

FIELD SERVICE BULLETIN

FSB Number: LVCCFSB2004-121
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Total No. of Pages: 2
Subject: **PCAP IC - Mid-Rate Charger Issue**
Model Affected: All GSM Triplets, V80, E398, T725 Edge
Level of Repair: 2

Problem

Service is aware of an issue, recently duplicated by the product development team, which affects all Motorola handsets that are using the PCAP Power Management IC. The issue affects the phone's ability to charge the battery with a mid-rate charger under the specific conditions described below.

Initiate a call with the handset with some level of battery. During the call, wait until low battery state and low battery alert is heard. Then connect a mid-rate charger in attempt to charge the battery. Charging will not start, charging icon will not flash on display and no charging indication tone will be heard. If phone remains in a call, low battery alert is still heard and battery will eventually drain completely. Charging function will return to normal, when call is ended or after power down when you unplug and re-plug the cable.

The root cause of this issue is when battery voltage is below certain threshold (around 3.1v - 3.2v) and phone is in a call, if a mid-rate charger is attached, PCAP keeps sending interrupts to the processor, so that software keeps executing the interrupt service routine and never sends the battery/charger message.

Solution

A software solution has been identified and is scheduled to be integrated in the next released version of software for each product affected. A revision to this FSB will be released when the SW Release information is available.

Prior to the SW Release, the short-term solution is the use of a full-rate charger, which will not cause this issue.

Service Action

Customer Returns:

When servicing customer returns for the affected models listed above, with a customer complaint related to “Phone unable to charge”, then:

1. Complete normal testing, per the complaint, to confirm no other failure is identified with phone, battery, or charger.
 - a. If a different failure mode is identified, follow normal troubleshooting procedures to repair the unit.
2. Reflash the unit with the correct SW Version for that product model, listed above, which contains the fix for this issue.
 - a. If a SW Version which contains the fix is not available or has not been approved for your product and region, customer’s charger should be replaced with a full-rate charger.

Service Inventory:

Call Center Action

When responding to customer problem product inquires, for affected products, related to “Phone unable to charge”, please determine if customer is using a mid-rate charger and symptoms appear to be related to this issue. Please direct customer to have their phone serviced per this FSB.

Service Entry Code

Please ensure that repairs of this type are logged on the Service database as follows:

Global M-Claims Codes:

Customer Complaint Code:

CHG00 (Charging - No Detail Provided), CHG01 (Charging - Does Not Charge), CHG02 (Charging - No Charging Indication)

Problem Found Code: CHG01 (Charging - Does Not Charge)

REF Designator Code: U (Integrated Circuit/Module)

Repair Code:

RSWU08 (SW Upgrade / Re-Flash - CSB/FSB), RCH01 (Replace Charger)

Asia Codes:

Fault Code: 33 (Cannot Charge)

Repair Code:

02 (Upgrade)

14 (Accessory Replaced)

PRC E-service Entry Codes:

Customer Complaint Code:

4200 (Charging - No Detail Provided), 4201 (Charging - Does Not Charge), 4202 (Charging - No Charging Indication)

Problem Found Code: 4201 (Charging - Does Not Charge)

REF Designator Code: U (Integrated Circuit/Module)

Repair Code:

2108 (SW Upgrade / Re-Flash - CSB/FSB), 3101 (Replace Charger)