NO: 18-16-99

SUBJECT: Engine Start-Up Improvements To Compensate For Seasonal Changes Of Fuel Quality

DATE: June 25, 1999

OVERVIEW:

This bulletin involves selectively erasing and reprogramming the JTEC Powertrain Control Module (PCM) with new software (calibration change 99Cal18).

NOTE: THIS INFORMATION APPLIES TO VEHICLES EQUIPPED WITH A 4.7L GASOLINE ENGINE BUILT BEFORE APRIL 22, 1999 (MDH 0422XX).

SYMPTOM/CONDITION:

Engine fuel is adjusted seasonally by gasoline companies. One reason for this adjustment in the fuel mixture is to compensate for seasonal temperature changes. When the current ambient temperature does not correspond with a recent fuel mixture change, driveability issues may occur. Possible driveability conditions that may be encountered are: start and stall, sag or hesitation, or momentary engine misfire.

The new PCM software improves the initial 10 seconds of engine start-up and acceleration at ambient temperatures of 20 to 80°F (-7 to 27°C).

DIAGNOSIS:

Using the Mopar Diagnostic System (MDS2) and or the Diagnostic Scan Tool (DRB III®) with the appropriate Diagnostic Procedures Manual, verify all engine/transmission systems are functioning as designed. If Diagnostic Trouble Codes (DTC's) are present, record them on the repair order and repair as necessary before proceeding further with this bulletin. If no DTC's are present, and the above symptoms have been experienced, perform the Repair Procedure.

NOTE: WHENEVER A POWERTRAIN CONTROL MODULE (PCM) IS REPLACED DUE TO FAILURE, THE SOFTWARE OF THE REPLACEMENT CONTROLLER MUST BE VERIFIED FOR THE LATEST REVISION LEVEL. USE THE FLASH PROCEDURE TO UPDATE REPLACED CONTROLLERS AS NECESSARY.

PARTS REQUIRED:

Qty	Part No.	Description
1	04669020	Label, Authorized Software Update
1	04275086	Label, Authorized Modification

EQUIPMENT REQUIRED:

Qty	Part No.	Description

1	CH6000	Scan Tool (DRB III®)
1	CH7035	General Purpose Interface Bus Cable (GPIB)
1	CH7000/7001	J1962 Cable
1	MDS2	MDS2

NOTE: THE MDS2 AND DRB III® ARE REQUIRED TO PERFORM PART OF THIS REPAIR. WHEN USING THE MDS2 AND THE DRB III® THE SYSTEM MUST BE OPERATING AT CIS CD2035 OR HIGHER.

NOTE: THE NEW SOFTWARE (FLASH) TO EFFECT A REPAIR, PER THIS TSB, IS CONTAINED IN CIS CD2035. A LISTING OF THIS TSB, ON THE MDS2, WILL NOT OCCUR UNTIL A LATER CIS CD RELEASE. UNTIL THIS TSB IS LISTED, INQUIRE IF THIS TSB FLASH APPLIES BY THE VEHICLE VIN.

REPAIR PROCEDURE:

1. Log onto the MDS2 system.
2. Connect the MDS2 (Mopar Diagnostic System) and DRB III® (Scan Tool) to the vehicle and switch the ignition key to "ON".
3. Use the arrow keys and select #2 CONNECT TO MDS1 OR MDS2 on the DRB III® MAIN MENU SCREEN.
4. Use the arrow keys and select #2 RUN MDS2 APPLICATION on the DRB III® MAIN MENU SCREEN.

   NOTE: ONCE MDS2, DRB III® , AND VEHICLE COMMUNICATION HAS BEEN ESTABLISHED, THE "CANNOT READ VIN FROM DRB III® " MESSAGE (ON THE MDS) WILL BE REPLACED BY THE VEHICLE VIN. PRESS THE "OK" BUTTON ON THE MDS2 TO REQUEST A MDS2 SESSION FOR THE VEHICLE VIN INDICATED. PRESS THE "OK" BUTTON WHEN ASKED TO BEGIN SESSION.

5. Push the FLASH tab on the MDS2.

   NOTE: A MESSAGE MAY APPEAR THAT INDICATES NO UPDATES ARE AVAILABLE. IF THIS OCCURS, MAKE SURE YOUR DIAGNOSTIC EQUIPMENT IS OPERATING AT THE LATEST SOFTWARE LEVEL AS LISTED EARLIER IN THIS BULLETIN. IF THE LATEST SOFTWARE IS INSTALLED, AND NO UPDATES ARE AVAILABLE, ANOTHER VEHICLE CONDITION EXISTS THAT WILL REQUIRE FURTHER INVESTIGATION.

6. Select READ PART NUMBERS FROM VEHICLE and click SHOW UPDATES on the MDS2.

   NOTE: A MESSAGE MAY APPEAR THAT INDICATES NO UPDATES ARE AVAILABLE. IF THIS OCCURS, MAKE SURE YOUR DIAGNOSTIC EQUIPMENT IS OPERATING AT THE LATEST SOFTWARE LEVEL AS LISTED EARLIER IN THIS BULLETIN. IF THE LATEST SOFTWARE IS INSTALLED, AND NO UPDATES ARE AVAILABLE, ANOTHER VEHICLE CONDITION EXISTS THAT WILL REQUIRE FURTHER INVESTIGATION.

7. Select the new software part number with the light pen and click UPDATE CONTROLLER SOFTWARE.
8. The MDS2 and DRB III$^®$ will prompt for any operator action needed during the remainder of the reprogramming process.

   NOTE: DUE TO THE PCM FLASH PROCEDURE, A DTC CAN BE SET IN OTHER MODULES (EATX, BCM, MIC, SKIM) WITHIN THE VEHICLE. SOME MAY CAUSE THE MIL TO ILLUMINATE. ALL DTC'S RELATE TO A LOSS OF COMMUNICATIONS WITH THE MODULE THAT IS BEING FLASHED. CHECK ALL MODULES, RECORD THE FAULTS, AND ERASE THESE FAULTS PRIOR TO RETURNING THE VEHICLE TO THE CUSTOMER. ERASE ANY FAULTS IN THE PCM ONLY AFTER ALL OTHER MODULES HAVE HAD THEIR FAULTS ERASED.

   NOTE: THE FOLLOWING STEPS ARE REQUIRED BY LAW

9. Type the necessary information on the "Authorized Software Update Label" p/n 04669020 (Figure 1). Attach the label to the JTEC PCM and cover the label with the clear plastic overlay.
10. Type the necessary information on the "Authorized Modification Label" p/n 04275086 and attach the label near the VECI label (Figure 2).

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Op. No.	Time
08-19-43-91	0.5 Hrs.

FAILURE CODE:

Code	Description
FM	Flash Module