MOTOROLA SOLUTIONS
Government and Public Safety
1301 E. Algonquin Road
Schaumburg, IL. 60196

FSB NUMBER: **FSB10569**
APC: **500, 514, 518 and 585**
DATE: **Sep - 2011**
EXPIRES: **31-Dec-2012**
BULLETIN TYPE: **Warranty Service**

FIELD SERVICE BULLETIN

SUBJECT: **XTL5000/2500 VHF/UHF - Radio may reset while transmitting.**

MODEL / SYSTEM AFFECTED:
All models of VHF and UHF XTL2500/5000 mobile radios using a Universal Crypto Module (UCM – option G159) manufactured prior to February 2011, denoted by serial numbers of xxxCMBxxxx and earlier.
and
VHF/UHF high power models of XTL2500/5000 mobile radios using a Universal Crypto Module (UCM – option G159) manufactured prior to September 2011, denoted by serial numbers of xxxCMRxxxx and earlier.

SYMPTOM:
While transmitting, the radio may reset or power cycle without the user pressing or actuating the power switch.

CAUSE:
When high levels of RF are radiated into the radio enclosure while transmitting, it may cause the radio to reset or appear to power cycle. This reset could be the result of numerous causes including, but not limited to:

- UCM in the unit becoming unresponsive due to a desense condition when a high level of RF is present
- Use of a glass-mount, deck-mount or other covert style antennas causing high level of RF in the radio

NOTE: Mobiles radios may also reset for a number of other reasons. Vehicle engine starting, excessive loss in the DC supply cabling, improper antenna proximity (3 foot minimum distance per installation manual) can all cause voltage drops and other conditions that may result in radio resets. As a precaution, it is strongly recommended to confirm that that these factors are eliminated as the cause of the radio reset prior to exercising the resolution listed in this bulletin.

RESOLUTION:
NOTE: For any radios that do not exhibit the above listed symptom, no corrective action is needed or required.

The following two options are available for any units that do exhibit a reset while transmitting condition:

1. Replacement, in the field, of the Secure Interface Board or SIB (and Transceiver Interface Board (TIB) Flex assembly on high power models) as outlined in Appendix B
2. Return of the radio to the regional Motorola Solutions Repair Center/Depot for rework as outlined in Appendix A

Attachments:
Appendix A: Return to a Repair Center/Depot
Appendix B: Replacement of SIB and TIB Flex

SEVERITY RECOMMENDATION:
Low - Perform when system exhibits above symptoms

PARTS REQUIRED (HARDWARE/SOFTWARE):
PHLN6918C – Secure Interface Board with 3 Day Key retention (Option G159AS)
PHLN6919C – Secure Interface Board with 30 Second Key retention (Option G159AH/G336)
3064658H05 – TIB Flex assembly (Required only for high power units)
Parts are available at no cost when referencing FSB10569 when submitting the order. Please confirm parts before placing the order.

LABOR ALLOWANCE
The follow labor allowances are applicable to the corresponding options listed in the resolution section of this document.
Option 1: Maximum of $30.00 per unit (replacement of the SIB and TIB Flex assembly)
Option 2: Standard labor allowance for the return of a unit to the Motorola Solutions Repair Center, as outlined in the Labor Warranty Guidelines #17 – Level 1 (returning to the repair center/depot)

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Appendix A: – Instructions to return a unit to Motorola Solutions Repair Center/Depot for rework

If Sending to Motorola Solutions Repair Center/Depot for Rework

It is recommended that if returning a unit to one of the regional Motorola Solutions Repair Center/Depot for rework; that the transceiver and control head are sent in together. This will make it possible to maintain the software synchronization between the control head and the transceiver.

If it is not possible to send in both the control head and the transceiver together, then it is recommended that the transceiver and control head are synchronized using CPS (6.11 or newer) tool when the transceiver is returned.

This can be done from the following CPS screen (CPS Menu Bar > Tools > Synchronize Control Head with Radio). The latest control head software version is available through Motorola On-Line where you would acquire CPS downloads. **Note: A tutorial is in the CPS for those who are not familiar with this function.**

NOTE: When returning a unit to the regional Motorola Solutions Repair Center/Depot, please reference that the unit is being returned to be reworked per FSB10569 to ensure proper work is performed.

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Appendix B: Secure Interface Board and Flex Replacement Procedure

Equipment Needed:
Flat head screw driver
T10 Torx bit with driver
KEY Loader (i.e. KVL3000 or KVL3000 Plus)

Parts Needed:
PHLN6918C – Secure Interface Board with 3 Day Key retention (Option G159AS)
PHLN6919C – Secure Interface Board with 30 Second Key retention (Option G159AH/G336)
3064658H05 – TIB Flex assembly (Required only for high power units)

Rework Procedure:

A. High power radios

1. Following the "Radio Disassembly Procedure" as described in Sections 8.2 of the respective Basic Service Manual, disassemble the unit and remove the SIB.
2. Disconnect UCM from old SIB.
3. Connect the UCM to the new SIB and reinstall the SIB.
    i. Replacement SIB part numbers listed above (if unsure which is installed in the radios, the radio will need to be disassembled to check before ordering replacement parts)
4. **For high power units only**: Replace the TIB Flex assembly.
5. Following the "Radio Reassembly Procedure" as described in Sections 8.2 of the respective Basic Service Manual, install the SIB/UCM assembly into the radio and reassemble the unit.
6. If needed: Re-KEY your appropriate KEY/Algorithm (i.e. DES-XL, DES-OFB, AES-256, etc) into radio using a Key Loader.
7. Test the radio for resets when PTT is pressed on a secure and non-secure channel.

B. Mid power radios

1. Following the "Radio Disassembly Procedure" as described in Sections 8.2 of the respective Basic Service Manual, disassemble the unit and remove the SIB.
2. Disconnect UCM from old SIB.
3. Connect the UCM to the new SIB and reinstall the SIB.
4. Following the "Radio Reassembly Procedure" as described in Sections 8.2 of the respective Basic Service Manual, install the SIB/UCM assembly into the radio and reassemble the unit.
5. If needed: Re-KEY your appropriate KEY/Algorithm (i.e. DES-XL, DES-OFB, AES-256, etc) into radio using a Key Loader.
6. Test the radio for resets when PTT is pressed on a secure and non-secure channel.