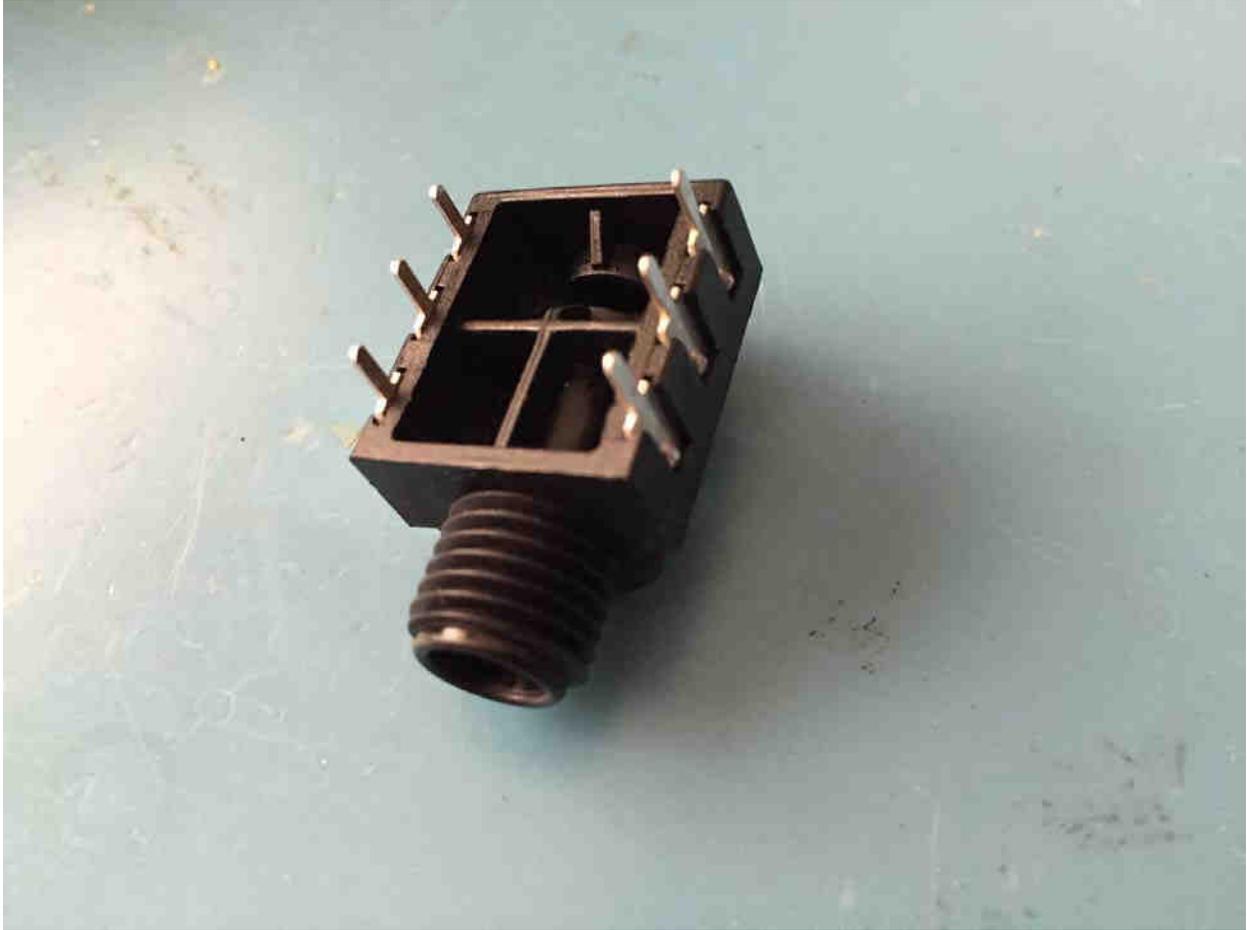
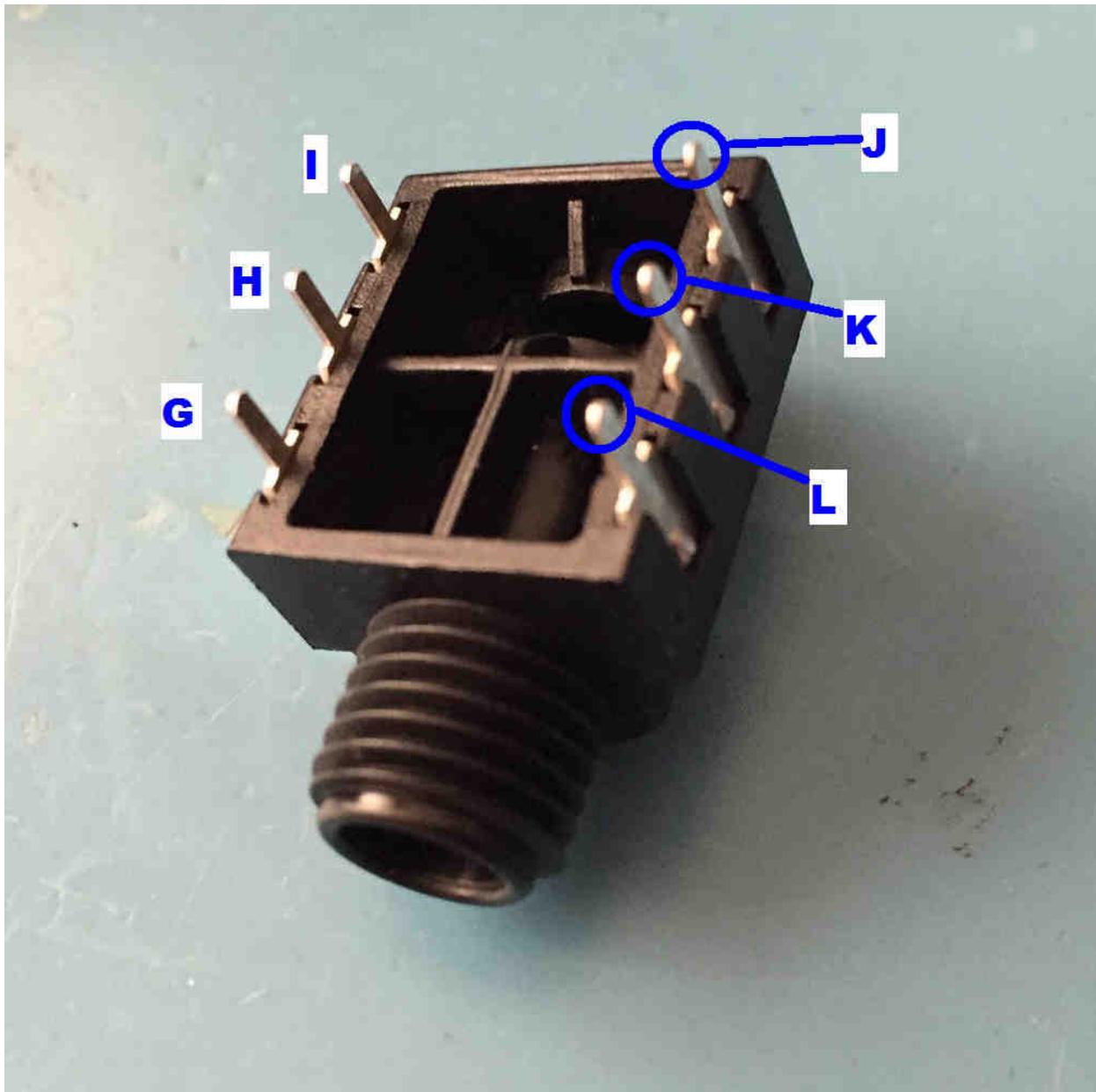


I found it convenient to assemble the PCB, front panel, and back panel completely separate from the chassis. Other builders might prefer another approach.

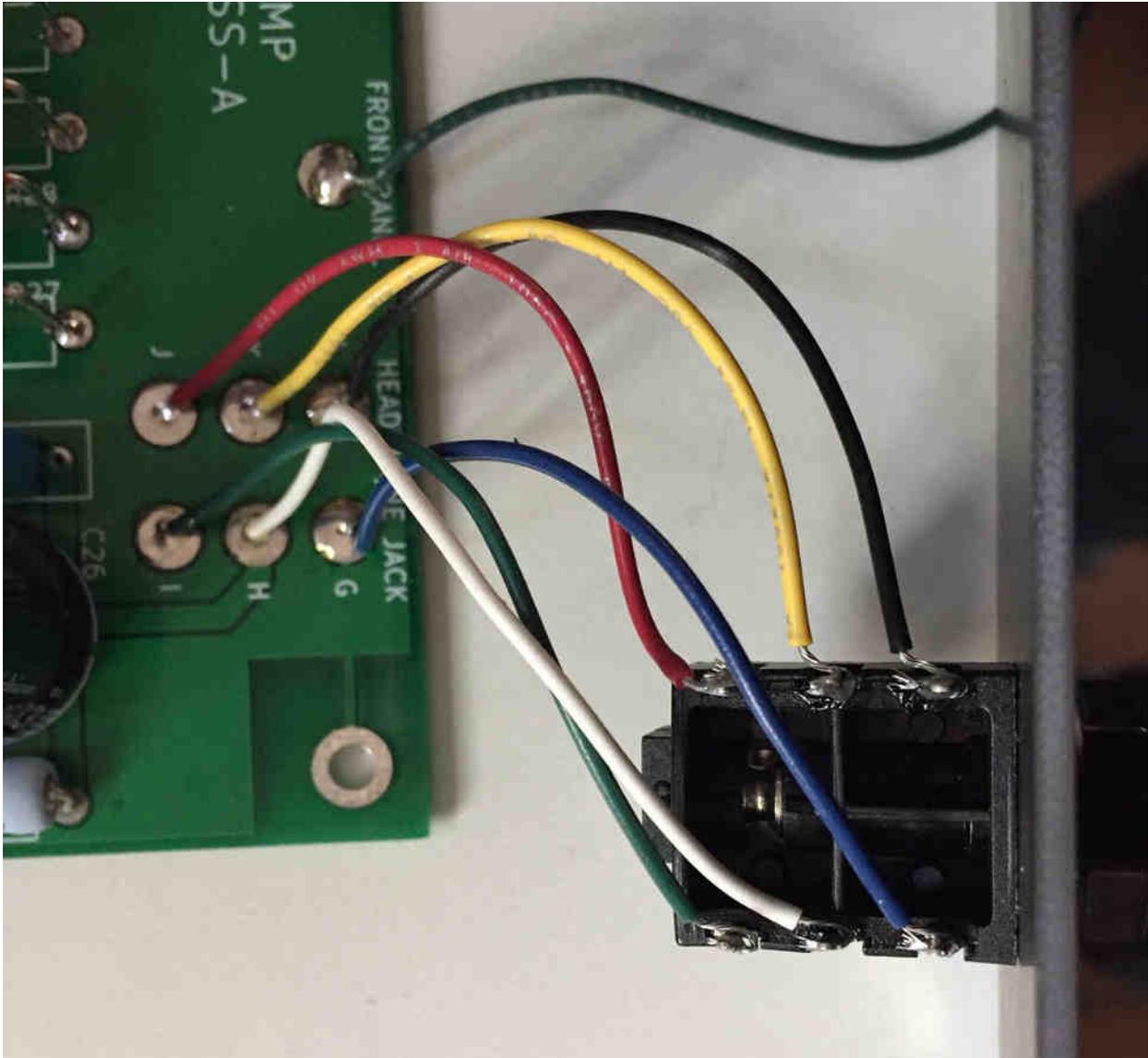
All of the components on the front panel (headphone jack, volume control, power switch, indicator LED) are inserted from the back, i.e. inserted from “inside the chassis” to “outside the chassis”. HOWEVER the RCA terminals on the rear panel, are mechanically opposite. They insert from “outside the chassis” to “inside the chassis”. Take apart one of the RCA connectors and temporarily mount it to the inexpensive rear panel made of PCB material. You’ll see that it mounts from exterior to interior. Keep this in mind when planning final assembly.



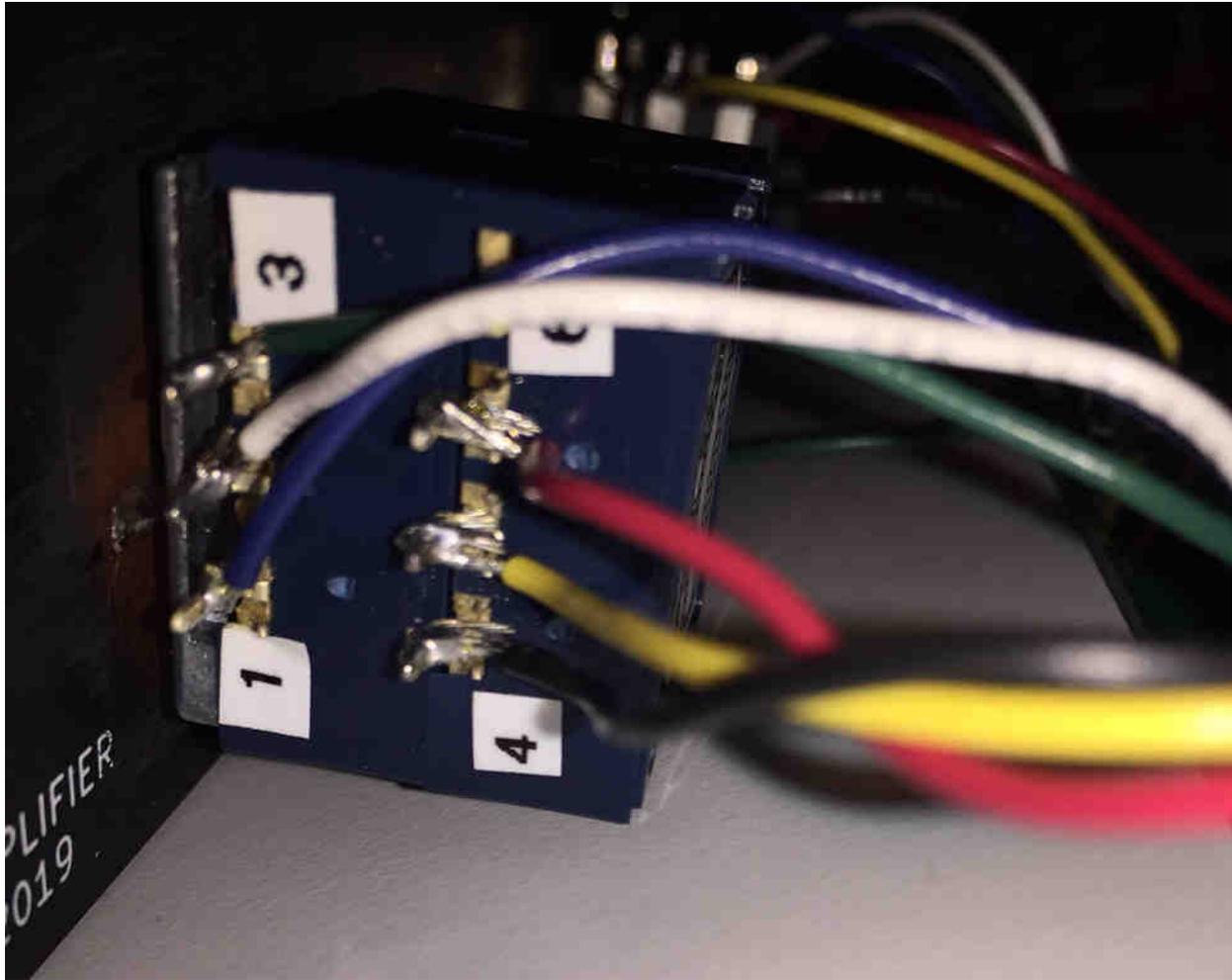
Here is the Neutrik headphone jack. It has six pins because it is a “switching” jack: the RCA outputs are not connected (floating!) when a headphone plug is inserted into the jack. Thus the T2 drives EITHER its RCA outputs on the back panel, OR a headphone plug on the front panel, but never both at the same time.



This is how I have chosen to label the terminals of the Neutrik 6-pin headphone jack. The six letters G H I J K L are assigned to the six pins of the jack. These letters also appear on the printed circuit board, and on the circuit schematic diagram.

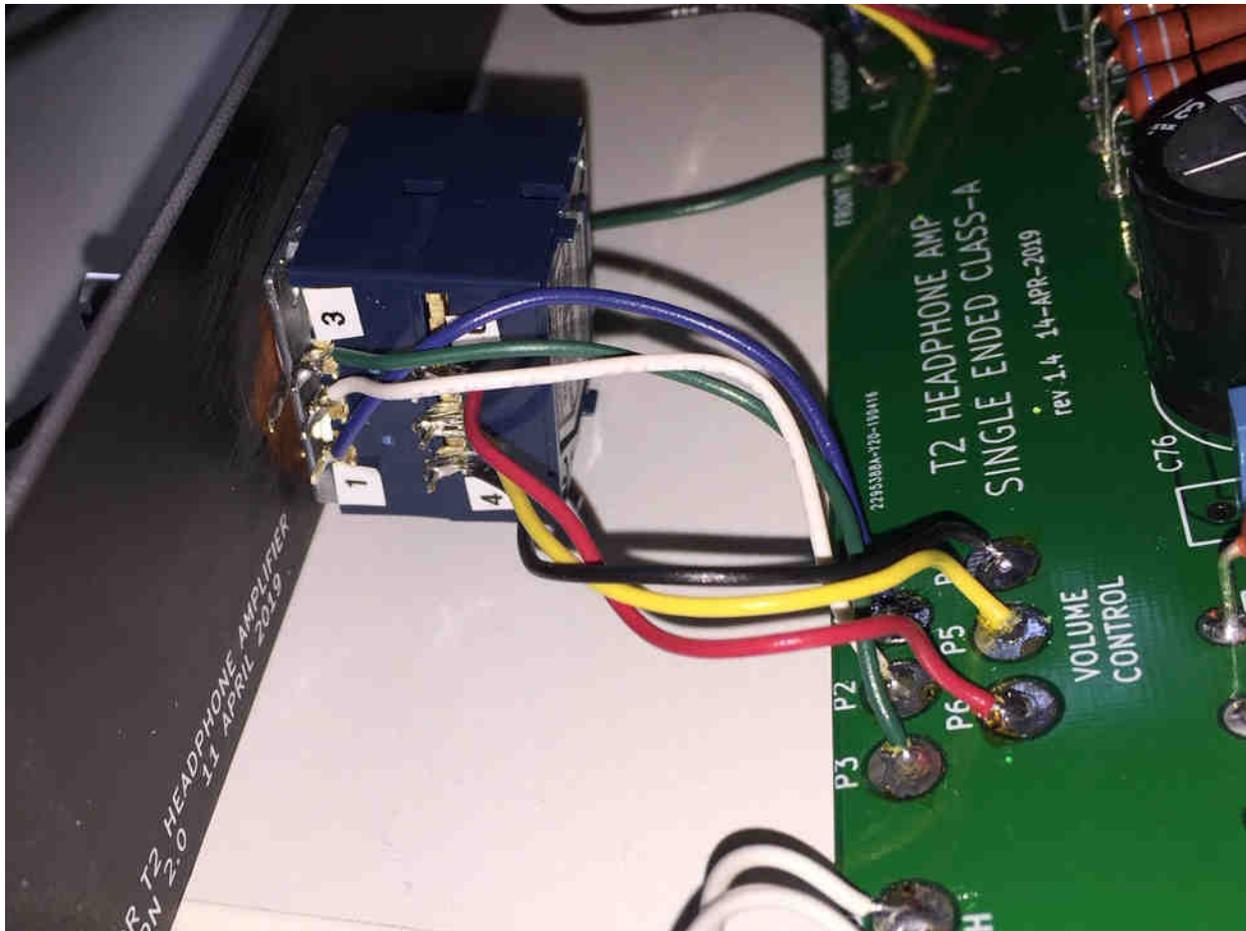


The front panel of T2 is on the right of this photo. The six pin headphone jack is mounted to the front panel using the supplied black plastic washer and nut. A blue wire is soldered to pin “G” of the jack. Double check this against the photo on the previous page! The blue wire is then soldered into flywire terminal “G” on the printed circuit board. Similarly a red wire is soldered to pin “J” of the jack and also soldered to flywire terminal “J” on the PCB. Temporarily disregard the wire soldered to flywire terminal “FRONT PANEL”, we’ll discuss it a few pages below.

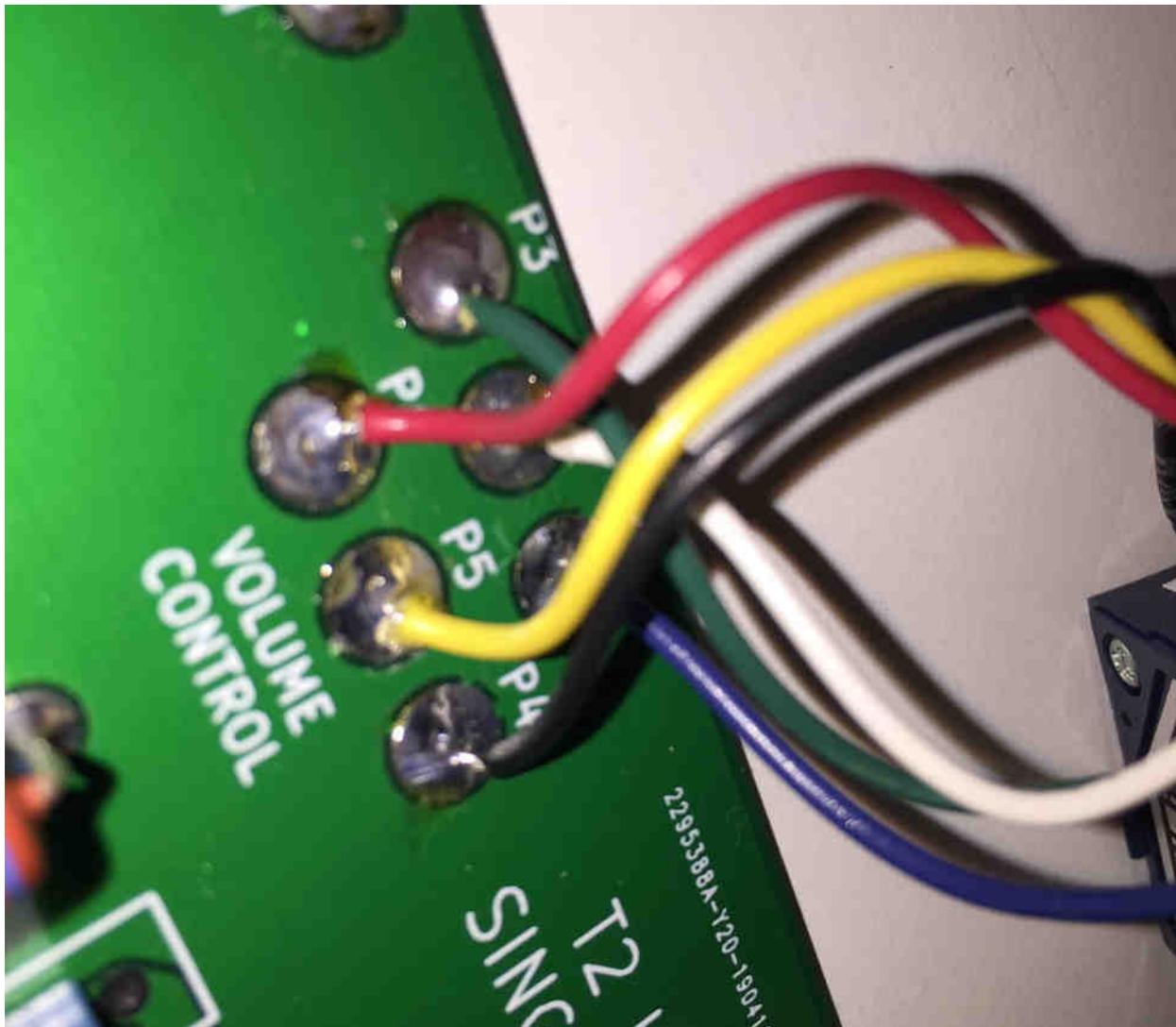


Here is the ALPS RK27 dual-gang potentiometer, mounted to the front panel of T2. I made a tiny little sticker with my label maker, saying 1 2 3 4 5 6 , and then cut out the numbers 1 3 4 6 with an Xacto knife. I attached these numbers next to the corresponding pins of the ALPS pot, just to make it easier to see them, and to remember which pin is which. ALPS does mark the pin numbers on the pot, printed on the white label on the back (look inside the “grid”), but I found their markings hard to read. That’s why I made my own markings with a label maker, and placed them on the pot with tweezers, right exactly where I wanted labels.

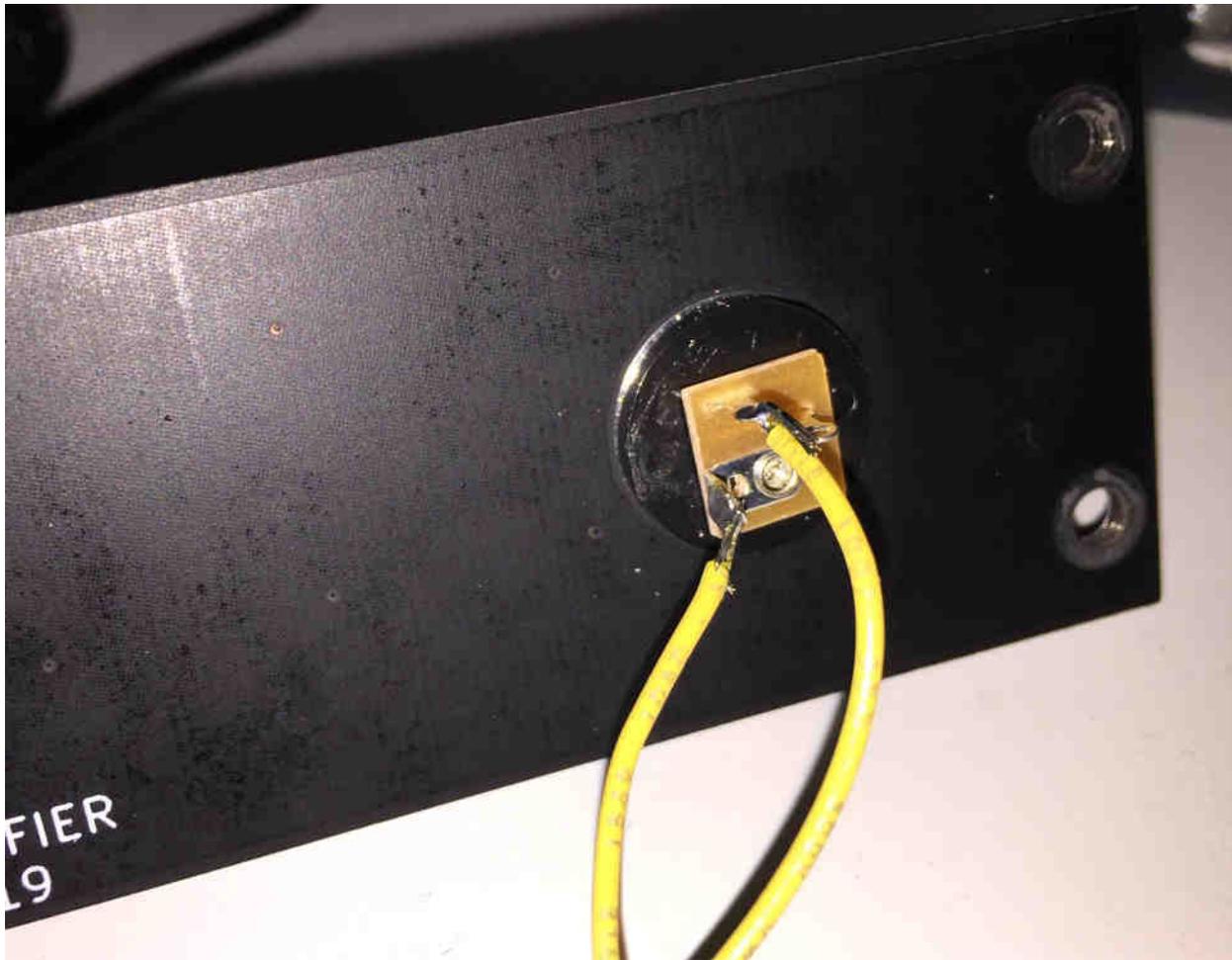
Please notice the green wire soldered to pin 3 of the pot, and the yellow wire soldered to pin 5 of the pot.



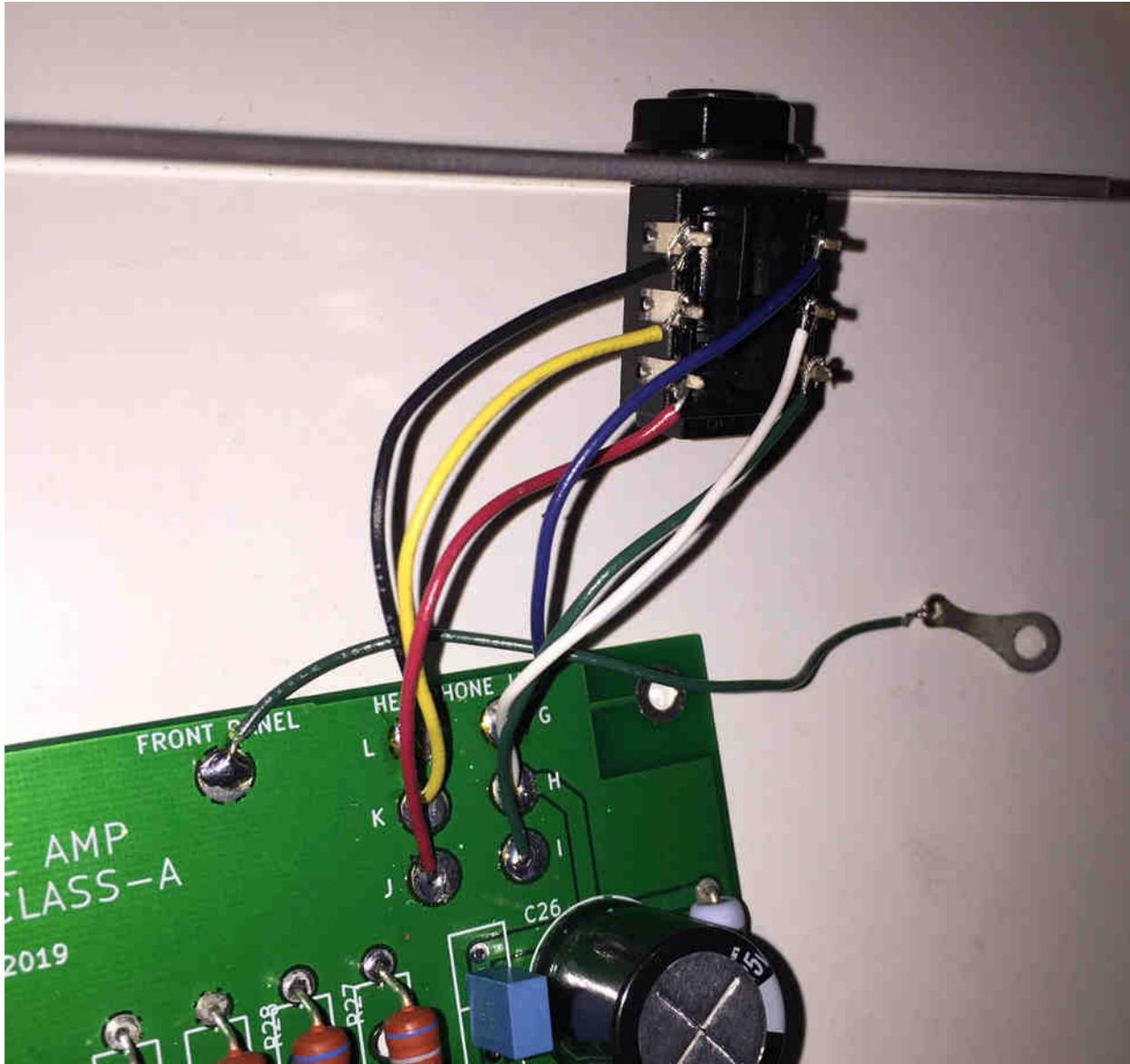
We see that the green wire soldered to pin “3” of the pot, is soldered to flywire terminal “P3” on the PCB. Also the yellow wire soldered to pin “5” of the pot, is soldered to flywire terminal “P5” on the PCB.



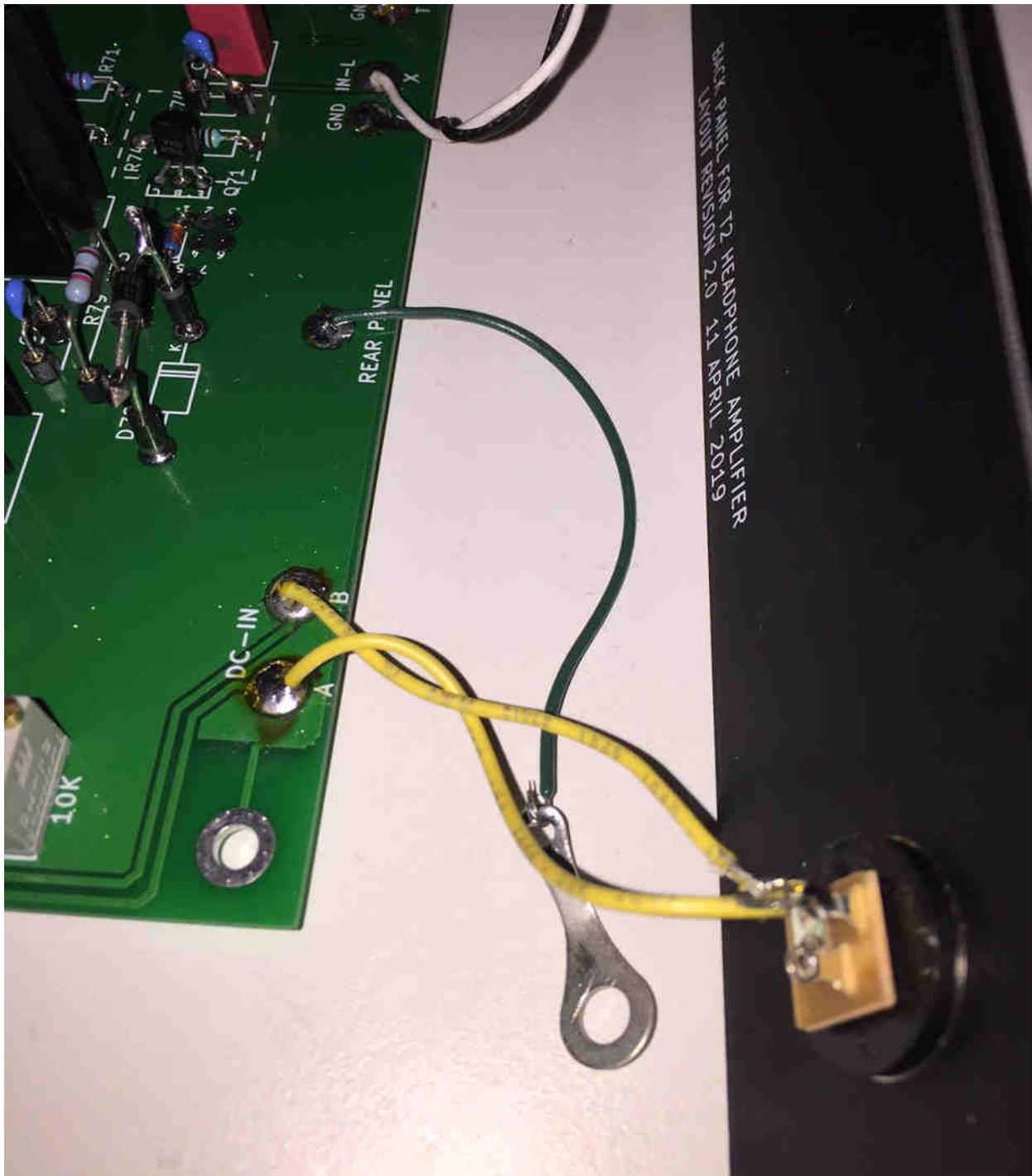
Here is a closer shot of the six flywire terminals for the potentiometer. If you guessed that “P3” stands for Potentiometer-pin-3, you win a prize.



Here is the DC input “barrel jack” mounted to the rear panel. It has three terminals but we only connect to two of them; the “switched” feature of the jack is not used by T2. Plug your wall wart into the jack and use your voltmeter to find the two pins that carry 24V DC. Those are the two pins you solder wires onto. It doesn’t matter which one carries plus and which one carries minus, the circuit board design accepts both. Thus we don’t care whether the wall wart’s plug is center-positive or center-negative; T2 handles either one. Yay.



This photo shows a green grounding wire soldered to the flywire terminal named “FRONT PANEL”. Its purpose is to extend the Faraday Cage to include the front panel. (If using the low cost front panel made of PCB material, it has ground planes on both copper layers). The Solder Lug on the other end of this wire, is installed between the front panel and the side panel. The M4 chassis bolt goes through the front panel, then through the Solder Lug, and screws into the threads on the side panel. Presto, the front panel and the side panel are now connected to circuit board ground, for a tighter approximation of a Faraday Cage.



This is the Solder Lug and grounding wire connected to flywire terminal “REAR PANEL”. It connects the rear panel and side panel to circuit board ground.