



Bulletin No. AM-097-LAP

Date NOVEMBER 12, 1975

Equipment: MW-1 TRANSMITTER

SUBJECT: Unstable Operation of the I.C. in Oscillator Board A-16

SOLUTION: Replace zener diode CR2, 4.7 volts, 1 watt, 1N4732A (Harris part number 386-0123-000) with a 5.1-volt 1-watt zener diode 1N4733A (Harris part number 386-0135-000).

Out-of-tolerance bias voltage at I.C chip U1 will cause the device to miscount the frequency of the crystal.

SUBJECT: Board A-18. Electrical storms causing the VSWR overload to shut down the transmitter.

SOLUTION: (1) Remove SCR Q3 2N5061 (Harris part number 384-0261-000). Replace with Q3 2N4401 transistor (Harris part number 380-0125-000).

(2) Remove CR3 1N2071 diode (Harris part number 384-0020-000). Replace with a 2-K ohm 1/2-watt 5% resistor (Harris part number 540-0056-000) at the junction R6 and Q6 collector to ground.

(3) Remove C6 100/25 (Harris part number 522-0246-000). Replace capacitor C6 with a 20/50 (Harris part number 522-0256-000).

These changes will cause the following:

(1) Transistor Q3 will still turn on VSWR fault lamp, but lamp will extinguish when VSWR overload is not present.

(2) CR3 has been removed to prevent thirty volts from being applied through CR3 and R21 to the overload counter circuit. This will prevent the transmitter from going into the overload condition mode.

(3) C6 has been decreased to cause a faster response to Q4 turn-on, thus getting the transmitter back on the air faster at full power.

SUBJECT: Relay and regulator board A-22. False operation of D.C. overload circuit during high level, low frequency modulation.

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Page 2  
November 12, 1975  
Service Bulletin AM-097-LAP

SOLUTION: Check polarity markings of capacitor C-3, 250mfd/6V (Harris part number 522-0188-000). The crimp or positive end should be toward the base of transistor Q-3 and the wiper arm of the 1K Potentiometer R-13. If not, remove, turn capacitor, and re-solder onto board.

Mark polarity change on Figure 8-8 in instruction book.

The above parts will be sent at no charge upon request to the Harris Service Parts Department.

Attached: Drawing #839-1157-001 (new)  
Drawing #839-1157-001 (old)  
Drawing #828-8520-002