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GROUP: Vehicle Performance

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THIS BULLETIN SUPERSEDES TECHNICAL SERVICE BULLETIN 18-001-06, DATED JANUARY 11, 2006, WHICH SHOULD BE REMOVED FROM YOUR FILES. ALL REVISIONS ARE HIGHLIGHTED WITH **ASTERISKS** AND INCLUDE ADDITIONAL MODELS, YEARS AND A REVISED DISCUSSION ABOUT ABORTED FLASH REPROGRAMMING RECOVERY.

SUBJECT:

StarSCAN®/StarMOBILE™ Abort Recovery Procedures

OVERVIEW:

This Bulletin provides guidelines to minimize flash reprogramming problems and recovery procedure information for failed flash attempts.

MODELS:

2007	(DC)	Ram Cab & Chassis
2006 - **2007**	(DR/DH/D1)	Ram Truck
2004 - **2007**	(HB/HG)	Durango/Aspen
2007	(JK)	Wrangler
2007	(JS)	Sebring
2007	(KA)	Nitro
2006 - **2007**	(KJ)	Liberty/Cherokee
2005 - **2007**	(LX/LE)	300/Magnum/Charger
2007	(MK)	Compass
2005 - **2007**	(ND)	Dakota
2007	(PM)	Caliber
2006 - **2007*	(PT)	PT Cruiser
2005 - **2007**	(WK/WH)	Grand Cherokee
2006 - **2007**	(XK/XH)	Commander

DISCUSSION:

NOTE: Many of the reasons a flash reprogramming procedure may not complete are documented in this service bulletin.



Stick with the Specialists[™]

Occasionally a flash update procedure may not complete properly and/or the diagnostic equipment may lock up or become disconnected during the procedure. Flash Reprogramming is a **"CRITICAL PROCESS"**; an error may result in a no-start/failed control module. Most modules, encountering an interruption or failure while reprogramming, are recoverable. Replacing a module that is recoverable is not covered under the provisions of the warranty.

This service bulletin covers items that may cause this condition, a process to restart the flash procedure, and miscellaneous information that will help prevent unnecessary replacement of control modules.

GENERAL:

Flash Reprogramming is only authorized when programming a generic module or by a specific **SERVICE ACTION** (Service Bulletin/Recall/Rapid Response Transmittal/Advance Service Information).

CAUTION: When updating a module because of a Service Action, it is important to follow the steps outlined in the Repair Procedure section of the Service Action. Procedures may differ depending on the module that is being reprogrammed.

Review the **entire** Service Action **prior** to performing a flash reprogramming update. Often other parts may need to be serviced, replaced, or tested, prior to flash reprogramming, and ARE REQUIRED as part of completing the Service Action.

COMMON CAUSES OF FLASH REPROGRAMMING ERRORS

Interruptions, voltage problems, a variety of other outside interactions, and failure to follow the steps outlined in the Service Action can potentially interfere with the process. This document seeks to provide information to minimize problems associated with module flash reprogramming.

SOFTWARE VERSIONS MUST BE CURRENT

Before attempting a flash reprogramming session, make sure you have the most current software installed in the scan tool (StarSCAN®/StarMOBILE[™]). Refer to the current software release information available in TechCONNECT, under: Service Info > StarSCAN® and StarMOBILE[™] Tools > Latest News > Select the most recent release number. The technician will be able to see the applicable version numbers.

Often, because of multiple StarSCAN®/StarMOBILE™s in the shop, not all devices will get updated in a timely manner. The installed StarSCAN®/StarMOBILE™ software version and scan tool operating system version, (Fig. 2), can be verified from the "Home" screen as follows:

StarMOBILE Desktop Client

- Select "Tool Menu" .
- Select "Version Information"

StarSCAN

- Select "Show Shortcuts"
- Select "Tool Menu" .
- Select "Version Information"

Typical Tool Menu (Fig. 1)

- NOTE: The StarSCAN also displays the version number on the right side of the blue header at the top of each screen.
- NOTE: To read the version on the StarMOBILE[™], it must be connected and the application running or the user will receive "N/A" for the "System" value.

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l	Network	/iew		Vehicle Preparation	
	System	/iew		More Options	
					81a0c72b

Fig. 1 TYPICAL TOOL MENU

👻 StarMOBILE Desktop Client - 6.06						
File ToolMenu						
Version Information						
Name	Value	Show				
StarMobile Desktop Client Build Number	6.06.240	Details				
Device Operating System	0.40.0					
		<u> </u>				
		Bundle Info				
L		81a0c729				

Fig. 2 VERSION INFORMATION

GENERAL NOTES FOR CABLES AND VEHICLE CONNECTIONS Consider ALL cables to be wear items.

It is a good practice to have dedicated cables devoted to "Flash ONLY".

Always have a spare StarSCAN® CH9404 (vehicle) cable available.

Always have a spare StarMOBILE[™] CH9804 (vehicle) cable available (blue cable end).

Diagnosing vehicle cable problems

Inspect vehicle cable connectors for potential problems that might cause communication interruptions. Use the information available on DealerCONNECT under:

- eSupport (above the "Marketing" tab)
- Under "Knowledge Center" select "Find Answers"
- In the "Enter link, error message, or topic" area, type "9561"
- In the "Search By" area, select "Answer ID"
- At the next screen, select the "StarSCAN Flash Lockup.pdf" link to access the information to diagnose suspect vehicle cable continuity.

FLASH REPROGRAMMING PROBLEM PREVENTION

- Follow the steps outlined in the Service Action.
- Pay attention to the screen prompts displayed during the flash process.
- Replace worn cables.
- Verify the vehicle is equipped with a known good battery.
- Ensure the battery charger charging rate provides approximately 13.2 13.8 volts. Set the battery charger to continuous charge. Do not allow the charger to time out during the flash process.

ABORTED FLASH REPROGRAMMING RECOVERY

**The following steps may help recover a non-responsive module when the flash process is aborted or interrupted.

- 1. When the Flash ECU screen displays an Error Message, select OK.
- 2. Turn the ignition to "off" and power down the StarSCAN®.
- 3. Turn the vehicle ignition to the "On" position.
- 4. Power on the StarSCAN®.

NOTE: If the technician was flashing a PCM, the tool may display "Unknown VIN". Disregard this.

- 5. Select (ECU) View.
- 6. Highlight the ECU that was being flashed.

NOTE: The module may appear to be non-responsive. Highlight the module anyway.

- 7. Select More Options
- 8. Select ECU Flash
- 9. If the "Flash ECU" screen displays "Resident flash files for Part # XXXXX", the module should be recoverable. If the screen displays "No resident flash files found" the module is not recoverable. Does the Flash ECU screen display "No resident flash files found?"
 - a. Yes >> The module must be replaced.
 - b. No >> proceed to Step #10.

10. Is a calibration file displayed on the StarSCAN®?

- a. Yes >> proceed to Step #11.
- b. No >> Select "Browse For New File" and follow on screen instructions. Highlight the calibration that was previously chosen. Select "Download to Scantool". When the file is downloaded to the scantool, select "Back" and proceed to Step #11.
- 11. Highlight the appropriate calibration.
- 12. Select "Update Controller" and follow the on screen instructions.
- 13. When the flash is complete, verify the "Resident flash file part number" matches the "New P/N" of the appropriate calibration.
- 14. Proceed with the steps listed in the Service Bulletin to complete the service action.**

NOTE: If after following the steps above, you are still having issues performing the flash reprogramming procedure using a specific StarSCAN®/StarMOBILE® it is suggested to contact SPX/Miller Special Tools for service.

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