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Consumer Solutions & Support
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FIELD SERVICE BULLETIN

FSB Number:	LVCCFSB2005-15
Author:	Tony Bryan
Date:	January 27, 2005
Total No. of Pages:	3
Subject:	GSM Triplets Refresh (V600R) – Flip Detect Switch
Phone Models:	GSM V620, V600i
Level of Repair:	2

Problem

Service is aware of an issue, identified during the NPI Analysis on GSM V620/V600i. Some units, returned with customer complaints related to improper operation of the "Secondary/External Display" were found to have an intermittent problem were the flip detection switch would not activate when the flip was closed. Analysis revealed the issue to be caused by a poor or uneven compression force between the keypad gold puck and the flip switch contacts on the PCB. See Fig. 1.0 below.

Note: V620/V600i hardware included a fix for an issue where the main display lens would be scratched by the keypad. This fix combined a thinner main display lens and added height to the rubber base bumpers. This is a factor which is contributing to this failure mode.

The failure rate for this issue was much higher on units built with ITT keypads versus units built with TeeHwa keypads. Analysis of the keypads found, although no keypads were found to be out of specification, some of the keypads were at the low end of the tolerance and that was the reason for the higher failure rate.

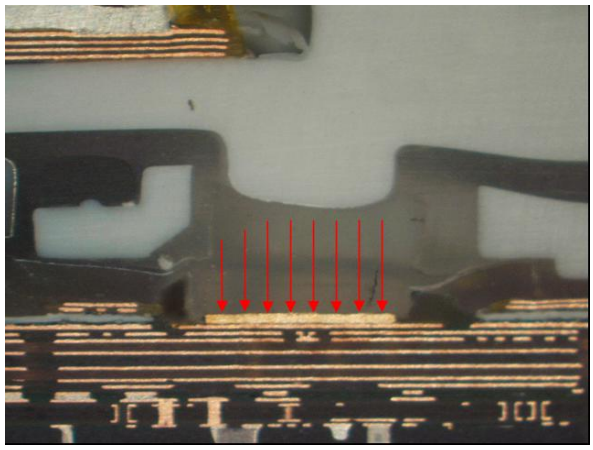

Fig. 1.0 – Cross-Section showing uneven compression force on flip detect switch, concentrates contact area on a small portion (right side) of the PCB contact area.

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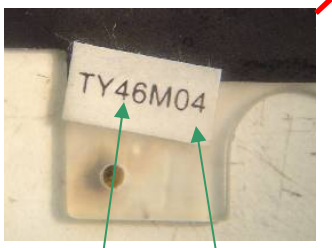
Solution

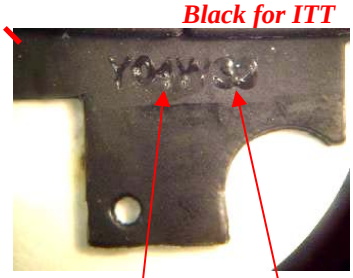
Short-Term: (1) Factory took immediate action. A shim was added to the functional testing for flip switch operation. The shim holds the flip open an additional 1mm higher than in normal use to screen out units with potentially weak compression on the flip switch. – WW43 '04.
(2) All ITT keypads were purged from the factory as well as TeeHwa keypads that were found to be on the low end of the tolerance for gold puck height. Only TeeHwa keypads, measuring on the high end of the tolerance, are used. – WW48 '04.

Clear for TeeHwa



Week *Year*

Black for ITT



Year *Week*

Good after WW48 '04

Long-Term: (1) Keypad 3888470Yxx Rev. B - Modify keypad plunger to create chamfered surface to allow for more uniform compression. - February '05
(2) Flip Front Housing 0188382N03 Rev. G - Modify flip inside housing flip detect protrusion to account for flip bias due to hinge spring. This will better align the flip detect protrusion with the keypad plunger/gold puck. - April '05
(3) Side-Key Flex 8489088N04 Rev. D - Modify side-key flex to pull back adhesive from around flip detect switch opening to reduce opportunity from foreign material to collect around the PCB contacts. – March '05

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Field Service Action

Customer Returns:

When servicing affected GSM V620/V600i customer returns, with customer complaints related to improper operation of the "Secondary/External Display", then:

1. Test and evaluate the unit for proper performance of the Flip Switch.
    a. If the Flip Switch operates normally, then follow normal troubleshooting procedures to determine the fault per the customer complaint.
2. Disassemble the unit and inspect the PCB contact and keypad gold puck to ensure no foreign material is present, which may be interfering with the connection.
3. Remove any foreign material found on PCB or keypad gold puck. Isopropyl Alcohol (IPA) can be used to clean the contacts.
4. Replace the keypad with a TeeHwa keypad date coded after WW48 '04. See information above.
5. Reassemble and completely retest to confirm unit is properly repaired.

When available, additional parts (Keypad, Flip Front Housing, Side-Key Flex) should also be replaced with the latest revisions. See above.

Service Inventory:

Please stock inventory of only the TeeHwa keypad for field replacement on the GSM V620/V600i product. 3888470Y08 (English), 3888470Y14 (Cyrillic)
Please deplete current inventory of the Flip Front Housing 0188382N03 and Side-Key Flex 8489088N04 and restock with latest revisions. See above.

Call Center Action:

When responding to problem product inquiries, on the GSM V620/V600i product, where the complaint relates to improper operation of the "Secondary/External Display", please direct them to their local Service Center to have there phone repaired per this FSB.

Service Entry Code

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

Global M-Claims Codes:

Customer Complaint Code: DIS03 (Display Secondary - Corrupt/Error Display)
Problem Found Code: DIS03 (Display Secondary - Corrupt/Error Display)
REF Designator Code: S (Switch)
Repair Code: RMP10 (Replace Mechanical Part – CSB/FSB)

PRC E-service Entry Codes:

Fault Code: 3103 (Display Secondary- Corrupt/Error Display)
Repair Code: 1310 (Replace Mechanical Part – CSB/FSB)