Subject: Merlin front end simplifications....
Posted by PakProtector on Sun, 29 May 2005 11:55:35 GMT
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The faux pentode cascode is a bit on the complex side. True pentodes can be used. 6AU6's are *FINE* valves, and have worked quite well. Resistor to drop the voltage for a common g2 supply and a 4-6 uF cap to ref the g2 to the common cathode. Referencing g2 to the cathode is an important feature/design requirement of this circuit.In circuit adjustment of the g2 droping resistor is not too bad if you know it's going to be required from the start. Getting a good quality screen bypass cap is not too difficult either. It aviods the heater cathode issues of the cascode too. Plate loads for the 6AU6 of ~30k and ~100k seem to work best. The middle ground seems to be less than optimum, but with an adjustable CCS for the cathode load, the experiments can be carried out easily.Other front end options include the 6EJ7($3 each) the 12BY7($12) and the slightly 'spensive 7788(a $35, 45 mA/V gm-monster).With pentodes, gain is ~plate load * transcoductance. Even the 6AU6 with 25k has enough gain. EF86 and its octal cousin the 6SJ7 are also contenders. The metal 6SJ7 offers an external shield for free(or more specifically, the expense of lack of a glass bottle).regards,Douglas