

If you experience any problems with installation, operations or need applications information not covered in this brochure, call our "Mopar Technical Service" hot line toll free at:

1-800-86MOPAR (1-800-866-6727)
8am to 5pm M-F (ET)

"Please have Product Part Number and Application available for reference"

MOPAR Remanufactured Jeep Truck Engine Controller (JTEC) 12 Month / 12,000 Mile Limited Warranty

This MOPAR Jeep Truck Engine Controller is warranted by Chrysler Corporation against defects in workmanship or materials for 12 months or 12,000 miles, whichever comes first, from the date of its installation into a Chrysler, Plymouth, Dodge, Jeep or Eagle vehicle. If it fails, it will be repaired or replaced, at the option of Chrysler Corporation. To obtain service under this Limited Warranty, return the module to an authorized Chrysler Corporation Dealer.

This is the only warranty to this computer. If this computer is not sold for installation into a vehicle which is operated for personal, family or household purposes, Chrysler disclaims any implied warranties which may pass with the sale of this computer, to the extent allowed by law. If this computer is sold for installation into a vehicle which is operated for personal, family or household purposes, Chrysler limits the duration of any implied warranties to the duration of the express warranty made above. Under no circumstances will Chrysler be liable for any incidental or consequential damages which may result from the breach of any expressed or implied warranty, including any liability for loss of use or diminished value.

Some states do not allow limitations on how long an implied warranty will last or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.



MOPAR REMANUFACTURED JEEP TRUCK ENGINE CONTROLLER (JTEC)

Removal and Installation Instructions



Important

WARNING: Use the DRB Scan Tool to reprogram the replacement JTEC (PCM) with the vehicle's original identification number (VIN) and the vehicle's original mileage. Failure to do so may cause idling and/or driveability problems and may also set a diagnostic trouble code (DTC).

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Safety Precautions

Before replacing any damaged component you should always first determine what caused the component to fail and repair that before continuing.

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Static electricity can damage electronic components. By following a few safety procedures you can reduce the risk of damage from static electricity.

1. Avoid contact with the electrical connectors.
2. By frequently touching a known good ground during installation you can discharge any static electricity that you may have developed.

Removal and Installation Procedure

The PCM is located in the engine compartment (See Figures on Pg. 3-4). The **Grand Cherokee PCM** is located on the cowl panel in the right rear side of the engine compartment (Fig. 6a, Pg. 4).

To avoid possible voltage spike damage to the PCM, ignition key must be off, and negative battery cable must be disconnected before unplugging PCM connectors.

REMOVAL

1. Disconnect the negative battery cable at battery.
2. Remove cover over electrical connectors (if applicable). Cover snaps onto PCM.
3. **GRAND CHEROKEE ONLY:** Remove the coolant reserve/overflow tank (one bolt and two nuts) (Fig. 6b, Pg. 4).
4. Carefully unplug the three 32-way connectors from PCM.
5. Remove the three PCM mounting bolts and remove PCM from vehicle.

INSTALLATION

1. Check pin connectors in the PCM and the three 32-way connectors for corrosion or damage. Repair as necessary.
2. Install PCM. Tighten the three mounting bolts to 4 Nm (35 in. lbs.) torque, **1 Nm (9 in. lbs.) torque for GRAND CHEROKEE.**
3. Install three 32-way connectors.
4. Install cover over electrical connectors (if applicable). Cover snaps onto PCM.
5. **GRAND CHEROKEE ONLY:** Install coolant reserve/overflow tank.
6. Connect negative cable to battery.
7. Use DRB scan tool to reprogram new PCM with vehicles original Identification Number (VIN) and original vehicle mileage. If this step is not done, a Diagnostic Trouble Code (DTC) may be set.

(Continued on Page 3)

8. If the vehicle is equipped with a Smart Key Immobilizer Module (SKIM), Secret Key data must be updated to enable starting.
 - (a) Using DRB go to Engine, Misc. and place the SKIM in secured access mode, by using the appropriate PIN code for this vehicle.
 - (b) Select Update the Secret Key data, data will be transferred from the SKIM to the PCM.

JTEC UNIT LOCATION ILLUSTRATIONS (Below & following page)

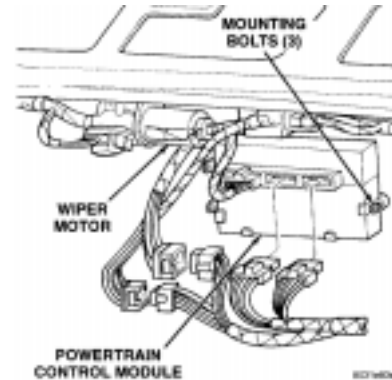


Fig. 1 RAM VAN

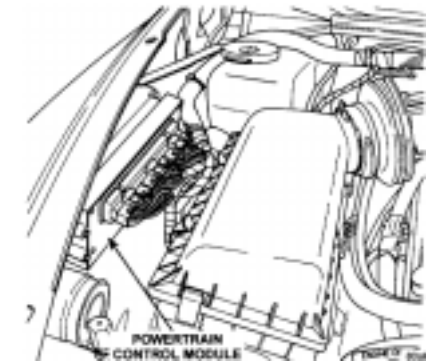


Fig. 2 DAKOTA - DURANGO

The PCM is located in the rear engine compartment, passenger side.

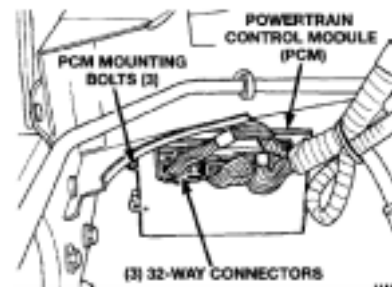


Fig. 3 RAM TRUCK

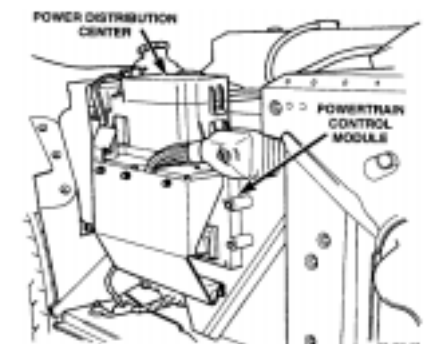


Fig. 4 VIPER

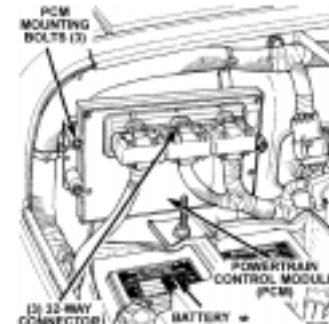


Fig. 5
WRANGLER - CHEROKEE

(Continued on Page 4)

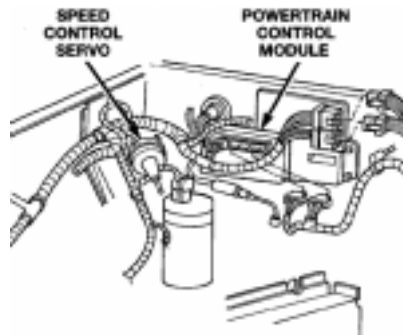


Fig. 6a GRAND CHEROKEE

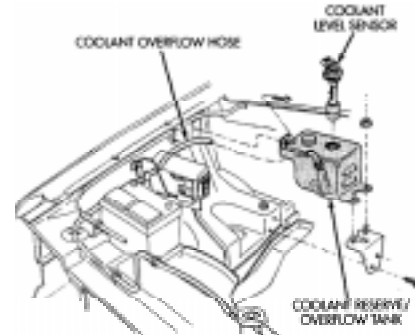


Fig. 6b GRAND CHEROKEE

Troubleshooting Tips for JTEC Controllers

Common failures that cause mis-diagnosis of JTEC Controllers:

- Intermittent grounds; Loose or corroded grounds may cause false sensor readings. Verify all sensor grounds terminate at PCM cavity A4 (BK/LB wire).
- Manifold absolute pressure (MAP) sensor and Throttle position sensor (TPS) voltages; check voltage over the entire range, not just the extremes. Whenever possible use an oscilloscope to check MAP sensor and TPS sensor output voltages for noise spikes.
- Verify minimum TPS voltage. Minimum TPS voltage should be approximately 0.5 to 1.5 VDC.
- Idle Air Control (IAC); Shorted windings or intermittent connections. If IAC codes are present, check to ensure motor windings or related connectors are not shorted to ground.
- Heater voltage for upstream and downstream oxygen sensors. Verify battery volts +/-1 volt at all oxygen sensor connectors, DG/OR wire.
- Charging system malfunction; Alternator defective or battery not fully charged. Check alternator output to ensure there is not excessive ripple voltage. Verify battery volts +/-1 volt at PCM cavity A22 (RD/WT wire).
- Sensor voltage supply. Check for approximately 5 volt output from PCM cavity A17 (VT/WT wire) to MAP and TPS sensor, with ignition switch on.
- Distributor voltage supply. Check for approximately 5 VDC output from PCM cavity A17 (VT/WT wire), or to cam/crank connector(s) with ignition switch on and while cranking.

(Continued on Page 5)

Troubleshooting Tips --- Other things to consider

- Auto-shutdown (ASD) relay; Corroded wires or faulty relay.
- Minimum air flow; check for air leaks or airflow obstruction.
- Vacuum system; Contaminants or leaks in vacuum lines.
- Fuel pressure and leak down.
- Vehicle speed sensor operation.
- Crankshaft and Camshaft sensors; Some aftermarket sensors have not worked properly with Mopar engine controllers.
- Splices and Fusible Links; check for open and/or shorted wires.
- Damaged connector terminals; Always ensure holding tabs are securely seated.
- Excessive current on certain connector pins may damage the PCM. Use of a test lamp or a short in the wiring harness of the vehicle can cause this condition. Always use a DVM when checking the unit/system.
- Check Technical Service Bulletins according to model year and system malfunction

On Board Diagnostics

The Powertrain Control Module (PCM) monitor several different circuits in the fuel injection, ignition, emission and engine systems. If the PCM senses a problem with a monitored circuit often enough to indicate an actual problem, it stores a Diagnostic Trouble Code (DTC) in the PCM's memory. If code applies to a non-emissions related component or system, and the problem is repaired or ceases to exist, the PCM cancels the code after 40 warmup cycles. DTC's that affect vehicle emissions illuminate the Malfunction Indicator Lamp. (MIL)

Fault Code Description

A Diagnostic Trouble Code (DTC) indicates the PCM has recognized an abnormal condition in the system. The technician can display DTC's in two ways. The first way is to cycle the ignition switch and count the number of times the malfunction indicator (Check Engine) lamp on the instrument panel flashes on and off. The DRB scan tool provides the second method of displaying DTC's. DTC's are the results of a system or circuit failure, but do not directly identify the failed component or components.

Obtaining Fault Codes

• Using DRB Scan Tool

WARNING: APPLY PARKING BRAKE AND/OR BLOCK WHEELS BEFORE PERFORMING ANY TEST ON AN OPERATING ENGINE.

1. Connect DRB scan tool to data link (diagnostic) connector located in the passenger compartment, below the center of instrument cluster on driver's side.
2. Turn the ignition switch on; access "Read Fault" Screen. Record all the DTC's shown on the DRB scan tool. Observe the malfunction indicator (check engine) lamp on the instrument panel. The lamp should light for 2 seconds, then go out.
3. To erase DTC's, use the "Erase Trouble Code" data screen on the DRB scan tool.

• Using the Malfunction Indicator Lamp (MIL)

1. Cycle the ignition key ON - OFF - ON - OFF - ON within 5 seconds.
2. Count the number of times the MIL (check engine lamp) on the instrument panel flashes on and off - the number of flashes represents the trouble code. There is a slight pause between the flashes representing the 1st and 2nd digits of the code. Longer pauses separate individual 2-digit trouble codes.

Fault Codes

• NOTICE: Not all Fault Codes listed are applicable to all vehicles. For specific vehicle codes, refer to appropriate Chrysler Service/Repair Manual.

<u>MIL Code</u>	<u>Generic Scan Tool Code</u>	<u>DRB Scan Tool Display</u>	<u>Description of Diagnostic Trouble Code</u>
11**	P0320	No Crank Reference Signal at PCM	No crank reference signal detected during engine cranking.
	or		
	P1391	Intermittent Loss of CMP or CKP	Intermittent loss of either camshaft or crankshaft position sensor.
	or		
	P1398	Mis-Fire Adaptive Numerator at Limit	CKP sensor target windows have too much variation.
12*		Battery Disconnected	Direct battery input to PCM was disconnected within the last 50 Key-on cycles.
13**	P1297	No Change in MAP From Start to Run	No difference recognized between the engine MAP reading and the barometric (atmospheric) pressure reading from start-up.

* Check Engine Lamp (MIL) will not illuminate if this Diagnostic Trouble Code was recorded. Cycle Ignition key as described in manual and observe code flashed by Check Engine lamp.

** Check Engine Lamp (MIL) will illuminate during engine operation if this Diagnostic Trouble Code was recorded.

*** Generator Lamp illuminated

(Continued on page 7)

<u>MIL Code</u>	<u>Generic Scan Tool Code</u>	<u>DRB Scan Tool Display</u>	<u>Description of Diagnostic Trouble Code</u>
14**	P0107	MAP Sensor Voltage Too Low	MAP sensor input below minimum acceptable voltage.
	or		
	P0108	MAP Sensor Voltage Too High	MAP sensor input above maximum acceptable voltage.
	or		
	P1296	No 5 Volts to MAP Sensor	5 Volt output to MAP sensor open.
15**	P0500	No Vehicle Speed Sensor Signal	No vehicle speed sensor signal detected during road load conditions.
	or		
	P0720	Low Output Speed Sensor RPM Above 15 MPH	Output shaft speed is less than 60 rpm with vehicle speed above 15 mph.
17**	P1281	Engine Is Cold Too Long	Engine did not reach operating temperature within acceptable limits.
	or		
	P0125	Closed Loop Temp Not Reached	Engine does not reach 20°F within 5 minutes with a vehicle speed signal.
21**	P0132	Upstream O2S Shorted to Voltage	Oxygen sensor input voltage maintained above the normal operating range.
	or		
	P0154	O2 2/1 Signal Inactive	No signal at O2 2/1 sensor.
	or		
	P0152	O2 2/1 Shorted high	Oxygen sensor input voltage sustained above the normal operating range.
	or		
	P0133	Upstream O2S Slow Response	Oxygen sensor response slower than minimum required switching frequency.
	or		
	P0152	Upstream O2S Slow Response	Oxygen sensor response slower than minimum required switching frequency.
	or		
	P0135	Upstream O2S Heater Failure	Upstream oxygen sensor heating element circuit malfunction.
	or		
	P0139	O2 1/1 Slow Response	Oxygen sensor response slower than minimum required switching frequency.
	or		
	P0141	Downstream or Pre-Catalyst Heater Failure	Downstream oxygen sensor heating element circuit malfunction.
	or		
	P0153	O2 2/1 Slow Response	Oxygen sensor response slower than minimum required switching frequency.
	or		
	P0159	O2 2/2 Slow Response	Oxygen sensor response slower than minimum required switching frequency.
	or		
	P0155	O2 2/1 Heater Circuit	Oxygen sensor heater element malfunction.

* Check Engine Lamp (MIL) will not illuminate if this Diagnostic Trouble Code was recorded. Cycle Ignition key as described in manual and observe code flashed by Check Engine lamp.

** Check Engine Lamp (MIL) will illuminate during engine operation if this Diagnostic Trouble Code was recorded.

*** Generator Lamp illuminated

(Continued on page 8)

MIL	Generic Scan Tool Code	DRB Scan Tool Display	Description of Diagnostic Trouble Code
21**	P0161	O2 2/2 Heater Circuit	Oxygen sensor heater element malfunction.
(Cont.)	or		
	P0138	Downstream and Pre-Catalyst O2S Shorted to Voltage	Oxygen sensor input voltage maintained above the normal operating range.
	or		
	P0158	O2 2/2 Shorted High	Oxygen sensor input voltage maintained above the normal operating range.
	or		
	P0143	Post-Catalyst O2 Sensor Shorted to Ground	Tested after key off and at start to run. (8.0L only)
	or		
	P0144	Post-Catalyst O2 Sensor Shorted to Voltage	Post catalyst oxygen sensor input voltage maintained above normal operating range. (8.0L only)
	or		
	P0131	Upstream O2S Shorted to Ground	O2 sensor voltage too low, tested after cold start.
	or		
	P0137	Downstream and Pre-Catalyst O2S Shorted to Ground	O2 sensor voltage too low, tested after cold start.
	or		
	P0145	Post-Catalyst O2 Sensor Slow Response	Post catalyst oxygen sensor response slower than minimum required switching frequency or value does not go above 0.65 volts. (8.0L only)
	or		
	P0151	O2 2/1 Voltage Low	Oxygen sensor input voltage maintained below the normal operating range.
	or		
	P0157	O2 2/2 Voltage Low	Oxygen sensor input voltage maintained below the normal operating range.
	or		
	P0147	O2 1/3 Heater Circuit	Oxygen sensor heater element malfunction.
	or		
	P0133	Cat mon slow O2 1/1	A slow switching oxygen sensor has been detected in bank 1/1 during catalyst monitor test.
	or		
	P1195	Cat mon slow O2 1/1	A slow switching oxygen sensor has been detected in bank 1/1 during catalyst monitor test.
	or		
	P0153	Cat mon slow O2 2/1	A slow switching oxygen sensor has been detected in bank 2/1 during catalyst monitor test.
	or		
	P1196	Cat mon slow O2 2/1	A slow switching oxygen sensor has been detected in bank 2/1 during catalyst monitor test.
	or		
	P0129	Cat mon slow O2 1/2	A slow switching oxygen sensor has been detected in bank 1/2 during catalyst monitor test.
	or		
	P1197	Cat mon slow O2 1/2	A slow switching oxygen sensor has been detected in bank 1/2 during catalyst monitor test.

* Check Engine Lamp (MIL) will not illuminate if this Diagnostic Trouble Code was recorded. Cycle Ignition key as described in manual and observe code flashed by Check Engine lamp.

** Check Engine Lamp (MIL) will illuminate during engine operation if this Diagnostic Trouble Code was recorded.

*** Generator Lamp illuminated

(Continued on page 9)

MIL	Generic Scan Tool Code	DRB Scan Tool Display	Description of Diagnostic Trouble Code
22**	P0117	ECT Sensor Voltage Too Low	Engine coolant temperature sensor input below minimum acceptable voltage.
	or		
	P0118	ECT Sensor Voltage Too High	Engine coolant temperature sensor input above maximum acceptable voltage.
23**	P0112	Intake Air Temp Sensor Voltage Low	Intake air temperature sensor input below the minimum acceptable voltage.
	or		
	P0113	Intake Air Temp Sensor Voltage High	Intake air temperature sensor input above the maximum acceptable voltage.
24**	P0122	Throttle Position Sensor Voltage Low	Throttle position sensor input below the minimum acceptable voltage.
	or		
	P0123	Throttle Position Sensor Voltage High	Throttle position sensor input above the maximum acceptable voltage.
	or		
	P0121	TPS Voltage Does Not Agree With MAP	TPS signal does not correlate to MAP sensor.
25**	P0505	Idle Air Control Motor Circuits	A shorted or open condition detected in one or more of the idle air control motor circuits.
	or		
	P1294	Target Idle Not Reached	Actual idle speed does not equal target idle speed.
27**	P0203	Injector #3 Control Circuit	Injector #3 output driver does not respond properly to the control signal.
	or		
	P0202	Injector #2 Control Circuit	Injector #2 output driver does not respond properly to the control signal.
	or		
	P0201	Injector #1 Control Circuit	Injector #1 output driver does not respond properly to the control signal.
	or		
	P0209	Injector #9 Control Circuit	Injector #9 output driver does not respond properly to the control signal.
	or		
	P0210	Injector #10 Control Circuit	Injector #10 output driver does not respond properly to the control signal.
	or		
	P0204	Injector #4 Control Circuit	Injector #4 output driver does not respond properly to the control signal.

* Check Engine Lamp (MIL) will not illuminate if this Diagnostic Trouble Code was recorded. Cycle Ignition key as described in manual and observe code flashed by Check Engine lamp.

** Check Engine Lamp (MIL) will illuminate during engine operation if this Diagnostic Trouble Code was recorded.

*** Generator Lamp illuminated

(Continued on page 10)

MIL	Generic Scan Tool	DRB Scan Tool Display	Description of Diagnostic Trouble Code
27**	P0205	Injector #5 Control Circuit	Injector #5 output driver does not respond properly to the control signal.
	or	P0206	Injector #6 Control Circuit
	or	P0207	Injector #7 Control Circuit
	or	P0208	Injector #8 Control Circuit
31*	P0443	EVAP Purge Solenoid Circuit	An open or shorted condition detected in the duty cycle purge solenoid circuit.
	or	P0441	EVAP Purge Flow Monitor Failure
	or	P0442	EVAP leak monitor small leak detected
	or	P0455	EVAP leak monitor large leak detected
	or	P1495	Leak Detection Pump Solenoid Circuit
	or	P1494	Leak Detection Pump Pressure Switch
	or	P1486	EVAP hose pinched
32**	P0403	EGR Solenoid Circuit	An open or shorted condition detected in the EGR solenoid control circuit.
33*	P0645	A/C Clutch Relay Circuit	An open or shorted condition detected in the A/C clutch relay circuit.
34*	P1595	Speed Control Solenoid Circuits	An open or shorted condition detected in the Speed Control vacuum or vent solenoid circuits.
	or	P1596	Speed Control Switch Always High
	or	P1597	Speed Control Switch Always Low

* Check Engine Lamp (MIL) will not illuminate if this Diagnostic Trouble Code was recorded. Cycle Ignition key as described in manual and observe code flashed by Check Engine lamp.

** Check Engine Lamp (MIL) will illuminate during engine operation if this Diagnostic Trouble Code was recorded.

*** Generator Lamp illuminated

(Continued on page 11)

MIL	Generic Scan Tool	DRB Scan Tool Display	Description of Diagnostic Trouble Code
35**	P1491	Rad Fan Control Relay Circuit	An open or shorted condition detected in the low speed radiator fan relay control circuit.
37**	P0743	Torque Converter Clutch Solenoid/Trans Relay Circuits	An open or shorted condition detected in the torque converter part throttle unlock solenoid control circuit (3 speed auto RH trans. Only).
	or	P0753	Trans 3-4 Shift Sol/Trans Relay Circuits
	or	P0712	Trans Temp Sensor Voltage Too Low
	or	P0713	Trans Temp Sensor Voltage Too High
	or	P1899	P/N Switch Stuck in Park in Gear
	or	P1756	Governor Pressure Not Equal to Target @ 15-20 PSI
	or	P1757	Governor Pressure above 3 PSI In Gear With 0 MPH
	or	P0740	Torque Converter Clutch No RPM Drop At Lockup
	or	P0711	Trans Temp Sensor, No Rise After Start
	or	P0783	3-4 Shift Sol, No RPM Drop @ 3-4 Shift
	or	P1764	Governor Pressure Sensor Volts Too Low
	or	P1763	Governor Pressure Sensor Volts Too High
	or	P0748	Governor Pressure Sol. Control/Trans Relay Circuits
			Current state of solenoid output port is different than expected.

* Check Engine Lamp (MIL) will not illuminate if this Diagnostic Trouble Code was recorded. Cycle Ignition key as described in manual and observe code flashed by Check Engine lamp.

** Check Engine Lamp (MIL) will illuminate during engine operation if this Diagnostic Trouble Code was recorded.

*** Generator Lamp illuminated

(Continued on page 12)

MIL	Generic Scan Tool	Code	DRB Scan Tool Display	Description of Diagnostic Trouble Code
37**	P1765	Trans 12 Volt Supply Relay Control Circuit	(Cont.)	Current state of solenoid output port is different than expected.
41***	P0622	Generator Field Not Switching Properly		An open or shorted condition detected in the generator field control circuit.
42*	P1388	Auto Shutdown Relay Control Circuit		An open or shorted condition detected in the auto shutdown relay circuit.
	or	P1389	No ASD Relay Output Voltage at PCM	An Open condition Detected In The ASD Relay Output Circuit.
	or	P1282	Fuel Pump Relay Control Circuit	An open or shorted condition detected in the fuel pump relay control circuit.
	or	P0462	Fuel Level Sending Unit Volts Too Low	Open circuit between PCM and fuel gauge sending unit.
	or	P0463	Fuel Level Sending Unit Volts Too High	Circuit shorted to voltage between PCM and fuel gauge sending unit.
	or	P0460	Fuel Level Unit No Change Over Miles	No movement of fuel level sender detected.
43**	P0353	Ignition Coil #3 Primary Circuit		Peak primary circuit current not achieved with maximum dwell time (high impedance).
	or	P0352	Ignition Coil #2 Primary Circuit	Peak primary circuit current not achieved with maximum dwell time (high impedance).
	or	P0351	Ignition Coil #1 Primary Circuit	Peak primary circuit current not achieved with maximum dwell time (high impedance).
	or	P0354	Ignition Coil #4 Primary Circuit	Peak primary circuit current not achieved with maximum dwell time (high impedance).
	or	P0355	Ignition Coil #5 Primary Circuit	Peak primary circuit current not achieved with maximum dwell time (high impedance).
	or	P0300	Multiple Cylinder Mis-fire	Misfire detected in multiple cylinders.
	or	P0301	Cylinder #1 Mis-fire	Misfire detected in cylinder #1.

* Check Engine Lamp (MIL) will not illuminate if this Diagnostic Trouble Code was recorded. Cycle Ignition key as described in manual and observe code flashed by Check Engine lamp.

** Check Engine Lamp (MIL) will illuminate during engine operation if this Diagnostic Trouble Code was recorded.

*** Generator Lamp illuminated

(Continued on page 13)

MIL	Generic Scan Tool	Code	DRB Scan Tool Display	Description of Diagnostic Trouble Code
43**	P0302	Cylinder #2 Mis-fire	(Cont.) or	Misfire detected in cylinder #2.
	P0303	Cylinder #3 Mis-fire	or	Misfire detected in cylinder #3.
	P0304	Cylinder #4 Mis-fire	or	Misfire detected in cylinder #4.
	P0305	Cylinder #5 Mis-fire	or	Misfire detected in cylinder #5.
	P0306	Cylinder #6 Mis-fire	or	Misfire detected in cylinder #6.
	P0307	Cylinder #7 Mis-fire	or	Misfire detected in cylinder #7.
	P0308	Cylinder #8 Mis-fire	or	Misfire detected in cylinder #8.
	P0309	Cylinder #9 Mis-fire	or	Misfire detected in cylinder #9.
	P0310	Cylinder #10 Mis-fire		Misfire detected in cylinder #10.
44**	P1493	Ambient/Batt Temp Sensor Volts Too Low		Battery temperature sensor input voltage below an acceptable range.
	or	P1492	Ambient/Batt Temp Sensor Volts Too High	Battery temperature sensor input voltage above an acceptable range.
45**	P0753	Trans 3-4 Shift Sol/Trans Relay Circuits		Current state of output port for the solenoid is different from expected state.
	or	P0712	Trans Temp Sensor Voltage Too Low	Voltage less than 1.55 volts.
	or	P0713	Trans Temp Sensor Voltage Too High	Voltage greater than 3.76 volts.
	or	P0700	Trans Fault Present	
	or	P1756	Governor Pressure Not Equal to Target @ 15-20 PSI	Governor sensor input not between 10 and 25 psi when requested.
	or	P1757	Governor Pressure Above 3 PSI In Gear With 0 MPH	Governor pressure greater than 3 psi when requested to be 0 psi.
	or	P0711	Trans Temp Sensor, No Rise After Start	Sump temp did not rise more than 16°F within 10 minutes when starting temp is below 40°F or sump temp is above 260°F with coolant below 100°F.

* Check Engine Lamp (MIL) will not illuminate if this Diagnostic Trouble Code was recorded. Cycle Ignition key as described in manual and observe code flashed by Check Engine lamp.

** Check Engine Lamp (MIL) will illuminate during engine operation if this Diagnostic Trouble Code was recorded.

*** Generator Lamp illuminated

(Continued on page 14)

MIL	Generic Scan Tool	Code	DRB Scan Tool Display	Description of Diagnostic Trouble Code
45**	P0783	3-4 Shift Sol, No RPM Drop @ 3-4 Shift		The ratio of engine rpm/output shaft speed did not change beyond on the minimum required
	or	P1764	Governor Pressure Sensor Volts Too Low	Voltage less than 0.10 volts.
	or	P1763	Governor Pressure Sensor	Voltage greater than 4.89 volts.
	or	P1762	Governor Pressure Sensor Offset Volts Too Low or High	Sensor input greater or less than calibration for 3 consecutive Neutral/Park occurrences.
	or	P0748	Governor Pressure Sol Control/Trans Relay Circuits	Current state of solenoid output port is different than expected.
	or	P1765	Trans 12 Volt Supply Relay Control Circuit	Current state of solenoid output port is different than expected.
	or	P0751	O/D Switch Pressed (LO) More Than 5 Min	Overdrive Off switch input too low for more than 5 minutes.
46***	P1594	Charging System Voltage Too High		Battery voltage sense input above target charging voltage during engine operation.
47***	P0162	Charging System Voltage Too Low		Battery voltage sense input below target charging during engine operation. Also, no significant change detected in battery voltage during active test of generator output circuit.
51**	P0171	Fuel System Lean		A lean air/fuel mixture has been indicated by an abnormally rich correction factor.
	or	P0174	Fuel System 2/1 Lean	A lean air/fuel mixture has been indicated by an abnormally rich correction factor.
52**	P0172	Fuel System Rich		A rich air/fuel mixture has been indicated by an abnormally lean correction factor.
	or	P0175	Fuel System 2/1 Rich	A rich air/fuel mixture has been indicated by an abnormally lean correction factor.
53**	P0601	Internal Controller Failure		PCM Internal fault condition detected.
	or	P0600	PCM Failure SPI Communications	PCM Internal fault condition detected.
54**	P0340	No Cam Signal at PCM		No camshaft signal detected during engine cranking.

* Check Engine Lamp (MIL) will not illuminate if this Diagnostic Trouble Code was recorded. Cycle Ignition key as described in manual and observe code flashed by Check Engine lamp.

** Check Engine Lamp (MIL) will illuminate during engine operation if this Diagnostic Trouble Code was recorded.

*** Generator Lamp illuminated

(Continued on page 15)

MIL	Generic Scan Tool	Code	DRB Scan Tool Display	Description of Diagnostic Trouble Code
55*				Completion of fault code display on Check Engine lamp.
63**	P1696	PCM Failure EEPROM Write Denied		Unsuccessful attempt to write to an EEPROM location by the PCM.
	or	P1698	No Trans bus Messages	
64**	P0420	Efficiency Failure		Catalyst efficiency below required level.
65**	P0551	Power Steering Sw Perf		Power steering high pressure seen at high speed (2.5L only).
68**	P0400	Diesel EGR System		PCM not active or a fault condition of the dedicated EGR sensors and/or EGR solenoid was detected by the PCM.
71**	P1496	Auxillary 5 Volt Supply Output Too Low		5 volt output from regulator does not meet minimum requirement.
72**	P0420	Efficiency Failure		Catalyst efficiency below required level.
	or	P0432	Catalyst 2/1 Efficiency	Catalyst 2/1 efficiency below required level.
77*	P1683	S/C Power Circuit		Malfunction detected with power feed to speed control servo solenoids.

* Check Engine Lamp (MIL) will not illuminate if this Diagnostic Trouble Code was recorded. Cycle Ignition key as described in manual and observe code flashed by Check Engine lamp.

** Check Engine Lamp (MIL) will illuminate during engine operation if this Diagnostic Trouble Code was recorded.

*** Generator Lamp illuminated

Part Number Applications

<u>Reman. Part No.</u>	<u>Vehicle Application - Year, Body Type</u>	<u>Engine Specifications</u>
R4886903	1996 AB BODY	3.9L A3 50 STATE
R5278317AB	1997 AB BODY	3.9L A3
R6046310AG	1998 AB BODY	3.9L A3 CAL
R6046311AG	1998 AB BODY	3.9L A3 FED
R4886899	1996 AN BODY	2.5L MAN 50 STATE
R4886900	1996 AN BODY	3.9L MAN 50 STATE
R4886901	1996 AN BODY	3.9L GCC MAN
R4886902	1996 AN BODY	3.9L A4 50 STATE
R5278312AB	1997 AN BODY	2.5L MAN
R5278313AB	1997 AN BODY	3.9L MAN
R5278314AB	1997 AN BODY	3.9L GCC MAN
R5278315AB	1997 AN BODY	3.9L A4
R5278316AB	1997 AN BODY	3.9L GCC A4
R6046319AF	1998 AN BODY	2.5L MAN CAL
R6046320AF	1998 AN BODY	2.5L MAN FED
R6046321AG	1998 AN BODY	3.9L A4 CAL
R6046322AG	1998 AN BODY	3.9L MAN CAL
R6046323AG	1998 AN BODY	3.9L A4 FED
R6046324AG	1998 AN BODY	3.9L MAN FED
R6046325AD	1998 AN BODY	3.9L A4 GCC
R6046326AD	1998 AN BODY	3.9L MAN GCC
R6046367AC	1998 AN BODY	2.5L MAN BUX
R4886904	1996 BR BODY	3.9L MAN
R4886905	1996 BR BODY	3.9L A4
R5278318AB	1997 BR BODY	3.9L FED MAN
R5278319AB	1997 BR BODY	3.9L CAL MAN
R5278320AB	1997 BR BODY	3.9L A4
R6046337AG	1998 BR BODY	3.9L A4 CAL
R6046338AG	1998 BR BODY	3.9L MAN CAL
R6046339AG	1998 BR BODY	3.9L A4 FED
R6046340AH	1998 BR BODY	3.9L MAN FED
R4853971	1996 BT BODY	3.9L MAN
R4853972	1996 BT BODY	3.9L A3
R6046361AE	1998 DN BODY	3.9L A4 CAL
R6046362AE	1998 DN BODY	3.9L A4 FED
R4886945	1996 ZJ BODY	4.0L A4 50 STATE
R5010380AA	1997 ZJ BODY	4.0L A4 FED (NAA)
R5010381AB	1997 ZJ BODY	4.0L A4 CAL (NAE)
R6041576AB	1998 ZJ BODY	4.0L A4 FED
R6041580AA	1998 ZJ BODY	4.0L A4 CAL