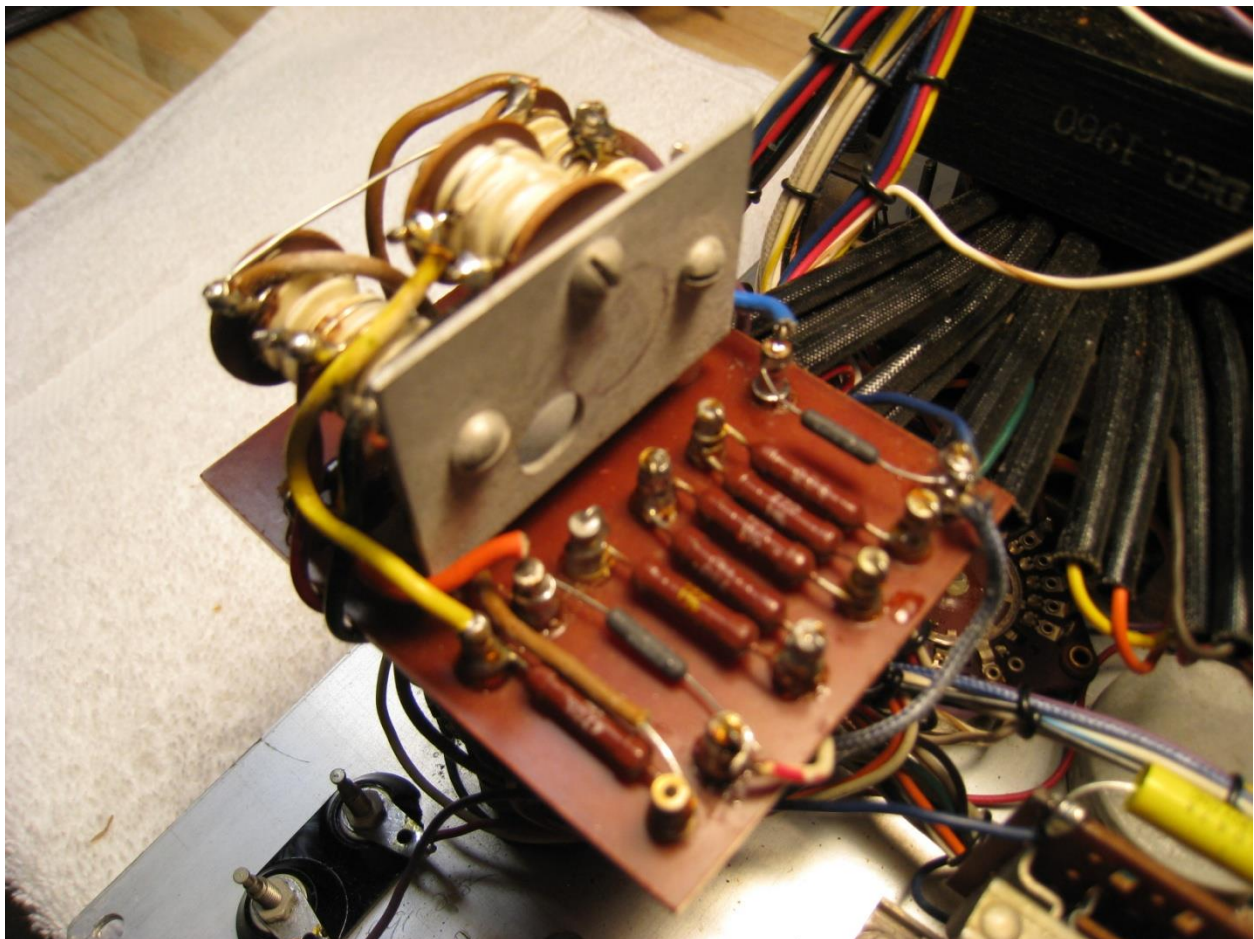


**HICKOK 539B/C  
PRECISION BRIDGE ASSEMBLY  
By William Eccher**

The Bridge Circuit consists of two 40 ohm and two 60 ohm precision spool resistors in these units. Over time many of these spool resistors have changed value or failed. Today these resistor values are no longer available in the precision and wattage required.

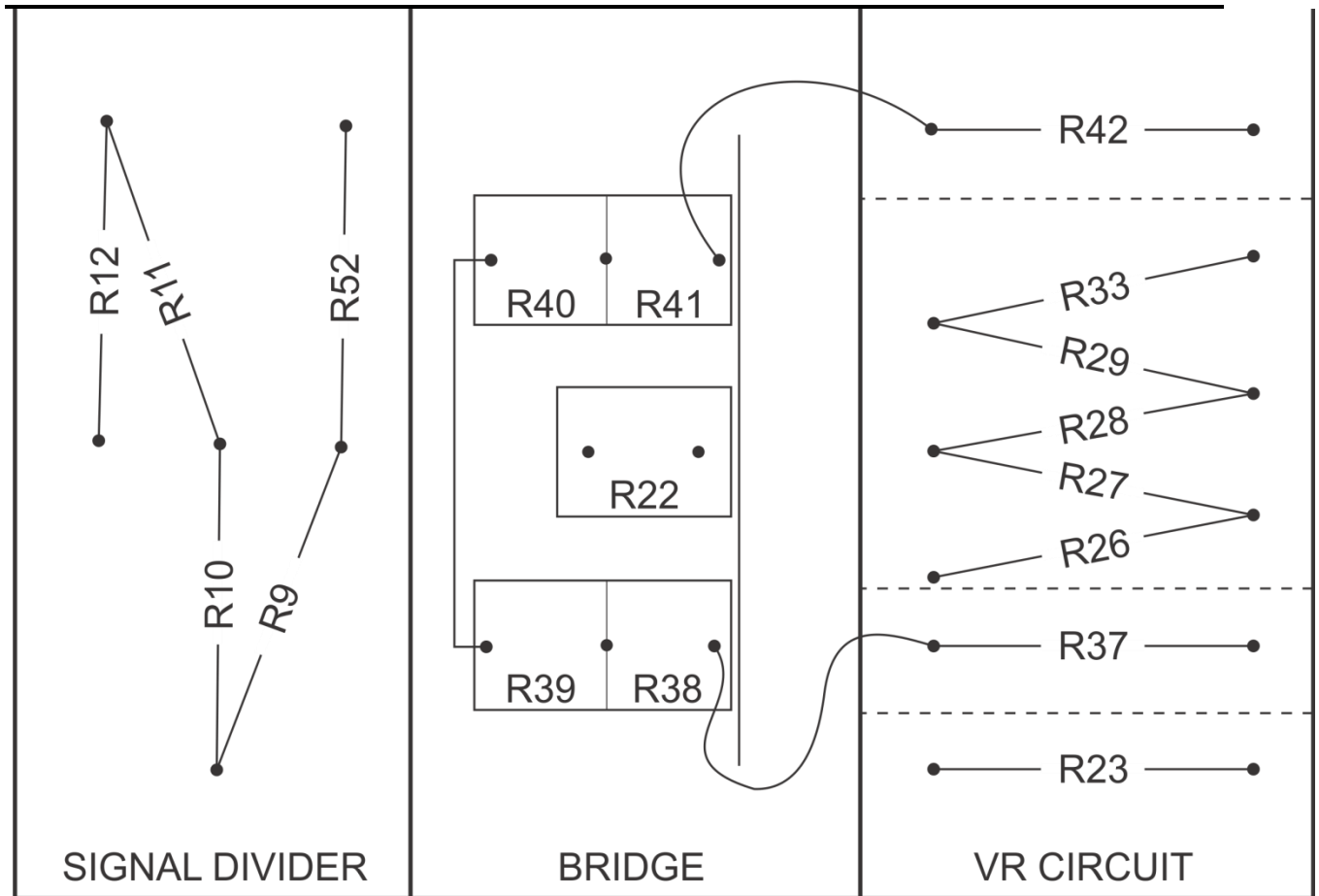
In order to meet this need we had custom resistors manufactured with **0.1% tolerance** rated at **3 watts** in the **40 and 60 ohm values**. These resistors are mounted on a pc board attached to an aluminum mounting bracket. This new assembly replaces the old bracket and spool resistors R38, R39, R40 and R41. Located in the center on the old bracket is a single spool resistor not used in the bridge.

**Resistor Board showing the bracket and spool resistors before the modification.**



The spool resistor in the center is removed with the wires intact & pushed aside.

Note the color of the wires attached to R38, R39, R40 AND R41 spool resistors using this drawing. It is very important this is done accurately in order to attach them to the relative positions on the Precision Resistor board.



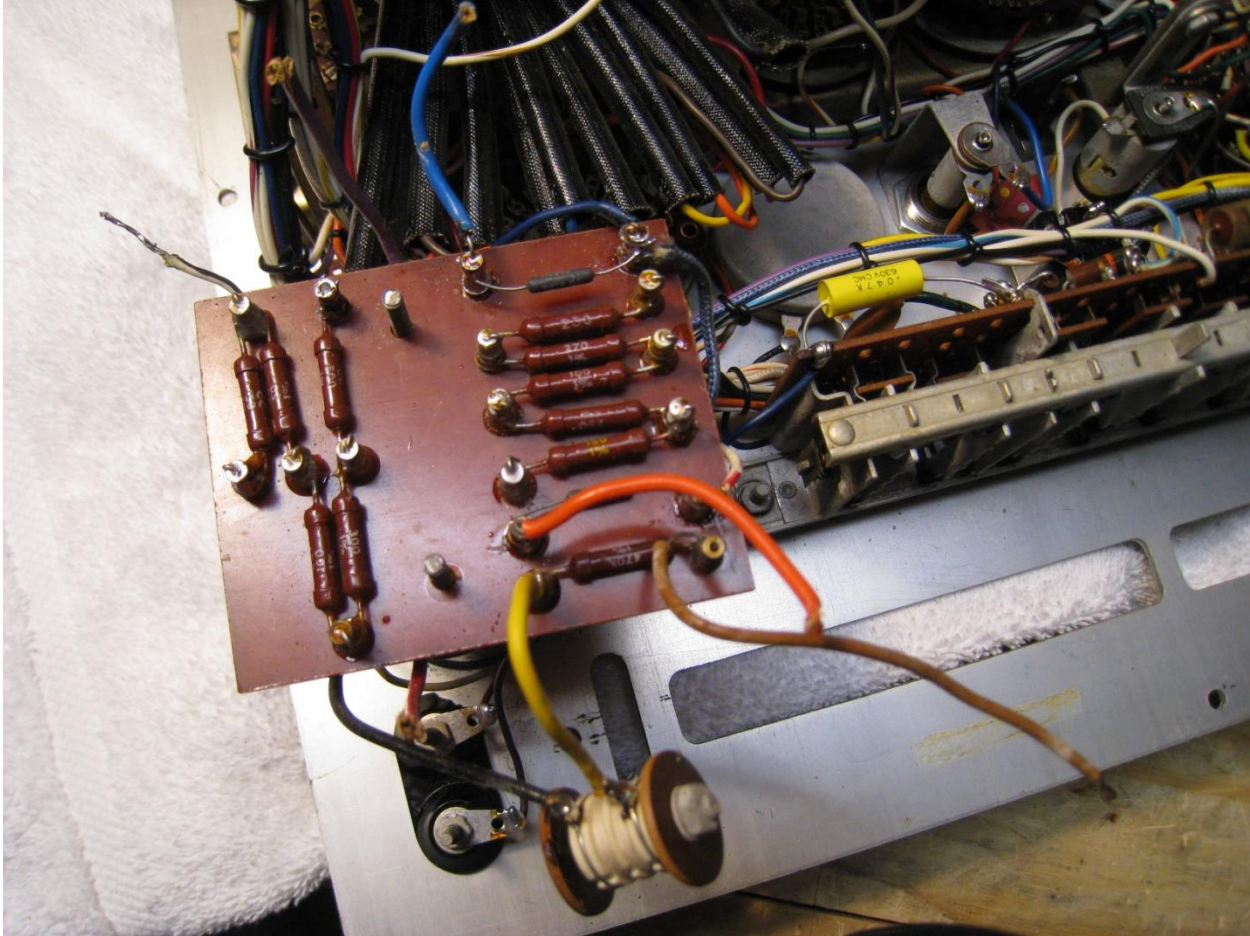
Now carefully unsolder and remove the wires.

Remove the nuts & lock washers that attach the mounting bracket to the switch.

The bracket can now be lifted away and the two spacers should be removed.

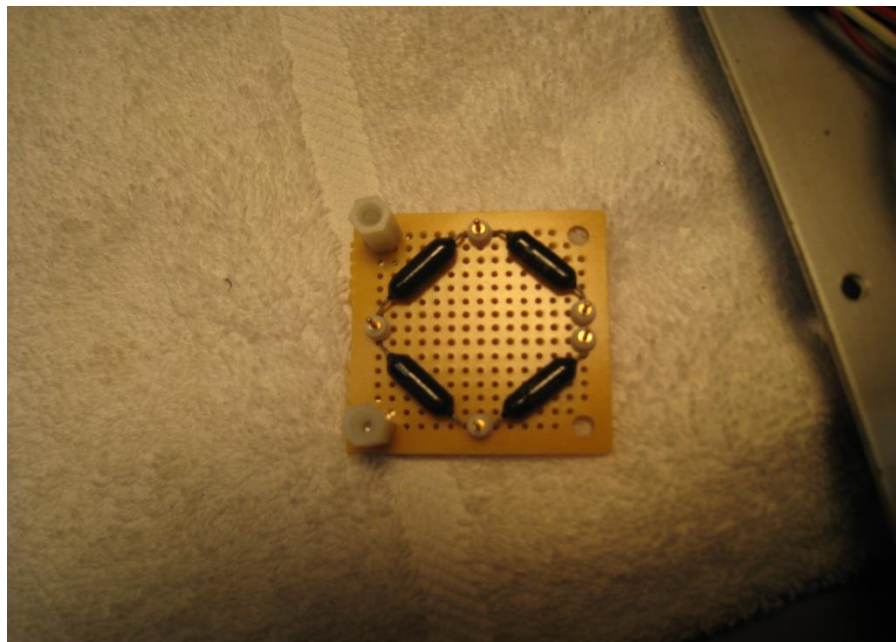
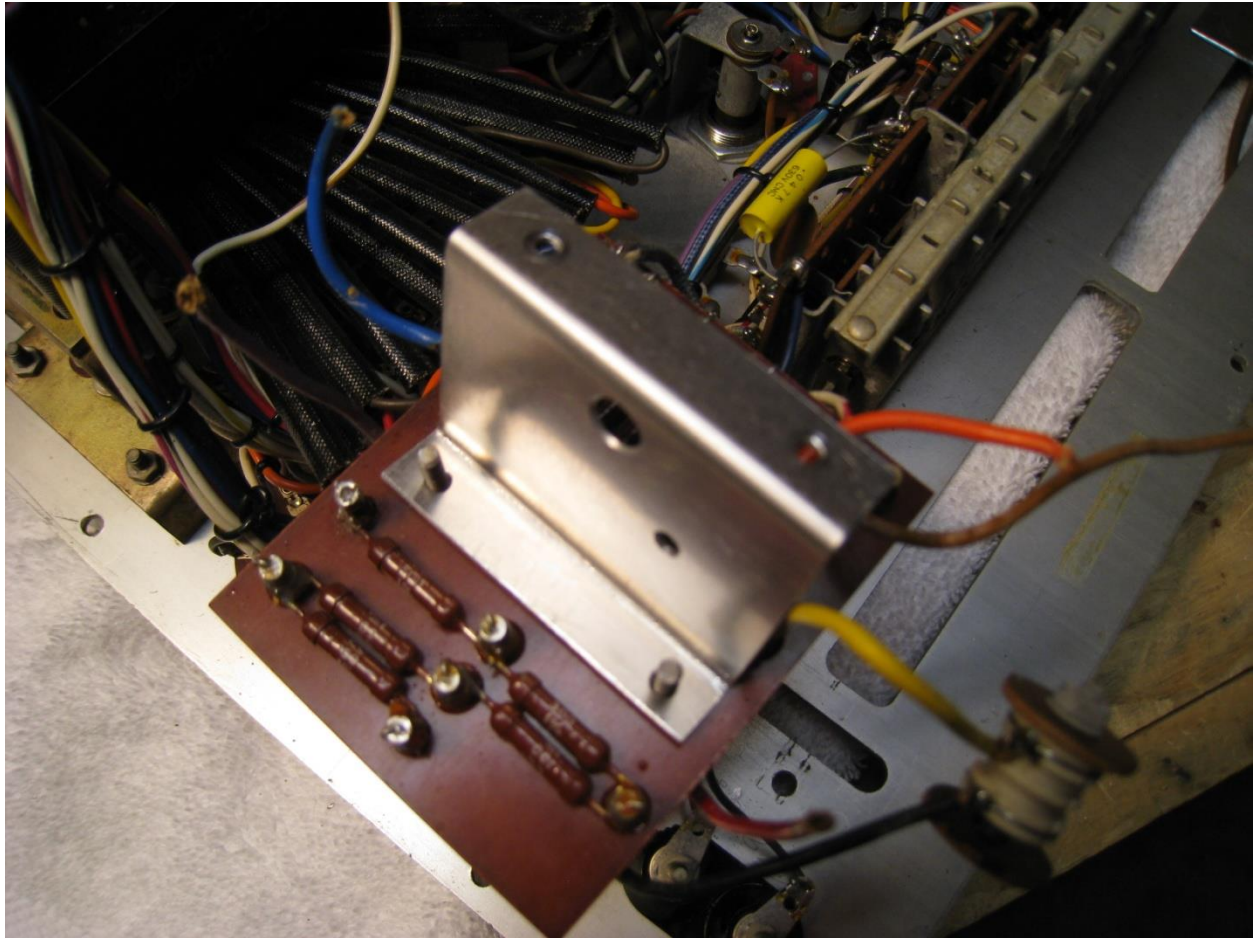
The nuts and lock washers will be used to secure the Precision Bridge Assembly.

Picture of Resistor Board old spool resistor assembly removed

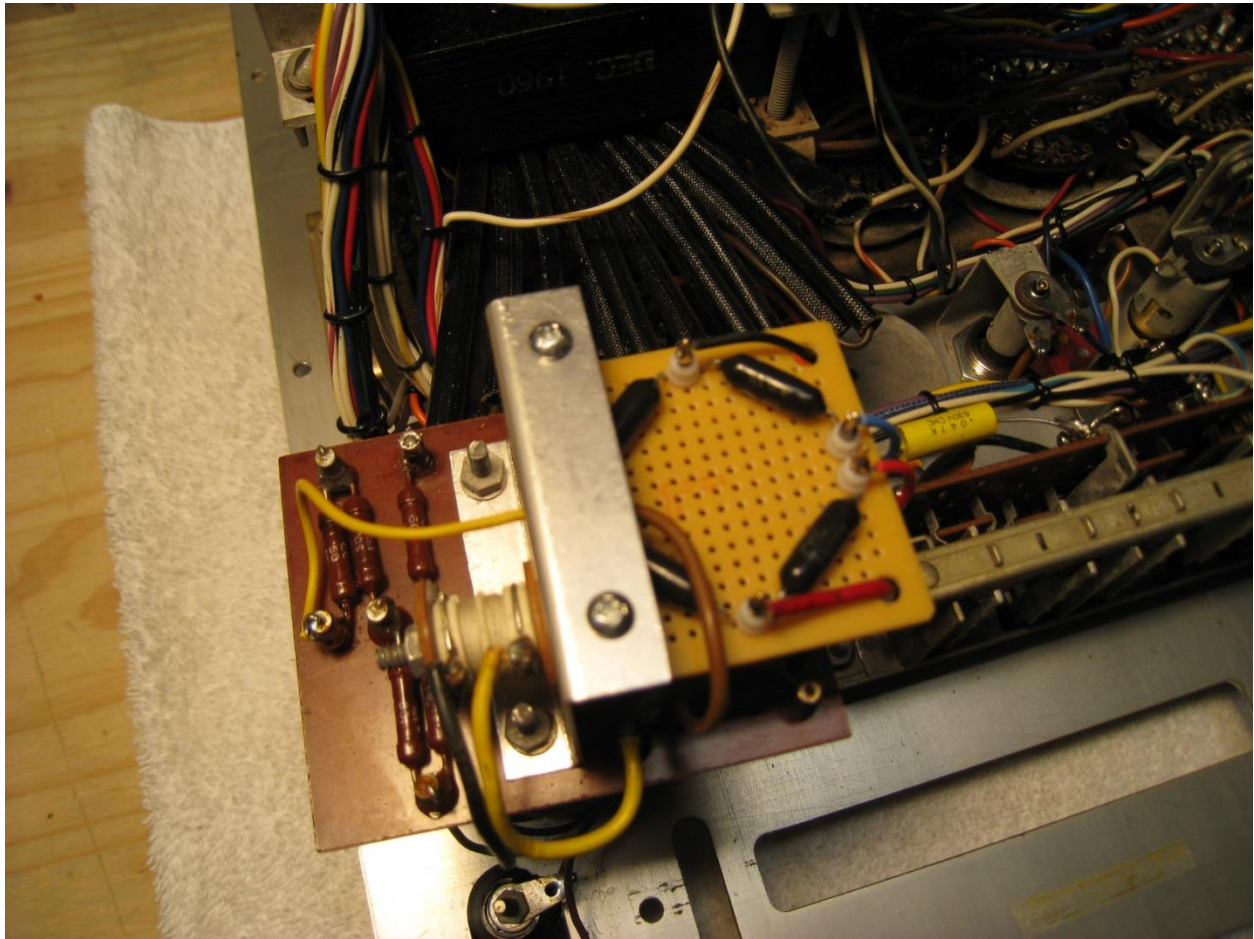




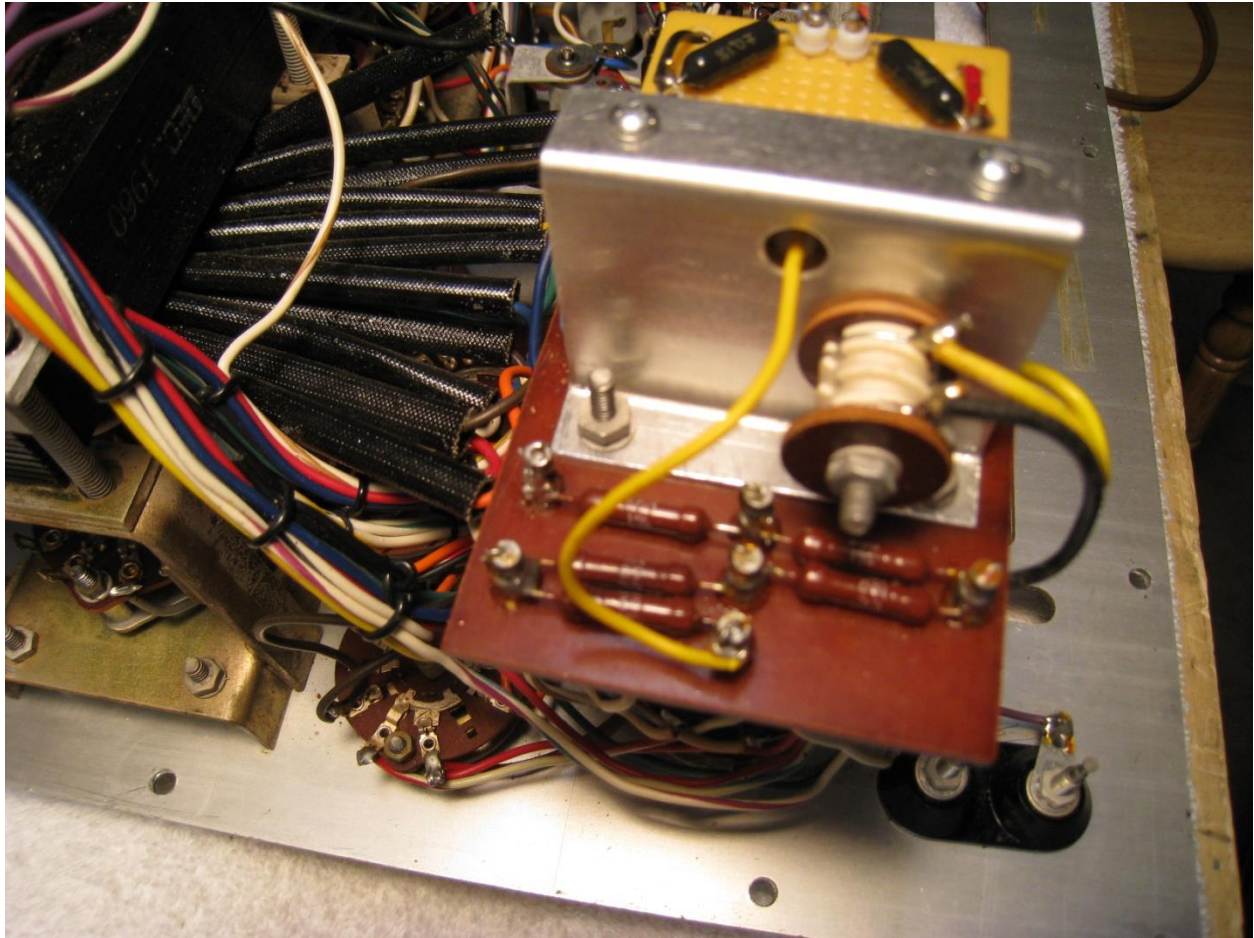
**NOTE: THIS BRACKET IS NO LONGER USED IT HAS BEEN REPLACED WITH A NEW VERSION WHERE THE PC BOARD MOUNTS ON TOP.**



**It may be necessary to re-route or extend some of the wires to reach the correct connection on the Precision Resistor Board.  
The mounting bracket has been changed & the PC Board is now on top.**







This picture shows a completed installation and the relative positions of the old spool resistors with the new precision resistors.

