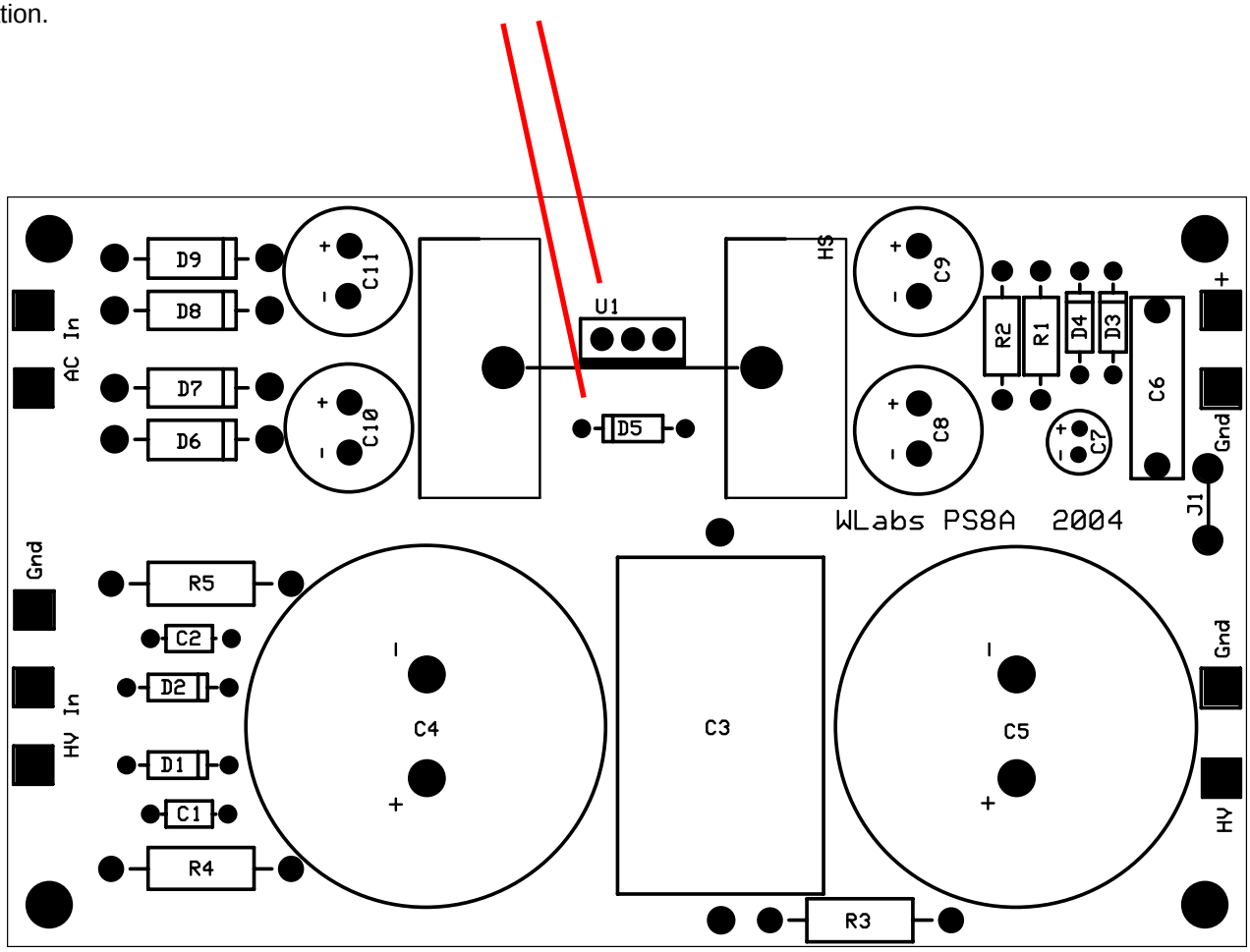
ATTENTION

Due to an error in the circuit board layout you must mount two of the components differently than what is shown on the actual silkscreen art on the board.

Please disregard the orientation of U1 and D5 as labeled on the actual circuit board and install them with the orientation as shown in the diagram below.

This change will not in any way degrade the performance of the power supply but must be completed to insure proper operation.



New and Improved PS-8 Power Supply

The PS-8 is a combination unregulated high voltage power supply and regulated low voltage filament supply for vacuum tube preamps. The high voltage section incoporates the use of ultra-fast diodes with a snubber network to reduce noise. The filament supply uses schottky diodes also for low noise, ultra-low impedance filter capacitors followed by a low noise Linear Technologies voltage regulator stage. It includes a laminated transformer with end bells, or a toroid transformer, and a circuit board providing high voltage dc voltages and filament voltages of 280 to 350Vdc and 6 to 12Vdc respectively. The voltage dropping resistor R3 can be jumpered for higher voltages when using a high voltage regulation stage in conjunction with this supply. Without the dropping resistor, the PS-8 maximum output is approximately 350Vdc. An inductor may also be used in place of R3 for added filtering (2 to 10H should be sufficient). See schematics and stuffing diagrams on the following pages.

PS8A Parts List (PS8B - same parts list x 2)

D1, D2	1A/1000V	Ultra-Fast Rectifer Diodes
C1, C2	.01uf/600V	Ceramic snubber capacitors
R4, R5	330kohm	Metal Oxide resistors
R3	Select	Dropping resistor select or use jumper wires
C4, C5	100uF/450V	Low impedance electrolytics
C3	2.2uF/400V	Solen polypropylene capacitor
D6, D7, D8, D9	3A/50V	Schottky Rectifier Diodes
C8, C9, C10, C11	1000uF/35V	Nichicon ultra-low impedance electrolytic capacitor
C7	120uf/16V	Nichicon ultra-low impedance electrolytic capacitor
C6	.01uf/630V	WIMA polypropylene capacitor
D3, D4, D5	1N4002	Diode
R1	750/1.21k	6volts/12volts (our transformers only provide 6 volt filament voltage)
R2	2.74k/10k	6volts/12volts (our transformers only provide 6 volt filament voltage)
U1	LT1085CT	Voltage Regulator
J1		Jumper Wire
T1		PowerTransformer
Misc		Circuit Board, Heatsink, Standoffs

PS8 Power Supply (Board Dimensions 3.0" x 5.0")

Recommended Assembly Sequence

We recommend you follow the assembly sequence outlined below. Before starting check your kit for all components.

1) Install and solder resistors R1, R2, R3, R4 and R5
2) Install and solder jumper wire J1
3) Install and solder diodes D1 thru D9 (note polarity of diodes).
4) Install and solder Wima bypass capacitor C6
5) Install and solder capacitors C7, C8, C9, C10 and C11 (note polarity - the white band is the negative side).
6) Install and solder the heatsink HS
7) Attach regulator U1 to the heatsink with the provided screw and solder.
8) Install and solder capacitors C3, C4 and C5. (note the polarity of capacitors C4 and C5).
9) Attach transformer wires to the circuit board as outlined on the previous page (note the toroid transformer can be wired for both 115Vac or 230Vac).

PS8 Checkout and Test

Inspect all solder joints under a bright light. Look for voids, bad joints and solder bridges. Power-up the PS8 before connecting to your circuit. Check the B+ and filament output voltages with a voltmeter to insure correct operation. The high voltage should measure approximately 350V unloaded and the regulated low voltage will measure approximately 8 volts unloaded. Connected to your circuit, the regulated low voltage supply should provide 6Vdc.

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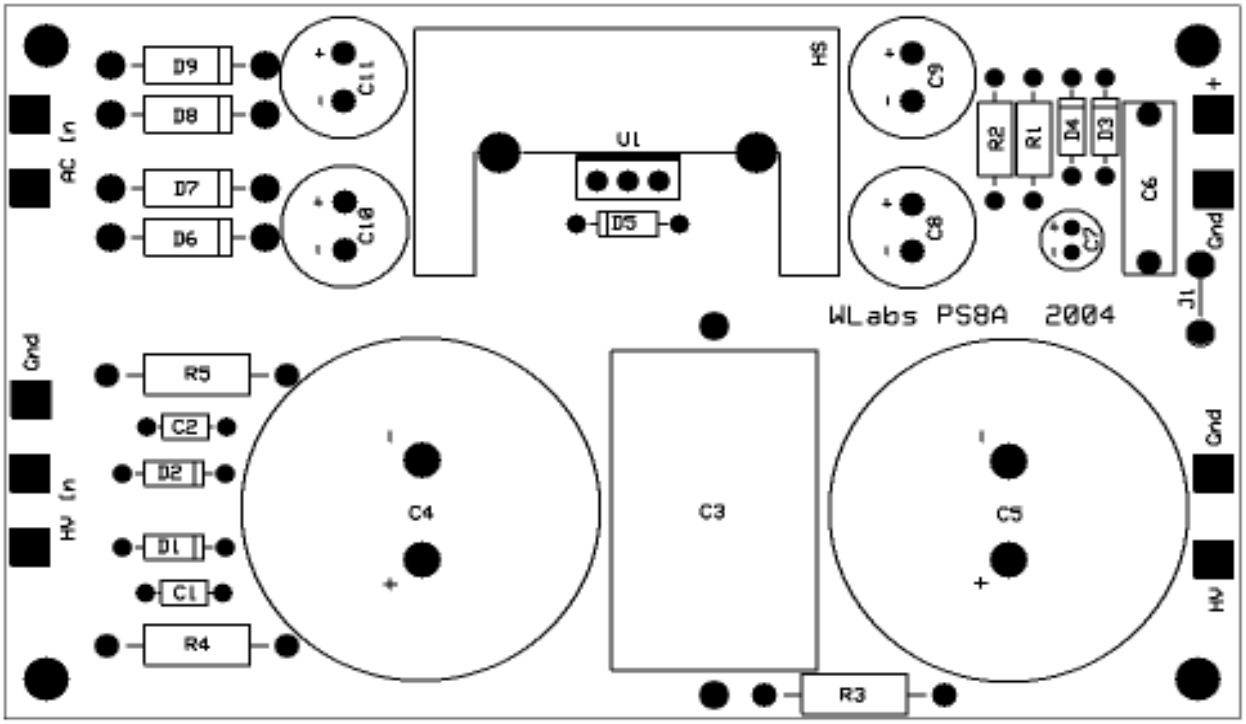
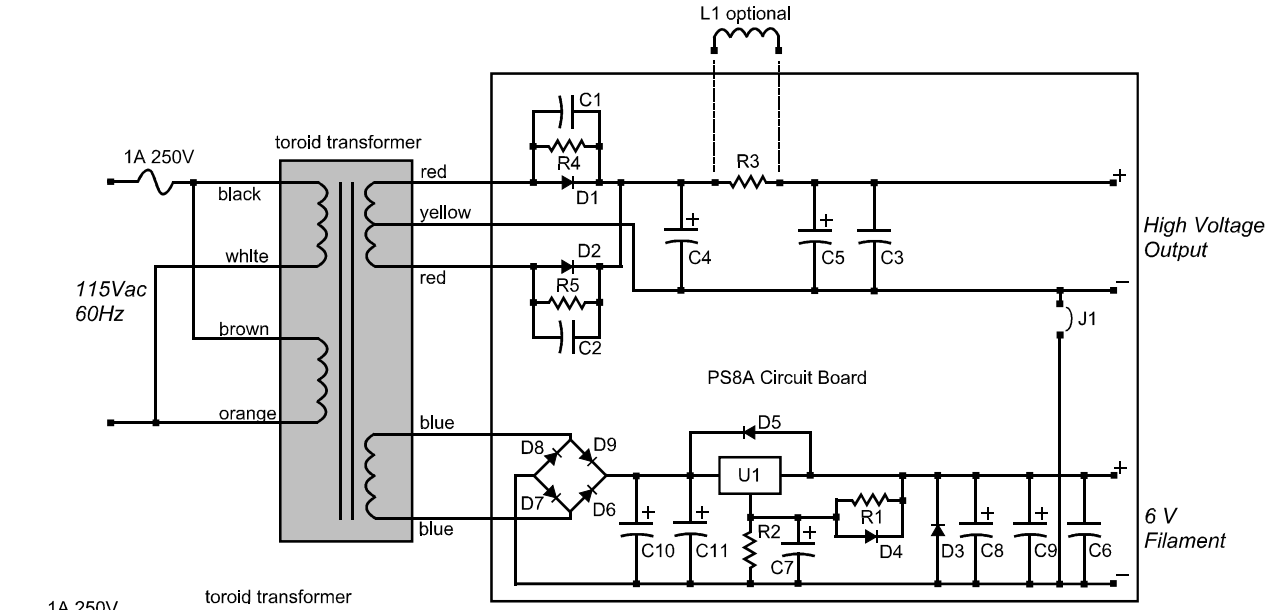
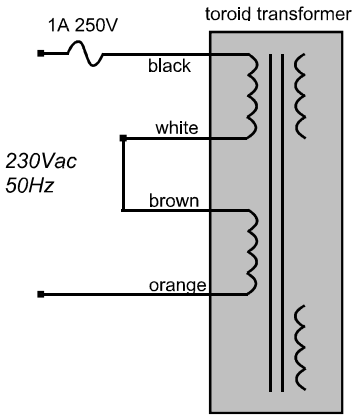
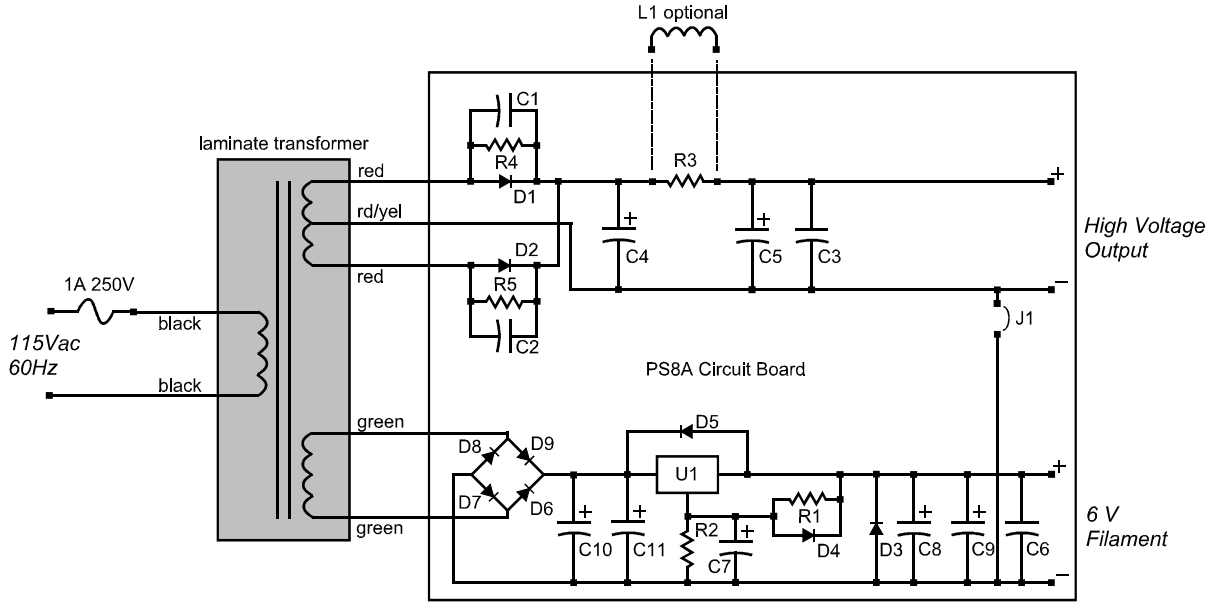


PS8A Component Diagram (PS8B - same layout x 2)



PS8A Power Supply Schematic shown with toroid transformer connections





PS8A Power Supply Schematic shown with laminate transformer connections