
Subject: Re: Preamp schematic check

Posted by [gofar99](#) on Sat, 01 Nov 2014 23:10:02 GMT

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Hi, I like SRPP designs and this one should work fine. I favor the ECC802S over the 6SN7, but in this type of circuit they both behave very much alike. My only concern is the VR tubes. My experience has been that they tend to introduce noise. I also prefer putting the volume control at the input side. Yes this will mean that there is a bit more noise at the output as the control doesn't attenuate it but it also means that the tube is operating in a very small signal mode and is likely to be both more linear and lower distortion. With careful attention to details I get S/N in the -90 to -95dbv range in similar preamps with a gain of 7. BTW you can reduce the gain of the one shown by omitting the cathode capacitor. It will cause some shift in the output impedance, but not enough to cause any issues. I figure one less non-linear part is a good thing.

EDIT: I notice that there is no provision to protect the tube from high heater to cathode voltage. my experience is that without it the tubes do fail....rather dramatically as well with major noise going toward the amps. I always raise the heaters off the ground by about 60-80 volts DC. There is a side benefit as well as the S/N is improved slightly. The way to do this is not ground the CT of the heater trannie and instead make a voltage divider with about a 220K and 100K from a clean B+ source (only one is needed for all the tubes). At the tap attach a 2-5 us poly to the signal ground and the the tap goes to the CT of the heater circuit. If there is no CT then either leg seems to be nearly as good. I attached schematics of a similar design. There have been a few minor changes since the schematic was drawn, but they are not required for excellent performance.

File Attachments

- 1) [Preamp main Feb 26 2011.jpg](#), downloaded 11733 times
 - 2) [Preamp PS April 13 2011B.jpg](#), downloaded 11255 times
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