

# HiFi AM for Your DRAKE T-4XB.

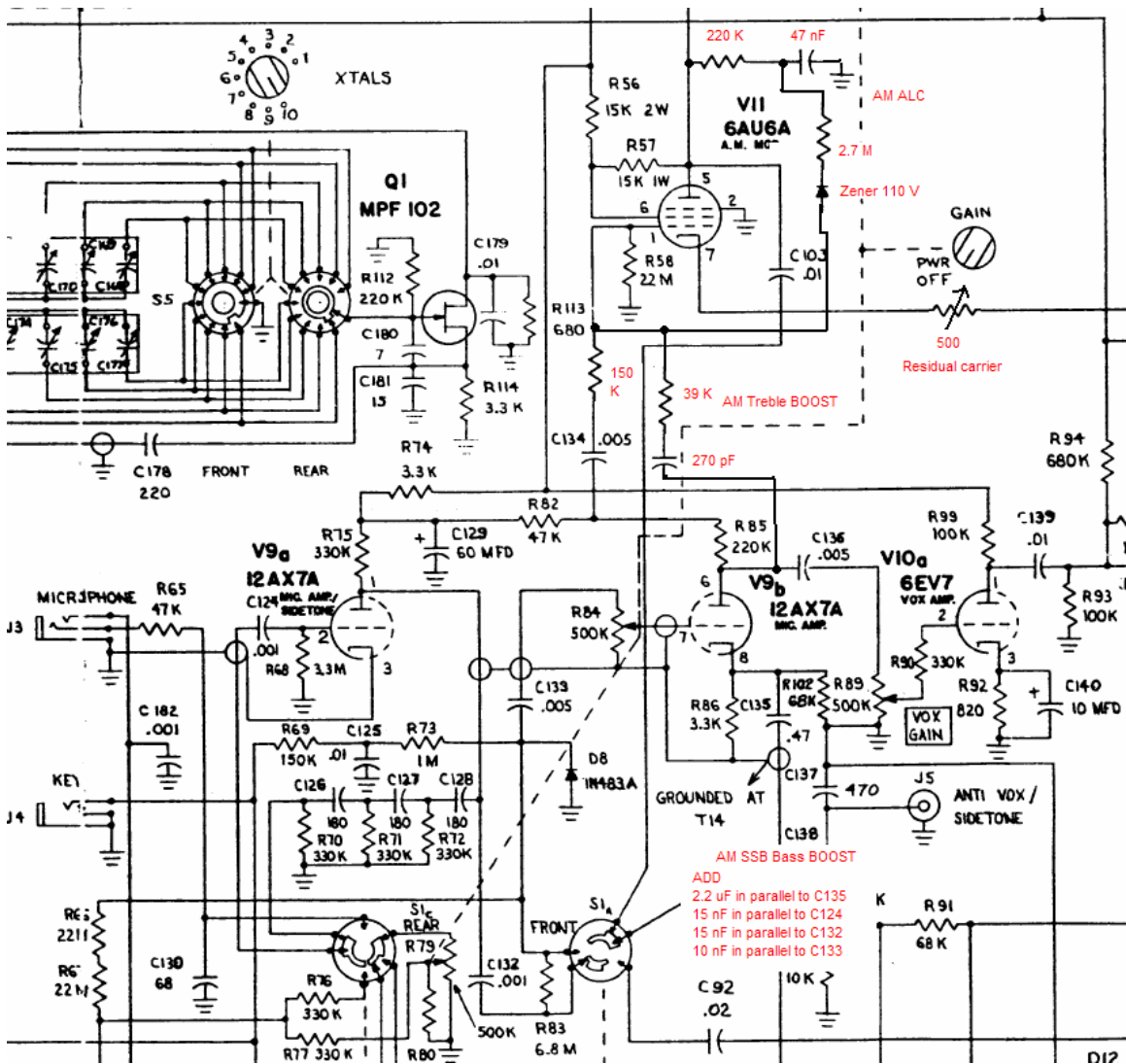
The audio frequency response of the T-4XB is limited on low frequencies and is flat on high audio frequencies, making it not really “competitive” on the air.

In addition the residual carrier is quite low and the controlled carrier modulator has an intrinsic tendency to saturate asymmetrically.

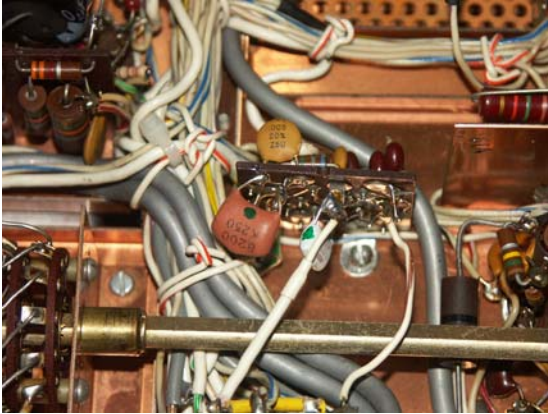
The low frequency response can be extended by connecting in parallel to some gain capacitors additional capacitors. This mod works for both AM and SSB.

I also propose a high frequency BOOST for AM to gain more punch on noisy band conditions.

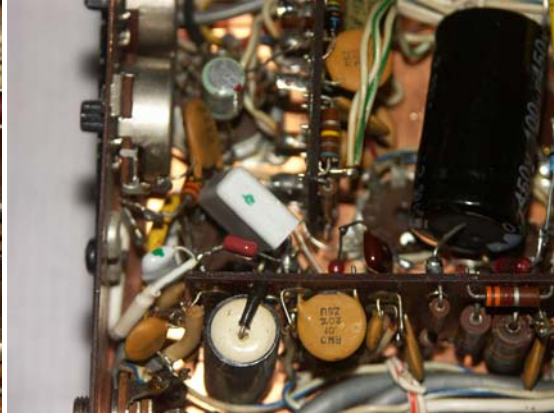
At last we have the controlled carrier ALC. This circuit limits the average driving voltage to the modulator tube to 110V. The modulation (AC component) is not limited, and the saturated modulator behaves like a standard screen modulator, with both upper and lower symmetric clipping. The unmodified modulator saturates to 250 V with almost full carrier and no modulation.



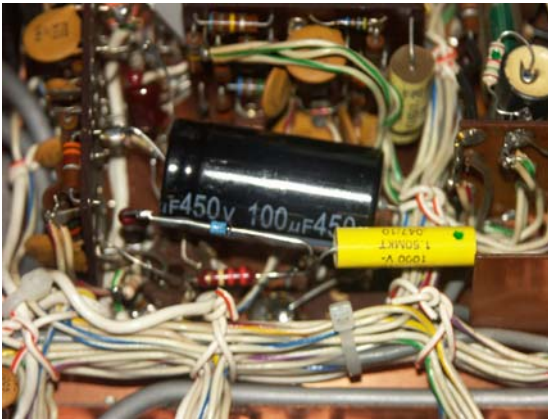
Some pictures of the location of the components; look at green dots on added capacitors:



C132 C133



C 124 C135



AM ALC



HIGH BOOST (see mica cap and 150k res)

...Another step towards the perfect T-4XB.

Best Regards. IN3IEX Giorgio.