

## ***bq40z50-R2 v2.08 Required Changes***

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This user's guide highlights required changes on the 2.08 version of the bq40z50-R2 firmware.

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### **1 Introduction**

The following item is identified with the latest version of the bq40z50-R2 (version 2.08).

### **2 Background**

The *ASCC*, *AOLD*, and *ASCD Latch Counters* latch the hardware-based protection. Once the *Latch Counter* is greater than the *Latch Limit* setting, the protection moves from *Alert* to *Status* in the gauge, and the protection is triggered. This disables the appropriate FET.

### **3 Change Issue**

The *ASCC*, *AOLD*, and *ASCD Latch Counters* are not decrementing and resetting correctly, once the safety condition is removed due to a behavior within the bq40z50-R2 v2.08 firmware.

### **4 Change Effects**

The failure to decrement and reset correctly triggers spurious *ASCDL*, *AOLDL*, and *ASCDL* protection on the battery pack, and since the counter does not decrement correctly, the issue persists until the gauge is reset.

### **5 Corrective Action**

Configure data flash “**Enabled Protection A**” [BIT7] and “**Enabled Protection B**” [BIT3] and [BIT1] to 0 to disable the *Latched Protections*.

If the *Latched Protection* feature is necessary, use the bq40z50-R1. Download the latest bq40z50-R1 firmware from: <http://www.ti.com/product/BQ40Z50-R1/toolssoftware>.

The bq40z50-R2 firmware maintenance release to fix this issue is scheduled for the fourth quarter, 2017. Download the fixed version from the “**Tools and Software**” tab in the *bq40z50-R2* product folder on ti.com, once available.

### **6 Additional Inquiries**

Contact the appropriate representative for your group at Texas Instruments with additional inquiries.

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