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STANDARD FIELD SERVICE BULLETIN

FSB Number	CHRAEFSB2014-101
Author	Rajesh Verma
Date	09/22/2014
Subject	Moto X (2nd Generation) - No Turn On/No Charge - Battery Deep Discharge (PMIC Latch)
Model Affected	XT1092, XT1093, XT1096, XT1097
Level Of Repairs	Level 2

Problem:

Motorola is aware of a potential issue identified on the Moto X (2nd Generation) where customer may experience:

- No Turn On
- Does Not Charge

It was found that batteries goes into deeply discharged state (under the 3.2V shutdown threshold). Engineering investigation identified few user-case scenarios which may cause the PMIC (Power Management IC) to be latched. Once PMIC is in the latched state, the device is draining current from the battery and no longer can be charged, leading to the deeply discharged battery condition.

<u>Solution:</u>

Short term: User reset by pressing and holding the power key for minimum 10 seconds.

Long Term: A software fix will be integrated into the next available release to address this issue. A Boot Loader change will enable the use of a SW shutdown at packing station instead of using a HW shutdown which may cause the PMIC (Power Management IC) to be latched.

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Field Service Action:

When servicing Moto X (2nd Generation) returns, with "No Turn On" or "Does Not Charge" related customer complaints, then:

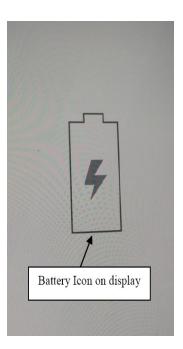
- 1. Confirm the customer complaint for "No Turn on" or Does not Charge", if confirmed then,
 - a. Per Service Manual, carefully disassemble the device to gain access to the Battery.
- 2. Measure the battery voltage to determine if the Battery is in a deeply discharged state (under the 3.2V shutdown threshold), if confirmed then,
 - a. If the battery measures 3.2V or higher, then this bulletin should not apply. Follow normal troubleshooting and repair techniques to repair the unit per the customer complaint.
- 3. Connect the device to a charger and confirm device is able to be charged and powers up normally. (Note: If device does not respond to charger insertion, then a hardware reset may be required. Press and hold the Power Button for approximate 10 seconds).
 - a. If unit turn on, then Fully charge the battery.
- 4. Per Service Manual, carefully assemble the device.
- 5. Per the normal service procedure, update the device to the latest approved carrier software release for your region.

Service Inventory: N/A

Call Center Action:

When responding to users reporting "No Turn On" or "Does Not Charge" related issues on their Moto X (2nd generation) device, then follow the troubleshooting steps below:

- 1. Instruct the user to re-connect the device and look for sign of life from the device (0% Battery Icon on display see below photo).
 - a. If yes, then device is charging as expected. Please go to Step 3.
 - b. If no, while charger is attached to the device then press and hold the power button for 10 seconds (Note: Call-Center Agent should record the time). If display shows 0% Battery Icon then,
- 2. Educate user that their device was locked up for some reason and should be charging now.
- 3. Instruct user that it may take some time before the display shows battery icon with charge percentage.
- 4. Allow device to charge to at least 10% before attempting to power-up.



Service Entry Code:

Global M-Claims Codes:

Customer Complaint Code: C0019 - Power On/Off Issues

Problem Found Code: P0044 - Power Control Operation

Repair Code: R0040 - SW Upgrade CSB

Note:

Only apply the designated Service Entry Codes, listed in this bulletin, if the unit fails a test or has a customer complaint that matches the issue described in the bulletin

If the unit fails a test or has a customer complaint that does not match the issue described in the bulletin, the Service Entry Codes used should accurately reflect the true problem found

If the unit passes all tests and inspections and does not have a related customer complaint, the Service Entry Code used should be NFF.

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