



NUMBER: 18-016-13

GROUP: Vehicle Performance

DATE: April 04, 2013

This bulletin is supplied as technical information only and is not an authorization for repair. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, or otherwise, without written permission of Chrysler Group LLC.

THIS BULLETIN SUPERSEDES SERVICE BULLETIN 18-017-11, DATED MARCH 24, 2011, WHICH SHOULD BE REMOVED FROM YOUR FILES. THE ONLY REVISION TO THIS BULLETIN IS THE ADDITION OF SEVERAL ENGINE SOFTWARE PACKAGES.

HELP USING THE wiTECH DIAGNOSTIC APPLICATION FOR FLASHING AN ECU IS AVAILABLE BY SELECTING "HELP" THEN "HELP CONTENTS" AT THE TOP OF THE wiTECH DIAGNOSTIC APPLICATION WINDOW.

THE wiTECH SOFTWARE LEVEL MUST BE AT RELEASE 13.03 OR HIGHER TO PERFORM THIS PROCEDURE. (2006-10 MY VEHICLES)

DRBIII® SOFTWARE LEVEL MUST BE AT THE LATEST RELEASE FOR THIS BULLETIN. (2004-05 MY VEHICLES)

SUBJECT:

Flash: MIL Illumination P0128 - Thermostat Rationality

OVERVIEW:

This bulletin involves reprogramming the Powertrain Control Module (PCM) with new software.

MODELS:

2004 - 2010 (PT) PT Cruiser

NOTE: This bulletin applies to vehicles built with a 2.4L naturally aspirated or turbo engine (sales code EDT, EDV or EDZ) with an automatic transmission.

SYMPTOM/CONDITION:

The Technician may discover that P0128 - Thermostat Rationality DTC is present.

This DTC is a two trip code and is matured if a significant difference exists between the PCM predicted and actual engine coolant temperature during engine warm-ups.

The PCM calibration may improperly mature a P0128 DTC because the airflow across the coolant temperature sensor during colder ambient temperatures, 50° F (10° C) or below, causes the predicted coolant temperature to deviate from the actual coolant temperature.

DIAGNOSIS:

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

If the customer describes the symptom or if the technician finds the DTC, perform the Repair Procedure.

PARTS REQUIRED:

Qty.	Part No.	Description
1	04275086AB	Label, Authorized Modification

DRBIII® FLASH 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 or equivalent

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 performed.

wiTECH REPAIR PROCEDURE:

1. available in DealerCONNECT/TechCONNECT, Refer To Group 8 - Electrical > Electronic Control Modules - Service Information > Module - Powertrain Control > Standard Procedures > PCM/ECM Programming - Gas. **After PCM reprogramming, the following must be performed:**
 - a. Clear any DTC's that may have been set in other modules due to reprogramming. The wiTECH application will automatically present all DTCs after the flash and allow the tech to clear them.
 - b. Reset the "Pinion Factor" as necessary.
 - c. Perform the transmission Quick Learn Procedure as necessary.
2. Type the necessary information on the "Authorized Modification Label" and attach it near the VECI label.

REPAIR PROCEDURE USING DRBIII® AND DOWNLOADING THE FLASH FILE FROM DealerCONNECT > TechTOOLS:

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

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

1. Before beginning the flash procedure, remove any old flash 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 DRBIII® 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 - 2007 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 flash file.
5. Select the flash file.
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 and install a battery charger. Using a voltmeter, verify that the charging rate provides 13.2 - 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.

NOTE: Do not allow the charging voltage to climb above 13.5 volts during the flash process.

11. Connect the DRBIII® to the vehicle.
12. Download the flash file 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 the next step.

NOTE: Due to the PCM programming procedure, a DTC may be set in other modules 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.

13. Reset the "Pinion Factor" as necessary.
14. Perform the transmission Quick Learn Procedure as necessary.

NOTE: The following step is required by law.

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

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Amount
18-19-06-K1	Module, Powertrain Control (PCM) reprogram (1 - Semi-Skilled)	0.7 Hrs. 2004 - 2005 PT
18-19-06-K2	Module, Powertrain Control (PCM) reprogram (1 - Semi-Skilled)	0.4 Hrs. 2006 - 2010 PT

FAILURE CODE:

FM	Flash Module
----	--------------