Command Technologies HF2500 Amplifier – Issue with Festoon Bulbs
An Update – March 2013 – Enter the 'Lady in Red'

Well if I thought my problems were now over with the HF2500 it was not to be. I was pretty pleased after doing the regulator mod and this seemed to have cured the problem of the 'Cut-out' on the 12v DC line on the control board.

However after a few days operating it soon became apparent that all was still not well. If I had fairly quick or brief QSO's the amp worked fine. But in '***Ragchew***' mode the amp would cut out after a few minutes of yammer yammer, fail to put any power out and the grid current would jump to around 80ma. Not good news. The only thing to seem to have changed (even before I did the regulator mod) was I had put new bulbs in it. Before then it work flawlessly. It seems really odd that just putting new bulbs in could cause these issues.

Everything originally seem to point to the 12v DX rail not being able to handle the current which was now only about 0.5amp using the 2 x 3 watt Festoon Bulbs. Saying that, I now have a 2 amp regulator in place so what's going on. I have a small panel meter bulb connected to my tuner light via the 12v RAC jack at the rear of the amp. The specs say 100ma max on this output. I had one small 12v '***Grain of Wheat***' bulb on the feed and that was only 50ma.

So - I removed ALL the Festoon bulbs and disconnected the panel meter RCA connection.

I then installed my own '***LED MOD'*** using 6 x 1.85v Super-bright Red LED's with all 6 connected in series through a 47 ohm ¼ watt resistor on the anode (use 3 on each meter). I took the feed from the bulb holder points on the switch board. The LED's are now mounted on top of the panel meters on a homebrew mount. There's just enough room. I now only have 30ma of current draw on the 12v line.

Over 2 weeks it has not cut out once, it's back to how it was. For some reason the 12v internal circuit which of course also powers other internal components seems unable to do the job when even low wattage (0.5amp current) bulbs are included in the circuit. The LED's in total draw only 30 milliamps.

I can't figure out what the issue is, but my thoughts are that the control relays (either one or all) are not working when other components are in the circuit. When the amp cut-out I re-key'd the TX and 'No Relay' clunk was heard, so the issue is certainly with the 12v rail. In the meantime, here's my red LED conversion and touch wood the HF2500 is now happy again ☺.

If there are any guru's out there that may be able to throw some light (xcuse the pun!) on what the problem may be, then I'll put the info on here for others to share. Email me steve@vortexantennas.co.uk

73 – Steve G0UIH
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