Subject: Grounded grid
Posted by Thrint on Sun, 04 Sep 2005 14:41:43 GMT
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Hey-Hey!!!,I have been considering a cathode drive power stage for the next amp. Seems a bit foolish to jump into a project well up the power ladder. So, this leaves the starting point of the linestage. Just to start with, PS parts are a bit easier to carry( let alone purchase ).Input Z of the grounded grid's cathode is Plate Z over mu+1. This is not typically a large value. For the 12B4, a plate Z of 1k5 at a reasonable OP is leaving a cathode Z of ~230R. It is a reasonable place to start.A pentode's cathode Z is 1/gm, and with a high gm example( 36 mA/V ), a 30R value is the result. This gets near the 1:10 ratio output Z to load...The pentode's g2 can be done with a simple dropping R and bypass C. Good quality C is likely to be worth paying for. A 1-2 uF and 30k should do quite well.Using a triode as the CF/input stage also provides a means to adjust gain. Put a plate resistor in of equal value to the amplifier plate load, and gain gets cut by half( looks like a phase splitter, NO? ).Cathode load can be a CCS, or resistor to ground( going to be small ) or to a negative rail. Going to ground will put a small resistor in parallel with the cathode load, and this will make the load appliedto the CF a whole lot bigger( maybe it will contribute to sound in a positive way? ). The negative rail will make that part of the load large in comparison to the cathode of the amplifier.I am going to build *Something* new quite soon, just a matter of what....cheers,Douglas