



AMATEUR SERVICE AGENCY BULLETIN

NO. 1008

DATE: 2-12-62

EQUIPMENT TYPE: 30L-1

SUBJECT: PRODUCTION CHANGES

### R-F Voltage On ALC Line

Due to ground currents and loop resonance between C20, C11 and interconnecting wire, r-f may get into the exciter alc circuit and sometimes cause a system oscillation on the 3.5 mc band.

To eliminate this oscillation, capacitor C11 was deleted to break up the loop resonance. Resistor R1 was increased from 470 to 4.7K-ohms to allow the alc voltage on the 3.5 mc band to be equal to that on other bands.

### Filter Section

In some early units the power supply filter consists of a series arrangement of four 100-uf capacitors and 25K-ohm resistors.

In areas where the line voltage is high, the safety factor may be exceeded. As a result, a new power supply capacitor board (547-3667-003 rev. A) using six 100-uf capacitors and six 25K-ohm resistors is now used. In addition resistor R7, 1000 ohms, was changed to 1500 ohms to ensure adequate alc delay bias.

### Improved Over-All SWR

In early units it was difficult to obtain an SWR lower than 1.8 to 1 on some bands. This resulted in the exciter working into a load other than 50 ohms, which then required setting the mic gain at different levels to produce the same amount of drive as used at other frequencies. This caused the exciter alc to be higher than normal for a given power output.

With many radios, when the PA alc voltage was increased (by adjusting the delay bias) to permit override on 15 meters, the alc voltage was too great to permit full power out on the 75-meter band.

New coils were designed; L14 (547-3659-003) changed from two to four turns; L15 (547-3660-003) changed from seven to six turns; and L18 (547-3663-003) changed from eight to six turns.

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When L18 is changed it is necessary to remove capacitor C61. This is located in the center of the chassis near L3. Also move capacitor C60 from its present location on switch S1A side of coil L19 to S1B side of L18, in parallel with C62.

A new capacitor C75, 150 uuf (912-2828-00) was added to switch S1A side of L14 (mounted near C68).

Another capacitor C76, 100 uuf (912-2816-00) was added to switch S1B side of L14 and mounted near C69.

#### Meter Rectifier Change

The diodes CR17, CR18 in the meter circuit have been changed from 1N252 (CPN 353-2940-00) to 1N458 (CPN 353-0205-00).

The new diode has a higher PIV and permits less reverse voltage leakage.

#### Resistor R9 Value Change

Resistor R9, 82 ohm 1 watt has been changed to 47 ohm, 2 watt, CPN 745-5596-00.

This change decreases the current and increases the heat dissipation capabilities ensuring longer life.

These changes have been made as product improvements and should not be made in old units unless trouble has been encountered in that particular area.

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