

FLASH MIL ILLUMINATION DTC P1004 - SHORT RUNNER VALVE PERFORMANCE

TECHNICAL SERVICE BULLETIN

Reference Number(s): 18-003-07 REV. A, Date of Issue: March 07, 2007

CHRYSLER: 2007 (CS) Pacifica; 2007 (JS) Sebring; 2007 (LE) 300/Touring (International Markets); 2007 (LX) 300/Magnum/Charger

SUBJECT

NOTE: THIS BULLETIN SUPERSEDES TECHNICAL SERVICE BULLETIN 18-003-07, DATED JAN 17, 2007, WHICH SHOULD BE REMOVED FROM YOUR FILES. THIS IS A COMPLETE REVISION AND NO ASTERISKS HAVE BEEN USED TO HIGHLIGHT REVISIONS. ADDITIONAL MODELS AND REVISED DIAGNOSTICS HAVE BEEN ADDED.

NOTE: THE StarSCAN® FLASH FILES FOR THIS BULLETIN MUST BE RETRIEVED FROM THE INTERNET.

NOTE: StarSCAN® SOFTWARE LEVEL MUST BE AT RELEASE 7.03 OR HIGHER FOR THIS BULLETIN.

NOTE: StarMOBILE® STANDALONE DOES NOT SUPPORT THIS SERVICE ACTION.

Flash: MIL Illumination DTC P1004 - Short Runner Valve Performance

OVERVIEW

This bulletin involves reprogramming the Powertrain Control Module (PCM) with new software and verifying the SRV function.

NOTE: This bulletin applies to CS models built prior to December 15, 2006 (MDH 1215XX) with a 4.0L engine (Sales Code EGQ), JS models built prior to December 13, 2006 (MDH1213XX) with a 3.5L engine (Sales Code EGF), LX models built prior to February 5, 2007 (MDH0205XX) with a 3.5L engine (Sales Code EGG), and LE models built prior to February 10, 2007 (MDH0210XX) with a 3.5L engine (Sales Code EGG)

SYMPTOM/CONDITION

Some customers may experience MIL illumination with no other symptoms noted. Upon investigation the technician may find DTC P1004 - Short Runner Valve Performance as an active (MIL on) or stored (MIL off) fault. The fault may be intermittent, difficult to duplicate and may be more prevalent on low mileage vehicles.

DIAGNOSIS

Using a Scan Tool (StarSCAN®) with the appropriate Diagnostic Procedures available in TechCONNECT, verify all engine/transmission systems are functioning as designed. If DTC's other than those listed above are present record them on the repair order and repair as necessary before proceeding further with this bulletin.

If the above DTC is found perform the Repair Procedure. After the repair, perform the verification procedures listed at the end of this bulletin.

PARTS REQUIRED

PARTS REQUIRED

Qty.	Part No.	Description
1	04275086AB	Label, Authorized Modification
AR (1)	04593578AC	Plenum, Upper CS 4.0L
AR (1)	04593676AB	Actuator, SRV CS 4.0L
AR (1)	04593649AB	Plenum, Upper JS 3.5L
AR (1)	05149095AA	Actuator, SRV JS 3.5L
AR (1)	04591863AJ	Plenum, Upper LE/LX 3.5L
AR (1)	04593839AA	Actuator, SRV LE/LX 3.5L

SPECIAL TOOLS / EQUIPMENT REQUIRED

SPECIAL TOOLS / EQUIPMENT REQUIRED

NPN	Battery Charger
CH9401	StarSCAN® Tool
CH9404	StarSCAN® Vehicle Cable
CH9409	StarSCAN® Documentation Kit
CH9410	StarSCAN® Ethernet Cable, 12 ft.
CH9412	StarSCAN® Software Update Device Kit
	TechCONNECT PC or equivalent

REPAIR PROCEDURE - USING THE INTERNET TO RETRIEVE THE FLASH FILE

NOTE: When performing this Repair Procedure, the software release level in the StarSCAN®; must be programmed with 7.03 level software or higher. The software release level is visible in the blue header at the top of the StarSCAN® screen.

NOTE: The StarSCAN® diagnostic scan tool fully supports Internet connectivity. However, to take advantage of this feature you must first configure the

StarSCAN® for your dealership's network. Make sure the StarSCAN® is configured to the dealership's network before proceeding. For instruction on setting up your StarSCAN® for the dealer's network refer to either: "DealerCONNECT > Service > StarSCAN and StarMOBILE tools > Online Documentation", or refer to the StarSCAN® Quick Start Networking Guide. The StarSCAN® Quick Start Networking Guide is also available on the www.dcctools.com website under the "Download Center".

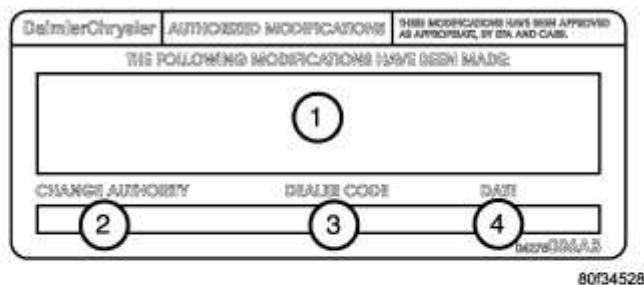
NOTE: If this flash process is interrupted/aborted, the flash should be restarted.

1. Install a battery charger and verify that the charging rate provides approximately 13.5 volts. Set the battery charger to continuous charge. Do not allow the charger to time out during the flash process. Remove the charger from the battery when the flash process is complete.
2. Connect the CH9410 StarSCAN® ethernet cable to the StarSCAN® and the dealer's network drop.
3. Connect the CH9404 StarSCAN® vehicle cable to the StarSCAN® and the vehicle.
4. Power ON the StarSCAN®.
5. Retrieve the old PCM part number. Using the StarSCAN® at the "Home" screen:
 - a. Select "ECU View"
 - b. Touch the screen to highlight the PCM in the list of modules.
 - c. Select "More Options"
 - d. Select "ECU Flash"
 - e. Record the part number at the top of the "Flash PCM" screen for later reference.
 - f. Select "Browse for New File". Follow the on screen instructions.
 - g. Select "Download to Scantool".
 - h. Select "Close" after the download is complete, then select "Back".
 - i. Highlight the listed calibration.
 - j. Select "Update Controller". Follow on screen instructions.
 - k. When the update is complete, select "OK".
 - l. Verify the part number at the top of the "Flash PCM" screen has updated to the new part number.

NOTE: Due to the PCM programming procedure, a DTC may be set in other modules (TCM, BCM, MIC, SKREEM, etc.) within the vehicle, if so equipped. Some DTC's may cause the MIL to illuminate. From the "Home" screen select "System View". Then select "All DTCs". Press "Clear All Stored DTCs" if there are any DTCs shown on the list.

NOTE: The following step is required by law when reprogramming a PCM and/or TCM.

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



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

Fig. 1: Identifying Authorized Modification Label
Courtesy of CHRYSLER CORP.

DTC P1004 VERIFICATION PROCEDURE

1. Install a battery charger and verify that the charging rate provides approximately 13.5 volts during the following steps.

NOTE: The following SRV actuator tests **MAY** not function if DTC's are present. **Check and Clear ALL faults before proceeding and throughout the process as necessary.**

2. Using a Scan Tool (StarSCAN®) view the data display for the SRV in its de-energized state. Read the percent feed back from the StarSCAN® screen. Normal percent feedback will equal 50% + or - 5%.
3. Using a Scan Tool (StarSCAN®) select the actuator tests menu and actuate the SRV. With the SRV actuated, go to the data display for the SRV in its energized state. Read the percent feed back from the StarSCAN® screen. Normal percent feedback will equal 80% + or - 5%.
4. De-energize the SRV, feedback should return to 50% + or - 5%.
5. Does the percent feedback meet the specifications listed in steps 2, 3, and 4?
 - a. Yes - No Further Action is Required.
 - b. No - Proceed to Step 6.
6. Check and Clear ALL faults. Start the engine and raise the RPM to 4000 in park. In the de-energized state, does the SRV return to 50% + or - 5%? when de-energized?
 - a. Yes - Check and Clear ALL faults - No Further Action is Required.
 - b. No - Proceed to Step 7.
7. Use the following diagnostic flow to determine SRV malfunction:
 - a. Verify wiring integrity using the information found in DealerCONNECT>TechCONNECT. If

2007 Dodge Magnum SE

FLASH MIL ILLUMINATION DTC P1004 - SHORT RUNNER VALVE PERFORMANCE

wiring problems are found make repairs and confirm correct operation starting with step 3 above. If wiring problems are not found, proceed to b.

- b. Remove the SRV actuator following the procedures listed in DealerCONNECT>TechCONNECT. By hand, rotate the SRV shaft (in manifold). The shaft should rotate freely within 60 degrees as follows: (CS 11 O'clock to 9 O'clock - JS 1 O'clock to 3 O'clock - LX/LE 8 O'clock to 10 O'clock). If the shaft binds within these ranges, replace the intake manifold. If the shaft rotates freely, replace the SRV actuator.
- c. After making appropriate repairs - Check and Clear ALL faults - Verify correct operation starting with step 3 above.

POLICY

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE

TIME ALLOWANCE

Labor Operation No:	Description	Amount
18-19-06-41	Module, Powertrain Control - Reprogram & Perform Verification (B)	0.5 Hrs.
14-40-14-90	Actuator, Short Runner Valve - Replace	(CS) 0.7 Hrs. (JS) 0.3 Hrs. (LX/LE) 0.3 Hrs.
09-50-05-90	Manifold, Two Piece Intake - Upper Intake - Replace	(CS) 0.8 Hrs. (JS) 1.3 Hrs. (LX/LE) 1.0 Hrs.

FAILURE CODE

FAILURE CODE

ZZ	Service Action
----	----------------