![MOTOROLA SOLUTIONS]

Motorola Solutions Technical Notification (MTN)

TITLE: Premature low battery alert and/or battery shutdown with SRX2200**BN** / APX6000**BN** radios and NNTN8930A Batteries

TECHNOLOGY: ASTRO Subscriber

SYMPTOMS:
Under certain conditions such as cold temperatures below 32°F, a user can experience an indication of premature low battery while transmitting even though the fuel gauge may indicate >50%. In extreme conditions the battery may shutdown requiring the user to remove the battery to reset the battery.

MODELS / SYSTEM RELEASES / KITS / DATECODES AFFECTED:
Only affects **BN** versions of the APX6000 radios and **BN** version of SRX2200.

H98UCD9PW5**BN**
H98UCF9PW6**BN**
H98UCH9PW7**BN**
H99UCD9PW5**BN**
H99UCH9PW7**BN**

APX 6000 / 60000 XE BN or SRX2000 BN using or planning to use NNTN8930 or NNTN8930 [V1] or NNTN8930 [V2] batteries.

SEVERITY RECOMMENDATION:
Medium / Operational - Schedule to implement

ROOT CAUSE / DEFINITIVE TEST:
Under certain conditions, the radio and NNTN8930 battery combination will draw more current than design anticipated.

WORKAROUNDS AND CORRECTIVE ACTIONS:
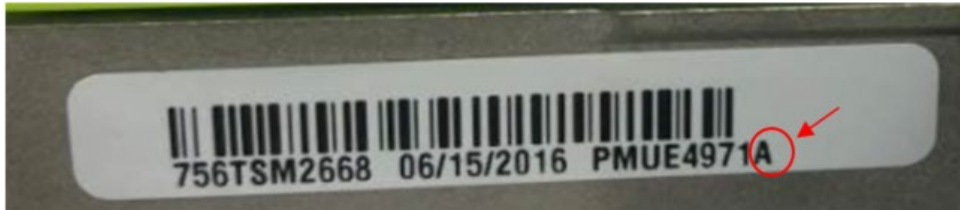Customers can use one of the following batteries as a substitute.

- PMNN4547A IMPRES 2 Li-Ion battery, TIA 4950, 3100 mAh
- PMNN4573A IMPRES 2 Li-Ion battery, TIA 4950, 4800 mAh
- NNTN8921A IMPRES 1 Li-Ion battery, TIA 4950, 4500mAh

RESOLUTIONS AND REPAIR PROCEDURES:

STEP 1: Rework APX6000BN (Revision A Hardware Only) - Skip Step 1 and proceed to Step 2 IF radio is Revision B hardware or later.

Hardware Revision location is on the left side wall of the radio's battery compartment, as denoted in pictures below.

For APX 6000 BN radios with Revision A Hardware (PMXXXXXX**A**) AND with the serial number range 470/481/756CSQxxxx - 470/481/756CSXxxxx will require radio to be sent to the Federal Technical Center or Motorola Canadian Technical Logistics Center for repair. If the radio is Revision A hardware, but NOT within the designated serial number range, then radio board modification is NOT required - proceed to Step 2.

Revision A Radio should be returned to the following Motorola authorized depots for upgrade (do not send any other accessories, batteries, or antenna please). *Radios will be returned with updated firmware.*

For customers with the NNTN8930 battery please proceed to STEP 2 for battery replacement.

Federal Technical Center	Motorola Canadian Technical Logistics Center
10105 Senate Drive	181 Whitehall Drive
Lanham, MD 20706	Markham, ON L3R 9T1
800-969-6680	800-543-3222
REF MTN-0001C-17-NA	REF MTN-0001C-17-NA

A radio that already has a green dot on the left sidewall of the radios battery compartment (as shown below), indicates the radio is a Rev A version that has already had the board modification done, and therefore will not need to be sent to the depot.

STEP 2: REPLACE NNTN8930 Battery:

Please contact Motorola AAD (Parts Dept) at 1-800-422-4210 to order/obtain a replacement battery and/or carry case at no charge.

Note: If you have purchased a carry case from MSI and are replacing the NNTN8930 battery with the battery options shown below, MSI will provide a replacement Carry case at no charge. **Factory Orders** will be needed for validation.

PARTS REQUIRED (HARDWARE/SOFTWARE):

If replacing with PMNN4547 battery a new plastic Carry Holster or new leather Carry Case is required. Radio will also require APX Firmware Release R16.30.00 or later.

	Current PN (with NNTN8930)	New PN
Plastic Holster for APX6/8000	PMLN5709A	PMLN7901A
Plastic Holster for APX6/8000XE	PMLN5880A	PMLN7902A
Leather case for APX6/8000	PMLN5657B (Swivel D Clip)	PMLN7904A (Swivel D clip)
	PMLN5658B (Fixed BL)	PMLN7903A (Fixed Belt Loop)
Leather case for APX6/8000XE	PMLN5875A	PMLN7906A (Swivel D clip)
	PMLN5876A	PMLN7905A (Fixed Belt Loop)

If replacing with PMNN4573 battery a new plastic Carry Holster or new leather Carry Case is required. Radio will also require APX Firmware Release R19.00.00 or later.

	Current PN (with NNTN8930)	New PN
Plastic Holster for APX6/8000	PMLN5709A	PMLN7901A
Plastic Holster for APX6/8000XE	PMLN5880A	PMLN7902A
Leather case for APX6/8000	PMLN5657B (Swivel D Clip)	PMLN5659A (Swivel D clip)
	PMLN5658B (Fixed BL)	PMLN5660A (Fixed Belt Loop)
Leather case for APX6/8000XE	PMLN5875A	PMLN5877A (Swivel D clip)
	PMLN5876A	PMLN5879A (Fixed Belt Loop)

If replacing with NNTN8921 users will re-use existing Carry holsters, however due to longer size a new leather carry case will be required. (No new firmware needed).

	Current PN (with NNTN8930)	New PN
Leather case for APX6000	PMLN5657B (Swivel D Clip)	PMLN5659A (Swivel D clip)
	PMLN5658B (Fixed BL)	PMLN5660A (Fixed Belt Loop)
Leather case for APX6000XE	PMLN5875A	PMLN5877A (Swivel D clip)
	PMLN5876A	PMLN5879A (Fixed Belt Loop)

ADDITIONAL INFORMATION:
NA

REFERENCE THE FOLLOWING DOCUMENTS/PROCESSES FOR INSTALLATION PROCEDURES:
NA

WHEN TO APPLY RESOLUTION:
 After reboot __
After (re)installation __
After upgrade __
After power cycle __
After database restoration __
After failure __
On FRU replacement __
During maintenance __
Immediately __
As instructed _X_
Information only __

LABOR ALLOWANCE:
This is an informational bulletin. No labor warranty is implied, intended or authorized.

For assistance with this bulletin please contact your MSI Technical support centre
https://www.motorolasolutions.com/en_us/support.html