

Hi Kasper,

Just a thought, I have been performing some longevity testing of the JJ E88cc tube for longevity by reducing the filament voltage. I wanted to determine what causes deterioration of this particular tube.

One can typically assume a major player might be gas, some to poisoning/impurities of the cathode/sleeve materials, some due to cathode temperature, or a combo of the above.

I found with the JJ brand, it is Mainly due to cathode temperature. After nearly a 1,000 hrs, at 5.8 volts, approximately 9 ma, there has only been a 1-1.5% lowering of cathode current.

(My audio buddy's sp-3 preamp has filament voltage so low that it is difficult to see a red cathode.)

Just a thought, you may already be doing this already.

A little tidbit for newbies about my decades research in the lab. I hope this will help.

I exclusively use the JJ E88cc small signal tube in all my components due to its incredibly low HD, some 19db less than any other tube (2 volts rms output, -79db without negative feedback) and incredibly accurate/natural sound. This assumes accurate and proper size parts are used.

I once designed a PP circuit achieving 200 volts P-P signal output at 0,05% measured harmonic distortion. (It depends upon the circuit and cathode current used.)

I only wished the JJ would last longer; now it does with 5.8 filament volts.

I have tried many many NOS tube types and this tube was sonically superior across the entire audio band. I have many NOS tubes, but never use them, which are now in the parts box.

Anyway, just some thoughts that might someone out there.

cheers
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