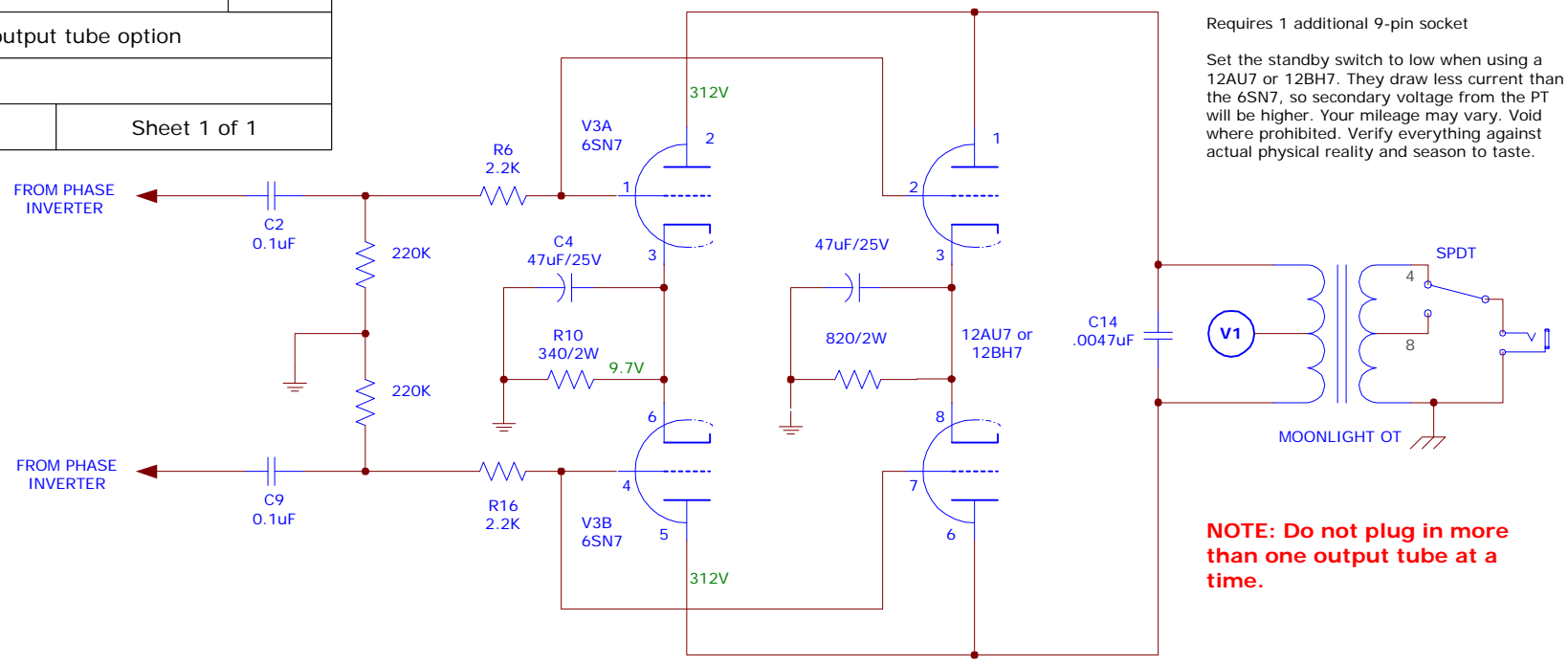
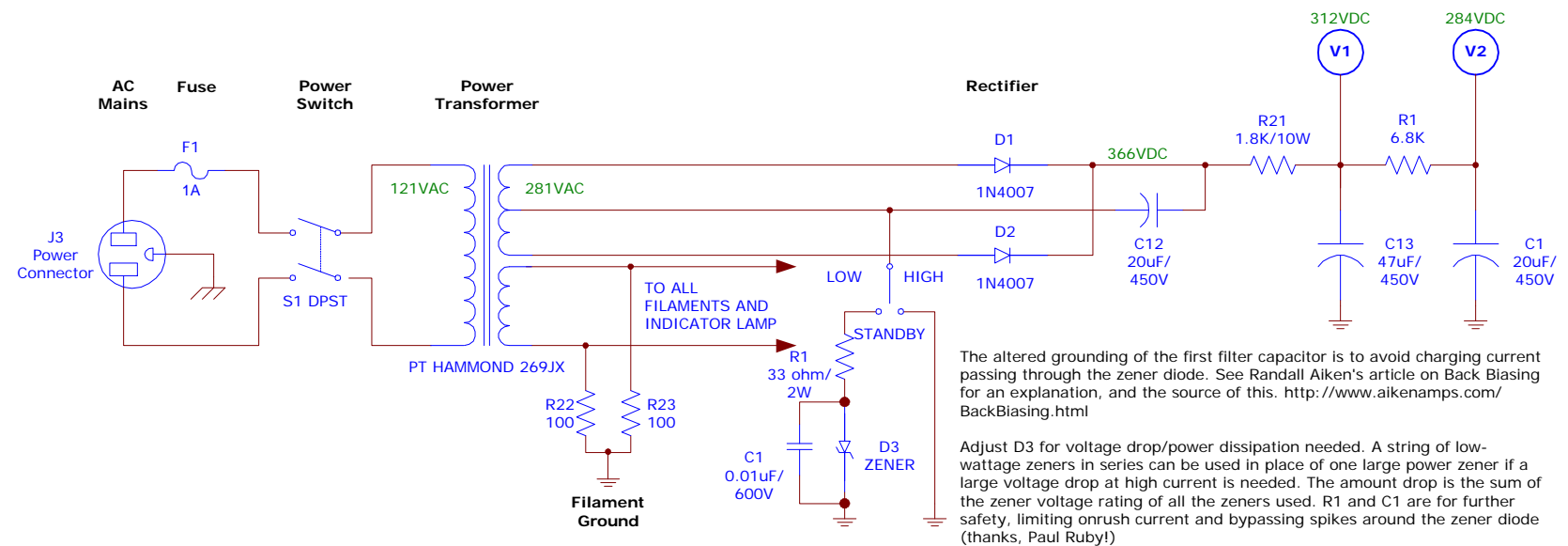
 <small>The Cooperative Tube Guitar Amp Project</small>	
<b>Moonlight Chameleon</b>	1/1/2002
Moonlight + 12AU7 output tube option	
Adam Alpern	Sheet 1 of 1



Requires 1 additional 9-pin socket

Set the standby switch to low when using a 12AU7 or 12BH7. They draw less current than the 6SN7, so secondary voltage from the PT will be higher. Your mileage may vary. Void where prohibited. Verify everything against actual physical reality and season to taste.

**NOTE: Do not plug in more than one output tube at a time.**



The altered grounding of the first filter capacitor is to avoid charging current passing through the zener diode. See Randall Aiken's article on Back Biasing for an explanation, and the source of this. <http://www.aikenamps.com/BackBiasing.html>

Adjust D3 for voltage drop/power dissipation needed. A string of low-wattage zeners in series can be used in place of one large power zener if a large voltage drop at high current is needed. The amount drop is the sum of the zener voltage rating of all the zeners used. R1 and C1 are for further safety, limiting onrush current and bypassing spikes around the zener diode (thanks, Paul Ruby!)