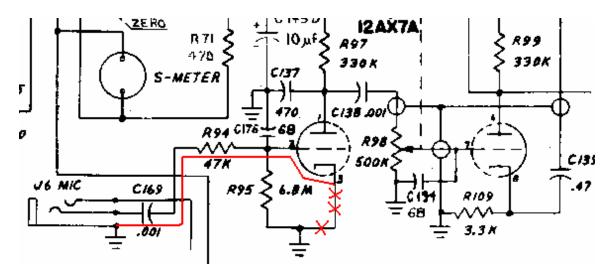
## MODULATION IMPROVEMENT FOR YOUR DRAKE TR-4 TRANSCEIVER, MORE BASS, LESS HUM.

DRAKE TR-4 transceivers are known for lacking of bass frequencies in SSB and AM modulation. Just do the following. Increase C138 from 1 nF to 4.7 nF. The effect is that more bass frequencies will be transferred to the second triode of the 12AX7. Unfortunately some more hum will now be present in the modulation. This 60/50 Hz hum comes from a ground loop and lack of electrostatic shielding. Change pin 3 (cathode) connection of the first triode of 12AX7 and try to reduce the area of the loop and connect the cathode directly to the ground of the mic jack, remember that voltage input to the cathode is equivalent to voltage input to the grid. If you have low impedance or amplified mic then increase C169 from 1 nF to 10 nF. Reduce R94 from 47 k to 10 k, the input impedance of the mic will short the hum picked up capacitively to ground more effectively.



Modulation Improvement for Drake TR4 line of transceivers.

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Experiments have shown a remarkable improvement. Just try and let me know....

Best Regards. IN3IEX Giorgio...