Subject: Say Damir
Posted by Manualblock on Thu, 23 Feb 2006 15:49:43 GMT
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Damir; w/o the schematic I can't tell but is the 300b fixed bias? How will that affect the plate load resistor if we went to cathode bias?

Subject: Cathode bias
Posted by Damir on Thu, 23 Feb 2006 18:24:52 GMT
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Huh, Manual - we passed this in Parts 1,2,4... See the link, Fig.4 - it`s the our output stage. We can use (and I used:-)) grid choke in the place of grid-leak resistor, Rg. And I enlarged coupling cap (between the driver stage and output stage), Ci to 4,7µF/450V.This is cathode or self bias output stage. Anode load for 300B triode is output transformer, or (simplified) reflected secondary resistance (our 8-Ohms speaker) to the primary side (where our tube is actually connected), or 3kOhms. We have "voltage drop" through the cathode resistor of about 70V, or Uk=+70V, then our "bias" voltage Ugk=-70V, grid is grounded through grid choke / grid resistor, and cathode is +70V positive. Voltage "through" the tube is Ugk = Ua - Uk = 420-70 = 350V, and current is 80mA. You don`t need adjustment, it`s a "self adjusting", only you must "tune" your Rk in respect of actual voltage in the circuit. I have 780Vct (more then specified 760Vct) secondary, and with AZ50 rectifier (I`m currently using) B+ is about 440-450V. I have about Uk=74V, and Ia=Ik=Uk/Rk=74/875=84,5mA - larger then 80mA max. DC current spec of the OPT, and I must enlarge my Rk a bit... Nothing complicated, Ohms Law.The final schematic will be larger and nicer, I promise...
http://audioroundtable.com/GroupBuild/messages/1476.html