

REV:	Initial design: Randall Aiken
2	Updated bias supply/transformers
3	Fixed pot reference designators
4	Fixed presense/feedback/atten values
5	Added filament wiring for V5
6	Added missing 10K decoupling resistor
7	Changed decoupling resistors to 5K

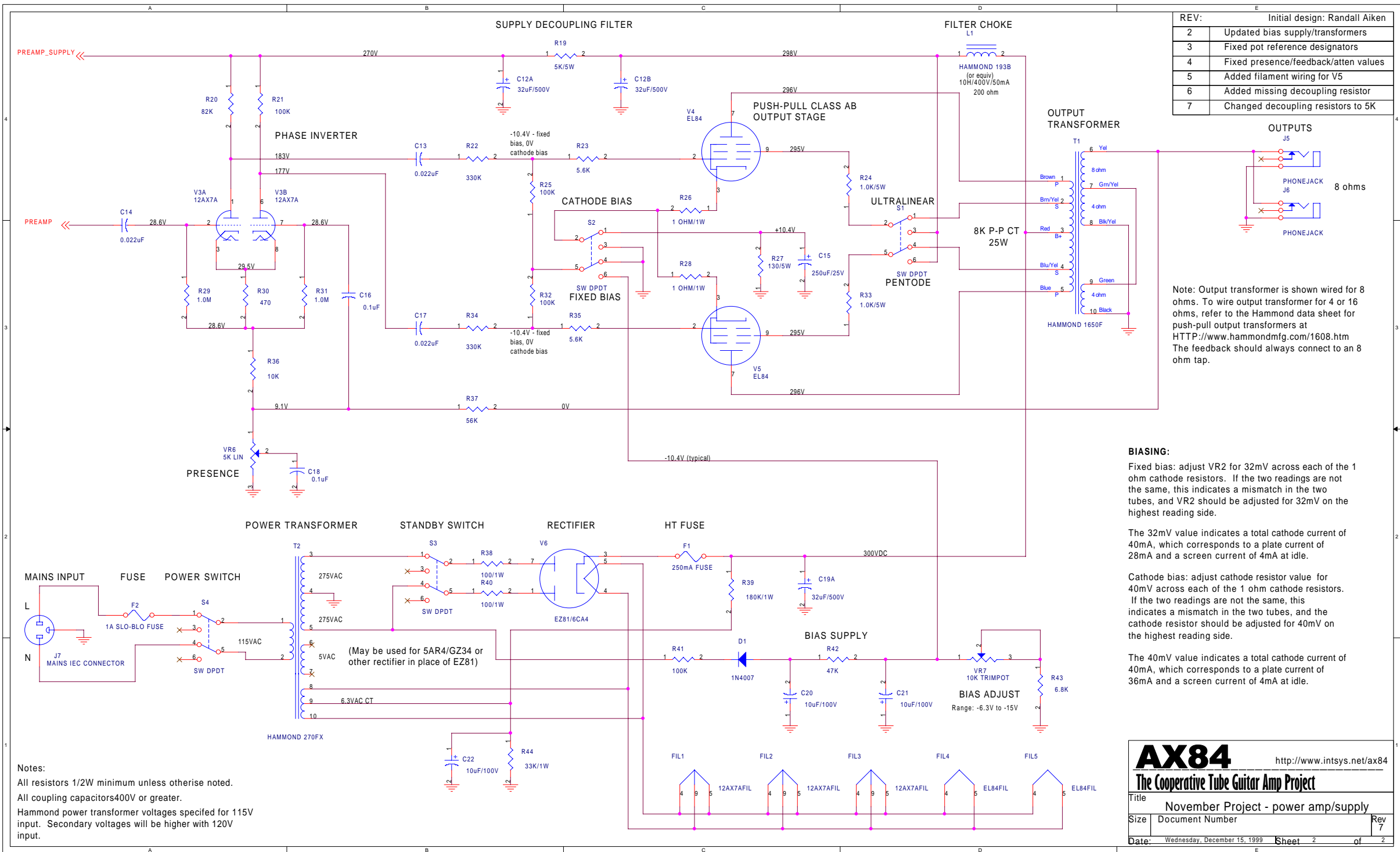
AX84 <http://www.intsys.net/ax84>

The Cooperative Tube Guitar Amp Project

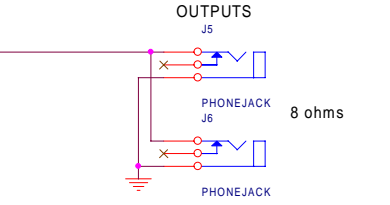
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Note: Output transformer is shown wired for 8 ohms. To wire output transformer for 4 or 16 ohms, refer to the Hammond data sheet for push-pull output transformers at [HTTP://www.hammondmfg.com/1608.htm](http://www.hammondmfg.com/1608.htm) The feedback should always connect to an 8 ohm tap.

BIASING:
 Fixed bias: adjust VR2 for 32mV across each of the 1 ohm cathode resistors. If the two readings are not the same, this indicates a mismatch in the two tubes, and VR2 should be adjusted for 32mV on the highest reading side.
 The 32mV value indicates a total cathode current of 40mA, which corresponds to a plate current of 28mA and a screen current of 4mA at idle.
 Cathode bias: adjust cathode resistor value for 40mV across each of the 1 ohm cathode resistors. If the two readings are not the same, this indicates a mismatch in the two tubes, and the cathode resistor should be adjusted for 40mV on the highest reading side.
 The 40mV value indicates a total cathode current of 40mA, which corresponds to a plate current of 36mA and a screen current of 4mA at idle.

Notes:
 All resistors 1/2W minimum unless otherwise noted.
 All coupling capacitors 400V or greater.
 Hammond power transformer voltages specified for 115V input. Secondary voltages will be higher with 120V input.

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