



**MOTOROLA**

Customer Support Russia and CIS Region

## Service Bulletin RU\_SB037

Page:1

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**Author:** Alexander Gaiderov, Technical Support  
**Date:** 2004-03-23  
**Subject:** GSM Triplets – Keypad Activation with Flip Closed  
**Rating:** Level 2 Authorized

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**Products:** V300, V400, V500, V525, V600

**Problem:** Service is aware of an issue, highlighted by the field, where buttons on the main keypad are being activated by the flip, when closed. This issue was initially seen on V500/V525 customer return units with customer complaints of "Short Battery Life" or "No Side-Key Function". After further investigation it was determined some of the (3888844N01) Shin-Etsu keypads used on V500/V525, as well as V303 and V400, had an issue with the height of the "Menu" key being out of spec. The variation in height of this key, combined with some variance that is present in the position of the main display lens, would cause the "Menu" key to be activated when the flip was closed. With this key activated, the phone will not completely go into sleepmode causing a 30mA current draw in sleepmode and resulting in short battery life. This issue can also be seen on all GSM Triplets models, regardless of the keypad used, if pressure is applied to the flip in such a way to activate either the "Menu" key or "Navigation" keys of the main keypad.

**Solution:** **Shin-Etsu Keypad:**  
Motorola has received an 8-D corrective action report from Shin-Etsu that addresses the issue of the "Menu" key height being out of spec. The supplier implemented a 100% screen of existing inventory for this issue on 2/25/2004.  
**Long-Term CA:**  
There has been a software change integrated into the Triplets\_G\_0B.09.2ER software release and later releases to resolve this issue. The new software will disable the function of the main keypad, with the exception of the side-keys, when the flip detection switch is in the closed state.

**Action:** **Customer Returns:**  
When servicing affected GSM Triplets customer returns, with a customer complaints of "Short Battery Life" or "No Side-Key Function", then:  
1. Verify the customer complaint is related to this issue by following the procedure below:  
a. Power-up the unit using a battery eliminator hooked to a power supply, able to measure current, with voltage set to 4.0 VDC and current limited to 1.0 Amp. **Note 1:** Do not use connect any cable to the CE Connector, as this will not allow the phone to enter sleepmode.  
b. Close the flip and apply a slight pressure to the area directly below the CLI Display, using your thumb, to simulating the use of a holster.  
c. Allow the unit to enter sleepmode while measuring the current. The sleepmode current should read less then 1mA on a good unit and will read approximately 30mA on a failure. See diagram 1.0(a) and 1.0(b) below for

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comparison of “Good” versus “Bad” current measurements.

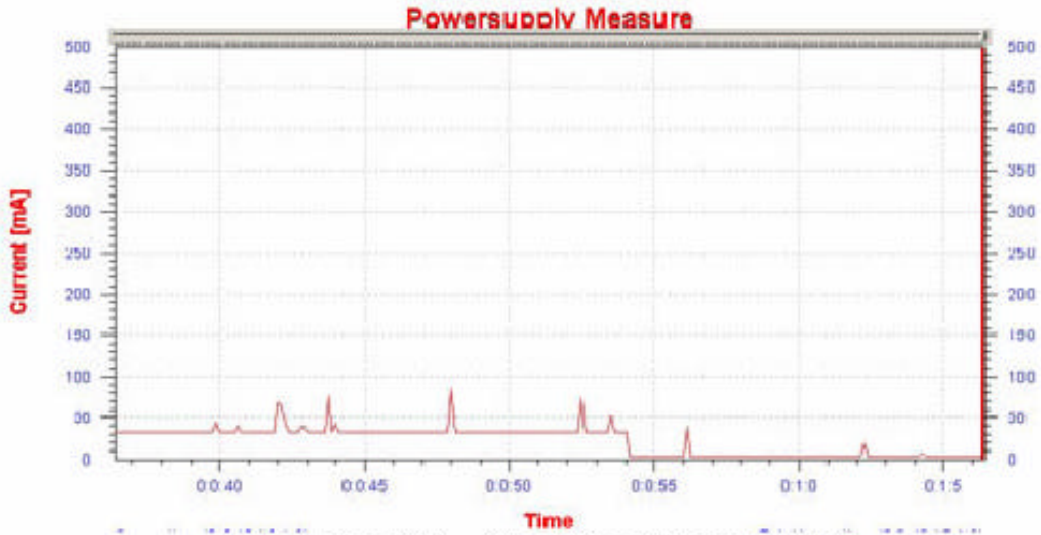


Diagram 1.0(a) – Good Sleep Mode Current

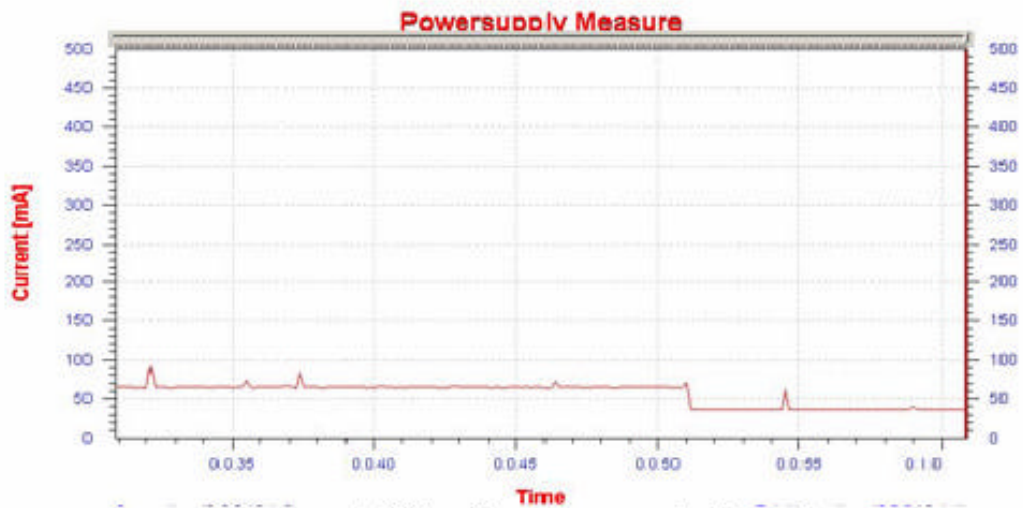


Diagram 1.0(b) – Bad Sleepmode Current

d. Repeat the steps above, this time with the flip open and the flip switch activated manually, and note if the excess sleepmode current is corrected. See diagram 2.0.



Diagram 2.0

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Page:3

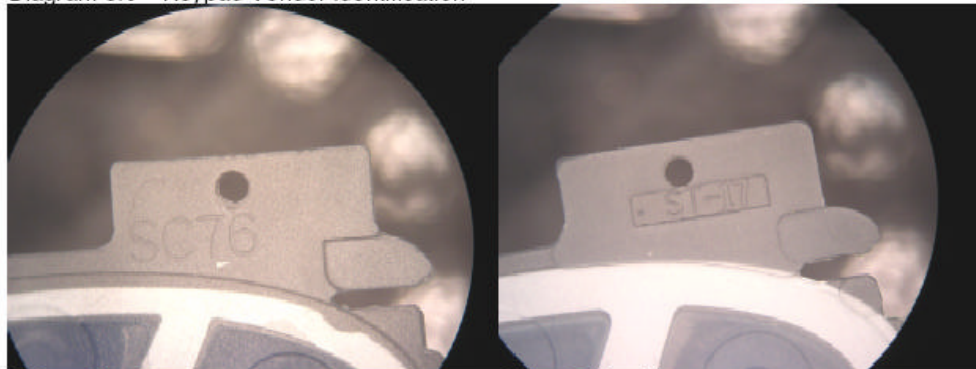
2. If the customer complaint is related to this issue then, per the normal Service Procedure, reflash the unit with the latest approved software for your region equal or later than Triplets\_G\_0B.09.2ER.
  - a. If the customer complaint is not related to this issue then, follow normal troubleshooting techniques per the customer complaint.
3. Completely retest the customer's unit and battery to verify the repair has been completed successfully and the phone no longer exhibits any current related failure symptoms.
  - a. If the phone still exhibits some failure symptoms after reflash then, follow normal troubleshooting techniques per the customer complaint.

### **Pending the approval of software versions equal or later than Triplets\_G\_0B.09.2ER**

When servicing GSM V303, V400, V500 and V525 customer returns, confirmed to be related to this issue by following the steps above, then:

1. Verify if the units were built with Shin-Etsu keypads. See diagram 3.0 below.
2. Replace the keypad, using a Sinco Keypad if possible, and retest.

Diagram 3.0 – Keypad Vendor Identification



SC = Sinco

ST = Shin-Etsu

**Classification:** Standard Warranty Repair. Use following codes.

Customer Complaint Code:

**BAT02** – Battery Life Short

**SIK01** – Side-Keys – No Function

Problem Found Code:

**BAT02** – Battery Life Short

Repair Code:

**RMP10** – Replace Mechanical Part - CSB/FSB

**SWU08** – Software Upgrade – CSB/FSB

REF Designator Code:

KYPD - Keypad

**Original FB No:** LVCCFSB2004-62

### **Parts:**

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