



MOTOROLA

Consumer Solutions & Support
US Competency Center
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FIELD SERVICE BULLETIN

FSB Number: LVCCFSB2006-32
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Total No. of Pages: 3
Subject: **Kingmax MicroSD and 3Rd Party cards**
Model Affected: SYN1401A 32MB Kingmax, SYN1402A 64MB Kingmax,
SYN1479A 64MB Kingmax (Preloaded), and any other 3rd Party Transflash/MicroSD
Level of Repair: 1

Problem

Service is aware of an issue, highlighted by the field on V3x, where customer complaints include:

- Slow when trying to scroll picture thumbnails / Picture to Picture
- Key presses start to queue up
- Slow when trying to open a multimedia folder
- Longer power-up times if large files are stored on the card
- After creating a new phone book contact and assign a ring tone stored on the MicroSD, if you receive a call the phone will play ring tone for 5 to 6 seconds after you accept the call.

Analysis revealed the issue is related to the formatting of the Kingmax MicroSD card. The file system format on the card causes, disk fragmentation in the directories which impacts the read performance. It was determined the Kingmax 32MB card has a cluster size of 512 bytes and the 64MB card has cluster size of 1024 bytes. The minimum required is 4096 bytes

Solution

Short Term: Reformat Kingmax card to 4096 bytes or greater.

- Using phone (This is the preferred method).
 - Go to Menu → Settings → Phone Status → Storage Devices
 - Select the Card and press Menu → Format

NOTE: The phone automatically uses a minimum cluster size of 4096 bytes.

- Using a PC with a card reader attached:
 - Check the drive name of the card at your PC
 - Open the DOS Command Prompt (Start → Program → Command Prompt)
 - Enter the command `FORMAT [drivename]: /FS:FAT /A:4096`
 - Example for E: Drive (`FORMAT E:/FS:FAT /A:4096`)
 - Follow the command prompts



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- NOTE: Never use the format command without the additional parameters!!
Windows will select automatically a smaller cluster size

To verify cluster size on a PC with Windows operating system and a card reader or phone which could be used as a card reader:

1. Check Drive name of the card at your PC
2. Open the DOS command prompt (Start → Program → Command Prompt)
3. Enter the command chkdsk [drivename]:
 - a. Example for F: Drive (chkdsk F:)
4. The cluster value is located in the third row from the bottom.
 - a. Example: 4.096 bytes in each allocation unit. (Good, can be greater than)
 - b. Example: 512 bytes in each allocation unit. (Small Cluster Size – Bad)

Long Term: Kingmax to switch over to 4096 bytes cluster sizes or greater for cards at their factory 1/12/06.

NOTE: Minimum cluster size must be 4096 bytes. Cluster size may be larger. Phone will format to proper size.

Service Action

Customer Returns:

When servicing customer returns which exhibit the symptoms listed above, then:

1. Verify Kingmax MicroSD or 3rd party card is with return
 - a. If not, perform normal troubleshooting techniques for these types of customer complaints listed above.
2. If the card has preloaded content, swap out the card, transfer any user data on the card to the new card.
 - a. If the card has no preloaded content, copy the user data on the card, reformat the card, copy the data back to the card.

Service Inventory:

Verify that Kingmax MicroSD cards are properly formatted before swap.

Call Center Information

When responding to problem product inquiries where customer complains of symptoms listed above and has a Kingmax MicroSD, verify if the card has preloaded content, if so have customer exchange Kingmax MicroSD for a properly formatted / preloaded Kingmax MicroSD or Sandisk Transflash/MicroSD. If the card does not contain any preloaded content, walk the customer through process of saving information from MicroSD to computer. Have customer reformat MicroSD using the phone as described



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above in the Solution section. Reload information from computer to MicroSD. Notify customer the possibility of lost data occurring prior to performing transfers.

Service Entry Code

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

Global M-Claims Codes:

Customer Complaint Codes: OPR07 (Operation – Hangs/Freezes/Locks up)

Problem Found Code: OPR07 (Operation – Hangs/Freezes/Locks up)

REF Designator Code: N/A

Repair Code: RPR06 (Reprogram-Phone Feature (Function) Setting)