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DOES NOT CHANGE ORIGINAL APPROVAL

SERVICE BULLETIN

EQUIPMENT: RT-5000

DATE: June 24, 1999

BULLETIN NUMBER: WSB RT-5000-3

APPLICABILITY

This service bulletin applies to all RT-5000 FLEXCOMM II TRANSCEIVERS P/N 400-015525-[] with Serial Numbers below 2174, plus SN 2175, 2176, 2178, and 2180.

REASON

This fixes three RT-5000 transceiver software defects that will affect product performance under certain operating conditions.

The first is a software defect causing an incorrect active antenna tuning command when certain specific frequencies are tuned. Installations with active antenna systems, such as those listed below, may experience reduced transmitter output power and reduced receiver sensitivity on the affected channels.

The affected channels are those frequencies ending in xxx.950 and xxx.975 MHz in the range between 29.9 and 399.9MHz.

The active antenna systems affected by the tuning command include models AT-50, AT-51, AT-5000, AT-560, and to a lesser extent, AT-550. Systems with passive antennas are not affected.

The second software defect causes detection of a wrong CTCSS subaudible tone when Tone 51 is selected. Tone 51 should detect 69.4Hz, but the transceiver erroneously detects 254.1Hz (Tone 63). The effect is that an RT-5000 operating

with CTCSS Tone 51 squelch enabled will not break squelch when receiving the desired signal with CTCSS Tone 51.

The third software defect causes the CTCSS Tone 48 (150.0Hz) to be transmitted at a lower FM deviation than that required for compatibility with military radios. The military radio requirement is greater than 1KHz deviation, The RT-5000 produces a nominal 750Hz. Thus, some military radios will not detect and break squelch on transmissions from the RT-5000.

EFFECTIVITY

All RT- 5000 P/N 400-015525-[] units with serial numbers 2174, 2177, 2179, 2181 and above shall have this modification incorporated during original manufacturing.

DESCRIPTION

This modification consists of rework to the 300-016260 RT5000 DSP/LOGIC BOARD to install new software. The rework involves replacing a programmed PROM with the current version.

COMPLIANCE

This Service Bulletin is recommended to be performed at customer convenience for those needing the corrected antenna tuning operation an/or the specified CTCSS Tone operations. It is recommended at next scheduled maintenance period for all others.

WARRANTY INFORMATION

Units still in the warranty period may be returned for installation of this modification under the terms of the warranty agreement. Units should be sent to:

Wulfsberg Electronics Division
Attention: Repair and Overhaul Department
6400 Wilkinson Drive
Prescott, AZ 86301

APPROVAL

This modification does not affect the original approval.

REFERENCES

C-5000 Installation Manual, P/N 150-1355-000.

MATERIAL INFORMATION

The parts required to modify a RT-5000 per this Service Bulletin are available from Wulfsberg Electronics Division, at (502) 708-1518. The part numbers are as follows:

<u>ITEM</u>	<u>QTY</u>	<u>PART NUMBERS</u>	<u>DESCRIPTION</u>
1	1	106-816865-12	IC PROGRAMMED READ ONLY MEMORY

MODIFICATION PROCEDURE

CAUTION

Any disassembly/assembly of the RT-5000 must be done at a static-safe workstation. Removed modules should be placed in antistatic bags when not installed in the unit.

1. Open the RT-5000 to expose the DSP/LOGIC BOARD.
2. Remove the U13 PROM IC from its socket.
3. Install Item 1 (106-816865-12) PROM IC in U13 socket.
4. Mark board with new dash number: 300-016260-0112
5. Mark board with Service Bulletin number.
6. Reassemble and secure RT-5000.

UNIT IDENTIFICATION PROCEDURE

Mark Unit MOD STATUS LABEL as follows:

RT-5000 UNIT PART NUMBER	MOD STATUS MARKING
400-015525-0101	18
400-015525-0201	18
400-015525-0301	18
400-015525-0401	18
400-015525-0501	14
400-015525-1101	17
400-015525-0201	17
400-015525-0301	17
400-015525-0401	17
400-015525-0501	13

UNIT TESTING PROCEDURE

Perform a complete functional test of the unit in accordance with Section VI (System Checkout) of the C-5000 Installation Manual, P/N 150-1355-000.