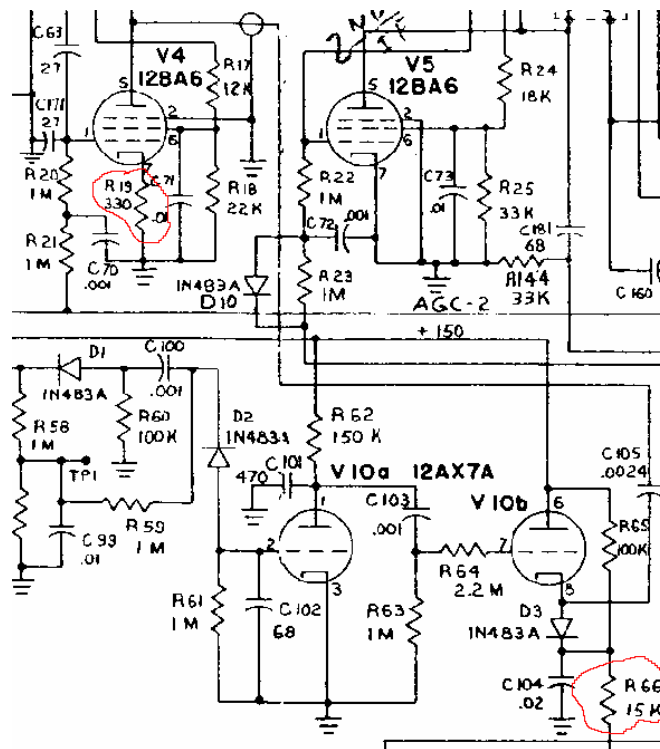


# GET THE BEST FROM YOUR DRAKE R4B RECEIVER.

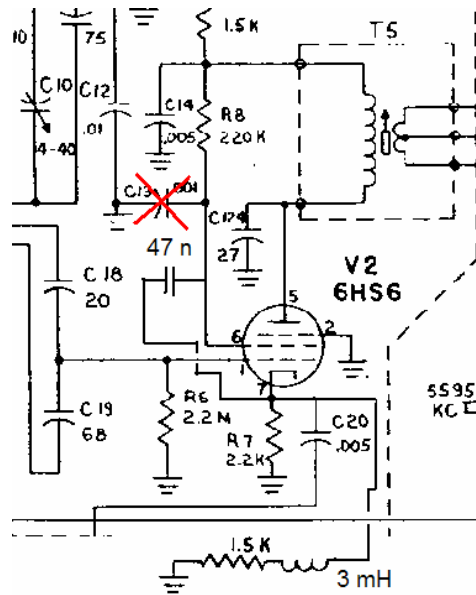
DRAKE R4Bs are not perfect, only nearly perfect. There is something we can do.

First try to have your R4B at its original specifications. Second, put a 100 nF capacitor in parallel to R19, cathode resistor of V4, this will increase the gain and the effectiveness of the AVC. Third, put a 25 kohm trimmer resistor in parallel to R66, better is to remove R66 and substitute with a 25 kohm trimmer resistor, exactly as we have in the R4, the father of all R4x. Set the trimmer (NB threshold) as described in the R4 manual (turn until the NB attenuates the signal and then go back a little), this will improve the operations of the Noise Blanker.



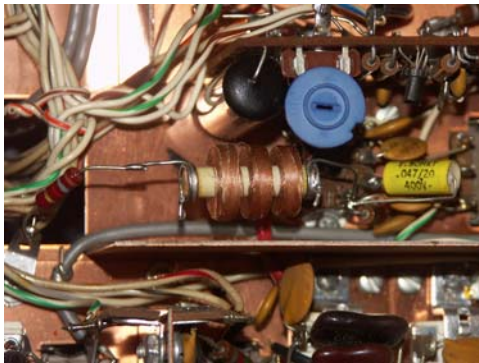
R19 and R66 on the schematic diagram.

It is also possible to increase the first mixer gain by reducing the resistance of the cathode resistor from 2.2k down to 470 like the R4C. We don't want to do such a drastic reduction, we will connect in parallel to the 2.2k resistor a 1.5k (or 1.8k) resistor, obtaining about 890. The load on the pre-mixer will not change thanks to the 3 mH inductance.

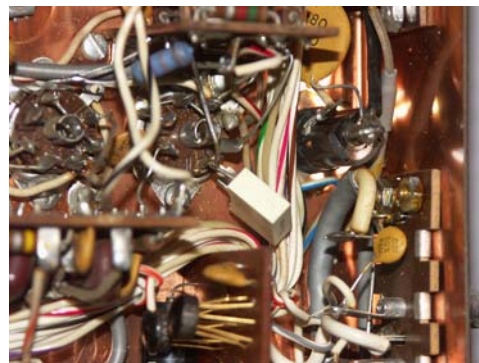


My canonical mixer MOD is implemented with a gain increase.

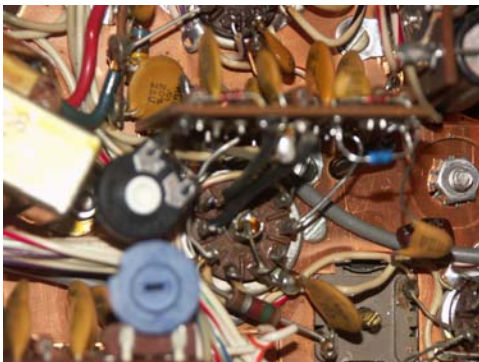
### PICTURES



The first mixer MOD (1.8k)



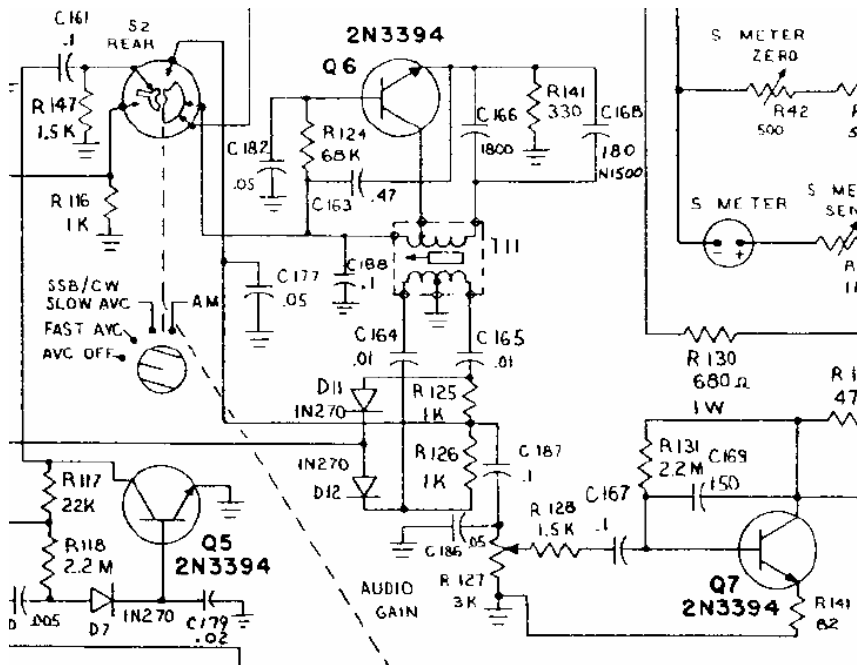
The cathode capacitor of V4



The NB trimmer (black)

Let's now go through some capacitor trimming to make true Hi-Fi AM broadcast sound.

The original schematic of the demodulators:



- Increase C161 by .47 uF in parallel
- Increase C187 by .47 uF in parallel
- Increase C167 by .47 uF in parallel
- Decrease C 186 from 0.05 down to 15 nF (remove original capacitor)

Can it go even better?

Best Regards. IN3IEX Giorgio...