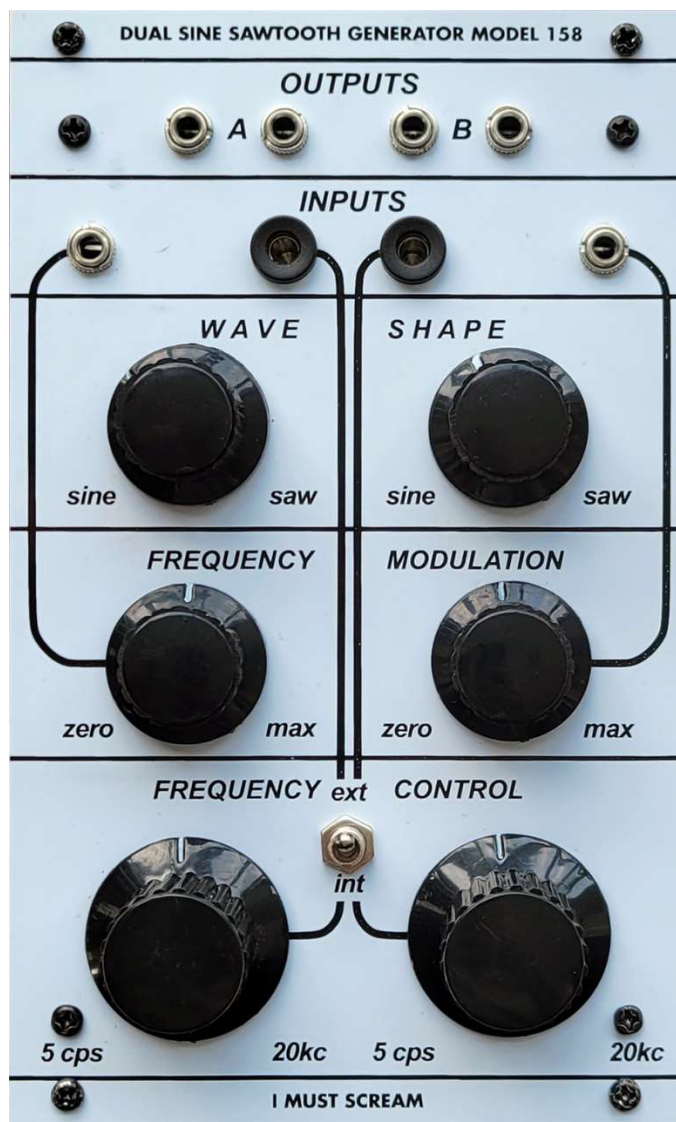


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DUAL SIN SAWTOOTH GENERATOR MODEL 158

ASSEMBLY GUIDE

imustscream.cc



The kit consists of PCB, Panel, bags of components and knobs.



Bag **(A)** contains: resistors, all numbered by their values

Bag **(B1)** contains: Trimmers, Diodes, 2N5020 and J201 Transistors

Bag **(B2)** contains: 2N3904 Transistors + bag with matched pairs

Bag **(B3)** contains: 2N3906 Transistors + bag with matched pairs

Bag **(C)** contains: Capacitors

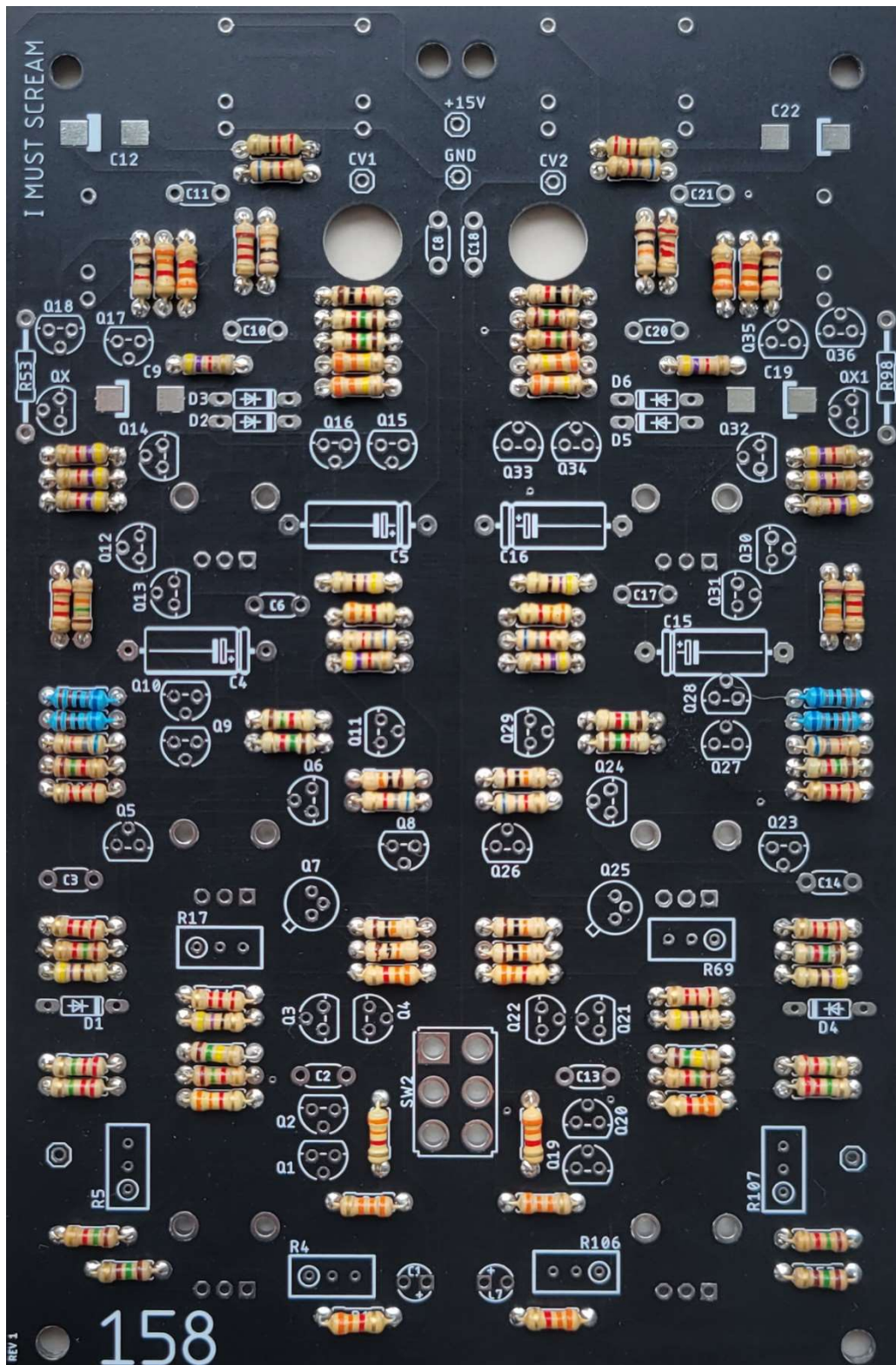
Bag **(D)** contains: Switches, jacks, Standoffs, Wires, Pins, Button

Bag **(E)** contains: Pots

Please refer to BOM for components placing.

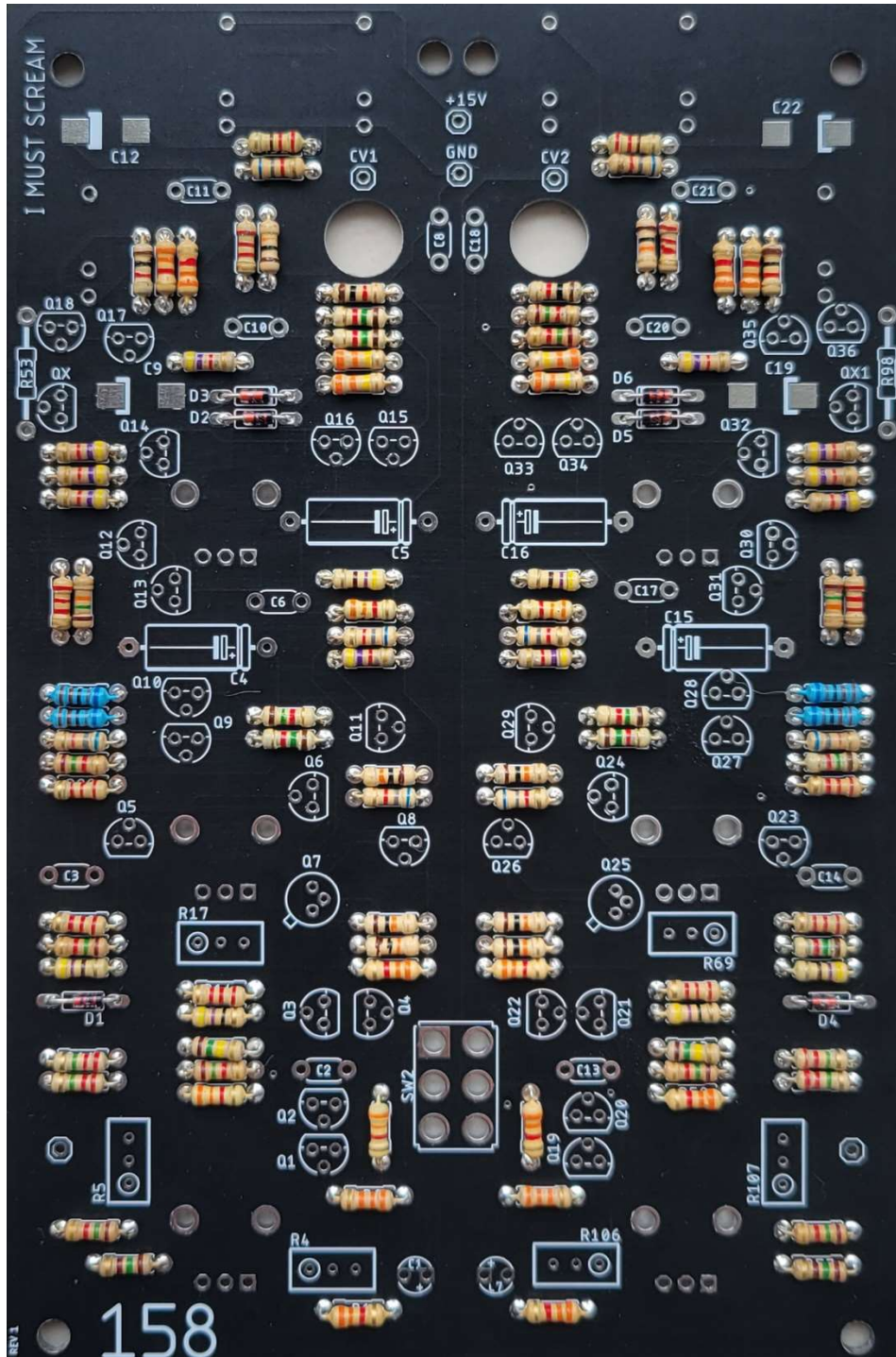
Step 1

Solder 1/4W resistors first.



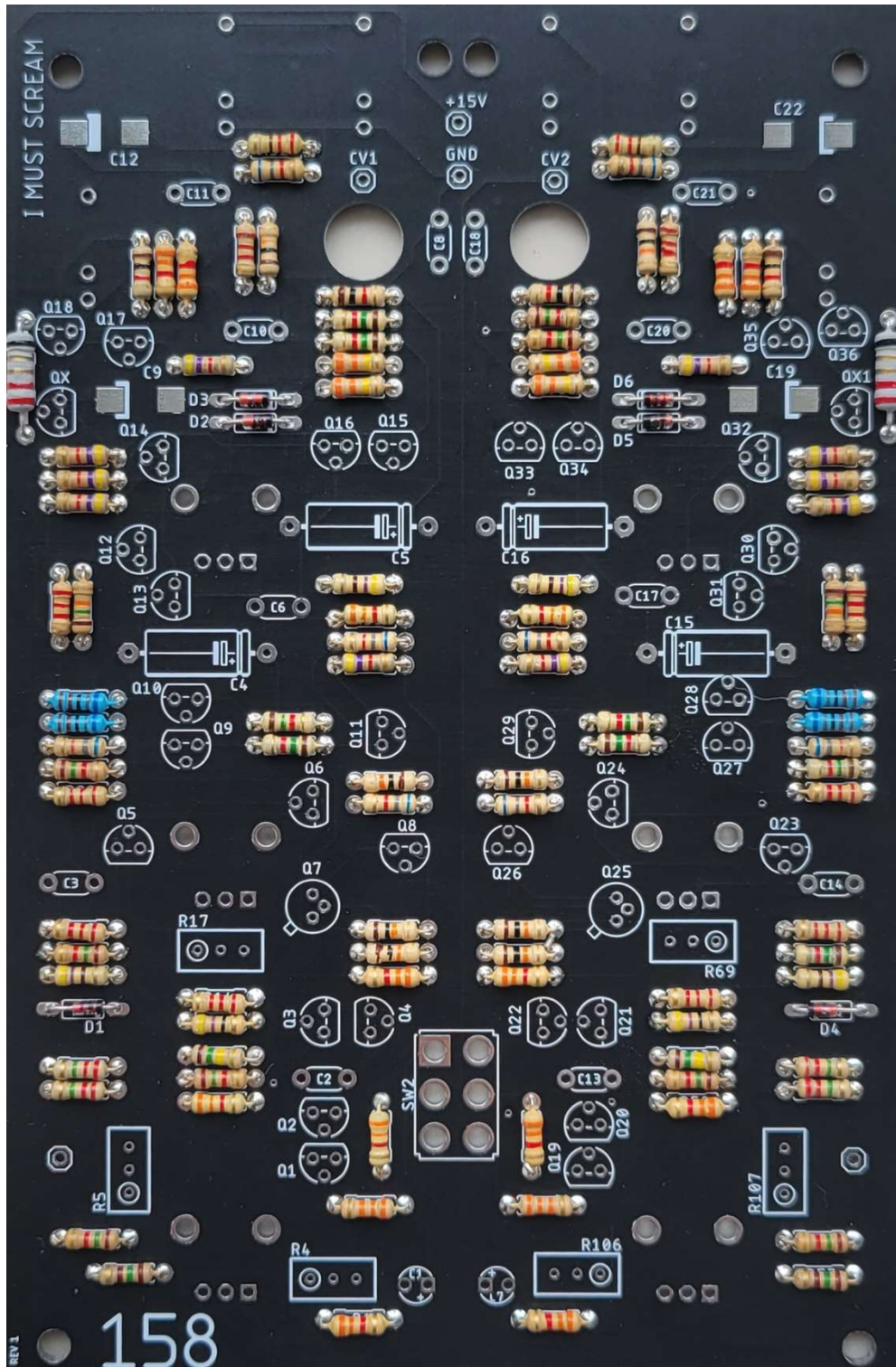
Step 2

Solder diodes. Pay attention to the orientation. Black stripe on the diode should match the white stripe on the silkscreen.



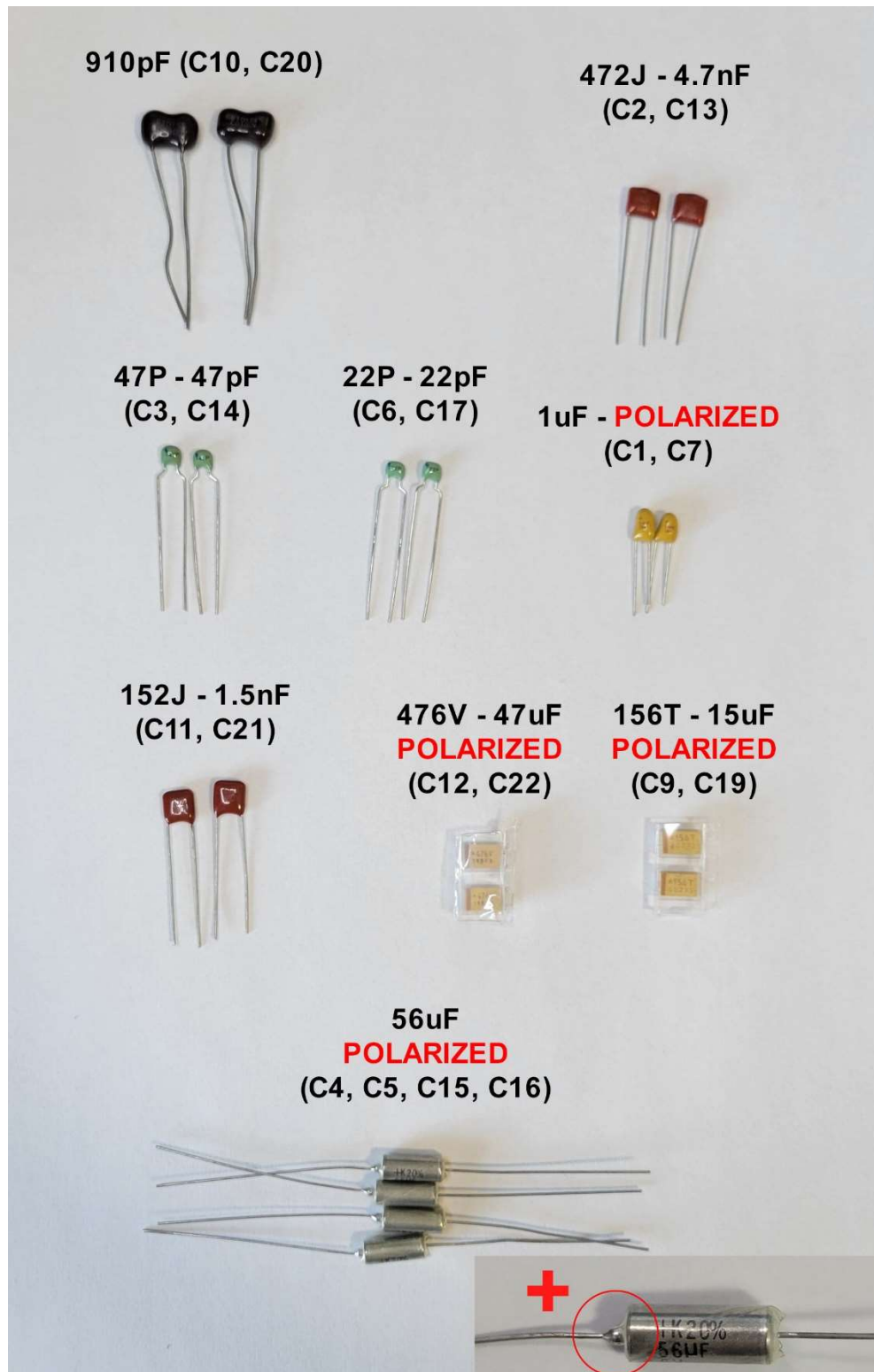
Step 3

Solder 2 x 1/2W resistors.



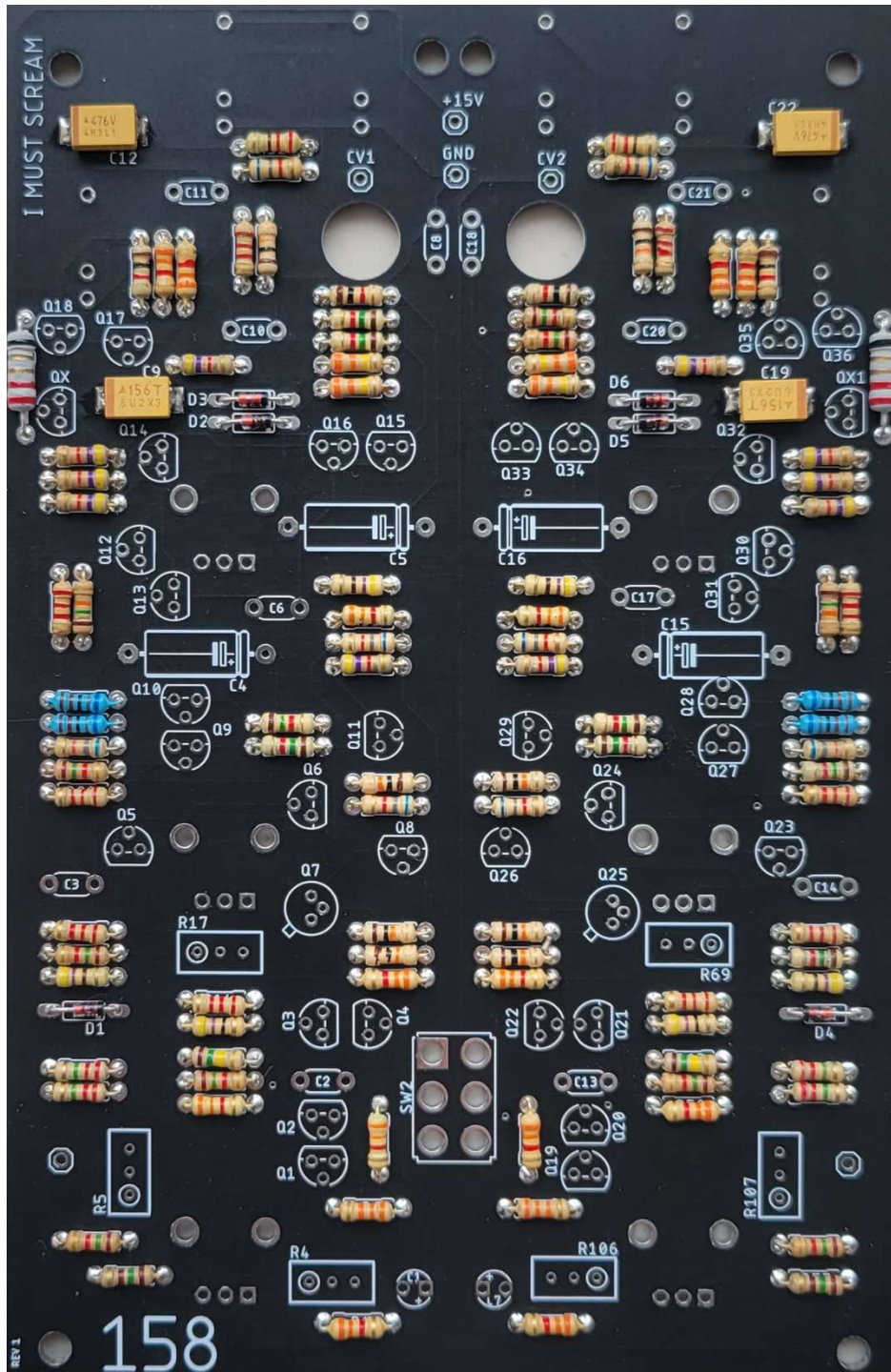
Step 4

Solder capacitors. This will help you:

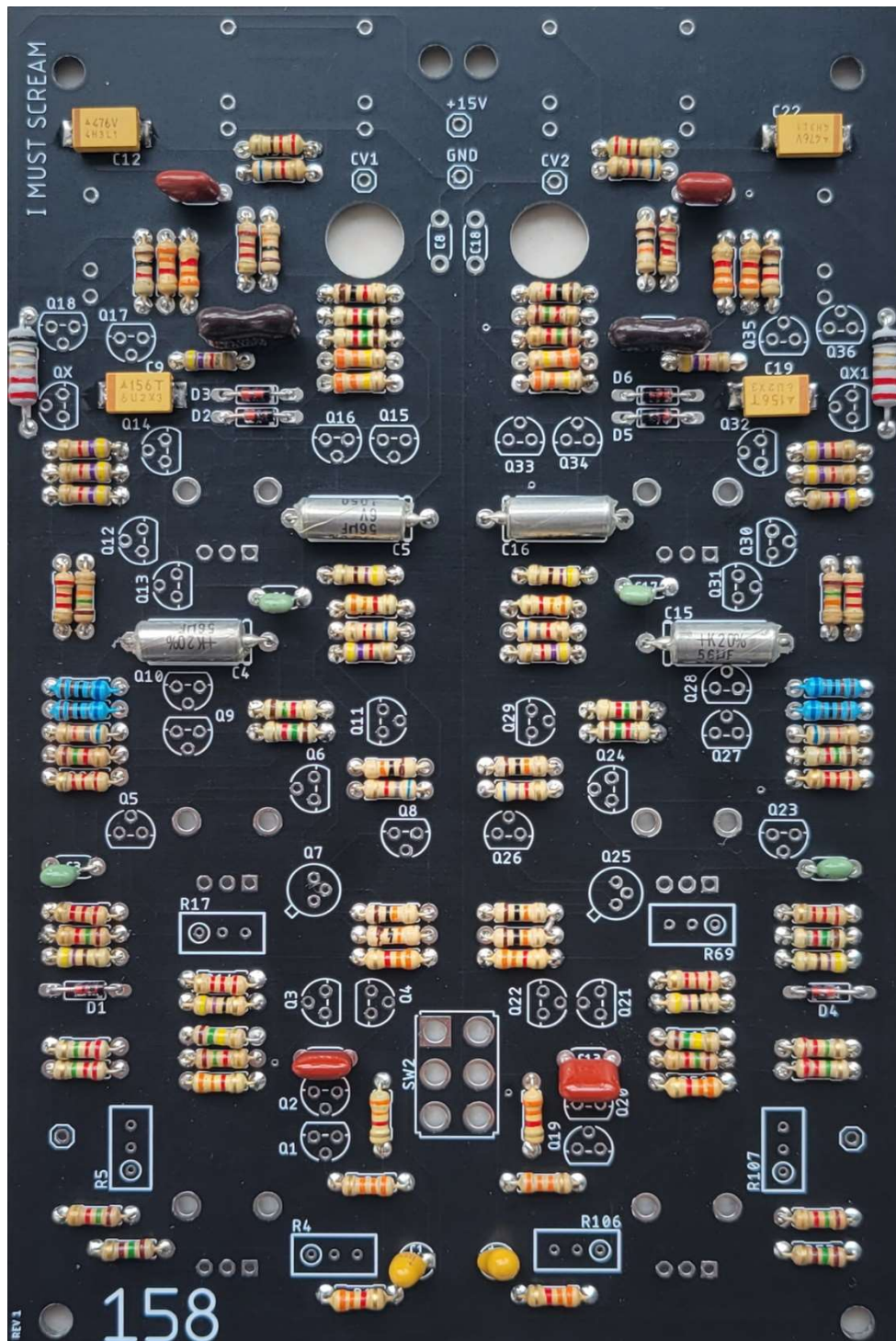


Start by soldering polarized tantalum SMD capacitors.

The orange line on the capacitor should match the white line on the PCB.

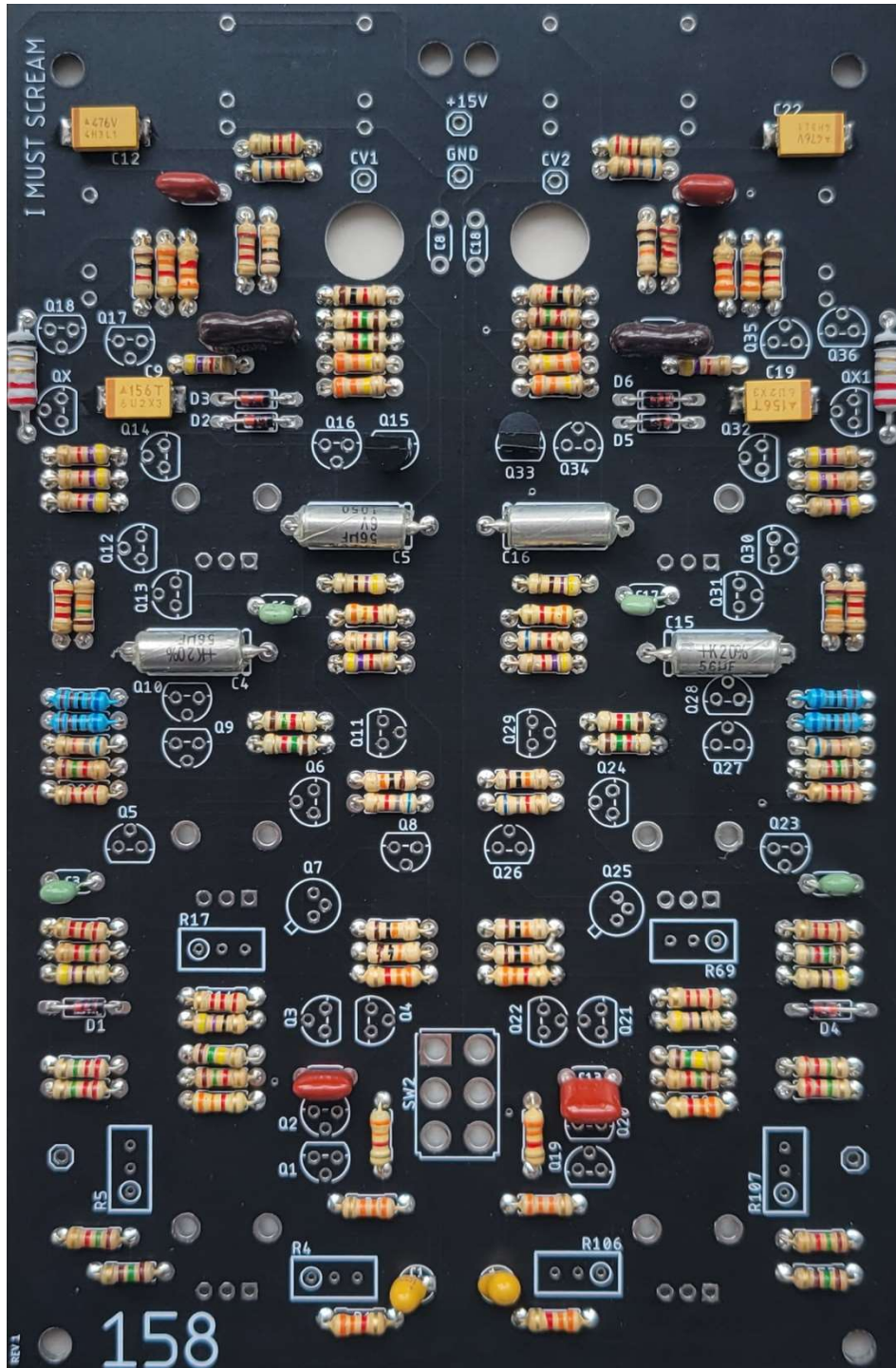


Solder **POLARIZED** capacitors. Please pay attention to the orientation here.



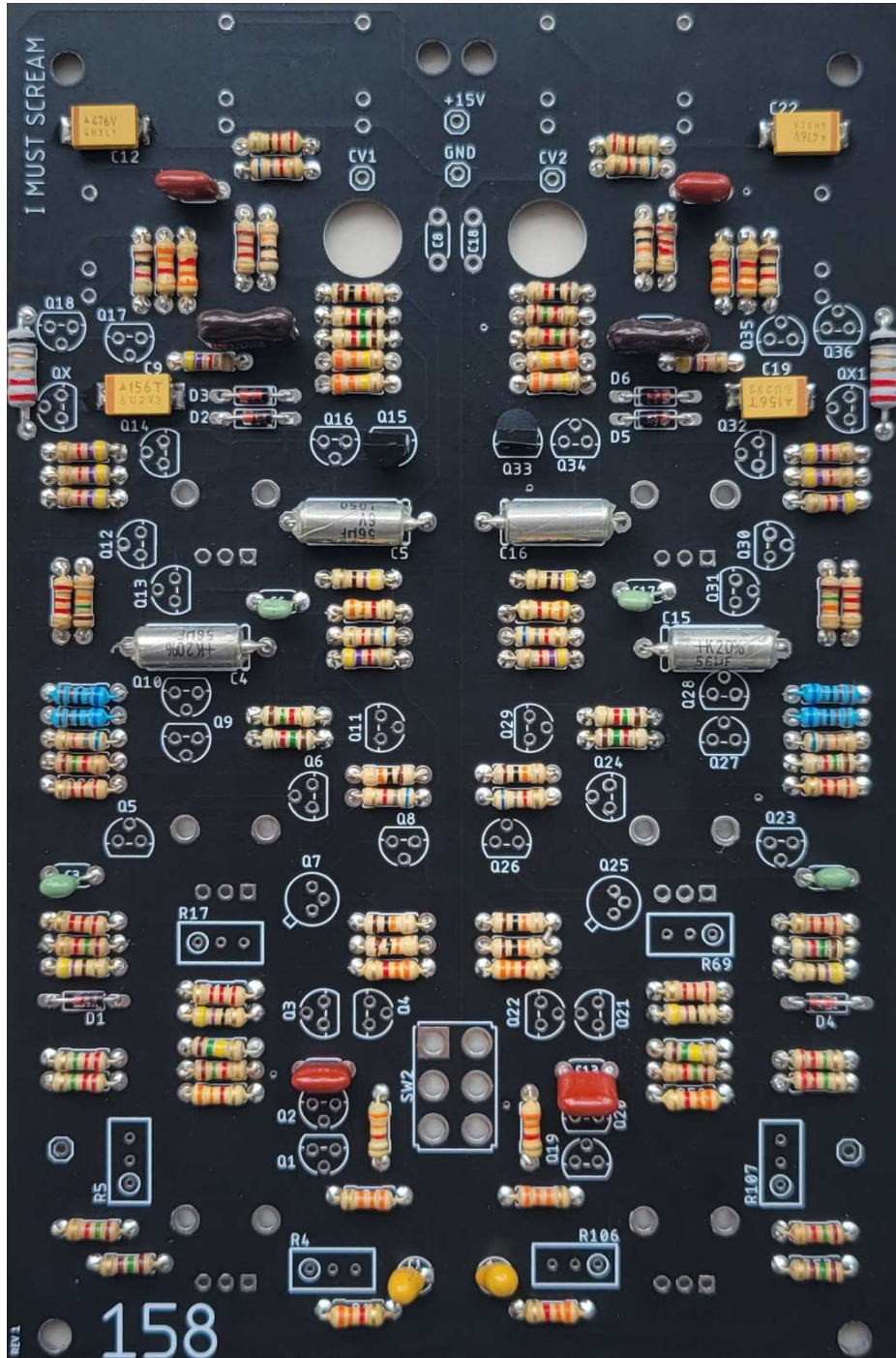
Step 5

Solder **Q15, Q33 – J201** Transistors. Pay attention to the orientation.
The flat side has to match with the flat side on the silkscreen.



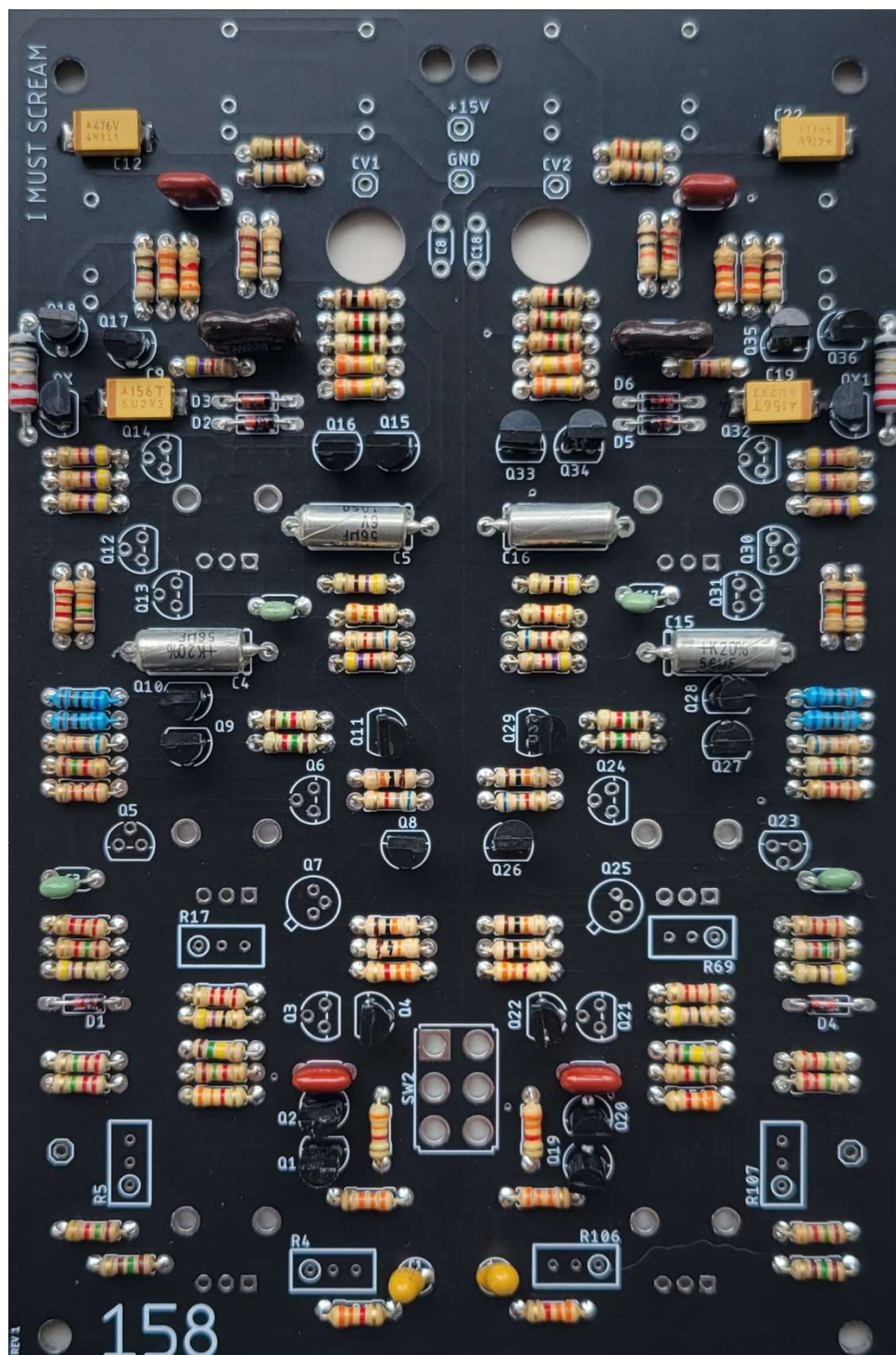
Step 6

Solder **Matched** pairs 2N3904 transistors. Pay attention to the orientation. The flat side has to match with the flat side on the silkscreen.



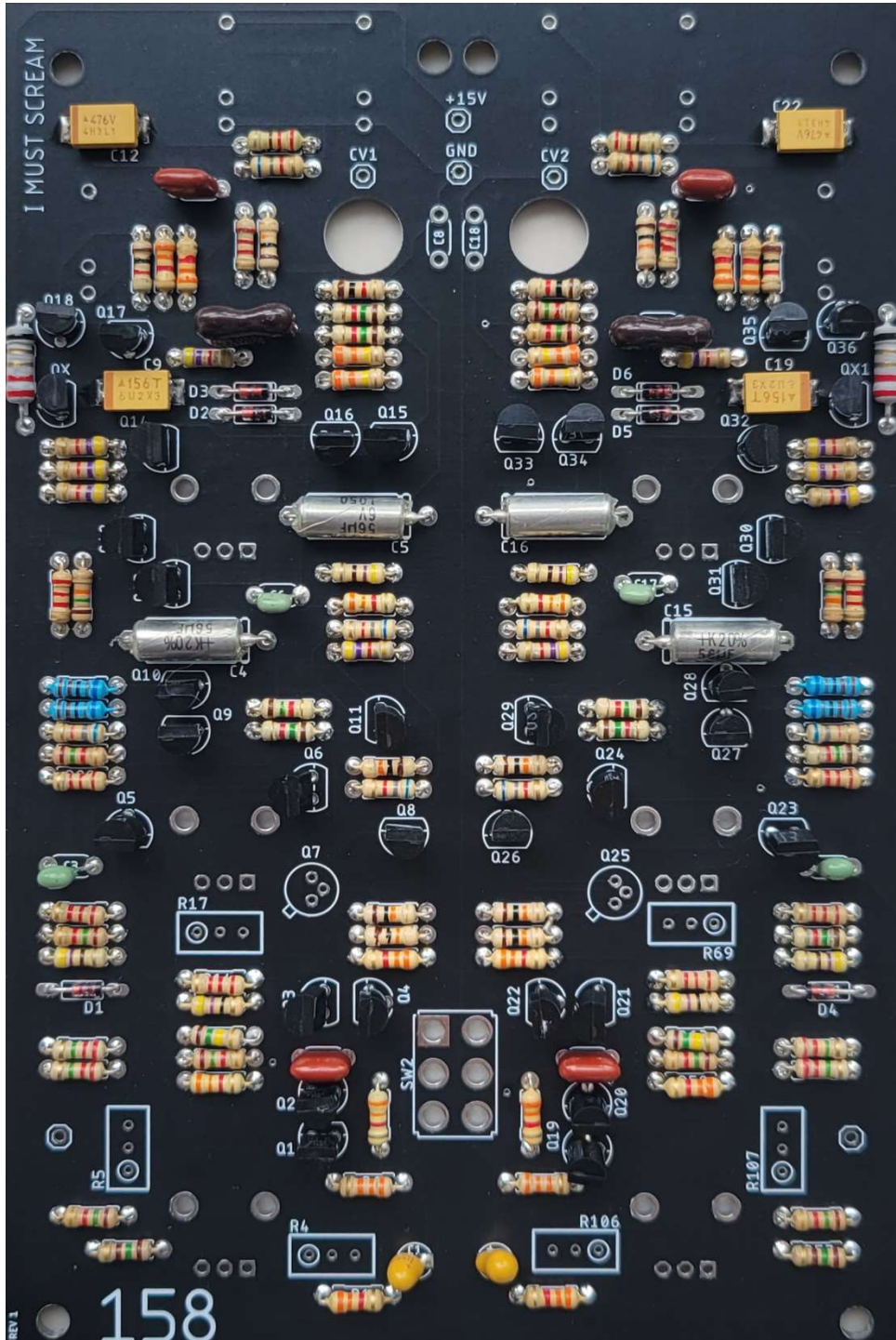
Step 7

Solder **the rest of 2N3904** transistors. Pay attention to the orientation. The flat side has to match with the flat side on the silkscreen.



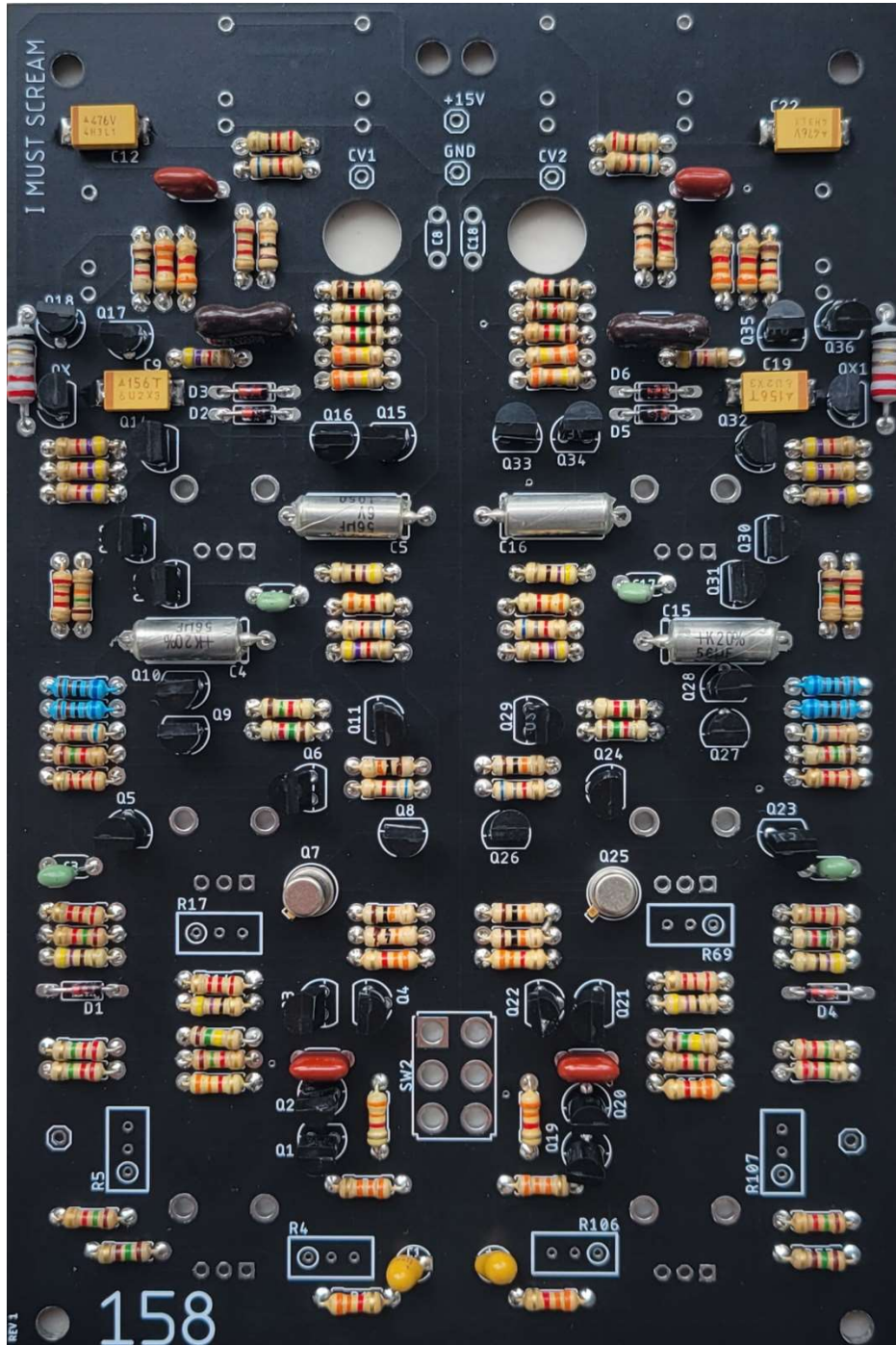
Step 8

Solder **Matched pairs 2N3906** transistors. Pay attention to the orientation. Sold the rest (unmatched) after. The flat side has to match with the flat side on the silkscreen.



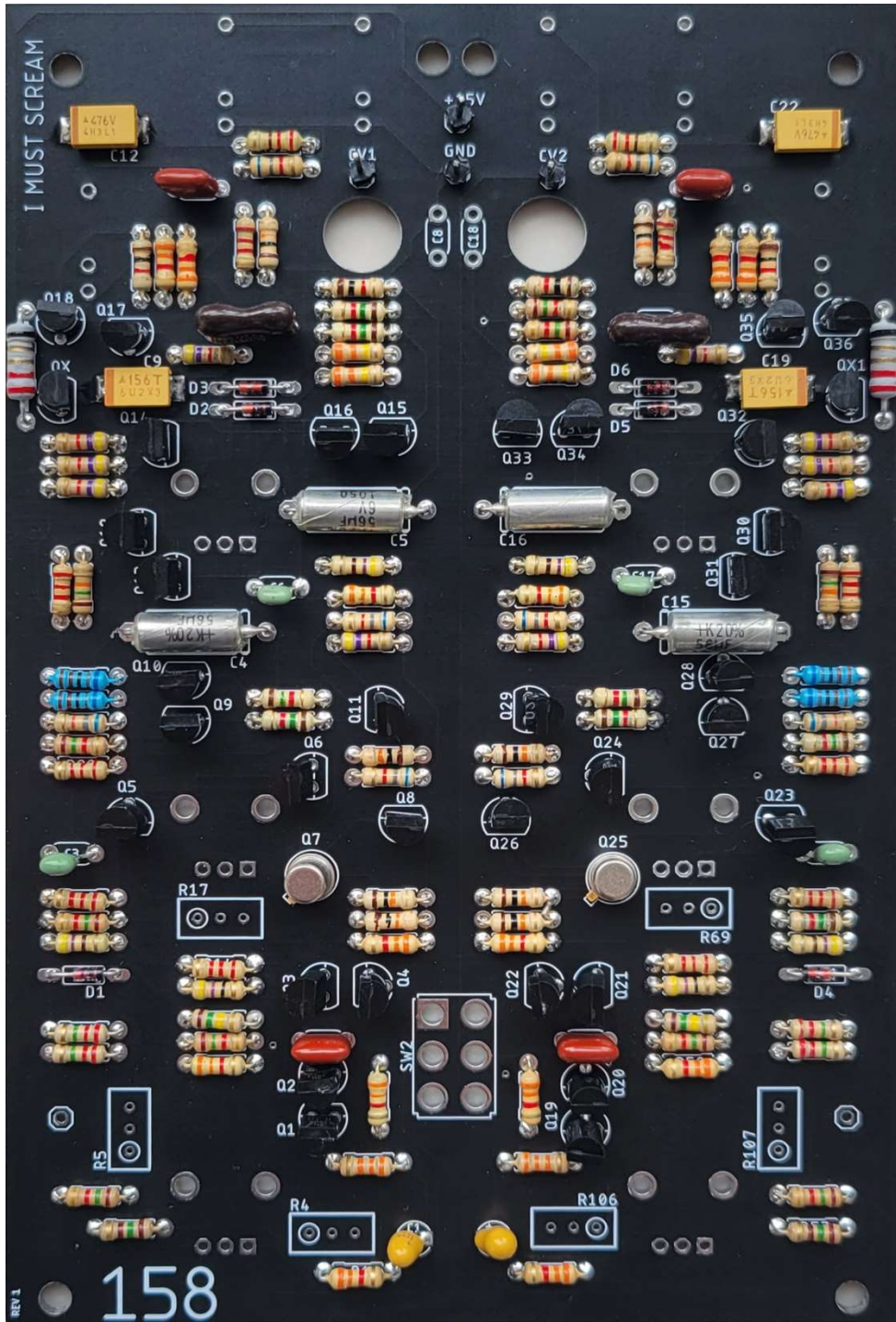
Step 9

Solder **2N5020** transistors. Pay attention to the orientation. Solder according to silkscreen. You need to be careful with these transistors, if you're not confident that you can solder them fast – use sockets.



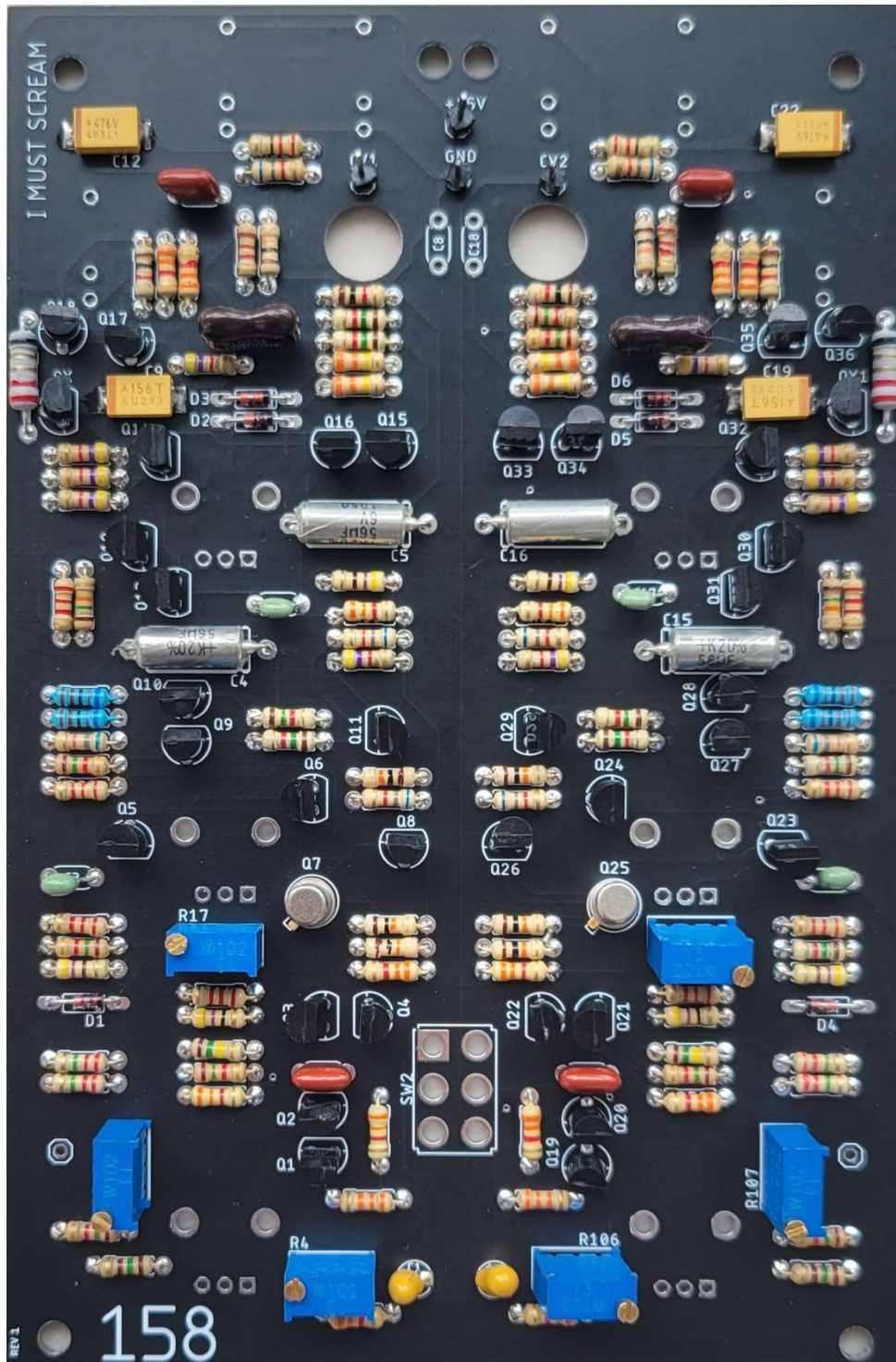
Step 10

Solder all the pins. This step is *(optional)*. Otherwise, you can solder wires directly. However, I strongly recommend using pins.



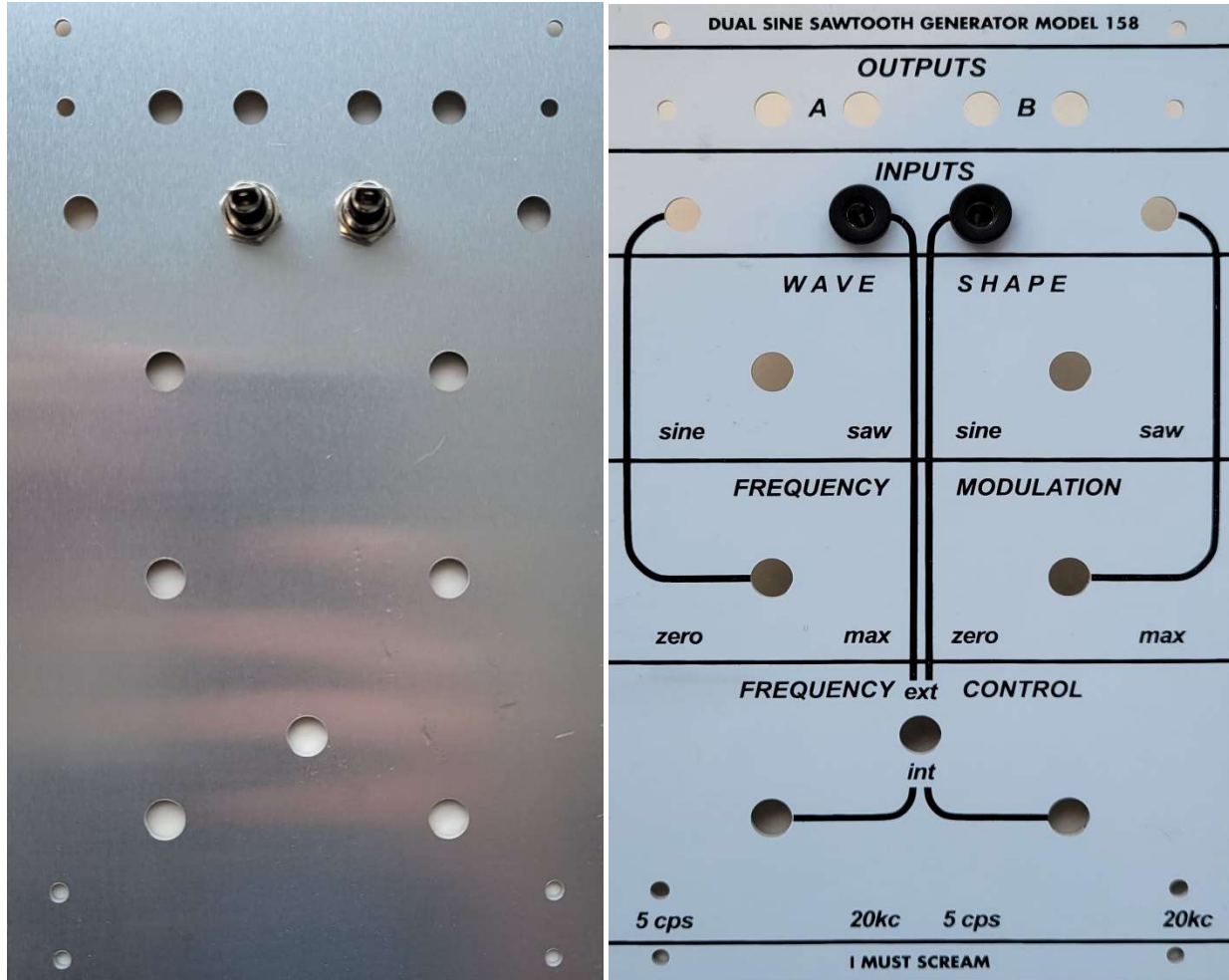
Step 11

Solder trimers. Pay attention to the orientation.



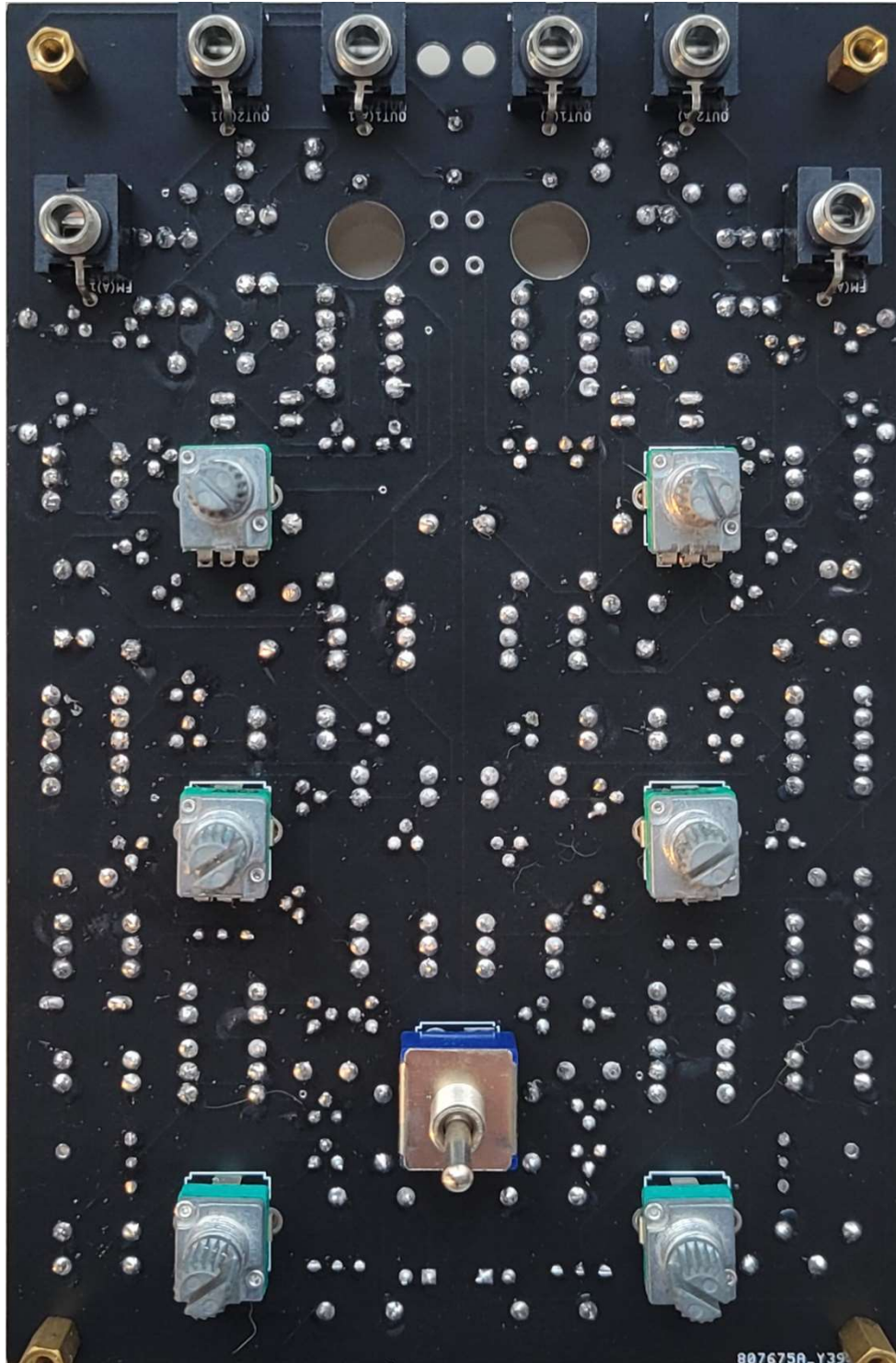
Step 12

Secure banana jack on the front panel.



Step 13

Position potentiometers, switch, jacks and standoffs. Don't solder yet. Secure them to the front panel, and tighten. Solder **AFTER** tightening.

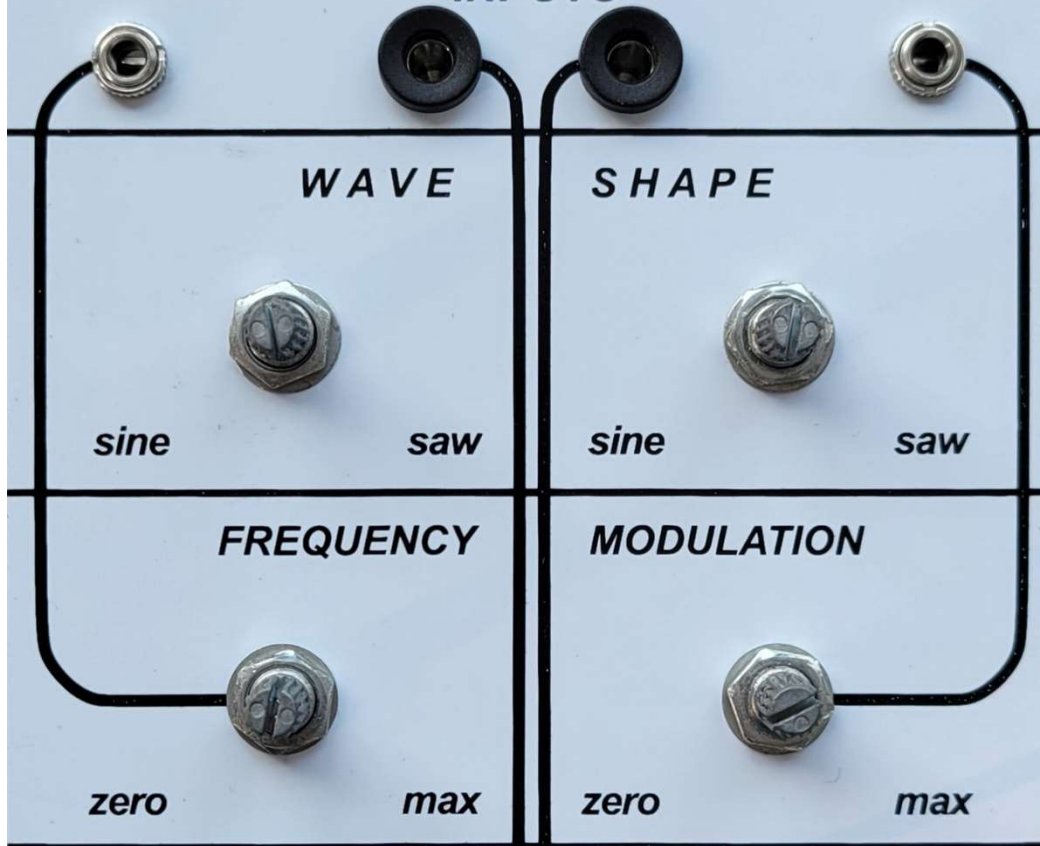


DUAL SINE SAWTOOTH GENERATOR MODEL 158

OUTPUTS



INPUTS



FREQUENCY ext CONTROL

5 cps

20kc

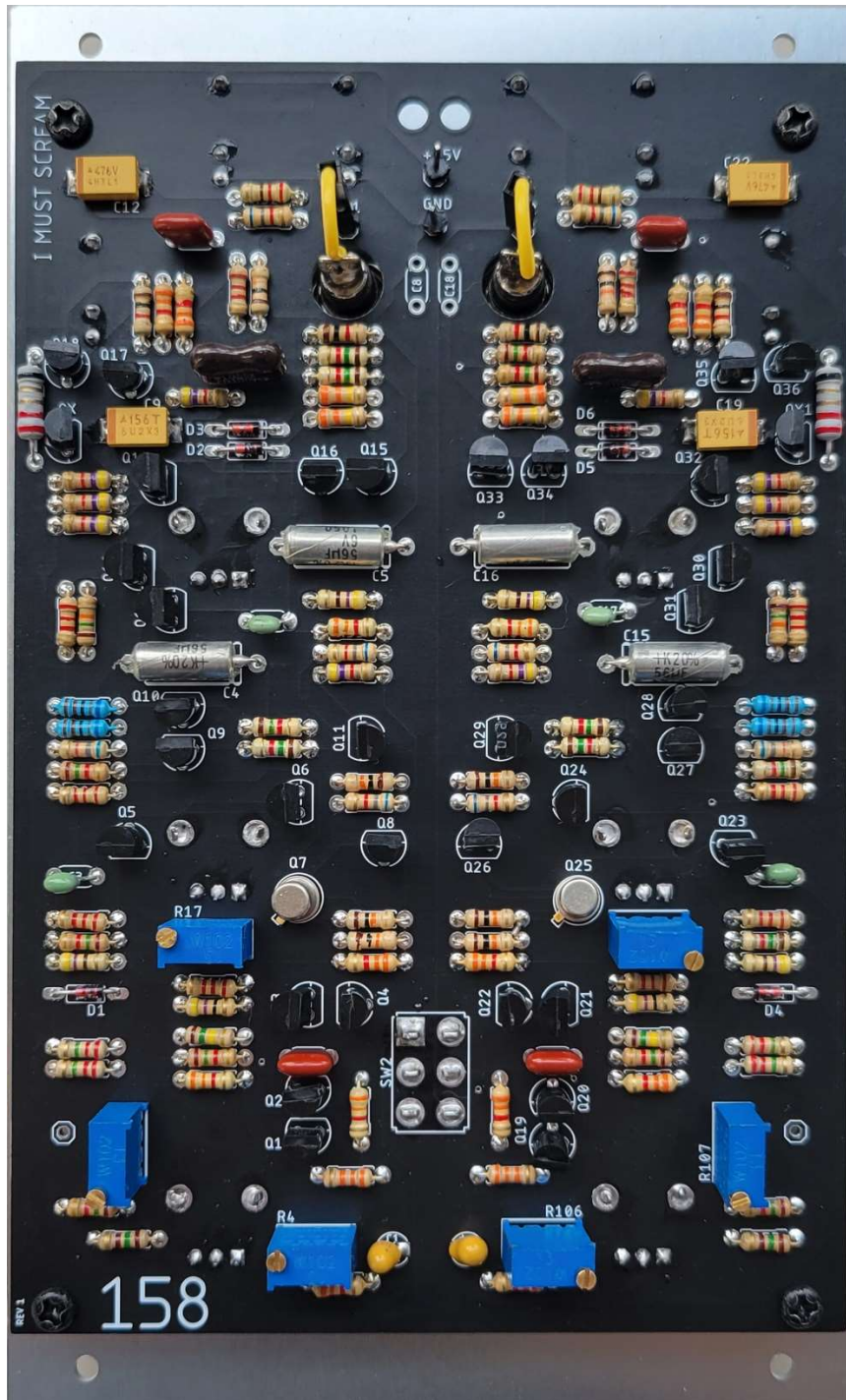
5 cps

20kc

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Step 14

Cut and strip the wires. Pay attention that the colors of wires can be different than you see on photos. Connect to the pin and solder to banana jacks.



Step 15

Now you can put knobs on and proceed to calibration. Congratulations!

