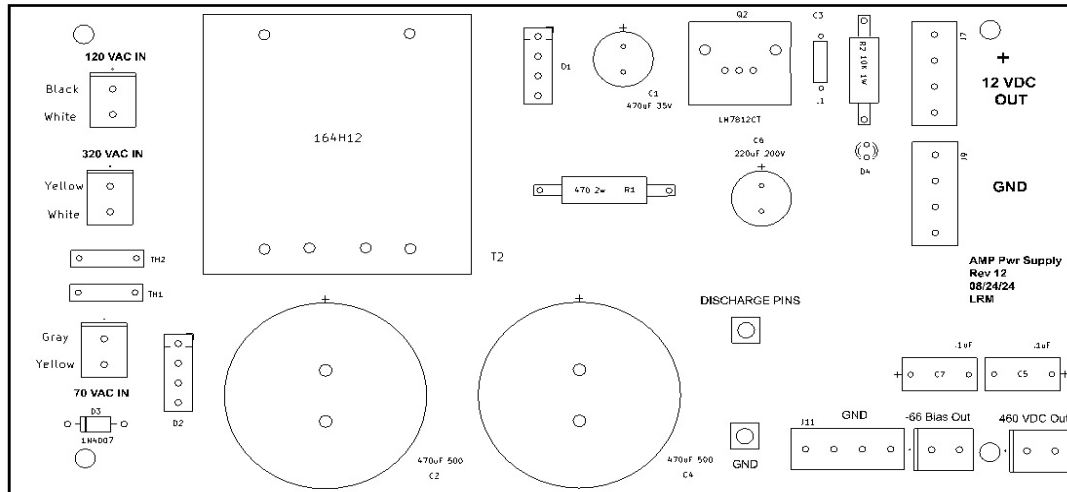


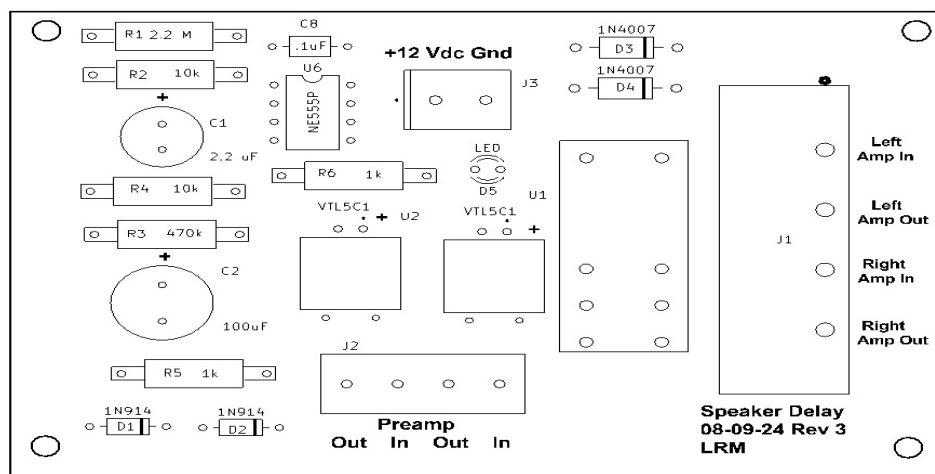
Citation II - 2024 Assembly, Setup & Test Rev 11

Power Supply Rev 12



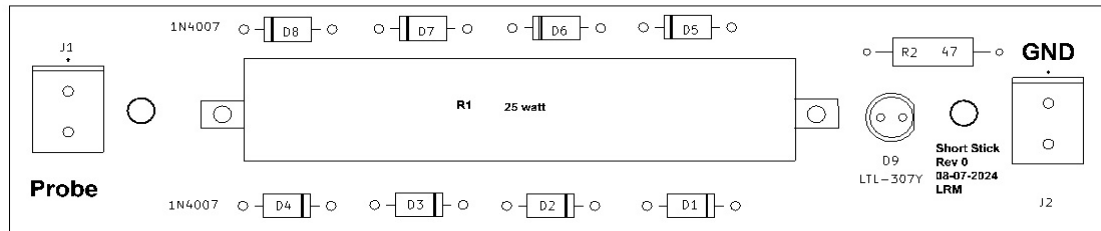
1. The two bridge diodes mount with the NOTCH end ,in square pin 1.
2. Make sure the caps C2,C4, 470uF 500V are mounted correctly.
3. Make sure the cap C1, 470uF 35V is mounted correctly.
4. Make sure the cap C6, 220uF 200V is mounted correctly.
5. Make sure the cap C6, 220uF 200V is mounted correctly.
6. I mounted to transformer with bolts. Drilling holes after the tranformer is solder in place.

Speaker Saver Rev 3



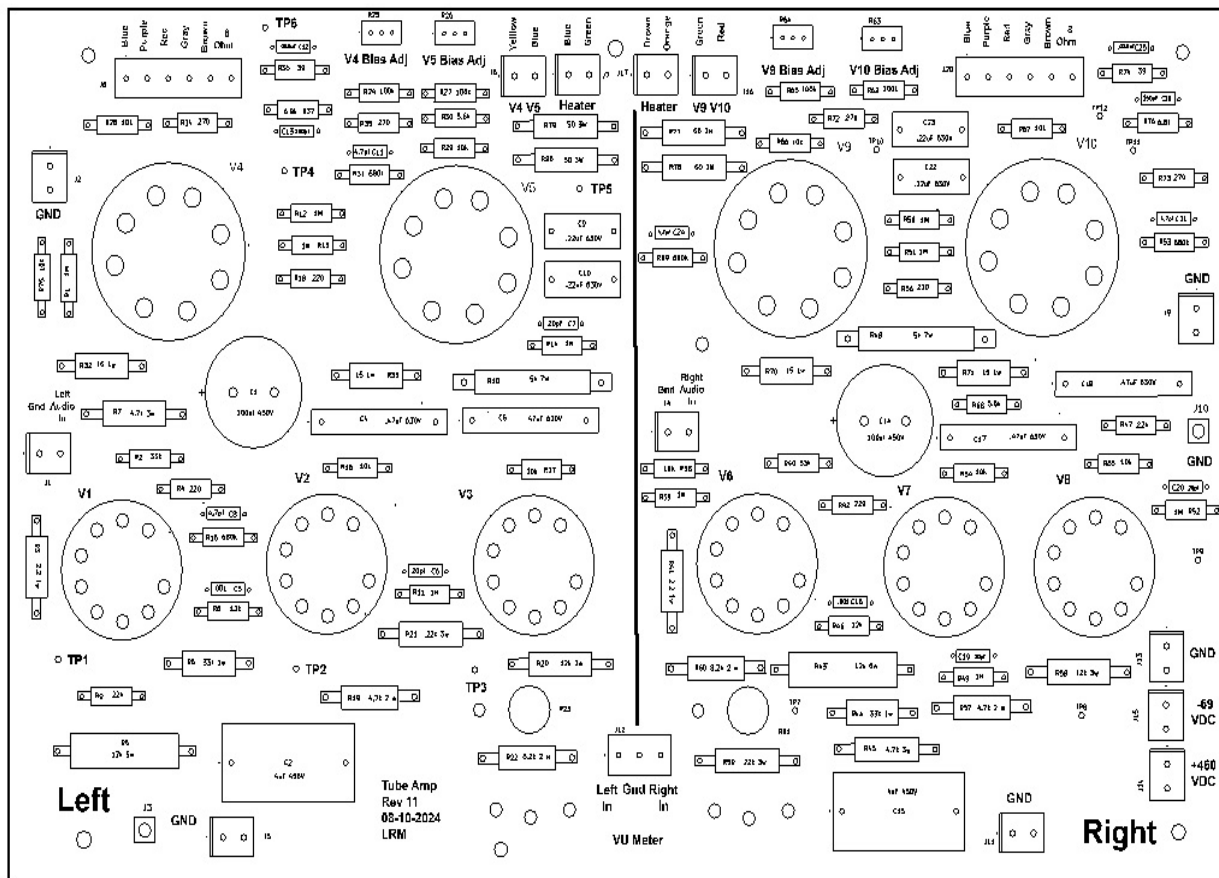
1. Make sure the caps C1,C2, 100uF 50V are mounted correctly.
2. Make the 2 VTLC1 photo cells + pin are stuffed as shown.

Short Stick



1. Mounted pcb in a 1- 1/2" PCV pipe with cap ends.

Main PCB Rev 11



1. The 8 pin sockets notch pin goes toward the 9 pin sockets. The square pin is pin 1.
2. The square pin of the 9 pin sockets is pin 1.
3. R46 & R44, 5K Pots mount from the BOTTOM of the board.
4. Mounting holes might need to be drilled out depending on hardware used to secure the board.

5. Board stuffing order

Do the 1/2 watt resistors first.
Do the small caps next.
Do the large watt resistors next
Do the terminal block next
Do the sockets next.
Do the 5k pots last from the bottom.
Do the large caps next. Verify cap orientation

Power supply board test

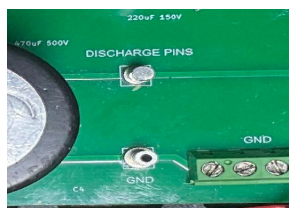
1. Verify bias and main power supplies. Bias -102VDC +460 VDC. +12VDC

Note: Once the Main pcb power is connected, the bias voltage will drop to 69 VDC.

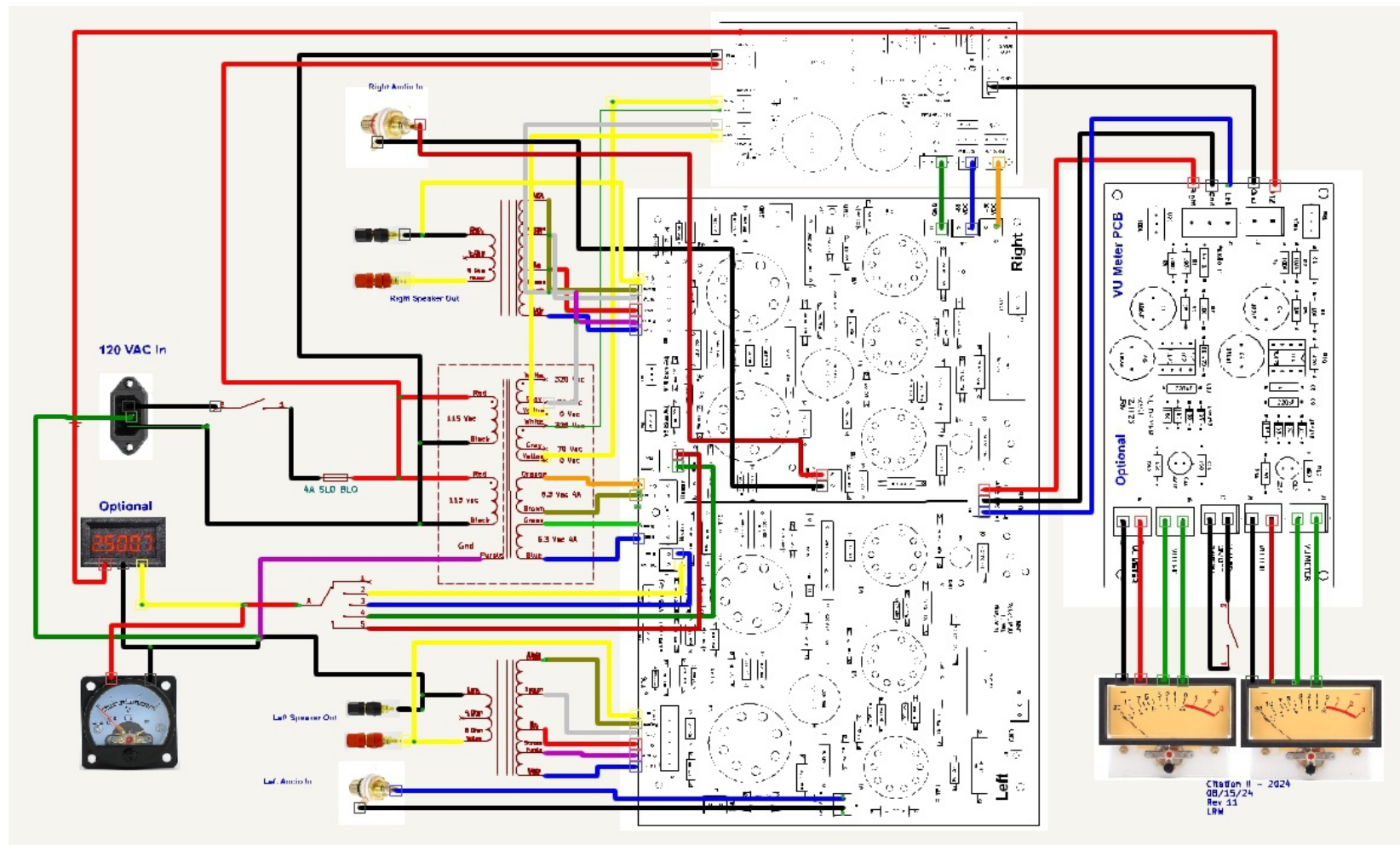
2. Main fuse 4A Slo-Blow

NOTE: 460 VDC is present throughout this pc board. Caution is advised.

You will need a shorting stick to drain the main capacitors if no tubes are mounted on the pcb. Short the pins are between the Discharge pin and GND.



Refer to Connections. jpg



MAIN PCB Board setup and test.

1. Hook up all of the wire connections to the main pcb.
 - A. Both output transformers.
 - B. Main transformer
 - C. Both audio inputs and grounds.
 - D. Both 8 ohm (+ Speaker terminal) to the 8 ohm on pcb.
 - E. Bias meter wires if used.
 - F. Three power supply wires, Ground, Bias and 460 VDC
2. Adjust the four Bias pots, R48, R49, R54, R55 - **Fully Counterclockwise**, Viewed the **FRONT**.
3. With NO tubes mounted in the boards verify the following voltages
 - A. Check the 6.3VAC filament voltages on all the tubes.
 1. Pins 4/5 to Pin 6 on all the 9 pin sockets.
 2. Pins 2 to 7 on all the 8 pin sockets.
 - B. Pins 3 & 4 of the 8 pin sockets should be 460 VDC.
 - C. Pin 5 of all the 8 pin sockets should read the bias voltage -66 VDC. If you adjust one of the bias pots, the voltage should change from -66 vdc to -40vdc .

You will need a shorting stick to drain the main capacitors if no tubes are mounted on the pcb. Short the pins are between the Discharge pin and GND.

The 4 KT88 output tubes **MUST** be installed **BEFORE** adjusting the cathode bias voltages.

4. Make sure that the audio input connections ARE removed..
 - A. Using a bias meter switch, set the following positions too:
This measurement is the voltage across the 4 cathode resistors.
 1. Switch position 1 - OFF
 2. Switch position 2 - V10 Adjust R49 for 1.5V.
 3. Switch position 3 - V9 Adjust R48 for 1.5V
 4. Switch position 4 - V5 Adjust R54 for 1.5V
 5. Switch position 5 - V4 Adjust R53 for 1.5V
 6. Run unit for an 1/2 hour, balance all settings as needed.
 6. Turn switch OFF when done..
5. Once all the voltages have been adjusted an audio signal can be applied to unit.