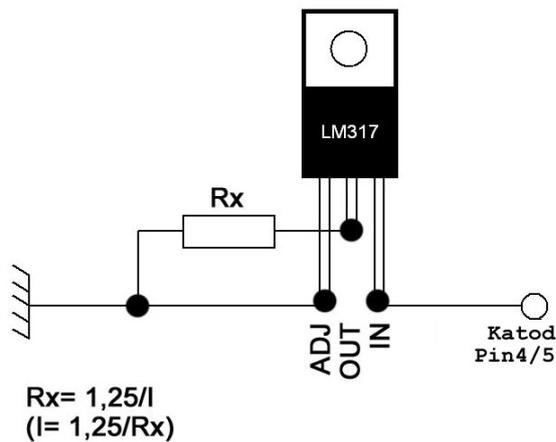


LM317 BIAS Regulator on AUDIOROMY M-828A

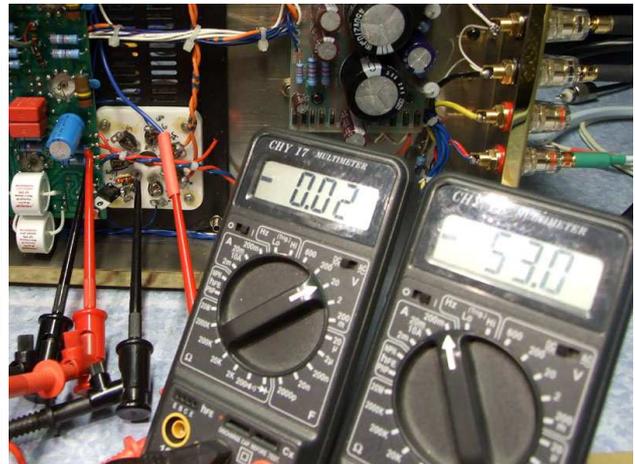
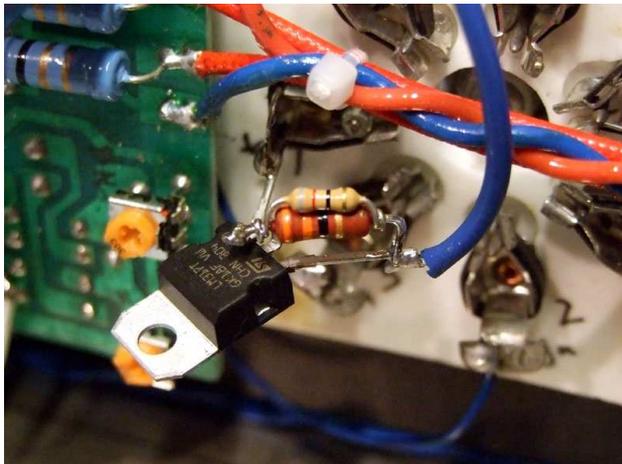
Using a regulator circuit to limit the cathode current just above 53mA (Max) - Uses a LM317 regulator that is controlled by a series resistor between the ADJ and OUT. I Have tried this before in a [MUSIC ANGEL MINI L4](#) amplifier. The idea is that with the regulator circuit to simplify the balancing of the tubes and thereby avoid 'RedPlate' problems where one tetrode section rushing uncontrollably.

AUTOBIAS Krets



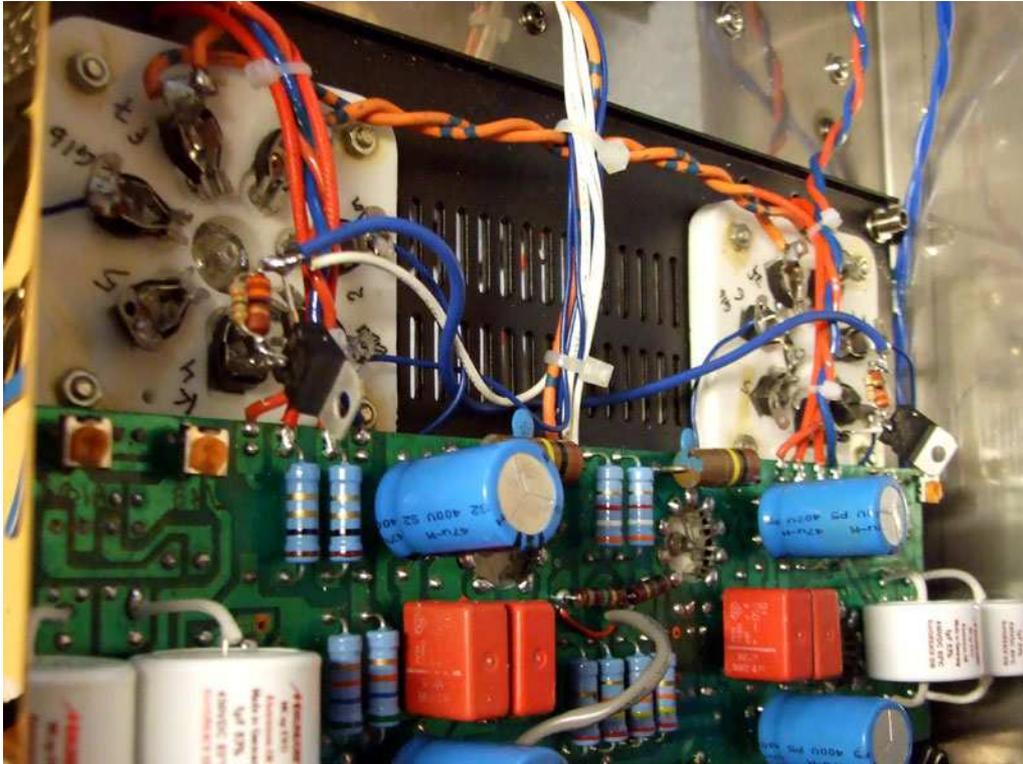
BIAS Circuit

Calculates the bias current to be slightly higher than the stated 50mA (25mA for each section) so that the current limitation in the regulator is able to 'go into action' - Calculates (control) resistance with Formula $(1.25 / I) = 1.25 / 0,053A = 23,53\Omega$ - Parallel linking two resistors $33\Omega + 82\Omega = 23,53\Omega$ to get the restriction to enter at just over 53mA $(1.25 / R_x) = 1.25 / 23,53\Omega = 0,0531A$



BIAS Circuit in place, It WORKS!

Once in place, I can verify that the cathode current now can't exceed 53,2mA, it is possible to decrease below this, but not to go over, then current limit set in (determined by the value of Rx acc. Formula above) - You can now focus on balancing the tube sections, although it is now much more stable and easier to adjust / keep track of. (No More RedPlate!)



Two BIAS Circuits in place, They both WORKS!

Adjusts the BIAS to 53,2mA and increase (Turns up) a little bit more to make sure that the current limitation now is applicable by the regulator (Not by the actual setting of the BIAS trim-pot) Note that the current does not increase despite this. The limitation of cathode current are now handled by the LM317 regulator.

73 de SM2YER /Goran /Have Fun!