
Subject: 5e3 on the cheap

Posted by [David Hutchens](#) on Fri, 25 Feb 2005 02:35:42 GMT

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I just rewired an old Bogen 20 watt pa amp with a Tweed Deluxe 5e3 circuit. The power transformer is a little hot (about 430vac with no load) and has no 5vac winding so I'm using the original 6ax5 rectifier tube. The amp sounds pretty good, a little better than my silver face Champ. My B+ is about 457vdc and the circuit is drawing about 100ma off the rectifier tube at idle. I'm a little concerned about the high b+ and tube life. Do I need to change the 6v6 cathode bias resistor value or try to drop the b+ voltage or should I get a new transformer with lower output and a 5vac winding for a 5y3. I have new tube sockets a blank chassis and a 5e3 eyelet board and want to make a loose copy of the Tweed Deluxe. If I can use the Bogen transformers I think I can get out between \$100 and \$150 including speaker and homemade cabinet. Any suggestions, ideas or observations are appreciated.David

Subject: Re: 5e3 on the cheap

Posted by [tubenit](#) on Fri, 25 Mar 2005 02:33:13 GMT

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I have built a Bogen CHA-20 into a guitar amp using a schematic with my own design. I added 2 12AX7 tubes to add reverb and vibrato. I have drawn the schematic for the amp. The reviews of the amp are on Harmony Central amp data base as I have tried 3 different schematic designs. I would be happy to email a schematic attachment if you wish to see what I have done. I tried using a higher cathode resistor on the power tubes and the current (which is "self biasing") essentially stayed the same. I went from the original measured 328 ohms to 430 ohms with virtually no change. I contacted a friend who is off the chart knowledgeable about amp building and he suggested leaving the original resistor in. I also added a "tweed" switch to break the grounds on the tone stack and a pentode/triode switch to lower power. My friend plays a 5E3 deluxe and agreed the sound of his and mine is similar except that mine has the added reverb and vibrato. tubenit

Subject: Re: 5e3 on the cheap

Posted by [tubenit](#) on Fri, 25 Mar 2005 23:15:00 GMT

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David,I emailed the schematic and a couple of pics of the amp.Can you confirm if you got them, please. If it did not come thru I will try again and send schematic and pics separately. Thanks, Tubenit
