



SERVICE BULLETIN

from: TRIO-KENWOOD COMMUNICATIONS, INC.

TS-120S

#844

1/2

SUBJECT: TS-120S TX OSCILLATION (SUPERCEDES 821
SERIES BULLETINS)

DATE 5/21/81

The TS-120S may exhibit intermittent oscillation on the 15M, 10M, and/or 20M bands. Symptoms may be no control of Carrier level, full current or ALC in either CW or SSB after initial keying or modulation, or "full output both forward and reflected".

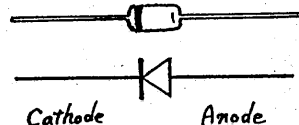
1. Physically disconnect power from the radio.
2. Make certain the Antenna fitting is tight to the rear panel.
3. Remove covers. Unplug speaker lead.
4. Check for loose screws securing the RF unit X44-1260-01 and the relay unit X41-1250-00 (located over the RF unit).
5. On the RF unit, check diodes D2,3 and 8 for high reverse leakage. If in doubt, replace.
6. If not already present on the RF unit, make the following changes:

R47 (33 Ω) change to 10 Ω Radial (RD12CY2E100J)

R50 (560 Ω) change to 680 Ω Radial (RD12CY2E681J)

C61 (220PF) Remove

Add 2 1S1587 (V11-0370-05) diodes in series, anode to ground from the junction of C4 and D8.



NOTE: Diode I.D. 1S1587 = 1S1585

Added diodes may induce RX IMD. If so, delete.

7. As illustrated, carefully cut the cable ties on the wire harness (without cutting the wires) as it rounds the corner behind the PLL unit X50-1490-00.
8. Separate the AVB line, a white/brown line from the filter unit X51-1200-00 to the RF unit X44-1260-01.
9. Adjacent to the rear of the PLL and to the left you will see a five pin terminal strip. The two right-hand most terminals are bridged. WITHOUT BREAKING THE TERMINAL OR STRIP, remove the heavy yellow, and light red and green lines and transfer them to the adjacent terminal. There will now be seven lines, plus the positive end of C1 on the second terminal. Be sure to cut the wire jumper between these two terminals.

10. The free terminal will be a tie point for the AVB line bypass capacitor. Solder a $.01\mu\text{F}$ 50V disc ceramic (C52-1710-36) between ground and the first free terminal. Use spaghetti to insulate the leads. Then solder the AVB line to the $.01\mu\text{F}$ cap.
11. Retie the cable harness with nylon cable ties (J61-0401-05).
12. Replace the covers and speaker lead. Power-up and verify correct operation.

NOTE: Installation time for this procedure is approximately $\frac{1}{2}$ hour.

JEB/sh

