Subject: SE 300B Project, Part 11 - The Amplifier Schematic
Posted by Damir on Thu, 30 Mar 2006 11:38:07 GMT
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Finally, here`s a complete schematic of SE 300B amplifier, one channel shown:The driver is described in part 9, and active, CCS load in various «chapters», and «Guinevere» preamp project. Again, links for PCB and current settings (10-11mA) are here:http://audioroundtable.com/GroupBuild/messages/1079.htmlhttp://audioroundtable.com/Tubes/messages/929.htmlThe output stage is known from parts 1, 2 and 4 – there`re some little changes, for example, cathode resistor R12 is enlarged to 910 Ohms. We can use 820 R / 25W resistor, and 91 Ohms / 1W resistor in series. It can «work» like slow-blow fuse – in normal operation, 80mA cathode current produces 0,08^2*91 = 0,58W dissipation. If for some reason current through the output tube rises more then 105 mA, this, 91R resistor would overheat and burn out, (hopefully) protecting other (expensive) amplifier`s parts.Negative secondary / speaker terminal can be grounded (for safety reasons), but I left it to «float». We can use the «star ground» variant, where all the driver grounds are put together in one point near the tube socket, and then grounded to the one and only «star ground» point on the chasis. The same is with output tube, see the schematic. The «minus» pole of PS decoupling capacitors can be grounded to the same «common» points, C3 (and C7 other channel) to the power amp`s common ground point, and C4 (and C8 other channel) to the driver`s common ground point.And here`re the wiring details of E180F driver:Wiring details for the output stage are in Part 4 – there`re some little changes (Ci, Rk and Rgs – their values are changed a bit), but the main change is a grid choke in the place of grid resistor, Rg.In the next, (probably) last chapter, I`ll have photos of the finished amp, and some more construction details.