



**NUMBER:** 18-024-04

**GROUP:** Vehicle Performance

**DATE:** June 1, 2004

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**THE SOFTWARE FOR THE DRB III® WILL BE AVAILABLE ON DealerCONNECT  
JUNE 1, 2004.**

**FOR MARKETS OUTSIDE OF THE UNITED STATES AND CANADA, THE SOFTWARE  
AND REPROGRAMMING INSTRUCTIONS WILL BE AVAILABLE ON ITIL/ISIS DVD  
JULY, 2004.**

**SUBJECT:**

Flash: Idle fluctuation and or MIL Illumination Diagnostic Trouble Codes P0300, P0301, P0302, P0303 or P0304

**OVERVIEW:**

This bulletin involves replacing the affected spark plug, ignition wire and/or reprogramming the Powertrain Control Module with new software.

**MODELS:**

2004	(JR)	Sebring Convertible/Sebring Sedan/Stratus Sedan
2004	(KJ)	Liberty/Cherokee
2004	(PL)	Neon
2004 - 2005	(PT)	PT Cruiser
2004 - 2005	(RG)	Chrysler Voyager
2004 - 2005	(RS)	Town & Country/Caravan/Voyager

**NOTE: This bulletin applies to vehicles equipped with a 2.0L and 2.4L engine (sales code ECB, ECC, ECH, ED1, ED2, EDV, EDZ or EDT ) Refer to table below for build dates.**

Vehicle	Build Date (MDH)
2004 JR	Built between July 7, 2003 (MDH 0707XX) and May 8, 2004 (MDH 0508XX).
2004 KJ	Built on or before May 11, 2004 MDH 0511XX
2004 PL	Built on or before June 2, 2004 MDH 0602XX
2004 - 2005 PT	Built on or before May 24, 2004 MDH 0524XX
2004 - 2005 RS/RG	Built on or before May 10, 2004 MDH 0510XX

**SYMPTOM/CONDITION:****MIL Illumination**

The vehicle operator may experience a MIL illumination. Further diagnosis may determine that the MIL was caused by one or more of the following DTC's:

- P0300-MULTIPLE CYLINDER MISFIRE
- P0301-CYLINDER #1 MISFIRE
- P0302-CYLINDER #2 MISFIRE
- P0303-CYLINDER #3 MISFIRE
- P0304-CYLINDER #4 MISFIRE

**Idle fluctuation**

The vehicle operator may experience a Idle fluctuation while vehicle is in gear or park.

**DIAGNOSIS:**

Using a Scan Tool (DRBIII®) with TechCONNECT and the appropriate Diagnostic Procedures, verify all engine systems are functioning as designed. If DTCs are present, other than those listed above, record them on the repair order and repair as necessary before proceeding further with this bulletin. If the symptom is MIL illumination and the condition has been diagnosed to be a spark plug, proceed to Repair Procedure 1. If the symptom/condition is idle fluctuation proceed to Repair Procedure 2.

**PARTS REQUIRED:**

Qty.	Part No.	Description	Engine Sales Code
(AR)	SP00RE16MC or SPLZTR4A11	Spark Plug (05149002AA) or (05149003AA)	ED1, EDZ
(AR)	SPRE14MCC5	Spark Plug (04606402AC)	EDV, EDT, ECC
(AR)	04606759AA	Spark Plug	ED2
(AR)	SP000RC9YC	Spark Plug (05269897)	ECH, ECB
(AR)	05033233AB	Cable/Ignition (Cylinder #1 thru #4)	ECC, ED2, EDZ, EDV (Except PT)
(1)	05033234AA	Cable/Ignition (Cylinder #1)	ECB, EDH

Qty.	Part No.	Description	Engine Sales Code
(1)	56044075AC	Cable/Ignition (Cylinder #1)	ED1
(1)	05033233AB	Cable/Ignition (Cylinder #1)	EDV, EDT
(1)	05033236AB	Cable/Ignition (Cylinder #2)	ECB, ECH
(1)	56041818AC	Cable/Ignition (Cylinder #2)	ED1
(1)	05033233AB	Cable/Ignition (Cylinder #2)	EDV, EDT
(1)	05033236AB	Cable/Ignition (Cylinder #3)	ECB, ECH
(1)	56041818AC	Cable/Ignition (Cylinder #3)	ED1
(1)	0533233AB	Cable/Ignition (Cylinder #3)	EDV, EDT
(1)	56044075AC	Cable/Ignition (Cylinder #4)	ED1
(1)	05033234AB	Cable/Ignition (Cylinder #4)	ECH, ECB
(1)	05033266AA	Cable/Ignition (Cylinder #4)	EDV (PT Only), EDT
(1)	04275086AB	Label, Authorized Modification (United States and Canadian Markets)	
(1)	05011058AA	Label, Authorized Software Update (Markets Outside the United States and Canada)	

**NOTE: Only replace the spark plug and ignition cable that are affected for engines ECH and ECB. For ED1, EDZ, EDV, EDT, ECC and ED2 engines all four plugs must be the same part number. It may be necessary to replace all plugs and wires.**

***SPECIAL TOOLS/EQUIPMENT REQUIRED:***

NPN	Battery Charger
CH2002	General Purpose Interface Bus Cable Assembly
CH6000A	Scan Tool (DRBIII®)
CH7000A/7001A	J1962 Cable with Red DRBIII® Connector
	TechCONNECT Workstation

**NOTE: An updated J1962 cable has been released. This cable has a red colored connector at the DRBIII® connection. Use this cable whenever a flash is being preformed.**

***REPAIR PROCEDURE 1:***

1. Replace the affected spark plug and ignition (spark plug) cable. Refer to the service information available on TechCONNECT.

**NOTE: Only replace the spark plug and ignition cable that are affected for engines ECH and ECB. For ED1, EDZ, EDV, EDT, ECC and ED2 engines all four plugs must be the same part number. It may be necessary to replace all plugs and wires.**

2. Perform Repair Procedure 2.

## **REPAIR PROCEDURE 2: Flash Reprogram PCM**

**NOTE: Whenever a controller is programmed, the software in the DRBIII®; must be programmed with the latest revision level available.**

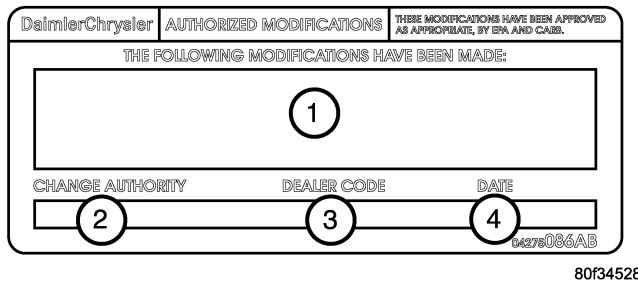
**NOTE: If this flash process is interrupted/aborted, the flash should be restarted and then follow the directions on the DRBIII®.**

1. Before beginning the reprogramming procedure, remove any old flash reprogramming files from the DRBIII® memory. To clear the memory from the MAIN MENU:
  - a. Simultaneously press the "MORE" and "YES" keys.
  - b. A screen will appear requesting a "COLD BOOT".
  - c. Follow the on screen instructions by selecting the "F4" key.
  - d. When the DRB III® reboots to the MAIN MENU, proceed to [Step #2](#)
2. With the ignition switch in the "RUN" position, determine the original part number of the PCM currently in the vehicle. Using the DRBIII® select:
  - a. "DRBIII® Standalone"
  - b. "1998 - 2004 Diagnostics"
  - c. "All (Except Below)"
  - d. "Engine"
  - e. "Module Display"
  - f. Record the "PCM part #" on the repair order for later reference.
3. Connect the DRBIII® to TechCONNECT. Open TechTOOLS and verify that the "DRBIII® Status: Connected" message is in the upper right corner of the TechTOOLS screen.
4. Enter the "PCM part #" recorded in [Step #2](#) in the "Parts Criteria" area and select "Show Updates". TechTOOLS will populate the appropriate calibration.
5. Select the calibration.
6. Select the "DRBIII" radio button which is next to the "Download/Update" button.
7. Select the "Download/Update" button.
8. Monitor the "Flash Download/Update Progress" window on the TechCONNECT and follow the instructions on TechCONNECT. When the flash process is complete, proceed to [Step #9](#).
9. **Disconnect the DRBIII® from TechCONNECT.**
10. Open the hood, install a battery charger and verify battery state is above 12.5 volts.
11. Connect the DRBIII® to the vehicle.
12. Download the flash from the DRBIII® to the vehicle. Using the DRBIII® select:
  - a. "Vehicle Flash"
  - b. Follow the directions on the DRBIII® screen. When the flash process is complete, proceed to [Step #13](#).

**NOTE:** Due to the PCM programming procedure, a DTC may be set in other modules (TCM, BCM, MIC, SKIM, etc.) within the vehicle, if so equipped. Some DTC's may cause the MIL to illuminate. Check all modules using "Module Scan", record the DTC's, and erase these DTC's prior to returning the vehicle to the customer. Erase any DTC's in the PCM only after all other modules have had their DTC's erased.

**NOTE:** The following step is required by law.

13. Type the necessary information on the "Authorized Modification Label" p/n 04275086AB and attach near the VECI label (Fig. 1).



**Fig. 1 AUTHORIZED MODIFICATION LABEL**

- 1 - ENGINE CONTROL MODULE P/N (INSERT P/N) USED
- 2 - CHANGE AUTHORITY: TSB XX-XXX-XX
- 3 - DEALER CODE: XXXXX
- 4 - DATE: XX-XX-XX

**POLICY:**

Reimbursable within the provisions of the warranty.

**TIME ALLOWANCE:**

Labor Operation No:	Description	Amount
08-17-02-98	Replace One Spark Plug and One Ignition Cable	JR, PL, KJ 0.2 Hrs.
		RS, RG 0.2 Hrs.
		PT 0.5 Hrs.
08-17-02-99	Replace All Spark Plugs and All Ignition Cables	JR, PL, KJ 0.4 Hrs
		RS, RG 0.4 Hrs
		PT 0.6 Hrs.
08-19-42-90	Reprogram Powertrain Control Module	0.8 Hrs.

**FAILURE CODE:**

15	Calibration
R0	Driveability