Subject: Merlin Front end mods
Posted by PakProtector on Fri, 16 Sep 2005 23:32:24 GMT
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hey-Hey!!!.I am preparing a modification to the cascode front end of the Merlin amp. As drawn it shows a twin triode cascode. I am preparing to substitute a MOSFET for the upper triode section. An IRF820 to be exact. It shall be connected in exactly the same fashion. the two gates tied together with a gate-stoppe of 150R and referenced to the lower source of the voltage reference CCS. No change to the voltage, as this parameter is critical to the performance of the lower input section. It will offer a moderate increase in available voltage swing, since it has a very low voltage drain-source minimum. Say 10V instead of the 6H30's 50 Volts.Anyway, it is an interesting looking mod, and offers a means to execute the amp a little bit differently. It also removes the slightly hard to source 6H30. With HY1269's as finals, a 6J6A in the bottomof the cascode, and a pair of 12AX4 damper diodes for the rectifier, the 6H30 is the most expensive tube in the line up. OTOH, IRF820's are more expensive than 6J6A's....I'll let you know how it turns out soon.cheers,Douglas

Subject: it works quite well
Posted by PakProtector on Sat, 17 Sep 2005 18:53:22 GMT
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Hey-Hey!!!,I got both sides upgraded. Swapped out a pair of triode sectins in the upper half of the cascode for a pair of MOSFET's.Another layer peeled back, perhaps a thin one...but it offers simplifecation to the Merlin construction. Excluding the PS, there is very little involved with the amplifier. The E-Linear output TX, a pair of power valves, and a pair of matched triodes(either in one or two envelopes). Say $3 6BQ7/6BK7 or a $2 6J6A and what ever power valve you want. EL84 to 6V6 to 1624/1619 or HY1269 or on to the bigger pentodes like 4E27 or 813.It just depends on how big a PS you want to build. On top of that, with a 1650E 8k a-a Hammond, you can probably build quite an inexpensive amp which will kick serious tail in a price class an order of magnitude higher. I am not sure about the 43% E-Linear point, but it should be easy to design around somehow...back to listening, the amp does like a bit of warm up.cheers,Douglas