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Subject: Millett's amp

Posted by [Manualblock](#) on Sat, 19 Mar 2005 15:58:31 GMT

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Say T; why do you think Pete decided not to use ccs but instead goes with tube regulation? I ask only because you said you worked on the E-Linear thing in tandem. Is the fact that that amp is SE have anything to do with it? Also for the more electronically challenged, how do you do the bias wiring and tie-in the ccs1 to the A- leg? I am going to point out here that as a beginner the Guinevere wiring job had an intuitive feel that could be expressed directly from the schematic; however this is another animal. I look at this schematic and see nothing but questions and few answers pop out at me. What are the catastrophic failure modes possible here and am I seeing this accurately or is this one of those things that look more difficult than they are? Also can we get a BOM on this ? Also; I don't see a commitment to any particular tube, has this been left open or is it cemented in yet? Thanks BTW, J.R.

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Subject: bit by bit

Posted by [PakProtector](#) on Sat, 19 Mar 2005 18:16:28 GMT

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why do you think Pete decided not to use ccs but instead goes with tube regulation? He has a pentode running as a SE voltage amp. The g2+plate current thing was giving the diff amp fits as its cathode is CCS-ed. The cascode triode takes care of this( as long as the upper valve stays out of grid current operation). The upper grid is also ref'd to the cathodes, a feat which is harder to do properly with a screen grid. I ask only because you said you worked on the E-Linear thing in tandem. Is the fact that that amp is SE have anything to do with it? I came up with the idea on the way back from a lunch outing. We re-arranged a test amp immediately, and were quite taken. I kept my mouth closed about the discovery. ~4 months later Peter posted on AA's Tube/DIY what he had been working on and I went public with the PP version soon after. Also for the more electronically challenged, how do you do the bias wiring and tie-in the ccs1 to the A- leg? The CCS is attached to an earlier stage of the bias voltage filter circuit. It is not too critical since it is such a good CCS/regulator. It should go at least one stage before the bias pots so that they can be quite clean of ripple. I am going to point out here that as a beginner the Guinevere wiring job had an intuitive feel that could be expressed directly from the schematic; however this is another animal. I look at this schematic and see nothing but questions and few answers pop out at me. What are the catastrophic failure modes possible here. Over voltage on B+ and failure of the CCS2. I am not sure what would happen, since I have not had one fail yet. This is the most critical and 'close to the limits' set of parts on the amp. and am I seeing this accurately or is this one of those things that look more difficult than they are? It is really fairly simple. One B+ ( L-C filter, single rectifier), two coupling caps, the plate loads to the front end go to their corresponding g2 connection or dedicated tap point. The filaments each have their own winding, two secondary Hammonds of 185 series are quite good for this app. One filament TX for each amp. One 50R hum pot for each of the finals. Also can we get a BOM on this ? Yes we can. I will put one together tonight and set it up for discussion. Also; I don't see a commitment to any particular tube, has this been left open or is it cemented in yet? If you go with UX5 sockets, there are at least three which

will work. two are DH, the 1624 and HY69 and the IDH 807 will all plug in with a filament voltage adjustment. This is how I would suggest proceeding.regards,Douglas

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Subject: Re: bit by bit  
Posted by [Manualblock](#) on Sat, 19 Mar 2005 18:33:11 GMT  
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Thanks Doug; That was an excellent response; clear and thorough. Have you spoken to Heyboer yet regarding the special order?Which tube did you prefer or is it a case of differing"flavors"?And what was the final amplifier output in watts again, I don't remmember if you stated it.

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Subject: Re: bit by bit  
Posted by [PakProtector](#) on Sat, 19 Mar 2005 19:08:48 GMT  
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I would say that the power will be between 8 and 12 W. I wish it were more, but that is about it. I can say comfortably that they are good watts and it won't dissapoint. The 807 option may offer something like 15, but I have not built with that one, so its a guess.I have not yet contacted Heyboer about the build. I am going to do that Monday after hunting some Nickel lams for the grid chokes. It looks like a pair for me, one for Cheetah, one for you and one for Colin. they may be willing to wind a fifth pair for a spare, or perhaps we can get Wayne to make the leap, and then wind 6 pr. to maintain a single stock pair. I may be able to enlist a few other builders while I am at it. I will know more details on Monday.regards,Douglas

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