Consumer Solutions & Support
US Competency Center
600 North US Highway 45
Libertyville, Illinois 60048

FIELD SERVICE BULLETIN (Informational Bulletin)

FSB Number:	LVCCFSB2005-93
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Date:	March 31, 2005
Total No. of Pages:	9
Subject:	GSM V3 – k-flex repair
Model Affected	All Regions
Level of Repair:	Level 3, 4

Problem:
Service is aware that on some V3 units the keypad becomes inoperative. This was noted by the TJ FQA due to a high instance of keypad failures.
Investigation revealed that the affected keys are; left and right soft keys, 0, # and NAV center. All affected keys share a common line.
The problem was found to be a misalignment of keypad golden pads to the metal domes coupled with a small burr on the edge of the phone. This misalignment causes the edge of the dome to pierce the insulating layer of the k-flex (if burr is over signal trace area) thereby grounding the signal line of the five keys mentioned.

Solution:
1. Corrective Action: Current Suppliers are building with new k-flex part that addresses the misalignment, thus preventing damage to the insulating layer.
2. Containment Action: A screening process of subjecting units to multiple key presses on two top soft select keys was implemented in production. Around 1% failure rate was found after the 1st 40X key actuation. No further failure was found after 50X key actuation.

Field Service Action:
Customer Returns:
When servicing affected models of GSM V3 customer returns with customer complaints related to keypad (soft keys, 0, # and NAV) then:
1. Remove battery cover and retain for use.
2. Remove the rear housing and retain for reuse.

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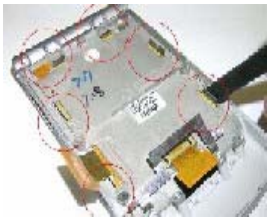
(For more detailed instructions and photographs of the listed procedures, please refer to the V3- Digital Wireless Phone Service Manual).

Unit is shown after removal of battery cover and transceiver.

3. Peel the battery Mylar (PN: 1487942Y01) carefully to avoid unnecessary bending or stress on the flexes**.** This action leaves the 6 tabs that secure the keypad to the housing exposed. Proceed to bend each tab to its original vertical position. Turn the unit over with the keypad side up and press gently the upper tabs to begin keypad removal. Carefully use a blackstick to complete the keypad removal and save the keypad for reuse.

4. Remove the flip assembly cover. Do not reuse. Replace with PN:0790000N01. Remove cosmetic bumpers without damage to the paint. **(Detailed procedure in the service manual)**

Unit is shown with the flip cover removed.

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5. Remove hinge screw (T3 tip) and hinge cap carefully.

6. Using a two-pronged tool (needle nose pliers), gently remove the hinge with a slow reciprocating movement perpendicular to the knuckle side surface. This step is critical since there is the possibility of damage to the knuckles/flip, thus denying the benefits of the repair. In order to avoid quality issues, the technician is instructed to replace the hinge piece and the shaft side end cap with new parts (Part Number: 5590242N01 and 1587333Y01).

7. Once the hinge is out of its cradle, proceed to disconnect the k-flex connector from the display board and to separate the two housing sections.

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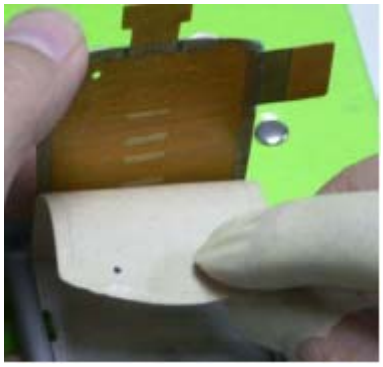
8. Using the k-flex connector as leverage proceed to peel off the k-flex from the housing.

9. Once the k-flex has been removed, clean the residual adhesive with a small amount of alcohol. Thoroughly inspect the assembly for cosmetics imperfections or glue residues. **NO residual adhesive can be left on the surface, since residues can interfere with tactile feel when the new flex is applied.** Please notice the two holes on the assembly surface, they will serve as guidelines /posts for the new k-flex.

10. Insert the k-flex connector thru the knuckle cradle.

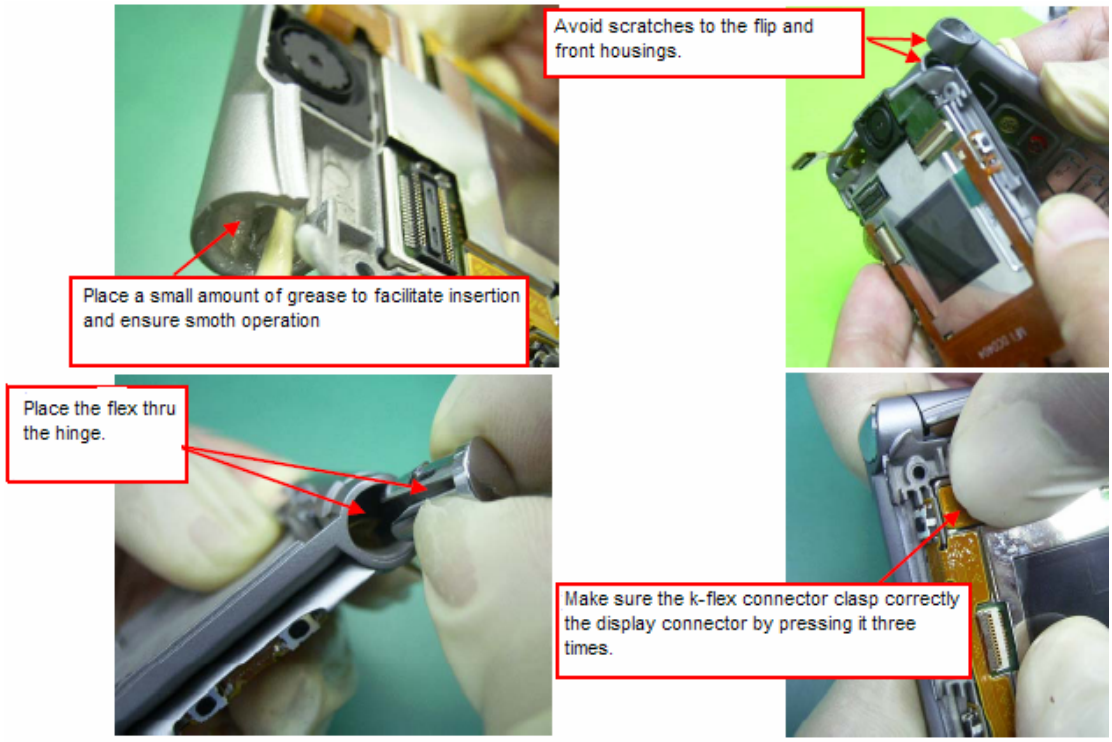
11. Peel the new k-flex liner. Place the k-flex with the correct alignment. New k-flex part number: 8489976N03.



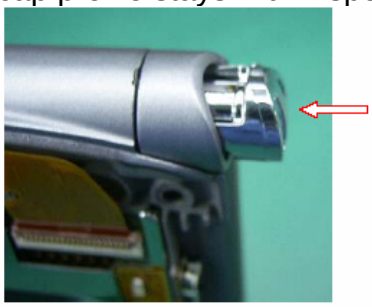
12. Fold and place the k-flex-to-main board connector as shown below. Ensure the correct alignment of the second hole/post of both the k-flex and the housing assembly.

13. Insert hinge mechanism into the housing. Press the housing sleeve/hinge mechanism to make sure is positioned correctly.

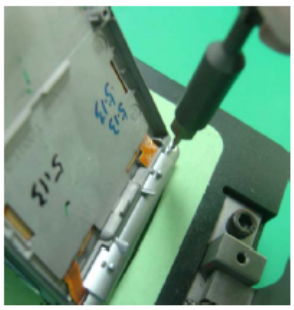
14. Carefully assembly the flip and connect the k-flex connector to the display module.



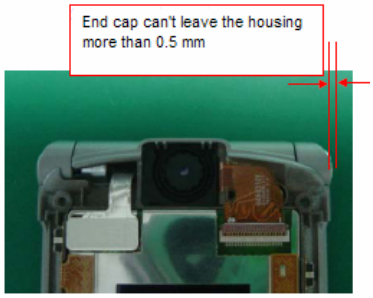
15. Place end cap (1587333Y01) into the housing assembly and apply proper torque (0.85 in-lbf) to the setscrew (PN: 0387726M05). Make sure that the end cap profile stays within specification (0.50mm).



Place end cap into housing assembly



Apply proper torque to setscrew.



Final inspection.

16. Place external flip assembly. Make sure that there is good adhesion between the external flip assembly and the display assembly. **Ensure cleanliness between the CLI and the external flip assembly lens. Also ensure that no contamination is allowed between the camera imager and the protective lens.** Apply the proper torque to the fours screws that hold the flip in place.

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17. After placing the display screws (torque 1.5 in- lbf, PN: 0387726M02) taking care to avoid scratches, set the cosmetic bumpers (PN: 3890023N01 (top) and 3890022N01 (bottom)).

18. Perform a complete camera and keypad functional test.

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Website: gs.mot.com

Service Inventory:
N/A

Customer Call Center:
N/A

Global M-Claims:

Customer Complaint: Code: Hangs	**MKP01**	**Main Keypad-No Function**
Problem Found:	**MKP03**	**Main keypad-Broken**
Reference Designator:	**KYBD**	**Keyboard**
Repair: CSB/FSB	**RMP10**	**Replace Mechanical Part-**