COLLINS

COLLINS RADIO COMPANY

CEDAR RAPIDS, IOWA, U.S.A.

AMATEUR SERVICE AGENCY BULLETIN NO. 1006 DATE: 5-5-61

EQUIPMENT TYPE: KWM-2, KWM-2A

SUBJECT: SERVICE INFORMATION

A. AUDIO SQUEAL AFTER TRANSMITTING.

A few KWM-2 Transceivers have shown signs of an audio squeal at the instant the transceiver returns to receive from the transmit function. Reducing the MIC GAIN momentarily will stop the squeal but it may start again at the end of the next transmission.

There is a feedback loop being created from the microphone through the balanced modulator and into the receiver first i-f amplifier and then to the speaker.

A check for this condition may be made by operating the transceiver to the receive function, disconnect the antenna lead, set the MIC and AF GAIN controls to twelve o'clock position and speak into the microphone.

If the audio heard from the speaker is quite loud, the following change will eliminate the effect:

Install R122, a 47K ohm 2 watt resistor (745-5722-00), from vector turret E40 terminal "D" to tube socket XV3 pin 7.

This will put positive voltage on the cathode of the microphone amplifier cathode follower tube when in the receive function, thus cutting off the audio feedthrough.

This change will have no effect on the audio voltage to the vox circuitry.

B. BURNING OR PITTING OF RELAY CONTACTS.

Burning or pitting of relay contacts 12 and 13 on relay K2 and contacts 15, 16 and 17 of relay K4 will be minimized by the following procedure.

1. Disconnect white, black, red and green wire and C170, 0.1 uf capacitor, located at relay K2 terminal 12.

2. Disconnect and discard this wire from relay K4 terminal 1.

3. Install R167, 100 ohm 1/2 watt resistor (745-1310-00), in place of the wire just removed.

4. Reconnect C170 to relay K4 terminal 1.

NOTE: In late units capacitor C170 will not be visible between relays K2 and K4. It will be located in the PA shield and attached to K3 terminal 2, and capacitor C211 will be deleted. Electrically this will be the same as the above change.

C. 3.5 MC TRANSMITTED SPURIOUS.

To reduce the 3.5 mc transmitted spurious, move the ground end of C19, .01 capacitor (located at socket XV5 pin 8), to the same ground lug as C18, a .01 capacitor, the other end of which is connected to socket XV5 pin 3.

D. R.F. TRANSIENT.

A transient occurs in the r-f output of some KWM-2 Transceivers when the vox drops out. This may be eliminated by installing a 100K ohm 1/4 watt resistor from relay K2 terminal 4 (-70 V line) to relay K2 terminal 5 (Receive -70 V/transmit-ground line).