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 Single Board Engine Controller (SBEC III) 12 Month / 12,000 Mile Limited Warranty

This MOPAR Single Board 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.

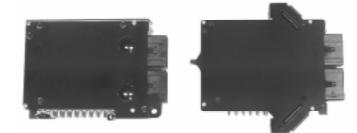
This is the only warranty to this computer. If this computer is not sold for installation into a vehicle which is operated for personal, family or household purposes, Chrysler disclaims any implied warranties which may pass with the sale of this computer, to the extent allowed by law. If this computer 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 executions 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 SINGLE BOARD ENGINE CONTROLLER (SBEC III)

Removal and Installation Instructions



Important

WARNING: Use the DRB Scan Tool to reprogram the replacement SBEC 3 (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).

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"

Safety Precautions

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



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

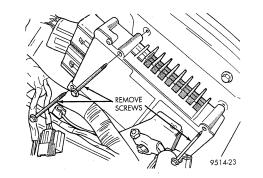
- 1. Avoid contact with the electrical connectors.
- 2. By frequently touching a known good ground during installation you can discharge any static electricity that you may have developed.

Removal Procedure

Town & Country • Caravan • Voyager

- 1. Disconnect both cables from the battery, Negative cable first.
- 2. Remove 2 screws holding **PDC** (*Power Distribution Center*) to bracket.
- 3. Remove heat shield from battery.
- 4. Remove nut & clamp holding battery to battery tray.
- 5. Remove battery from vehicle.
- 6. Rotate PDC toward center of vehicle to remove from rear bracket.
- 7. Pull PDC rearward to remove from front bracket. Lay PDC aside to allow access to **PCM**. (*Powertrain Control Module or SBEC 3*)
- 8. Disconnect both 40-way connectors from PCM.
- 9. Remove 3 screws holding PCM to fender.
- 10. Remove PCM from vehicle. (Fig. 1)
- 11. **REVERSE** the above procedure for **INSTALLATION**.

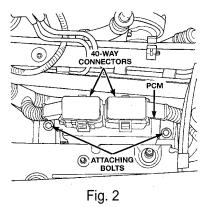
Fig. 1



Removal Procedure

New Yorker • LHS • Concord • Intrepid • Vision

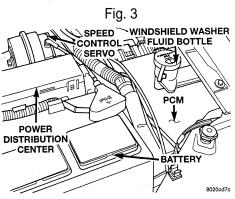
- 1. Remove air cleaner.
- 2. Disconnect both 40-way connectors from PCM. (Fig. 2)
- 3. Remove 2 bolts from PCM bracket.
- 4. Remove PCM.
- 5. **REVERSE** the above procedure for **INSTALLATION**.



Removal Procedure

Neon

- *Note:* The PCM attaches to the inner fender panel next to the washer fluid bottle on the passenger side. (Fig. 3)
- 1. Disconnect both cables from battery, Negative Cable first.
- 2. Remove washer bottle neck.
- 3. Squeeze tabs on PDC while pulling PDC up to remove it from the bracket. Lay PDC aside to gain access to PCM bracket screws.
- 4. Remove screws attaching PCM to body.
- 5. Lift PCM up and disconnect both 40-way connectors from PCM.
- 6. Remove PCM.
- 7. **REVERSE** the above procedure for **INSTALLATION**.

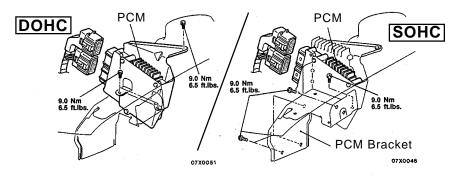


2

Removal Procedure

Sebring • Avenger

Note: Refer to dwg. below for appropriate engine type (Fig. 4)

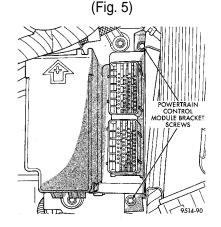


- 1. Disconnect both cables from battery, Negative Cable first.
- 2. Disconnect both 40-way connectors from PCM.
- 3. Remove screws attaching PCM to bracket.
- 4. **REVERSE** the above procedure for **INSTALLATION**.

Removal Procedure

Breeze • Cirrus • Stratus

- 1. Disconnect Negative Cable from auxiliary jumper terminal.
- 2. Disconnect both 40-way connectors from PCM.
- 3. Remove screws attaching PCM to bracket. (Fig. 5)
- 4. Lift PCM up to remove it from the vehicle.
- 5. **REVERSE** the above procedure for **INSTALLATION**.



Troubleshooting Tips for SBEC III Controllers

Common failures that cause mis-diagnosis of SBEC III Controllers:

- Intermittent grounds; Loose or corroded grounds may cause false sensor readings. Verify all sensor grounds terminate at PCM 40-way connector, pin 43 BK/LB wire or (BK/G on FJ body).
- Manifold absolute pressure (MAP) sensor and Throttle position sensor (TPS) voltages; check voltage over the entire range, not just the extremes. Whenever possible use and 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 (BK/RD on FJ body).
- 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 pin 46 (RD/WT wire).
- Sensor voltage supply. Check for approximately 5 volt output from 40way PCM connector pin 61 VT/WT wire (G/YL on FJ body) to MAP and TPS sensor, with ignition switch on.
- Distributor voltage supply. Check for approximately 8 to 9 ½ VDC output from 40-way PCM connector pin 44 OR wire (YL on FJ body), or to cam/crank connector(s) with ignition switch on and while cranking.

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.

(Continued on Page 6)

Other things to consider (Continued from Page 5)

- 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.
- 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. (Continued on Page 7)

Obtaining Fault Codes (Continued from Page 6)

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.
- 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. Scan Tool

Code Code DRB Display (See Note 1) Description of Fault Code

11**		Timing belt skipped 1 tooth or more.	Timing belt skipped 1 tooth or more from initial learned value.
		Intermittent loss of CMP or CKP During Cranking	Intermittent loss of either camshaft or crankshaft position sensor signal.
	or	No crank reference signal @ PCM	No crank reference signal detected during engine cranking.
	or		
	P3298	at limit	CKP sensor target windows have too much variation.
12*		Battery Disconnect	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 (atmosphere) pressure reading from start-up.
14**	P0107 or	MAP Sensor Voltage Too Low	MAP sensor input below minimum acceptable voltage.
	÷.	MAP Sensor Voltage Too High	MAP sensor input above maximum acceptable voltage.
		No 5 Volts to MAP Sensor	MAP sensor output voltage too low for barometric pressure after key off.
	P1496	5V Output Low	
15**	P0500	No Vehicle Speed Sensor Signal	No Vehicle Speed Sensor Signal detected during road load conditions.
16*		Knock Sensor Circuit	No input from Knock Sensor.
17**	P0125 or	Closed Loop Temp. not reached	Closed loop operating temp. not reached after 10 minutes.
		Engine Cold Too Long	Engine does not reach operating temp. within 20 minutes with a vehicle speed signal.
* Chec	k Engine	e Lamp (MIL) will not illuminat	e if this Diagnostic Trouble Code was recorded. Cycle

* 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

7

Generic Scan Tool

Code Code DRB Display (See Note 1) Description of Fault Code

Code	Coue	DRD Display (See Note 1)	Description of Fault Code
21 ** to		Upstream O2 sensor shorted ground	Tested after key off.
	P0132 or	Upstream O2 sensor shorted to voltage	Upstream oxygen sensor input voltage main- tained above the normal operating range.
	P0133 or	Upstream O2 sensor Response	Upstream oxygen sensor response slower than minimum required switching frequency or value does not go above .67 volts.
	P0134 or	Upstream O2 sensor stays at center	Neither rich or lean condition detected from the upstream oxygen sensor input.
	P0135 or	Upstream O2 sensor Heater Failure	Upstream oxygen sensor heating element circuit malfunction tested after key off.
		Downstream O2 sensor shorted to ground	Tested after key off.
	or P0138	Downstream O2 sensor shorted to voltage	Downstream oxygen sensor input voltage maintained above the normal operating range.
		Downstream O2 sensor Response	Downstream oxygen sensor does not match required response, rich at WOT or lean at fuel shutoff.
		Downstream O2 sensor signal inactive	Neither rich or lean condition detected from the downstream oxygen sensor.
	or P0141 or	Downstream O2 sensor heater failure	Downstream oxygen sensor heating element circuit malfunction tested after key off.
		Right Upstream O2 sensor Voltage shorted to ground	Tested after key off and at start to run.
	or P0152	Right upstream O2 sensor shorted to voltage	Upstream oxygen sensor input voltage maintained above the normal operation range.
		Front bank upstream O2 sensor slow response	
	or P0154	Right upstream O2 sensor stays at center	Neither rich or lean condition detected from the downstream oxygen sensor.
		Right upstream O2 sensor heater failure	Upstream oxygen sensor heating element circuit malfunction.
	or P0157	Right Downstream O2 sensor voltage shorted to ground	Tested after key off and at start to run.
	or P0158	Right Downstream O2 sensor shorted to voltage	Downstream oxygen sensor input voltage maintained above the normal operation range.
			is Diagnostic Trouble Code was recorded. Cycle code flashed by Check Engine lamp.

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. (Continued on page 9)

*** Generator Lamp illuminated

<u>Code</u>	Code	DRB Display (See Note 1)	Description of Fault Code
21** (Cont.)		Right Downstream O2 sensor stays at center	Neither rich or lean condition detected from the downstream oxygen sensor.
	or P0161	Right Downstream O2 sensor heater failure	Downstream oxygen sensor heating element circui malfunction.
22**		ECT Sensor Voltage Too Low	
	or P0118	ECT Sensor Voltage Too High	Engine coolant temp. sensor input above the maximum acceptable voltage.
23**		Intake Air Temp. Sensor Voltage Low	Intake air temp. sensor input below the maximum acceptable voltage.
	or P0113	Intake Air Temp. Sensor Voltage High	Intake air temp. sensor input above the minimum acceptable voltage.
24*		TPS Voltage does not agree with MAP	TPS signal does not correlate to MAP sensor.
	or 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 P1295	No 5 Volts to TPS Sensor	Throttle voltage too low while operating at part thrott
25**	P0505	Idle Air Control Motor Circuits	A shorted or open condition detected in one or mo of the idle air control motor circuits.
	or P1294	Target Idle Not Reached (\pm 300)	Idle air control motor at zero for more than 20 secor or engine speed does not equal control speed.
	P1299	Vacuum leak found (IAC fully seated)	Air entering intake manifold after the throttle body throttle position sensor not reading properly.
27**	P0201 or	Injector # 1 Control Circuit	Injector # 1 output driver does not respond properly the control signal.
	P0202 or	Injector # 2 Control Circuit	Injector # 2 output driver does not respond properly the control signal.
	or	Injector # 3 Control Circuit	Injector # 3 output driver does not respond properly the control signal.
	or	Injector # 4 Control Circuit	Injector # 4 output driver does not respond properly the control signal.
	or	Injector #5 Control Circuit	Injector # 5 output driver does not respond properly the control signal.
	P0206	Injector #6 Control Circuit	Injector # 6 output driver does not respond properly 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

9

(Continued on page 10)

	Generic Scan Too Code	bl	Description of Fault Code		Generic Scan Too Code		Description of F	ault Code
<u></u> 31*		Evap Purge Flow Monitor Failure	Insufficient vapor flow detected during evaporative emission system operation at idle.	37**		Torque Converter Clutch - No RPM Drop at Lockup	Relationship betwe	en engine speed & vehicle speed
	or	Evap System small leak EVAP Solenoid Circuit	An open or shorted condition detected in the duty			Torque Converter Clutch Solenoid CKT		l condition detected in the torque the unlock solenoid control circuit.
	or		cycle purge solenoid circuit.	41***	or P1899	Park/Neutral switch failure	Incorrect input state	detected for the park/neutral switch.
	or	EVAP System gross leak EVAP Hose Pinched					•	I condition detected in the
	or	Leak Detection Pump Press. SW.	d		or	Fuel Pump Relay Control Circuit	•	l condition detected in the fuel
	or P1495	Leak Detection Pump Solenoid			or	Auto Shutdown Relay Control Circuit	An open or shorted shutdown relay cor	l condition detected in the auto htrol circuit.
	or P1498	Circuit High speed radiator fan ground				No ASD Relay Output Voltage at PCM	No ASD output volt is energized	age sensed when the ASD relay
32**		control relay circuit	Required change in air/fuel ratio not detected during test.		or	Fuel Level Sending Unit Volts Too Low	Open circuit betwe sending unit.	en Body Controller and fuel gauge
	or P0403		An open or shorted condition detected in the EGR transducer solenoid circuit.		or	Fuel Level Sending Unit Volts Too High	Circuit shorted to v and fuel gauge ser	oltage between Body Controller ding unit.
33*		A/C Clutch Relay Circuit	An open or shorted condition detected in the A/C clutch relay circuit.		or	Fuel Level Unit No Change Over Miles	No movement of fu	el level sender detected.
	or			43**		Multiple Cylinder Misfire	Misfire detected in	multiple cylinders.
	or		A/C pressure transducer input above the maximum acceptable voltage.		or P0301 or	Cylinder # 1 Misfire	Misfire detected in	cylinder # 1.
	•		A/C pressure transducer input below the minimum acceptable voltage.		P0302 or	Cylinder # 2 Misfire	Misfire detected in	-
	or	No 5V to A/C Pressure			P0303 or	Cylinder # 3 Misfire	Misfire detected in	cylinder # 3.
34*	or	Speed Control Solenoid Circuits	An open or shorted condition detected in the Speed Control vacuum or vent solenoid circuits.		P0304 Cylinder # 4 Misfire or P0305 Cylinder # 5 Misfire or		Misfire detected in	
	or	Speed Control Switch Always Low	Speed Control switch input below min. acceptable voltage.				Misfire detected in	cylinder #5.
	or	Speed Control Switch Always High	Speed Control switch input above max. acceptable voltage.		P0306 or	Cylinder # 6 Misfire	Misfire detected in	cylinder # 6.
35**	P1487	High Speed Fan CTRL Relay Circuit				Ignition Coil # 1 Primary Circuit	Peak primary circuit c	urrent not achieved w/ max. dwell time.
	or P1489		An open or shorted condition detected in the high speed radiator fan relay control circuit.		or	•		urrent not achieved w/ max. dwell time.
	or					-		urrent not achieved w/ max. dwell time.
	P1490 or		An open or shorted condition detected in the low speed radiator fan relay control circuit.	44**	or	Too High		input voltage above acceptable range.
			An open or shorted condition detected in the low speed radiator fan relay control circuit.		P1493	Battery Temp. Sensor Voltage Too Low	Battery temp. sensor	input voltage below acceptable range.
			if this Diagnostic Trouble Code was recorded. Cycle erve code flashed by Check Engine lamp.			e Lamp (MIL) will not illuminat described in manual and obs		Frouble Code was recorded. Cycle by Check Engine lamp.
** Check	EngineL	amp (MIL) will illuminate during er	ngine operation if this Diagnostic Trouble Code was recorded.		•	• • • •	engine operation if this	Diagnostic Trouble Code was recorded.
*** Gen	erator L	amp illuminated	(Continued on page 11)	*** Ge	nerator	Lamp illuminated		(Continued on page 12)

 45 P0700 Transmission Fault Present or P1899 Park/Neutral switch failure Charging System Voltage Too High 47*** Charging System Voltage Too Low 47*** P0171 Fuel System Lean or P0175 Left Downstream Fuel System Lean P0174 Right Downstream Fuel System Lean P1697 PCM Failure SRI Miles Not No camshaft signal detected during engine cranking. Completion of fault code display on Check Engine Lamp. P1697 PCM Failure EEPROM Write Denied P1698 PCM Failure EEPROM Write Denied P1698 No Transmission CCD Message or P0422 Rear Bank Catalytic Converter Efficiency Failure P1496 5 Volt Output Low No communication from transmission control module. Or P0422 Catalytic Converter Efficiency Failure P0432 Catalyti		-	. ,	Description of Fault Code	F
P1899 Park/Neutral switch failure Incorrect input state detected for the park/neutral switch. 46*** Charging System Voltage Too Low Battery voltage sense input above target charging voltage during engine operation. 47*** Charging System Voltage Too Low Battery voltage sense input below target charging voltage during engine operation. 47*** Charging System Voltage Too Low Battery voltage sense input below target charging voltage during engine operation. 51** P0171 Fuel System Lean or A lean air-fuel mixture has been indicated by an abnormally rich correction factor. 52** P0172 Fuel System Rich or A lean air-fuel mixture has been indicated by an abnormally rich correction factor. 53** P0174 Right Downstream Fuel System Lean A lean air-fuel mixture has been indicated by an abnormally rich correction factor. 54** P0600 PCM Failure SPICommunications or PCM Internal fault condition detected. 55* P0610 Internal Controller Failure Condition Detected PCM Internal fault condition detected. 62 P1697 PCM Failure SRI Miles Not Stored Unsuccessful attempt to write to an EEPROM Write Denied 63** P1698 PCM Failure EEPROM Write Denied Unsuccessful attempt to write to an EEPROM location by the PCM. 64 P0422 Rear Bank Catalytic Converter Efficiency Failure No communication from body controller.	45		on Fault Presen	t	Ė
Too Highvoltage during engine operation.47***Charging System Voltage Too Low47***Charging System Voltage Too Low47***P0171 Fuel System Lean or51**P0175 Left Downstream Fuel System Lean52**P0172 Fuel System Rich or64**P0174 Right Downstream Fuel System Lean52**P0174 Right Downstream Fuel System Lean52**P0174 Right Downstream Fuel System Lean64**P0174 Right Downstream Fuel System Lean53**P0600 PCMFailure SPICommunications or64**P0340 No Cam Signal at PCM70P1697 PCM Failure SRI Miles Not Stored52*P1697 PCM Failure EEPROM Write Denied65*P1698 PCM Failure EEPROM Write Denied66*P1698 PCM Failure EEPROM Write Denied66*P1698 No Transmission CCD Message Failure66**P1698 No Transmission CCD Message Failure70*SVC Dowerter Efficiency Failure71*S/C Power Relay Circuit72*No Catalytic Converter Efficiency Failure74*P1496 5 Volt Output Low75*P1698 No Transmission CCD Message Failure76No Catalytic Converter Efficiency Failure77S/C Power Relay Circuit77KC Power Relay Circuit77No Com Relay Circuit			al switch failure	Incorrect input state detected for the park/neutral switch.	R4
Too Lowduring engine operation. Also, no significant doringe delected in battery voltage during active test of generator output circuit.51**P0171 Fuel System Lean orA lean air-fuel mixture has been indicated by an abnormally rich correction factor.52**P0172 Fuel System Rich orA rich air-fuel mixture has been indicated by an abnormally rich correction factor.52**P0172 Fuel System Rich orA rich air-fuel mixture has been indicated by an abnormally rich correction factor.53**P0600 PCM Failure SPI Communications orPCM Internal fault condition detected.54**P0340 No Carm Signal at PCM StoredNo carmshaft signal detected during engine cranking. Completion of fault code display on Check Engine Lamp.54**P1697 PCM Failure SRI Miles Not StoredUnsuccessful attempt to update EMR mileage in the PCM EEPROM.55*P1697 PCM Failure EEPROM Write DeniedUnsuccessful attempt to write to an EEPROM location by the PCM.56*P0703 Brake Switch Performance CircuitComputer Efficiency Failure Failure56*P0703 Brake Switch Performance CircuitCatalyst efficiency below required level.57*P0432 Catalytic Converter Efficiency FailureNo communication from transmission control module. or No CCDMessage from BodyCtt. Railure77S/C Power Relay CircuitMalfunction detected with power feed to speed control servo solenoids.	16 ***		ystem Voltage		R4 R4
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orabnormally lean correction factor.P0174 Right Downstream Fuel System LeanA lean air-fuel mixture has been indicated by an abnormally rich correction factor.33**P0600 PCMFailure SPI Communications or 					R4 R4
System Leanabnormally rich correction factor.53**P0600 PCM Failure SPI Communications or P0601 Internal Controller Failure Condition DetectedPCM Internal fault condition detected.54**P0340 No Cam Signal at PCMNo camshaft signal detected during engine cranking. 	52**	•	n Rich		R4 R4
or P0601 Internal Controller Failure Condition DetectedPCM Internal fault condition detected.54**P0340 No Cam Signal at PCMNo camshaft signal detected during engine cranking. Completion of fault code display on Check Engine Lamp.55*Completion of fault code display on Check Engine Lamp.52P1697 PCM Failure SRI Miles Not 					R4 R4
Condition DetectedNo camshaft signal detected during engine cranking. Completion of fault code display on Check Engine Lamp.57P1697 PCM Failure SRI Miles Not StoredUnsuccessful attempt to update EMR mileage in the PCM EEPROM.53**P1696 PCM Failure EEPROM 	53**		SPI Communications	PCM Internal fault condition detected.	R4 R4 R5
 5* Completion of fault code display on Check Engine Lamp. P1697 PCM Failure SRI Miles Not Stored P1696 PCM Failure EEPROM Write Denied Or P1698 PCM Failure EEPROM Write Denied Unsuccessful attempt to write to an EEPROM location by the PCM. Unsuccessful attempt to write to an EEPROM location by the PCM. P0422 Rear Bank Catalytic Converter Efficiency Failure P1698 No Transmission CCDMessage or No communication from transmission control module. No cCDMessage from Body Ctrl. P1496 5 Volt Output Low P1496 5 Volt Output Low P0432 Catalytic Converter Efficiency Failure P0432 Catalytic Converter Efficiency Failure P0432 Catalytic Converter Efficiency Failure S/C Power Relay Circuit Malfunction detected with power feed to speed control servo solenoids. 				PCM Internal fault condition detected.	R
 P1697 PCM Failure SRI Miles Not Stored P1696 PCM Failure EEPROM Write Denied Or P1698 PCM Failure EEPROM Write Denied Unsuccessful attempt to write to an EEPROM location by the PCM. Unsuccessful attempt to write to an EEPROM Unsuccessful attempt to write to an EEPROM location by the PCM. P0422 Rear Bank Catalytic Converter Efficiency Failure P1698 No Transmission CCD Message or No CCD Message from Body Ctt. P1496 5 Volt Output Low P1496 5 Volt Output Low P0420 Catalytic Converter Efficiency Failure P0422 Catalytic Converter Efficiency Failure Or P0422 Rear Bank Catalytic Converter Efficiency Failure Catalyst efficiency below required level. No communication from transmission control module. No communication from body controller. Internal PCM check for 5 volts. Catalyst efficiency below required level. Catalyst efficiency below required level. Malfunction detected with power feed to speed control servo solenoids. 	54**	P0340 No Cam Sig	gnal at PCM	No camshaft signal detected during engine cranking.	R₄ R₄
StoredPCM EEPROM.53**P1696 PCM Failure EEPROM Write DeniedUnsuccessful attempt to write to an EEPROM location by the PCM.or P1698 PCM Failure EEPROM Write DeniedUnsuccessful attempt to write to an EEPROM location by the PCM.54P0422 Rear Bank Catalytic Converter Efficiency FailureCatalyst efficiency below required level.55**P0703 Brake Switch Performance CircuitNo communication from transmission control module.56**P1698 P1698 No Transmission CCD Message or No CCD Message from Body Ctrl.No communication from body controller.71**P1496 5 Volt Output Low FailureInternal PCM check for 5 volts.72**P0420 Catalytic Converter Efficiency FailureCatalyst efficiency below required level.74S/C Power Relay CircuitMalfunction detected with power feed to speed control servo solenoids.	55*			Completion of fault code display on Check Engine Lamp.	R4
Write Deniedlocation by the PCM.orP1698 PCM Failure EEPROMUnsuccessful attempt to write to an EEPROMWrite DeniedUnsuccessful attempt to write to an EEPROM64P0422 Rear Bank Catalytic Converter Efficiency FailureCatalyst efficiency below required level.65**P0703 Brake Switch Performance CircuitCatalyst efficiency from body control module.66**P1698No Transmission CCD Message or No CCD Message from Body Ctrl.No communication from transmission control module.71**P1496 5 Volt Output LowInternal PCM check for 5 volts.72**P0420Catalytic Converter Efficiency FailureCatalyst efficiency below required level.77S/C Power Relay CircuitMalfunction detected with power feed to speed control servo solenoids.	62		e SRI Miles Not		R4 R4
 P1698 PCM Failure EEPROM Write Denied P0422 Rear Bank Catalytic Converter Efficiency Failure P0703 Brake Switch Performance Circuit P1698 No Transmission CCD Message or No CCD Message from Body Ctt. P1496 5 Volt Output Low P0420 Catalytic Converter Efficiency Failure P0432 Catalytic Converter P0432 Catalytic Converte	63**	Write Denied	e EEPROM		R4 R4
 P0422 Rear Bank Catalytic Converter Efficiency Failure P0703 Brake Switch Performance Circuit P1698 No Transmission CCD Message or No CCD Message from Body Ctrl. P1496 5 Volt Output Low P0420 Catalytic Converter Efficiency Failure P0420 Catalytic Converter Efficiency Failure P0420 Catalytic Converter Efficiency Failure P0420 Catalytic Converter Efficiency Failure P0432 Catalytic Converter P0432 Catalytic		P1698 PCM Failur	e EEPROM		R₄ R₄
Circuit 56** P1698 No Transmission CCD Message No communication from transmission control module. or No CCD Message from Body Ctrl. No communication from body controller. 71** P1496 5 Volt Output Low Internal PCM check for 5 volts. 72** P0420 Catalytic Converter Efficiency Failure Or P0432 Catalytic Converter Efficiency Failure S/C Power Relay Circuit Malfunction detected with power feed to speed control servo solenoids.	64			Catalyst efficiency below required level.	Rt Rt
or No CCD Message from Body Cttl. No communication from body controller. Y1** P1496 5 Volt Output Low Internal PCM check for 5 volts. Y2** P0420 Catalytic Converter Efficiency Failure Catalyst efficiency below required level. or P0432 Catalytic Converter Efficiency Failure Catalyst efficiency below required level. Y7 S/C Power Relay Circuit Malfunction detected with power feed to speed control servo solenoids.	65**		ch Performance		R! R!
 P1496 5 Volt Output Low Internal PCM check for 5 volts. P0420 Catalytic Converter Efficiency Failure or P0432 Catalytic Converter Efficiency Failure Catalyst efficiency below required level. Failure S/C Power Relay Circuit Malfunction detected with power feed to speed control servo solenoids. 	6**	or	-		R₄ R₄
 P0420 Catalytic Converter Efficiency Catalyst efficiency below required level. Failure or P0432 Catalytic Converter Efficiency Catalyst efficiency below required level. Failure 7 S/C Power Relay Circuit Malfunction detected with power feed to speed control servo solenoids. 			• •	•	R
 Failure or P0432 Catalytic Converter Efficiency Failure 7 S/C Power Relay Circuit Malfunction detected with power feed to speed control servo solenoids. 	-	•			R
 P0432 Catalytic Converter Efficiency Failure S/C Power Relay Circuit Malfunction detected with power feed to speed control servo solenoids. 	′2**	Failure	nverter Efficiency	Catalyst efficiency below required level.	Rt R4
control servo solenoids.		P0432 Catalytic Co	nverter Efficiency	Catalyst efficiency below required level.	R₄ R₄
Check Engine Lamp (MIL) will not illuminate if this Diagnostic Trouble Code was recorded. Cycle	77	S/C Power	Relay Circuit		R! R!
gnition key as described in manual and observe code flashed by Check Engine lamp.					ר ק ק

 $^{\star\star} \text{Check Engine Lamp} \, (\text{MIL}) \, \text{will illuminate during engine operation if this Diagnostic Trouble Code was recorded.}$

*** Generator Lamp illuminated

Bomon	Vahiak	Amplication
Reman. Part No.	Year, Body Type	e Application - Engine Specifications
R4727217	1996 NS BODY	2.4L DOHC A/T (3ATX & 4EATX) FED/CAL
R4727217	1996 NS BODY	3.0L MPI A/T (3ATX) WO/LDP FED/CAL
R4727210	1996 NS BODY	3.3L MPI A/T W/LDP FED/ALT
R4727219	1996 NS BODY	3.8L MPI AWD A/T W/LDP FED/CAL/ALT
R4748220	1996 NS BODY	3.3L MPI A/T TLEV W/LDP CAL
R4748221	1996 NS BODY	3.8L MPI FWD A/T W/LDP FED/CAL/ALT
R4883267	1996 NS BODY	3.3L MPI A/T FED/ALT
R4883268	1996 NS BODY	3.3L MPI A/T TLEV CAL
R4883269	1996 NS BODY	3.8L MPI FWD A/T FED/CAL/ALT
R4606174	1995 JA BODY	2.0L FED 126 MPH LIM M/T FED
R4606175	1995 JA BODY	2.0L 108 MPH LIM M/T 50ST
R4606176	1995 JA BODY	2.0L 126 MPH LIM M/T 50ST
R4606185	1995 JA BODY	2.4L 108 MPH LIM A/T 50ST
R4606186	1995 JA BODY	2.4L 126 MPH LIM A/T 50ST
R4606273	1995 JA BODY	2.0L 108 MPH LIM M/T FED
R5010270AA	1995 JA BODY	2.5L 108 MPH LIM A/T 50ST
R5012458AA	1995 JA BODY	2.5L 126 MPH LIM A/T 50ST
R4606420AB	1996 JA BODY	2.5L 108 MPH GCC LIM 50ST
R4886468AA	1996 JA BODY	2.0L 108 MPH LIM W/ LDP A/T 50ST
R4886469AA	1996 JA BODY	2.0L 126 MPH W/O FIRM SUS M/T 50ST
R4886470AA	1996 JA BODY	2.0L 108 MPH W/O FIRM SUS M/T 50ST
R4886472AA	1996 JA BODY	2.0L 108 MPH LIM W/O LDP A/T 50ST
R4897832AE	1996 JA BODY	2.5L 126 MPH LIM A/T 50ST
R4897833AE	1996 JA BODY	2.5L 108 MPH LIM A/T 50ST
R4897834AD	1996 JX BODY	2.5L A/T (4EATX) CAL
R4897835AD	1996 JX BODY	2.5L A/T (4EATX) 50ST
R5015120AA	1996 JA BODY	2.4L W/ FIRM SUS A/T 50ST
R5015121AA	1996 JA BODY	2.4L W/O FIRM SUS A/T 50ST
R5015122AA	1996 JX BODY	2.4L A/T (4EATX) 50ST
R5015123AA	1996 JX BODY	2.4L A/T (4EATX) CAL
R4897402AA	1996 LH BODY	3.3L MPI A/T FED
R4897405AA	1996 LH BODY	3.3L MPI A/T TLEV
R5012676AA	1996 LH BODY	3.5L MPI A/T LIMITED 50ST
R5012677AA	1996 LH BODY	3.5L MPI A/T UNLIMITED 50ST
R5011509AA	1995 FJ BODY	2.5L A/T 50ST
R4887050	1996 FJ BODY	2.0L DOHC A/T (4EATX) FED CAL
R4887051	1996 FJ BODY	2.0L DOHC M/T FED/CAL
R4897869AB	1996 FJ BODY	2.5L FJ-22 A/T 50ST
R5269939	1996 PL BODY	2.0L MPI M/T FED/CAL
R5269940	1996 PL BODY	2.0L MPI M/T (ACR) FED/CAL
R5269941	1996 PL BODY	2.0L MPI A/T (3ATX) FED
R5269942	1996 PL BODY	2.0L MPI A/T (3ATX) TLEV CAL
R5269943	1996 PL BODY	2.0L MPI DOHC M/T FED/CAL
R5269944	1996 PL BODY	2.0L MPI DOHC (ACR) FED/CAL
R5269945	1996 PL BODY	2.0L MPI DOHC A/T (3ATX) FED/CAL
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