
PSB # 687 APC # 388 Deadline : N/A

Date: March 1991

Memo to: Distribution List

From: Product Services Schaumburg

Subject: MSF5000 Digital Capable Station Options

Models Affected: Option C331 Secure Encode/Decode Option C369 Multi Coded Squelch
Option C101 DC Remote Control Option X20SP Special Programming Option C514
Transparent Operation

The options listed have had the following problems mentioned below.If you are experiencing one of these symptoms,the following package will be sent to you:

For C331 PROBLEMS: 5191012C29 SSCB FIRMWARE VERSION 3.25 (OR GREATER)
5191012C30 TTRC FIRMWARE VERSION 4.22 (OR GREATER) 5191012C31 SECURE
FIRMWARE VERSION 3.17 (OR GREATER) RSS SOFTWARE VERSION 4.04 (OR
GREATER) RSS USER MANUAL 68P81125E68-B (OR GREATER) UPGRADE
INSTRUCTION SHEET

FOR C101 PROBLEMS: 5191012C29 SSCB FIRMWARE VERSION 3.25 (OR
GREATER) 5191012C30 TTRC FIRMWARE VERSION 4.22 (OR GREATER)
5191012C31 SECURE FIRMWARE VERSION 3.17 (OR GREATER) RSS SOFTWARE
VERSION 4.04 (OR GREATER) RSS USER MANUAL 68P81125E68-B (OR GREATER)
TLN3112B TTRC MODULE UPGRADE INSTRUCTION SHEET SPECIAL DC
REMOTE CONTROL PROGRAMMING INSTRUCTIONS

FOR C369 PROBLEMS: 5191012C34 SSCB FIRMWARE VERSION 3.27 (OR
GREATER) 5191012C30 TTRC FIRMWARE VERSION 4.22 (OR GREATER)
5191012C31 SECURE FIRMWARE VERSION 3.17 (OR GREATER) 5191006C63 MCS
FIRMWARE VERSION 4.02 (OR GREATER) RSS SOFTWARE VERSION 4.04 (OR
GREATER) RSS USER MANUAL 68P81125E68-B (OR GREATER) UPGRADE
INSTRUCTION SHEET

Contact Schaumburg Product Services, Anna Marie Piro at (708) 576-6240 for the appropriate package. Please identify the package you need by the option number.Also,please verify that the firmware you have in the station preceeds what is listed in the package.If you have technical questions regarding these,please contact Jim Vetter in the Base Station Product Group (708) 576-2830.

2.

OPTION C331, SECURE ENCODE/DECODE Intermittantly, the repeat audio will be muted following a console PTT in an encode decode station. The station would not pass any repeater audio then for an undetermined amount of time. If the console tries to take priority over repeat activity, the repeat audio is interrupted, but console audio is not gated. Another problem is that EOM is not always being generated correctly, which would show itself as squelch noise after coded transmissions. Lastly, DVP option C794, when operated in half-duplex mode, will lose its key slowly over time. When this happens, secure audio becomes scratchy, and re-loading the key temporarily corrects the problem. These changes were made in production on 12/19/90.

OPTION C369 MULTI CODED SQUELCH The most common problem is programming the station that has an MCS board installed. In early versions of station firmware, the MCS board must be unplugged while programming the station, even when MCS codes are to be changed. Other problems include: no PL code, or the wrong PL code is sent during the repeater drop out delay, a burst of the previous user's PL sent at the beginning of a transmission, and the inability for a new user to be decoded during the repeater drop out delay. These changes were made in production on 3/1/91.

OPTION C101 DC REMOTE CONTROL Early versions of this option included a modified "A" version TLN3112A TTRC board. The new "B" version does not require any hardware modifications, or special board unique software. If you have an early version and wish to upgrade it, just ask. Also, be advised that at this time there is no default code plug information for DC control in the RSS. If you are changing from Tone to DC control, or replacing a defective TTRC board on a DC controlled station, you need the special DC REMOTE CONTROL PROGRAMMING INSTRUCTION sheet supplied in the package. These changes were made in production on 12/19/90.

OPTION X20SP SPECIAL PROGRAMMING Many special options include custom programming changes made to meet unique customer requirements. Earlier PSB's have instructed firmware upgrades to Digital Capable MSF5000 Stations. Be advised that these special programming options will only work with the version of firmware shipped with the station. If you have one of these options in a station that needs to be upgraded, contact Base Stations for new code plug information. Also, keep this in mind when replacing control boards for repair.

3.

OPTION C514AA TRANSPARENT OPERATION

It has been found that a blocking capacitor used for DC remote control in the Digital MSF 5000 causes a degradation of low frequency data sent to a Console Interface Unit (CIU) in Secure systems. A symptom of this problem is poor quality audio out of the CIU or audio "holes" lasting generally a second or less, even with a strong RF signal into the MSF. This problem can be seen in all Digital MSFs and all CIUs, although it seems to be more apparent with the "B" version CIU.

Newer MSF stations that have "B" version TLN3112B TTRC Audio boards can fix the problem by moving jumpers JU4211, JU4212, JU4213, and JU4214 to the ALTERNATE position.

Stations that have "A" version TLN3112A boards can fix the problem by adding a jumper across the DC blocking capacitor, C4250. The easiest place to do this is at the line driver transformer, T4202. Add the jumper between pins 2 and 3 of T4202, which are easily visible from the top of the board.

NOTE: THE ABOVE CHANGES CAN NOT BE MADE ON DC REMOTE CONTROLLED STATIONS, AS THE DC BLOCKING CAPACITOR MUST BE INSTALLED FOR DC REMOTE CONTROL SECURE OPERATION AND DC REMOTE CONTROL ARE INCOMPATIBLE.

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