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AMATEUR SERVICE AGENCY BULLETIN NO. 1009

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EQUIPMENT TYPE: TRANSCEIVERS KWM-2, KWM-2A; TRANSMITTERS 32S-1, 32S-2

SUBJECT: INFORMATION

1. KWM-2, -2A; Low Crystal Calibrate Injection Voltage On 10 Meters

This low injection voltage can be remedied by adding a diode CR6 (1N34A, CPN 353-0103-00) from parts mounting turret E100 terminal H to ground lug. NOTE: Mount diode with anode end to ground.

Also add resistor R11, 1 meg $\pm 10\%$ 1/4 watt (CPN 745-0857-00) from turret E100 terminal G to terminal H.

2. KWM-2, -2A; Extend Range Of Receiver Gain Adjust Control

To give wider range to receiver gain adjust potentiometer R132, add resistor R89, 180K $\pm 10\%$ 1/2 watt (CPN 745-1447-00), from tube socket XV1 terminal 3 to parts mounting turret E40 terminal E.

3. KWM-2, -2A; Increase Accuracy Of "S" Meter And Extend Range Of Zeroing Potentiometer

On parts mounting turret E40, between terminals C and D, remove resistor R147, 82K 1/2 watt and replace with R147, 68K ohm $\pm 10\%$ 1/2 watt (CPN 745-1429-00). Also on turret E40, between terminals C and E, remove resistor R158, 270 ohm, 1/2 watt and replace with R158, 220 ohm $\pm 10\%$ 1/2 watt (CPN 745-1324-00).

4. KWM-2, -2A; Transmitter Instability

It has been found that some transceivers will develop an unstable condition. This is caused by output rf appearing on the transmitter wiring harness. It may be eliminated as follows:

- a. Remove PA cage.
- b. Disconnect capacitor C148 from ground lug (near L17).
- c. Remove and discard ground lug. In its place install new two-terminal strip (CPN 306-0002-00).

- d. Attach loose end of capacitor C148 to ground lug of new terminal strip.
- e. Remove 800-volt line from base of inductor L17 and attach to insulated lug of new strip.
- f. Install new choke L28, 120 uh (CPN 240-0194-00) between new 800-volt insulated terminal and L17.
- g. Remove and discard capacitors C181 and C182 on contacts 6 and 8 of relay K3.

Remove bus wire between relay K3 terminal 7 and ground. Install new choke L32, 120 uh (CPN 240-0194-00) in place of the bus wire.

- h. Physically move capacitor C211 (0.1 disc ceramic) from antenna relay K3 (in PA cage) terminal 2 to relay K4 (in relay compartment under chassis) terminal 1. This move does not change the electrical position of this capacitor.

5. 32S-1,-2; Instability On 80 Meters

This instability is due to some output rf appearing on the wiring harness. It may be eliminated as follows:

- a. Disconnect capacitor C123 at ground lug.
- b. Remove and discard lug; in its place install new two-terminal strip (CPN 306-0002-00).
- c. Connect loose end of capacitor C123 to ground lug of new terminal strip.
- d. Move 800-volt B+ wire from inductance L14 to insulated terminal of new strip.
- e. Install L31, 120 uh choke (CPN 240-0194-00) between L14 and 800-volt terminal of new strip.
- f. Remove and discard capacitor C145 (.01 disc ceramic) located at socket XV12 pin 4.
- g. At socket XV5 pin 9 install new capacitor C145, 0.1 uf (CPN 913-3794-00). Attach free end to ground terminal near edge of chassis. Do not ground at same point as cathode resistors.

6. 32S-1,-2; ALC Indication Appears On Meter Before Grid Current Threshold Occurs

This premature meter activity is caused by output rf on the alc bus. It may be eliminated as follows:

- a. On tube socket XV13 (alc rectifier), transfer capacitor C83 from pins 1 and 2 to pin 6.
- b. Install new resistor R122, 100 ohm 1/2 watt (CPN 745-1310-00) from pins 1 and 2 to pin 6 of tube socket XV13.

Remove and discard the three-terminal strip (TS19) at the left side of PA shield and install new four-terminal strip (CPN 306-9032-00).

Reconnect parts as on original strip except attach white-red-orange-green wire (DA9235) to fourth lug of new strip TS19. Insert new resistor R122, 100 ohm 1/2 watt (CPN 745-1310-00), between wire DA9235 and the junction of 680K resistor R55 and capacitor C87.

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