

browning®

SERVICE
NOTES



SN 7122

GOLDEN EAGLE MARK IV

TRANSMITTER

SYMPTOM: Garbled transmit on SSB - especially the upper channels making it difficult or impossible to clarify it. It has also been described as sounding as if under water.

SOLUTION:

Refer to attached diagram.

1. Carefully cut the printed circuit as shown by dotted lines at points A through H - removing the tube filament grounds from the rest of the circuit board ground pattern.
2. Using 18 ga. wire (nothing smaller) connect the filament grounds from points A through H. ROUTE THE WIRES EXACTLY AS SHOWN IN THE DIAGRAM! Any deviation can cause problems such as hum, feedback, etc.
3. Add two small jumper wires at points G and H to connect together the ground pattern on each side of the isolated filament grounds. Keep these jumpers as short as possible without shorting to the tube socket pins.
4. Remove the black wire coming from the meter light socket from where it connects to ground at point K and connect it to the filament ground at point E.
5. Remove C212 (68 pf) from its present position on the top side of the circuit board and solder it on the bottom side at point L.
6. Remove the end of the 10 ohm resistor that connects to ground at point M and extending its length with a buss wire-solder it to filament ground at point A.
7. Remove the short wire from the relay socket to terminal strip ground shown by dotted line at Point I. Connect a wire as shown from the relay to filament ground at point C.
8. At this point turn the set on. The filaments and meter light should not come on. If they do there is a short between the filament ground and circuit board ground which must be removed.

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9. Disconnect the black wire from the control cable, shown by dotted line at point J., where it connects to ground on a terminal strip and connect it to filament ground at point B. You may have to lengthen it with a piece of 18 Ga. or larger wire.
10. Open the synthesizer cover and on the bottom of the circuit board add a 10 pF NPO ceramic disc capacitor from base to collector of Q103. Keep the leads as short as possible.
11. Add a .001 ceramic disc capacitor from base to ground of Q101 (some sets may already have a .002 capacitor there. Remove it before adding the .001.)
12. Adjust C122 for 1.8V at control voltage test point. (See service manual).

This completes the modification. In a few sets it may also be necessary to place the Receiver on the left side of the transmitter. If the signal is still not clear change Q105.

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