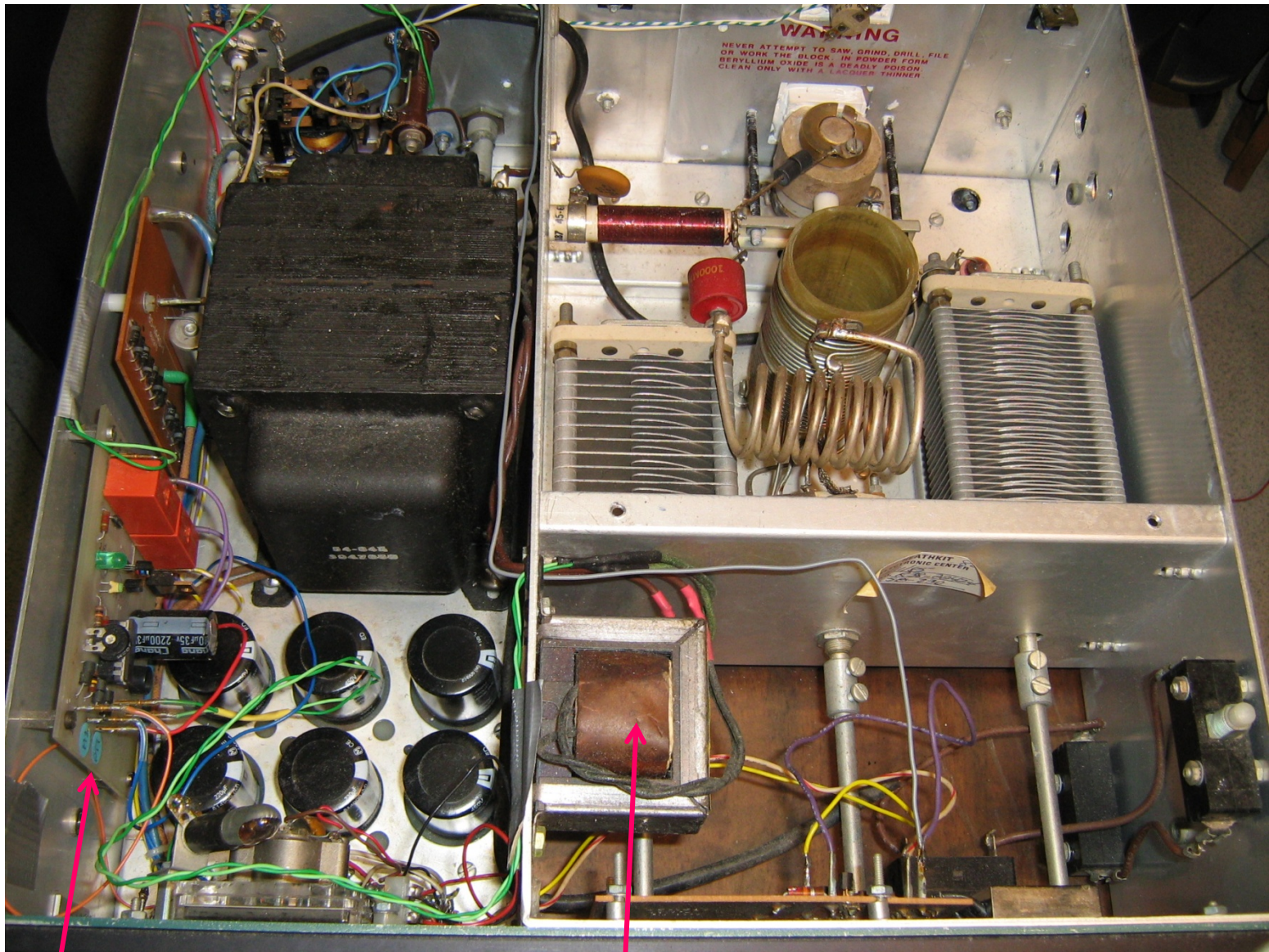


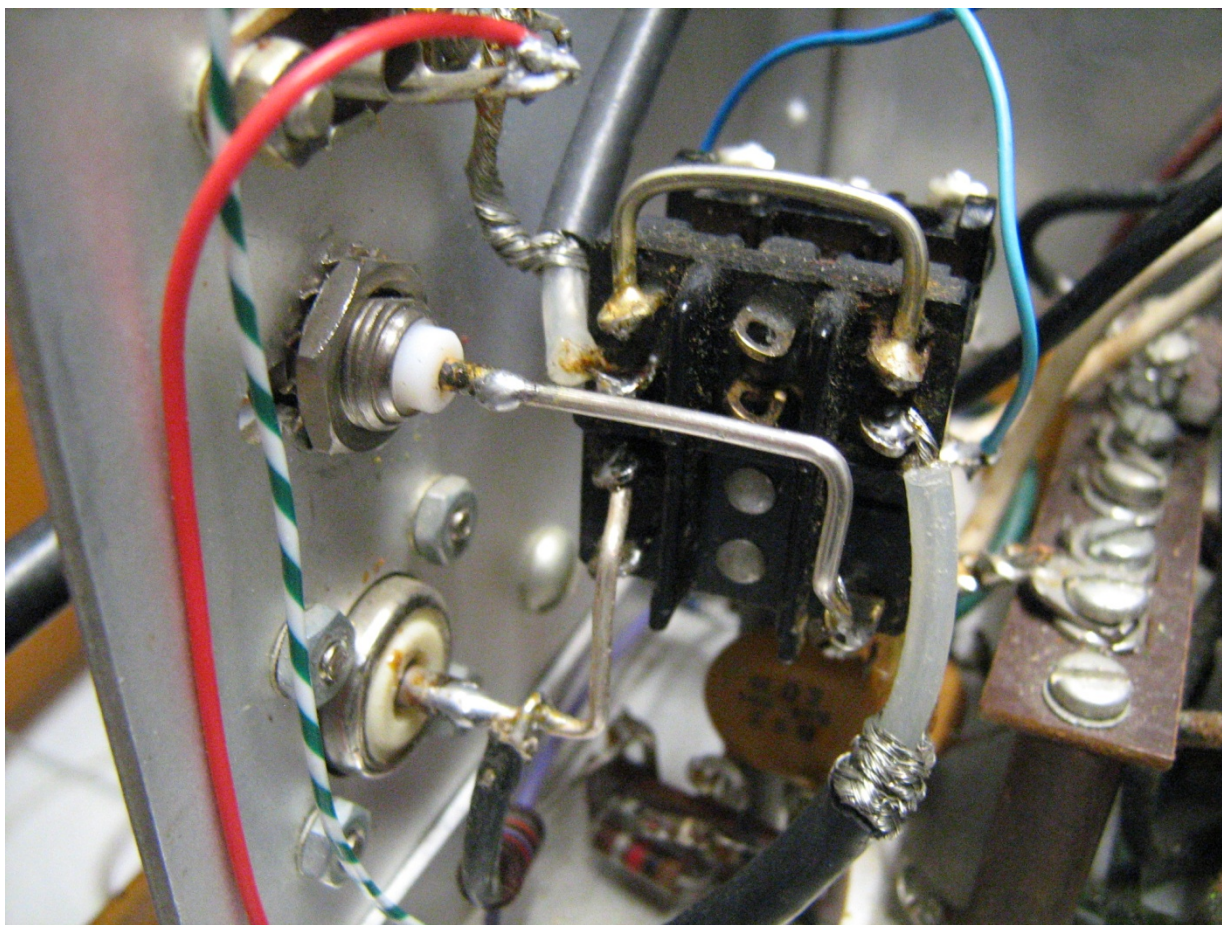
SB-230 + Service Manual by IZ5PQT

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Logic Board

12.6 V transformer (Logic Board power)

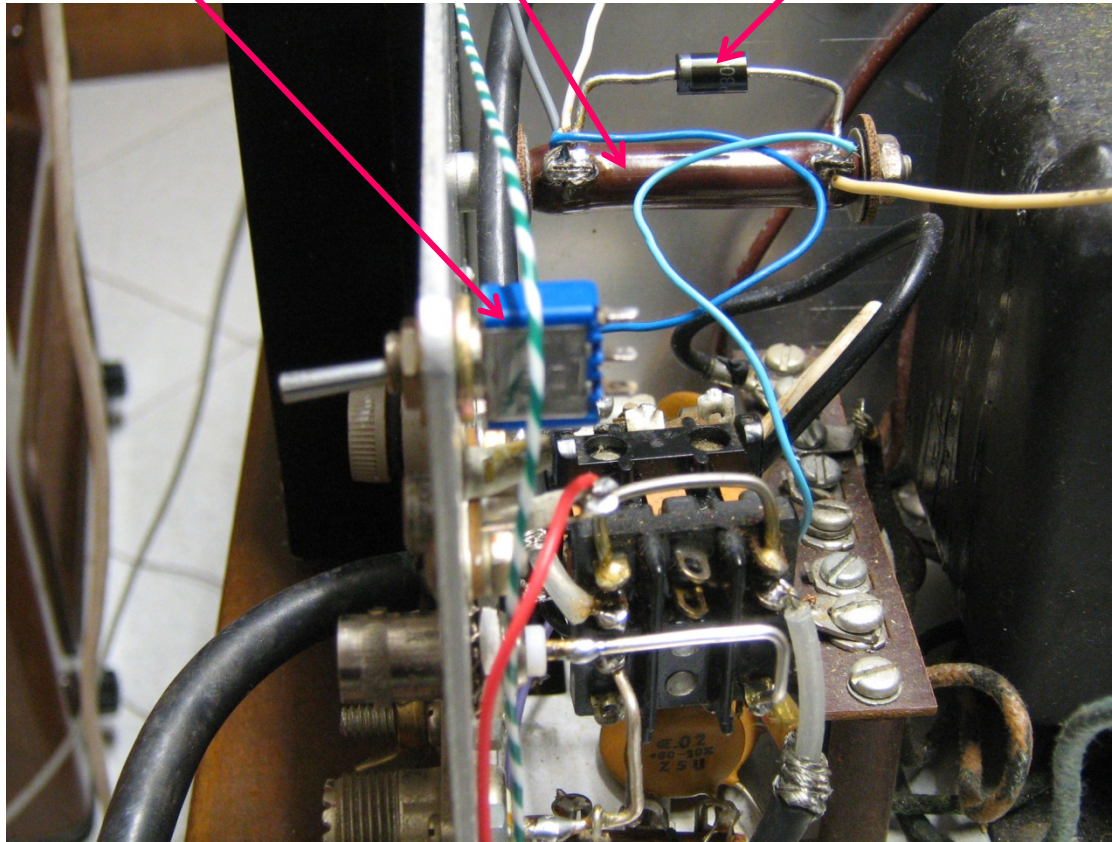


Antenna Relay RY1 detail

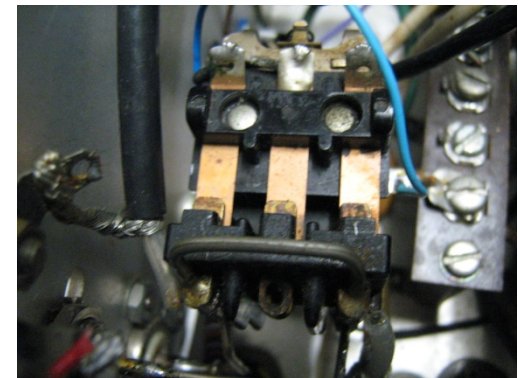
Ig trip reset
switch

R23

D17

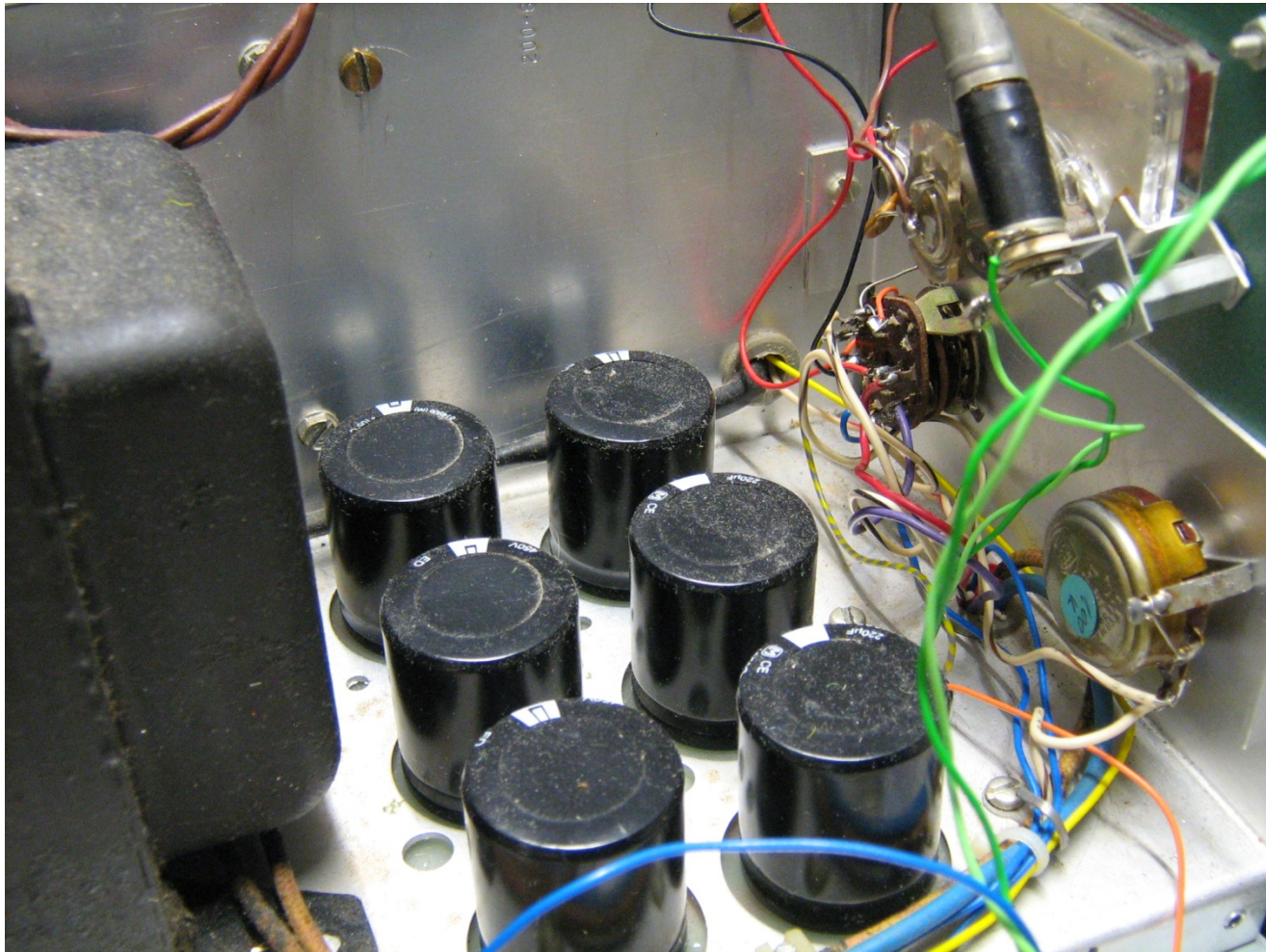


R23 is now 1800 Ω

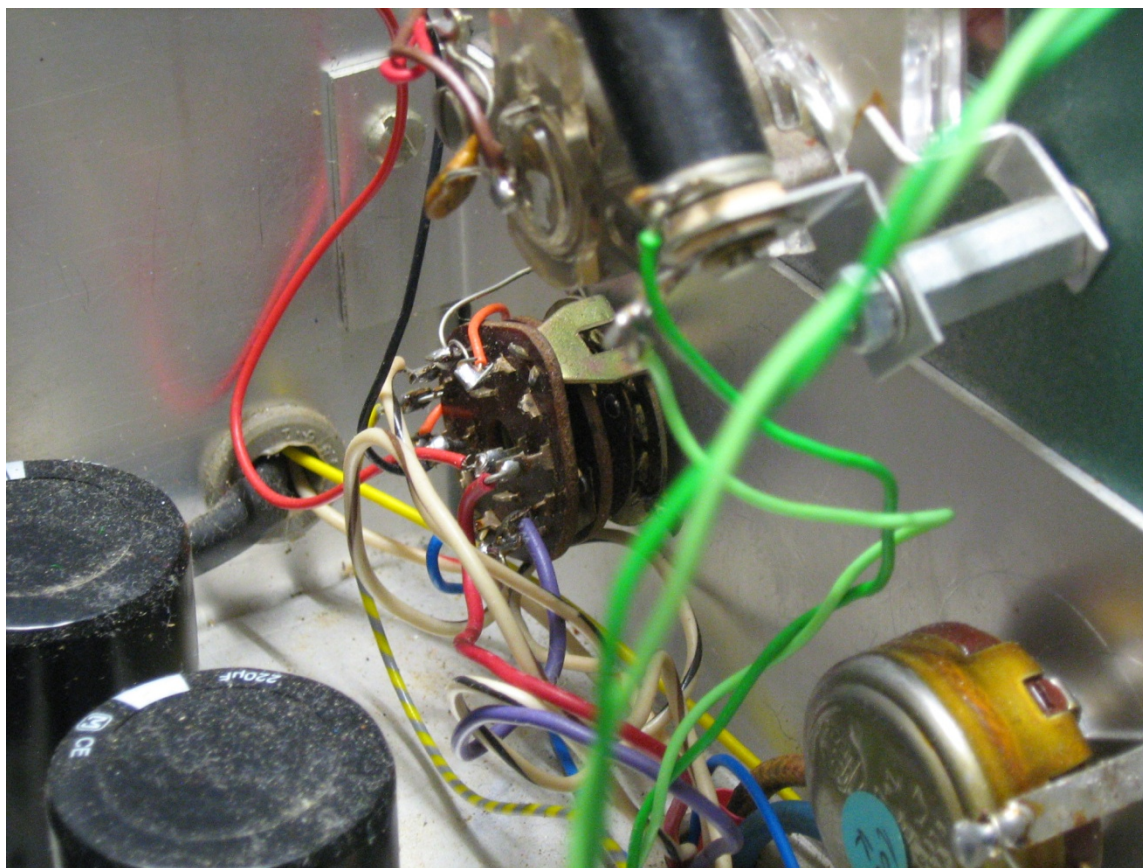


Potter & Brumfield
120V DC Relay
Coil DC resistance
4500 ohm

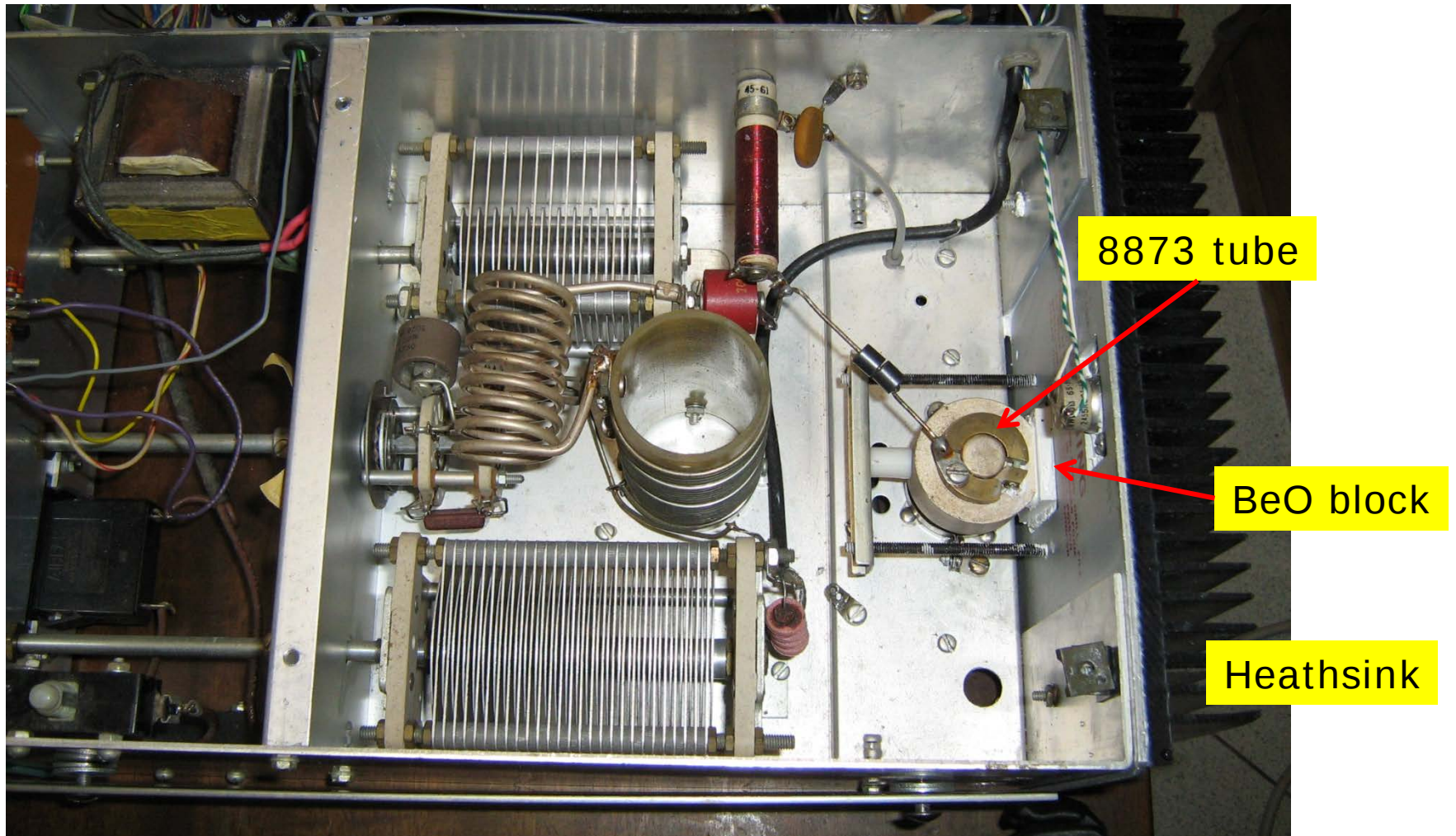
The pilot lamp is now powered
from the 6.3 V filament supply



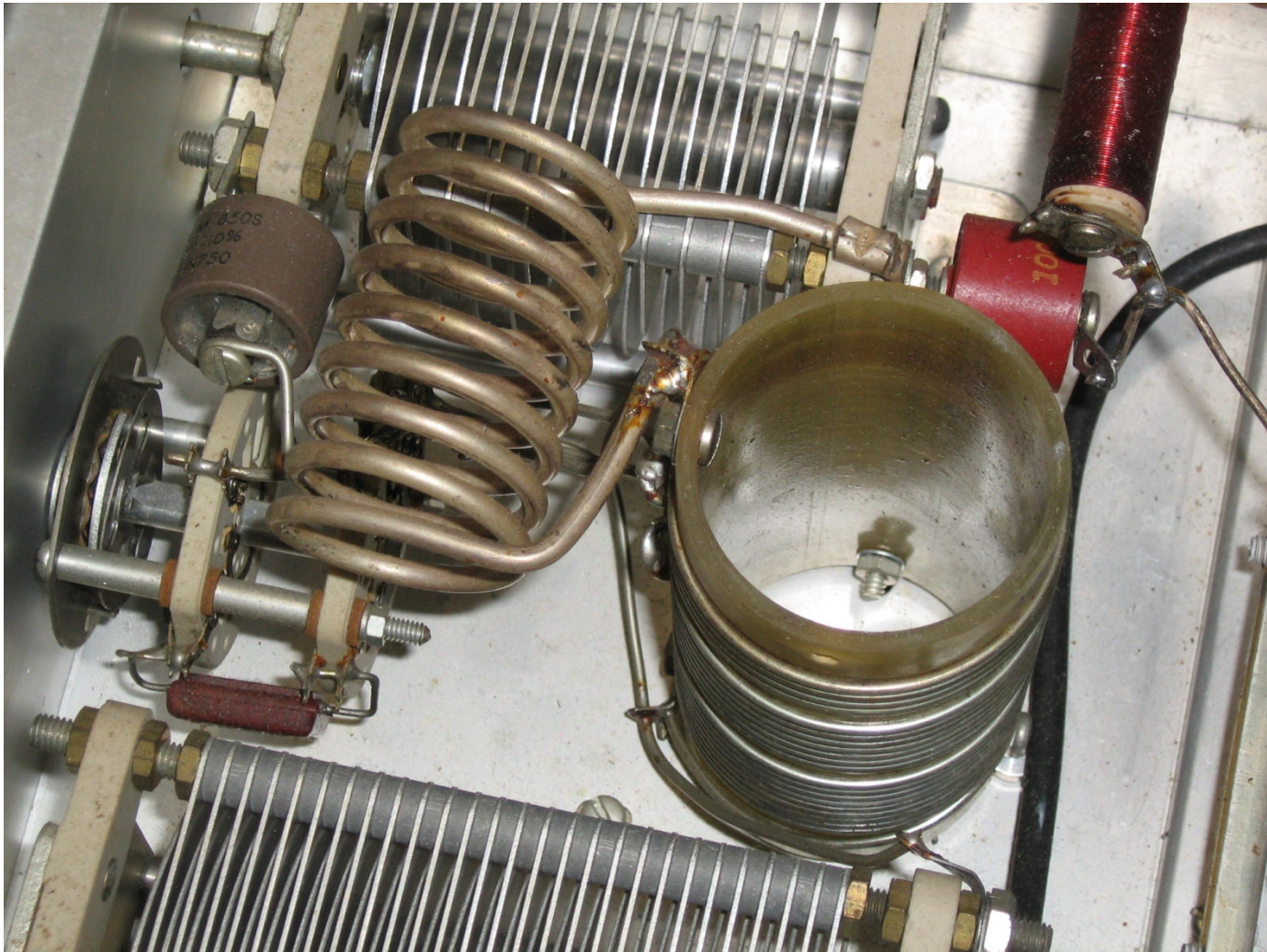
Filter capacitors
 $220\ \mu\text{F}$ 450 V 105 °C



The damaged original Meter Switch has been replaced by a cheap 2-pole 5-positions rotary switch. With this modification it is no longer possible to read the relative output power in EXCITER ONLY mode, an insignificant drawback.



The RF compartment. Note that choke RFC2 was moved from its original position during the previous GI-7BT retrofit and then left there

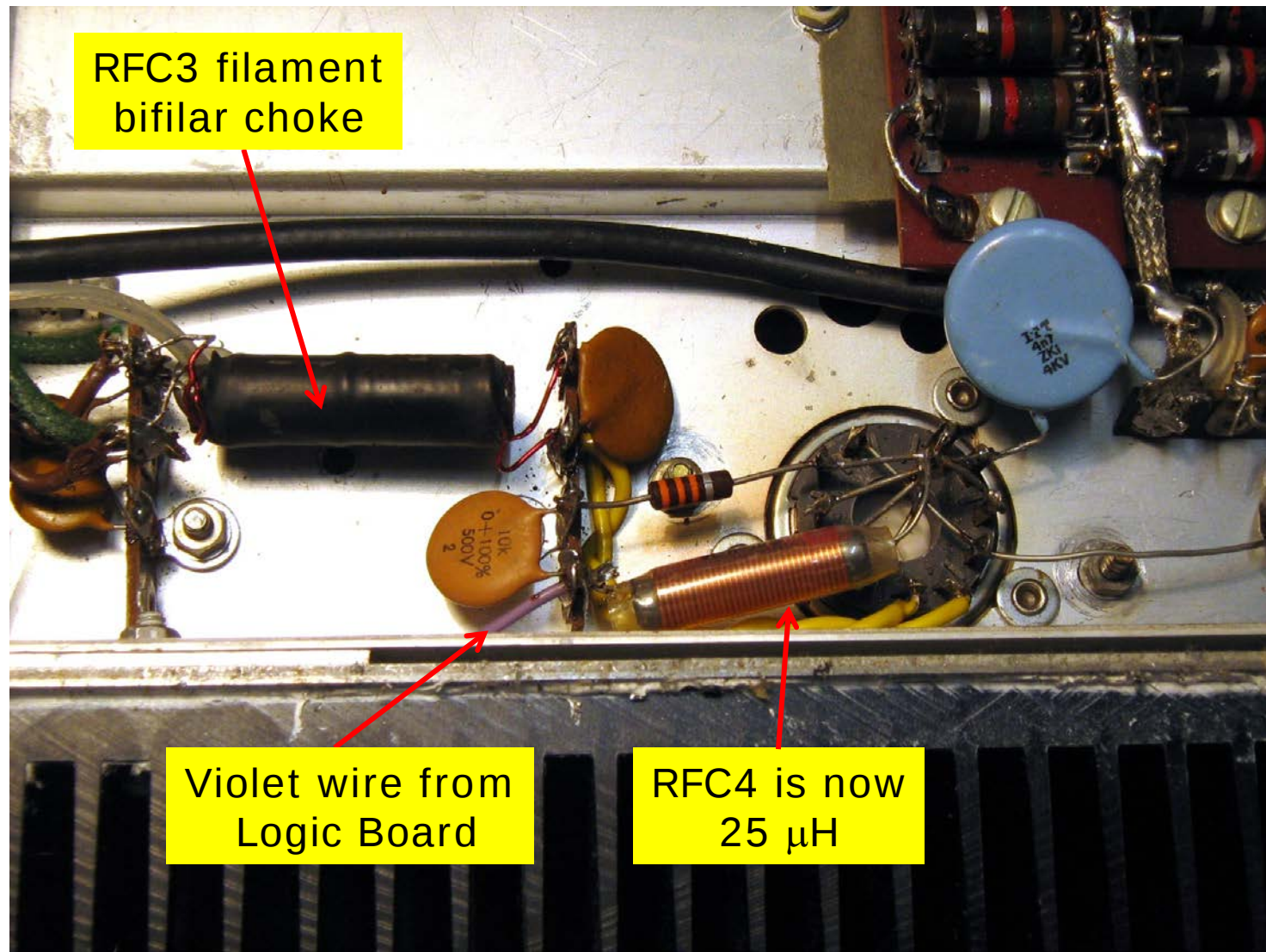


L1, L2 detail

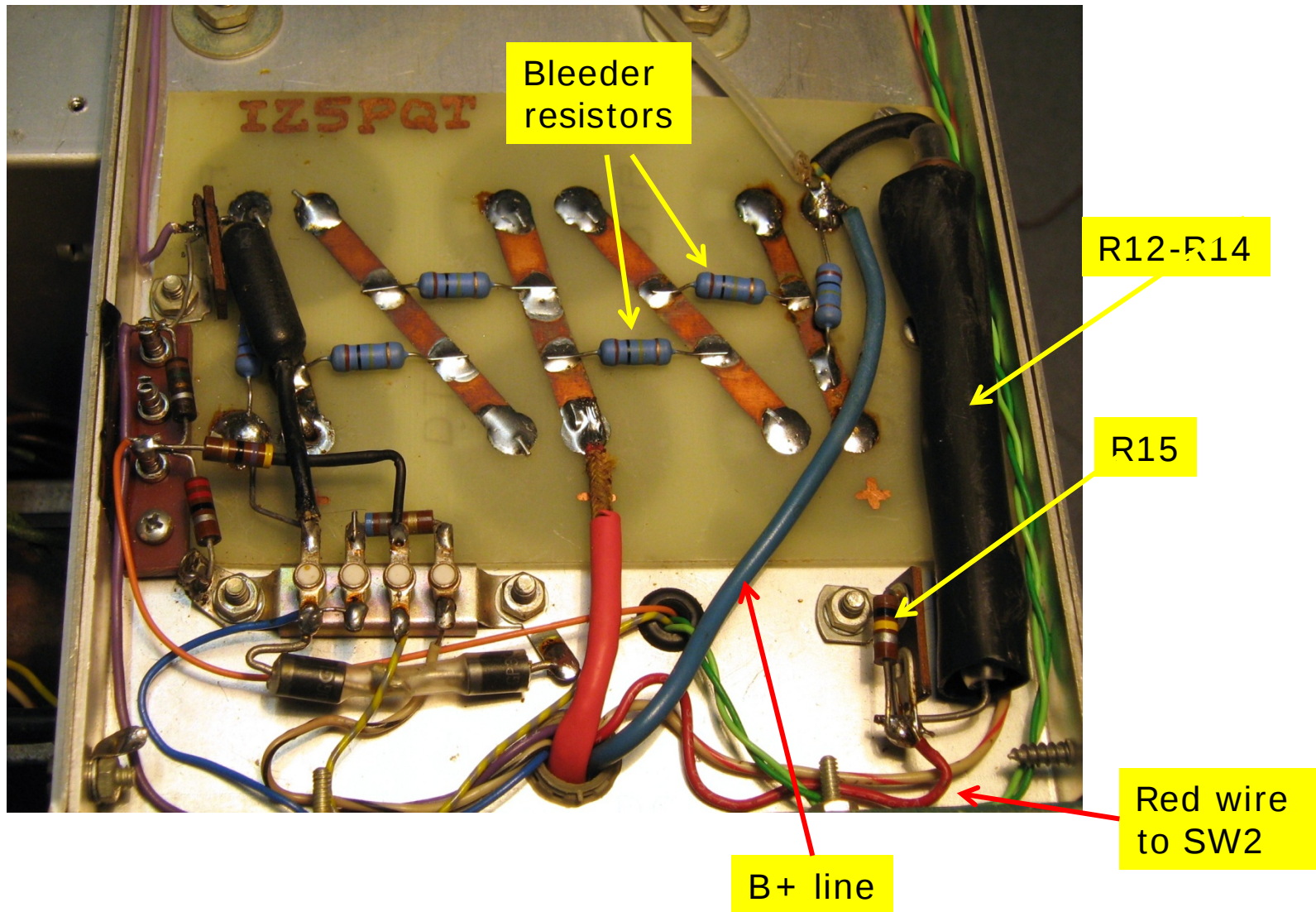


The direct grid grounding improved stability a lot

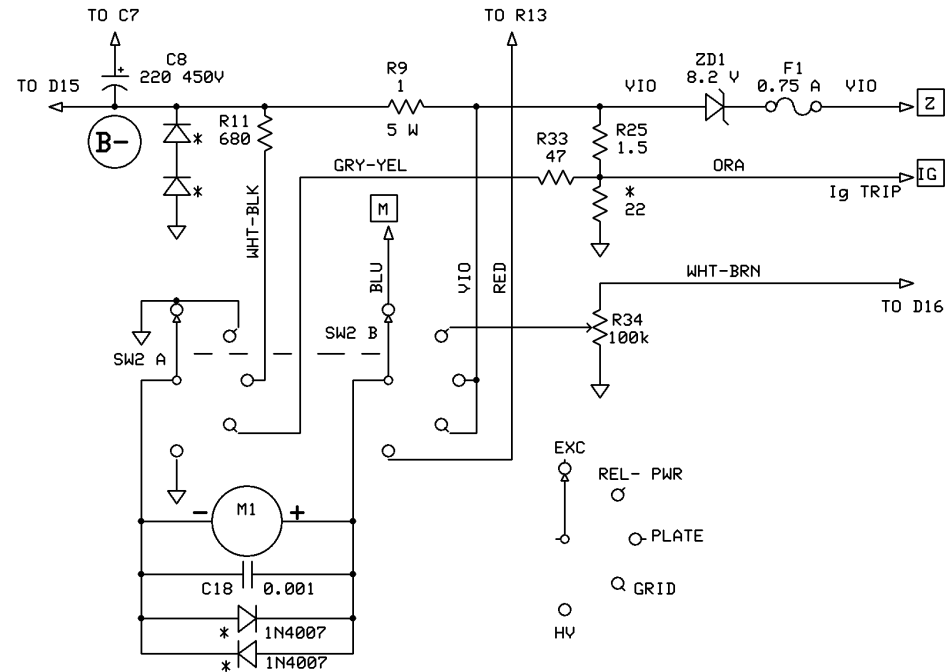
Bottom view of the 8873 socket



Bottom view of the filter capacitor PC board



M1
1 mA f.s.
83 Ω

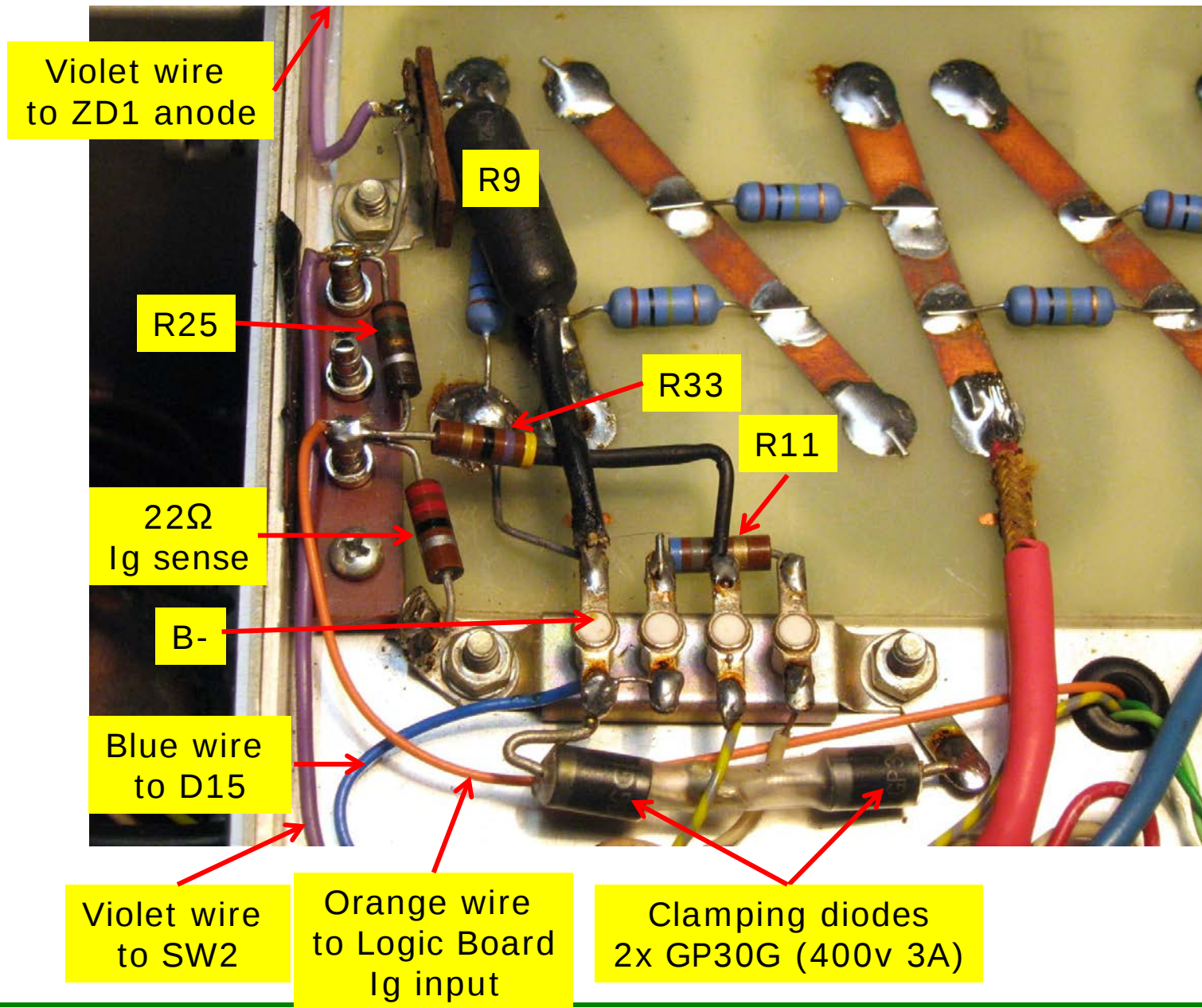


INDICATES CONNECTION TO THE LOGIC BOARD

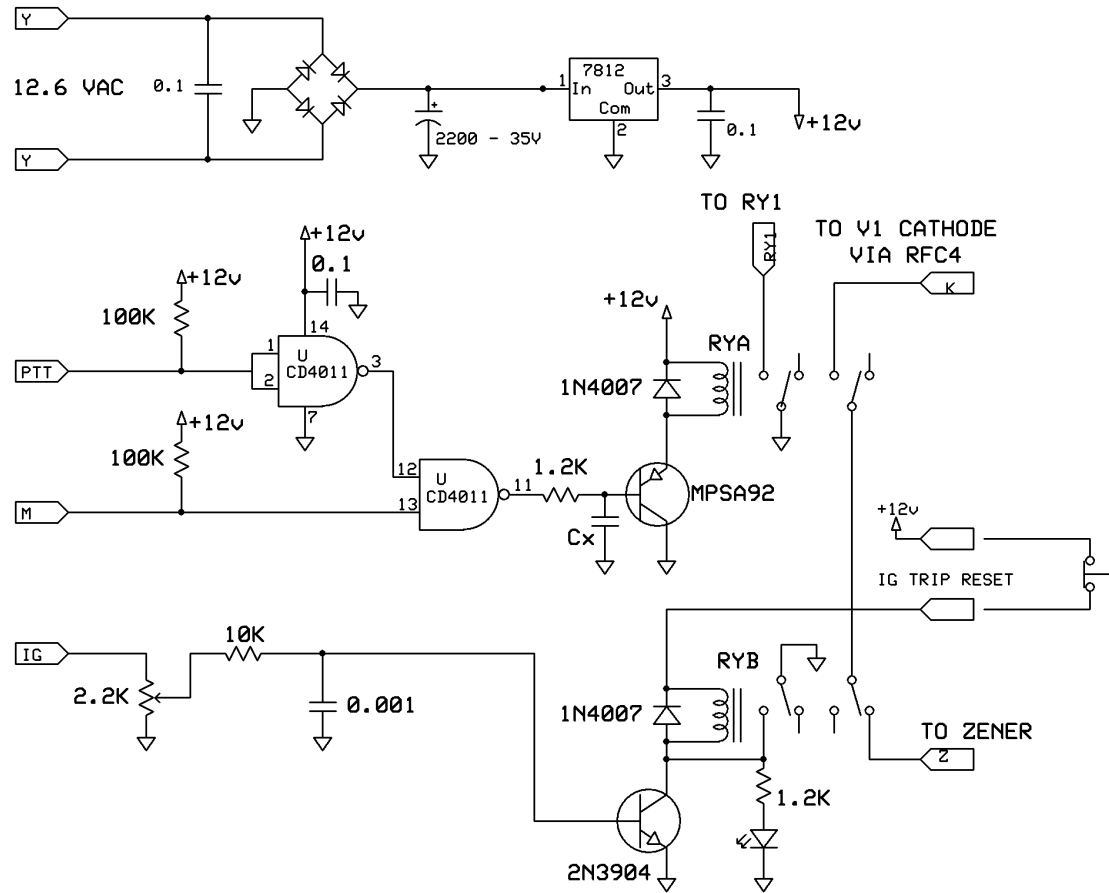
COMPONENTS NUMBERS CORRESPOND TO THE ORIGINAL SCHEMATIC

* MARKS ADDED COMPONENTS

IZ5PQT		
SB-230+ METER CIRCUIT		
IZ5PQT	Rev 1.0	
	26/12/2011	

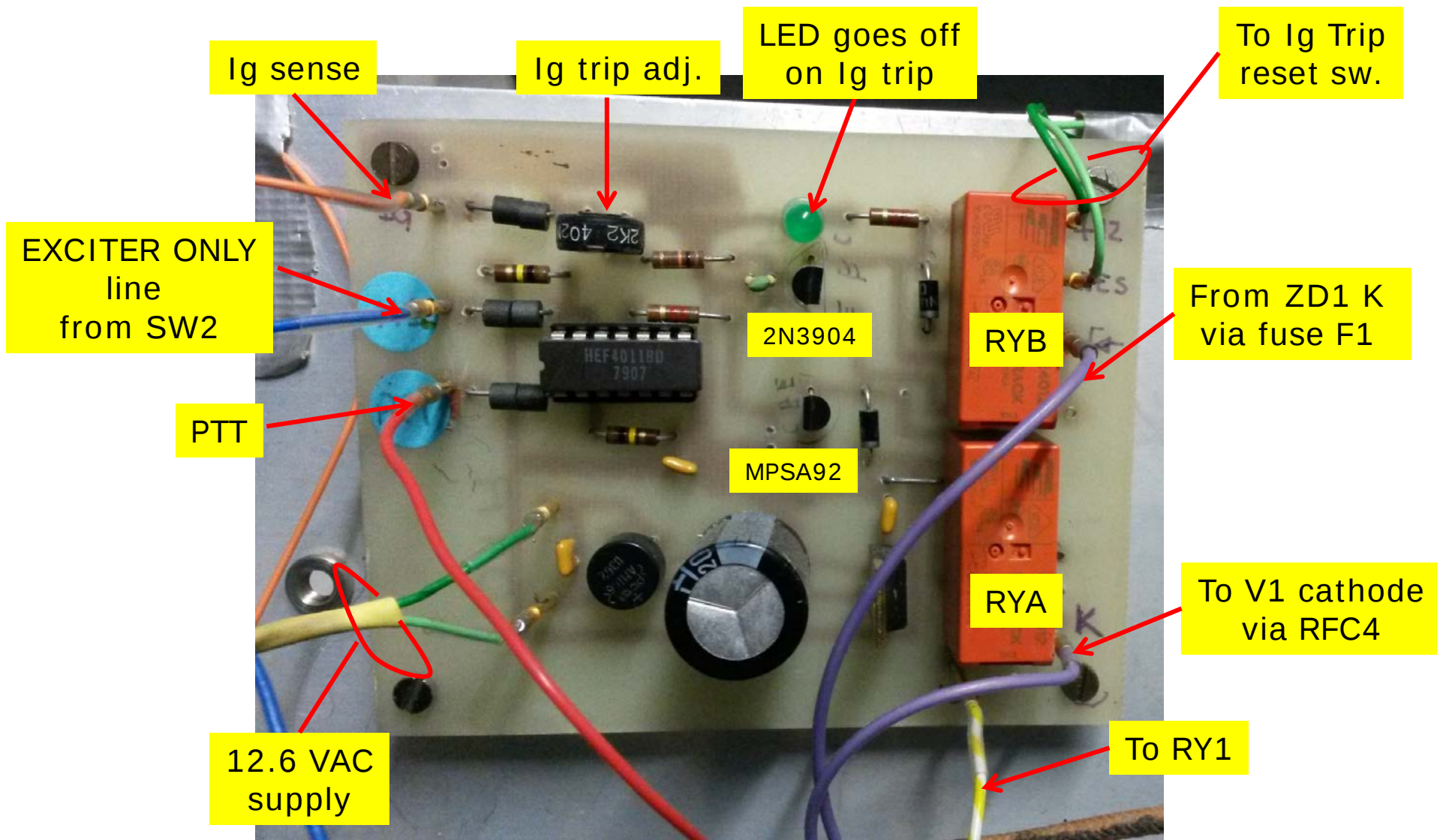


SB-230+ LOGIC BOARD BY IZ5PQT



IZ5PQT		
SB-230+ LOGIC BOARD		
IZ5PQT	Rev 2.0	
	08/12/2011	

The Logic Board



Rear Panel

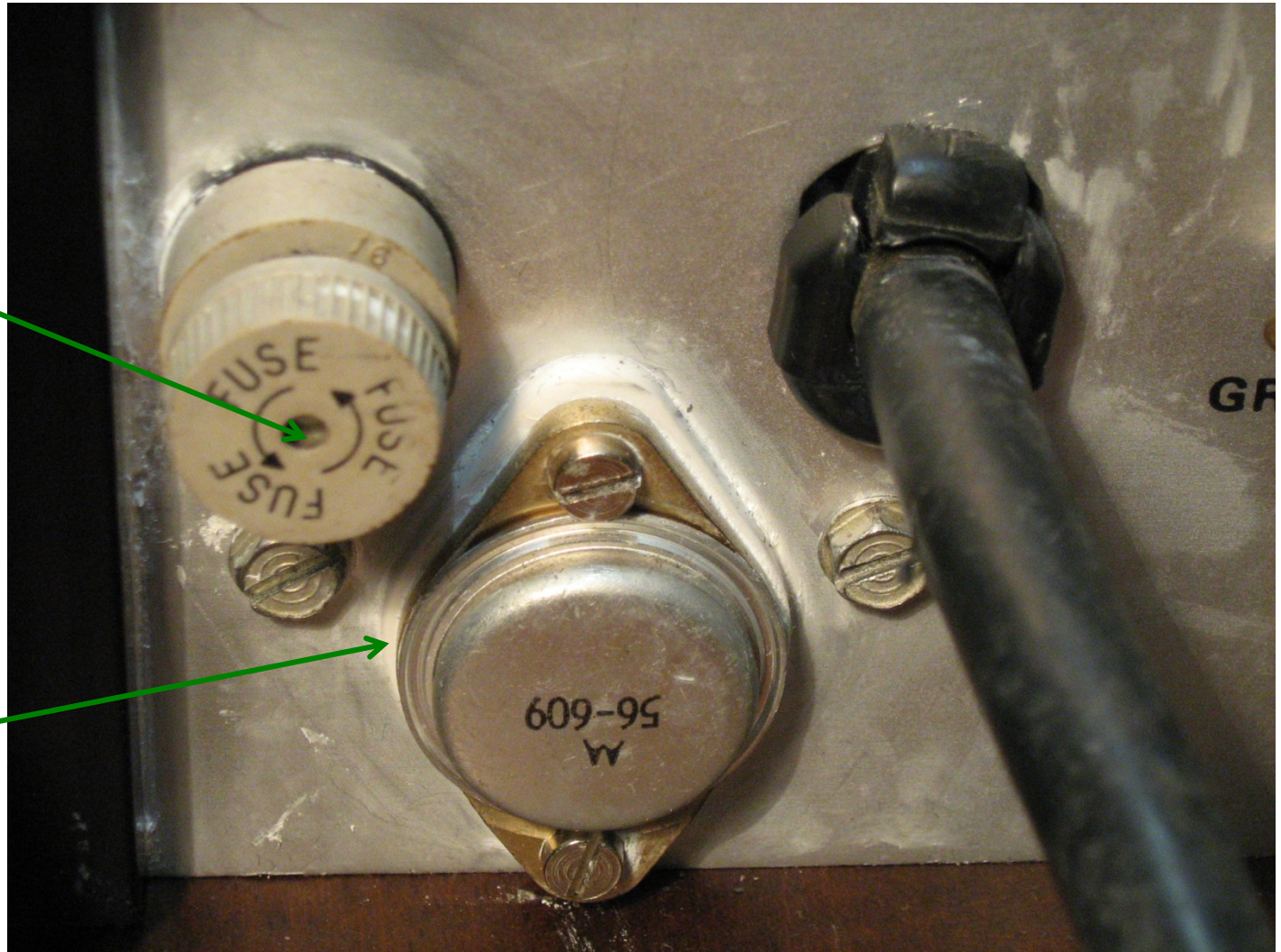


Ig Trip Reset

PTT

F1 cathode
current fuse

BeO wafer



With the true grounded grid the Zener diode ZD1 providing the 8.2 V grid bias must be insulated from the chassis

Output Power Measurements

- Exciter IC-756ProIII
- Input power 50-70 W
- Mode CW
- Wattmeter DAIWA CN-801
- Dummy Load MFJ 264

Setup



80 m BAND



Plate current ≈ 0.45 A

$$P_o = 600W$$

40 m BAND



$$P_o = 680W$$

20 m BAND



$$P_o = 550W$$

15 m BAND



$$P_o = 560W$$

On 10 m power was about 500 W

According to the review on QST (1976) these were the performances of the SB-230

Table 1

<i>Band</i>	<i>Power output (watts)</i>	<i>Input drive (watts)</i>	<i>Input SWR</i>	<i>Efficiency</i>
80	620	64	1.1	62%
40	665	72	1.2	66%
20	625	85	1.1	62%
15	590	90	1.3	59%
10	640	105	1.6	64%

Power measurements made with the SB-230.
Single-tone one-kilowatt input conditions
are shown.

