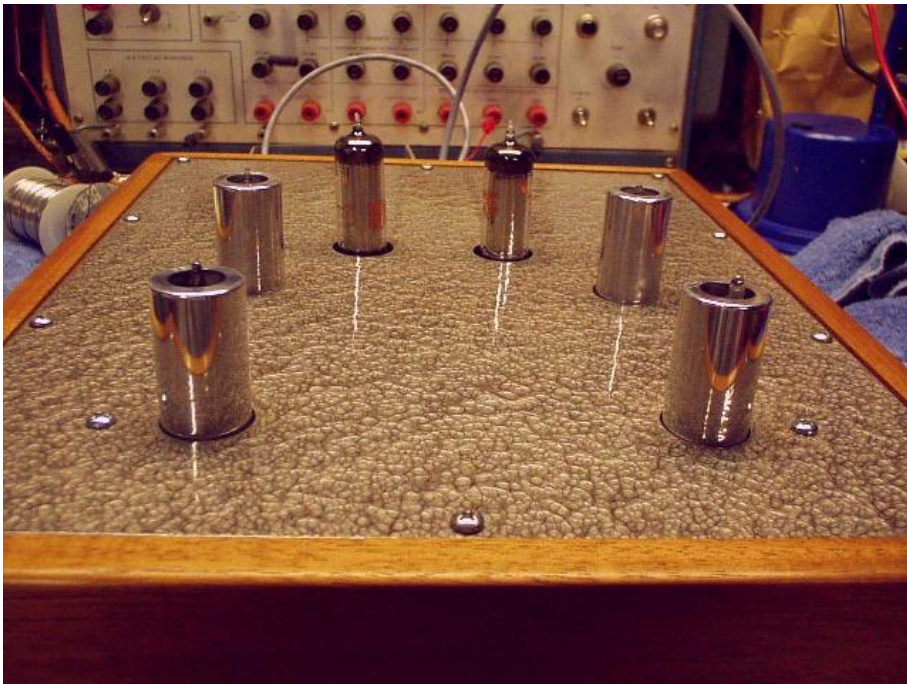
Here is my active loaded Teflon coupled phono preamp. The inspiration for this design came from Kurt S's design. I later found out that Dan had designed the original version, so this makes the 3 variation so far (I think).

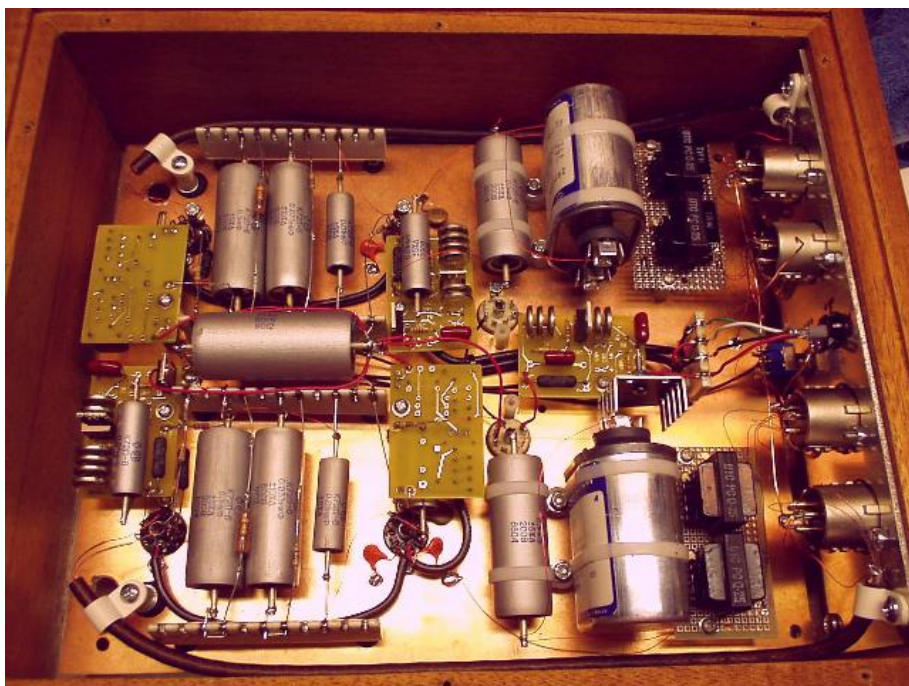
Basic circuit idea. Circuit uses 6ER5 and 6GK5 VHF triodes. Both stages are CCS loaded with my battery biased CCS's. I use the low impedance output on both stages. This allows me to have a low drive impedance for the passive EQ section and low impedance to drive the output transformer. During prototyping I measured the output impedance of the MU output of the CCS on the 6ER5 triode at 2.5ma. The output Z is 450 ohms +/-20 ohms over the audio range.

At this time the output transformers are pairs of UTC PC0-25 nickel core transformers I found at a local surplus shop. The transformers have dual primaries and dual secondaries. The impedances are 2K/500 to 600/150. I use 2 transformers per channel and have all the primaries in series and have both pair of secondaries wired for 600 ohms CT and then put the pair of secondaries in parallel. This gives a 4:1 step down ratio. The chassis has room to put in the Lundahl amorphus core transformers when I get ready to try different iron.

I'm looking into some different triodes with lower MU to try as the gain is quite high. With my Grado MM cartridge I have to turn the volume down about 10dB compared to my CD players and tuner. The little bugger is hot!

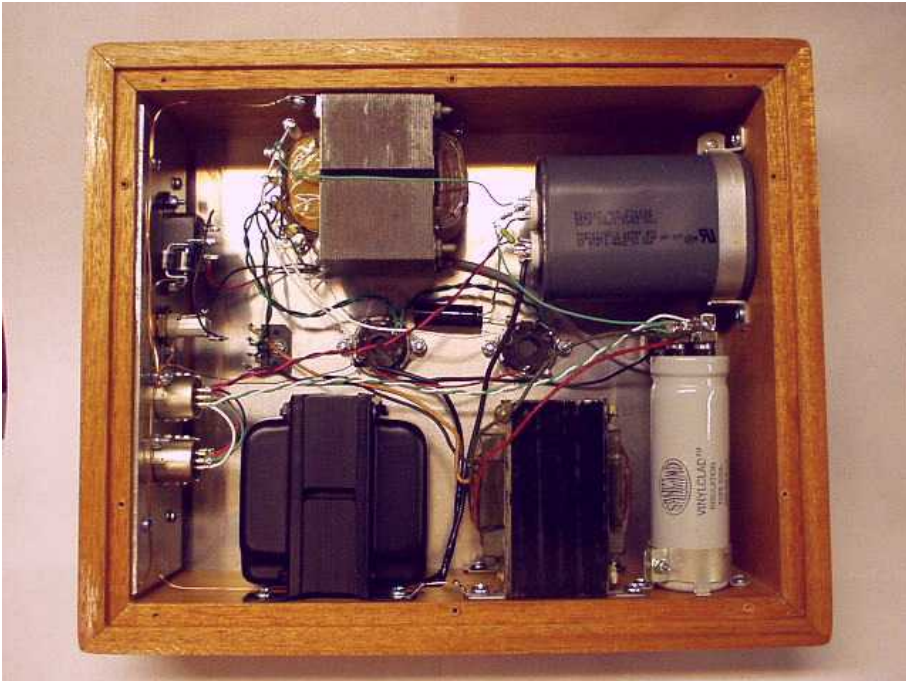
Here are some photos. The schematics further down.





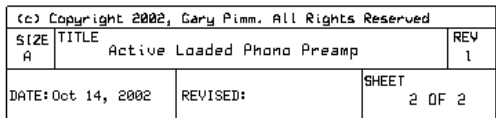
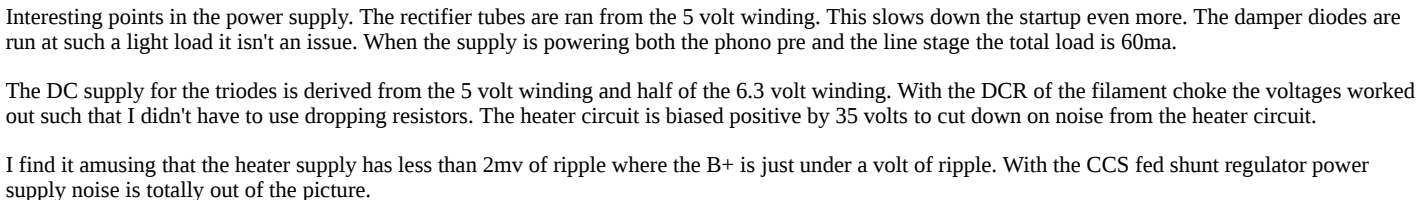
The power supply was fun! Has a whole lot of iron and I was able to fit it all inside for a nice clean look.





All the capacitors in the signal path are the Soviet Teflon with the exception of the 4uf GE poly in oil parafeed cap. It gets bypassed with a Teflon cap just for good measure.

The output transformer is wired so the output can float, be grounded on one end for SE output or have the CT grounded for balanced output. So far I have been using it floating. This breaks the ground between the phono pre and the attenuator. Seems to work good.



You are visitor:
Since **02/13/03**