1999 2.2L (LN2) J-car ENGINE DIAGNOSTIC PARAMETERS

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SENSED PARAMETER	FAULT CODE	MONITOR STRATEGY DESCRIPTION	MALFUNCTION CRITERIA AND THRESHOLD VALUE(S)	SECONDARY PARAMETERS AND ENABLE CONDITIONS	TIME LENGTH AND FREQUENCY	MIL ILLUMINATION TYPE
Manifold Pressure/Throttle Position Sensor Rationality AMT	P0105	Detects a MAP or TP Sensor that is stuck or out of range	Change in MAP > or < Table value	600 > RPM > 6375 Engine run time > 40 Sec Δ TCC < 2.5% Δ RPM < 50 RPM Δ IAC < 5 steps Δ TPS < 2% Above condition met for 1.5 Sec None of the following DTC's set: 107, 108, 117, 118, 122, 123, 131, 132, 171, 172, 200, 300, 325, 341, 342, 440, 1441, 442, 502, 506, 507, 601, 602	70/80 Cts 125 ms/Ct Continuous check	DTC Type B
Manifold Pressure/Throttle Position Sensor Rationality SMT	P0105	Detects a MAP or TP Sensor that is stuck or out of range	Change in MAP > or < Table value	900 > RPM > 6375 Engine run time > 40 Sec Δ RPM < 50 RPM Δ IAC < 5 steps Δ TPS < 2% Above condition met for 1.5 Sec None of the following DTC's set: 107, 108, 117, 118, 122, 123, 131, 132, 171, 172, 200, 300, 325, 341, 342, 440, 1441, 442, 502, 506, 507, 601, 602	70/80 Cts 125 ms/Ct Continuous check	DTC Type B
Manifold Pressure Too Low	P0107	Detects a continuous short to ground or a MAP sensor signal that is out of range low	MAP < 0.08 V (11.8 kPa)	RPM < 1000 Or RPM > 1000 TP Sensor >15.2 % None of the following DTC's set: 122, 123	400/500 Cts 15.6 ms/Ct Continuous check	DTC Type B
Manifold Pressure Too High	P0108	Detects a continuous short to voltage or a MAP sensor signal that is out of range high	MAP > 3.80 V (82 kPa)	TP Sensor < 12% VSS < 1 MPH Engine run time > 20 - 40 sec None of the following DTC's set: 122, 123	80/100 Cts 15.6 ms/Ct Continuous check	DTC Type B
Intake Air Temperature Sensor Shorted	P0112	Detects a continuous short to voltage or an IAT sensor signal that is out of range high	IAT < 48 Cts (> 128°C)	VSS > 15 MPH Engine run time > 320 sec None of the following DTC's set: 117, 118, 125, 502, 503	25/100 Cts 125 ms/Ct Continuous check	DTC Type B
Intake Air Temperature Sensor Open	P0113	Detects a continuous short to ground or an open in the IAT sensor signal	IAT > 253 Cts (< -57°C)	VSS < 15 MPH Engine run time > 320 sec ECT > -40°C None of the following DTC's set: 117, 118, 125, 502, 503	25/100 Cts 125 ms/Ct Continuous check	DTC Type B

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Coolant Temperature Sensor Shorted	P0117	Detects a continuous short to voltage or an ECT sensor signal that is out of range high	ECT < 4 Cts (> 138°C) (High R) Or ECT < 36 Cts (> 142°C) (Low R)	Engine run time > 128 sec	50/100 Cts 125 ms/Ct Continuous check	DTC Type B
Coolant Temperature Sensor Open	P0118	Detects a continuous short to ground or an open in the ECT sensor signal	ECT > 251 Cts (< -50°C) (High R) Or ECT > 252 Cts (< -71°C) (Low R)	Engine run time > 60 sec	50/100 Cts 125 ms/Ct Continuous check	DTC Type B
TP Sensor Low	P0122	Detects a TP Sensor that is open or shorted to ground	TP Sensor < .20 V	Engine running	50/200 Cts 125 ms/Ct Continuous check	DTC Type B
TP Sensor High (Part "A")	P0123	Detects a TP Sensor signal that is shorted to voltage	TP Sensor > 3.91 V	Engine running RPM < 1500 MAP < 60 kPa None of the following DTC's set: 107, 108	110/200 Cts 125 ms/Ct Continuous check	DTC Type B
TP Sensor High (Part "B")	P0123	Detects a TP Sensor signal that is shorted to voltage	TP Sensor > 4.86 V	Engine running None of the following DTC's set: 107, 108	110/200 Cts 125 ms/Ct Continuous check	DTC Type B
Closed Loop Coolant Fault	P0125	Detects if a stabilized minimum closed loop temperature is reached and maintained after engine start-up	If Closed Loop Timer Is Exceeded: 120 sec at 10°C 300 sec at -7°C 1350 sec at -40°C ECT < 40°C	Start up ECT < 151.5°C IAT > -7°C Max. Idle Time<: 90 sec at 50°F (10°C) 225 sec at 20°F (-7°C) 1012 sec at -40°F (-40°C) Air flow < 10 g/sec to be considered idle Coolant level OK None of the following DTC's set: 105, 107, 108, 112, 113, 117, 118, 122, 123, 131, 132, 133, 134, 171, 172, 200, 300, 335, 480, 506, 507, 562, 563	11 Cts 125 ms/Ct Continuous check	DTC Type B
O2S 1 Lean	P0131	Detects an O2S 1 signal which is below the range considered lean	O2S 1 < 44 mV	ECT > 70°C Air flow > 3 g/sec Above conditions met for 20 sec 4.8% < TP < 50.2% Above condition met for 3.8 sec None of the following DTC's set: 105, 107, 108,112, 113, 117, 118, 122, 123, 171, 200, 300, 335, 440, 1441, 442, 446, 506, 507, 601, 602	999/1000 Cts 125 ms/Ct Continuous check	DTC Type B

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O2S 1 Rich	P0132	Detects an O2S 1 signal which is above the range considered rich	O2S 1 > 946 mV or O2S 1 > 1042 mV for 2.5 sec while in DFCO	ECT > 70°C Air flow > 3 g/sec Above conditions met for 20 sec 4.8% TP 50.2% Above condition met for 3.8 sec None of the following DTC's set: 105, 107, 108,112, 113, 117, 118, 122, 123, 171, 200, 300, 335, 440, 1441, 442, 446, 506, 507, 601, 602	399/400 Cts 125 ms/Ct Continuous check	DTC Type B
O2S 1 Slow Response AMT-3	P0133	Determines if the O2S 1 is functioning properly by checking its response time	Avg. O2S 1 Response Times: R/L > 249 ms L/R > 249 ms Ratio Of L/R To R/L Is > 4.25 Or < 0.44	Engine run time > 10 sec TP between 14% & 26% RPM between 1600 & 2400 EVAP > 80% PWM ECT > 75°C PLM > 191 Engine operating in Closed Loop None of the following DTC's set: 105, 107, 108,112, 113, 117, 118, 122, 123, 171, 200, 300, 335, 440, 1441, 442, 446, 506, 507, 601, 602	100 sec Once per ignition cycle	DTC Type B
O2S 1 Slow Response AMT-4	P0133	Determines if the O2S 1 is functioning properly by checking its response time	Avg. O2S 1 Response Times: R/L > 249 ms L/R > 249 ms Ratio Of L/R To R/L Is > 4.25 Or < 0.44	Engine run time > 10 sec TP between 14% & 26% RPM between 1400 & 2600 EVAP > 80% PWM ECT > 75°C PLM > 191 Engine operating in Closed Loop None of the following DTC's set: 105, 107, 108,112, 113, 117, 118, 122, 123, 171, 200, 300, 335, 440, 1441, 442, 446, 506, 507, 601, 602	100 sec Once per ignition cycle	DTC Type B
O2S 1 Slow Response SMT	P0133	Determines if the O2S 1 is functioning properly by checking its response time	Avg. O2S 1 Response Times: R/L > 249 ms L/R > 249 ms Ratio Of L/R To R/L Is > 4.25 Or < 0.44	Engine run time > 10 sec TP between 14% & 26% RPM between 1600 & 2400 EVAP > 80% PWM ECT > 75°C PLM > 191 Engine operating in Closed Loop None of the following DTC's set: 105, 107, 108,112, 113, 117, 118, 122, 123, 171, 200, 300, 335, 440, 1441, 442, 446, 506, 507, 601, 602	100 sec Once per ignition cycle	DTC Type B

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O2S 1 Open	P0134	Detects an O2S 1 signal that is not switching at bias voltage	399 mV < O2S 1 < 499 mV	ECT > 70°C Air flow > 3 g/sec Above conditions met for 20 sec Engine run time > 30 sec 4% < TP < 56% None of the following DTC's set: 105, 107, 108,112, 113, 117, 118, 122, 123, 171, 200, 300, 335, 440, 1441, 442, 446, 506, 507, 601, 602	999/1000 Cts 125 ms/Ct Continuous check	DTC Type B
O2S 1 Not Enough Switches AMT-3	P1133	Determines if the O2S 1 is functioning properly by checking the number of switches	O2S 1 Switch Numbers L/R < 1 Cts R/L < 1 Cts	Engine run time > 10 sec TP between 14% & 26% RPM between 1600 & 2400 EVAP > 80% PWM ECT > 75°C PLM > 191 Engine operating in Closed Loop None of the following DTC's set: 105, 107, 108,112, 113, 117, 118, 122, 123, 171, 200, 300, 335, 440, 1441, 442, 446, 506, 507, 601, 602	100 sec Once an ignition cycle	DTC Type B
O2S 1 Not Enough Switches AMT-4	P1133	Determines if the O2S 1 is functioning properly by checking the number of switches	O2S 1 Switch Numbers L/R < 1 Cts R/L < 1 Cts	Engine run time > 10 sec TP between 14% & 26% RPM between 1400 & 2600 EVAP > 80% PWM ECT > 75°C PLM > 191 Engine operating in Closed Loop None of the following DTC's set: 105, 107, 108,112, 113, 117, 118, 122, 123, 171, 200, 300, 335, 440, 1441, 442, 446, 506, 507, 601, 602	100 sec Once an ignition cycle	DTC Type B
O2S 1 Not Enough Switches SMT	P1133	Determines if the O2S 1 is functioning properly by checking the number of switches	O2S 1 Switch Numbers L/R < 1 Cts R/L < 1 Cts	Engine run time > 10 sec TP between 14% & 26% RPM between 1600 & 2400 EVAP > 40% PWM ECT > 75°C PLM > 191 Engine operating in Closed Loop None of the following DTC's set: 105, 107, 108,112, 113, 117, 118, 122, 123, 171, 200, 300, 335, 440, 1441, 442, 446, 506, 507, 601, 602	100 sec Once an ignition cycle	DTC Type B

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O2S 2 Lean	P0137	Detects an O2S 2 signal which is below the range considered lean	O2S 2 < 22 mV	ECT > 40°C Air flow > 5.5 g/sec Above conditions met for 140 sec 4.8% < TP <50.2% Above condition met for 3.8 sec None of the following DTC's set: 105, 107, 108,112, 113, 117, 118, 122, 123, 171, 200, 300, 335, 440, 1441, 442, 446, 506, 507, 601, 602	1199/1200 Cts 125 ms/Ct Continuous check	DTC Type B
O2S 2 Rich	P0138	Detects an O2S 2 signal which is above the range considered rich	O2S 2 > 1042 mV	ECT > 40°C Air flow > 5.5 g/sec Above conditions met for 140 sec 4.8% < TP <50.2% Above condition met for 3.8 sec None of the following DTC's set: 105, 107, 108,112, 113, 117, 118, 122, 123, 171, 200, 300, 335, 440, 1441, 442, 446, 506, 507, 601, 602	399/400 Cts 125 ms/Ct Continuous check	DTC Type B
O2S 2 Open	P0140	Detects a signal that is not switching at bias voltage	425 mV < O2S 2 < 460 mV	ECT > 40°C Air flow > 5.5 g/sec Above conditions met for 140 sec 4% < TP < 56% None of the following DTC's set: 105, 107, 108,112, 113, 117, 118, 122, 123, 171, 200, 300, 335, 440, 1441, 442, 446, 506, 507, 601, 602	999/1000 Cts 125 ms/Ct Continuous check	DTC Type B
O2S 2 Heater Circuit Malfunction	P0141	Checks for sensor activity within a given period of time after cold start	O2S 2 Voltage Changes < ±148 mV From Mean O2S 2 Bias Voltage	Engine run time < 400 sec SUC and SUM < 45°C Difference in ECT & IAT < 7°C Average flow prior to activity must be < 20 g/sec Battery voltage > 11.6 V, < 16 V None of the following DTC's set: 105, 107, 108,112, 113, 117, 118, 122, 123, 171, 200, 300, 335, 440, 1441, 442, 446, 506, 507, 601, 602	Time determined by table Once per ignition cycle	DTC Type B
Fuel Trim Lean AMT	P0171	Monitors fuel control system during normal operating range of FTI 110 < FTI < 145	Fuel Trim Index > 170	Baro > 72 kPa ECT > 60°C & < 115°C IAT > -25°C & < 115 °C MAP > 30 kPa RPM between 550 & 3400 VSS < 82 MPH Fuel level > 9.8 % None of the following DTC's set: 105, 107, 108, 112, 113, 117, 118, 122, 123, 125, 131, 132, 133, 134, 1133, 200, 300, 325, 335, 341, 342, 1441, 446, 502, 503, 601, 602	Continuous check	DTC Type B

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Fuel Trim Lean SMT	P0171	Monitors fuel control system during normal operating range of FTI 110 < FTI < 145	Fuel Trim Index > 170	Baro > 72 kPa ECT > 60°C & < 115°C IAT > -25°C & < 115 °C MAP > 26 kPa RPM between 850 & 3400 VSS < 82 MPH Fuel level > 9.8 % None of the following DTC's set: 105, 107, 108, 112, 113, 117, 118, 122, 123, 125, 131, 132, 133, 134, 1133, 200, 300, 325, 335, 341, 342, 1441, 446, 502, 503, 601, 602	Continuous check	DTC Type B
Fuel Trim Rich AMT	P0172	Monitors fuel control system during normal operating range of FTI 110 < FTI < 145	Fuel Trim Index < 75	Baro > 72 kPa ECT > 60°C & < 115°C IAT > -25°C & < 115 °C MAP > 30 kPa RPM between 550 & 3400 VSS < 82 MPH Fuel level > 9.8 % None of the following DTC's set: 105, 107, 108, 112, 113, 117, 118, 122, 123, 125, 131, 132, 133, 134, 1133, 200, 300, 325, 335, 341, 342, 1441, 446, 502, 503, 601, 602	16 sec Once every 240 seconds	DTC Type B
Fuel Trim Rich SMT	P0172	Monitors fuel control system during normal operating range of FTI 110 < FTI < 145	Fuel Trim Index < 75	Baro > 72 kPa ECT > 60°C & < 115°C IAT > -25°C & < 115 °C MAP > 26 kPa RPM between 850 & 3400 VSS < 82 MPH Fuel level > 9.8 % None of the following DTC's set: 105, 107, 108, 112, 113, 117, 118, 122, 123, 125, 131, 132, 133, 134, 1133, 200, 300, 325, 335, 341, 342, 1441, 446, 502, 503, 601, 602	16 sec Once every 240 seconds	DTC Type B
Injector Circuit Problem	P0200	Monitors fuel injectors for proper electrical operation	Injector Current < 4 Amps	Engine running Battery Voltage > 9 V	7 sec Continuous check	DTC Type B

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Random Misfire Cylinder 1 Misfire Cylinder 2 Misfire Cylinder 3 Misfire Cylinder 4 Misfire	P0300 P0301 P0302 P0303 P0304	Detects a change in crankshaft angular velocity	FTP Threshold - 1.5% I/M Threshold - 1.5% Catalyst Damage - see speed/load chart	Engine run time > 5 sec RPM Between 469 & 5906 -7°C < ECT < 123°C Fuel level > 10% Battery voltage > 9 V, < 17 V None of the following DTC's set: 105, 107, 112, 113, 117, 118, 122, 123, 125, 131, 132, 133, 134, 1133, 171, 172, 325, 335, 341, 342, 1336, 502, 503, 506, 507, 601, 1621, 740, 742	Emission Level 10 of 16 blocks failed (200 engine revolutions/block) Catalyst Damage Level 4 of 16 blocks failed in FTP region. (See speed chart outside FTP region) Continuous check	DTC Type B EMISSION DTC Type A CATALYST DAMAGING
Knock Sensor (KS) Output	P0325	Detects a disconnected or faulty knock sensor	Instantaneous Voltage < 1.0v	RPM > 1600 ECT > 56°C MAP > 60 kPa Engine run time > 20 sec Vacuum < 33 kPa None of the following DTC's set: 117, 118, 122, 123	60 sec Continuous check	DTC Type B
Crankshaft Sensor Position Resync	P0335	Detects an open crank sensor or too many resyncs	7x Resync Counter > 15 Counts	Engine Running No 341 DTC set	256 sec Continuous check	DTC Type B
Camshaft Sensor Position Resync too often	P0341	Monitors for too many resyncs in the camshaft sensor signal	Cam Resync Counter > 15 Counts	Engine Running	256 seconds Continuous check	DTC Type B
Camshaft Sensor Missing	P0342	Checks for a missing camshaft sensor signal	No Change In Cam Activity > 16 Cycles	Engine Running	16 Cycles Cycle = 180°Crankshaft rotation Continuous check	DTC Type B
Misfire Crank Angle Sensing Error	P1336	Detects invalid crankshaft angle correction factors	CCF Sum above or below 2 by 7 Counts (2 = 65536 counts)	None of the following DTC's set: 335, 341, 342	.5 sec Once per ignition cycle	DTC Type A

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Catalyst Monitor AMT	P0420	Detects a catalytic converter with unacceptable amounts of oxygen storage capabilities	Oxygen Storage Capability (OSC) Time Difference ≥ 0.066 sec OSC Time Difference = OSC Worst Pass Thresh - OSC Compensation Factor * (O2S 2 Response Time - O2S 1 Response Time) OSC Worst Pass Thresh = 1.110 sec	Engine speed ≥ 1000 RPM for minimum of 34 sec since end of last idle period Predicted catalyst temp ≥ 345°C, < 750°C Baro ≥ 72.3 kPa IAT between -20.5°C & 80°C ECT between 75°C & 125°C Idle ≤ 45 sec MPH < 3 Test attempted this trip ≤ 12 -75 RPM ≤ (Engine Speed - Desired Speed) ≤ 150 RPM Engine run time > 520 sec Battery voltage > 9 V Flow < 14 g/sec Rapid Step Response Enable Criteria OSC Time Difference Step ≥ .210 sec OSC Time Difference Step ≥ 0.00 sec None of the following DTC's set: 105, 107, 108, 112, 113, 117, 118, 122, 123, 131, 132, 133, 134, 1133, 137, 138, 140, 141, 172, 200, 300, 1336, 440, 1441, 442, 452, 453, 503	Maximum 1 test attempt per idle period Minimum of 1 test per trip Maximum of 6 tests per trip Maximum of 6 trips to detect failure when Rapid Step Response is enabled 15.6 Ms/Ct	DTC Type A
Catalyst Monitor SMT	P0420	Detects a catalytic converter with unacceptable amounts of oxygen storage capabilities	Oxygen Storage Capability (OSC) Time Difference ≥ 0.085 sec OSC Time Difference = OSC Worst Pass Thresh - OSC Compensation Factor * (O2S 2 Response Time - O2S 1 Response Time) OSC Worst Pass Thresh = 1.160 sec	Engine speed ≥ 1200 RPM for minimum of 44 sec since end of last idle period Predicted catalyst temp ≥ 345°C, < 750°C Baro ≥ 72.3 kPa IAT between -20.5°C & 80°C ECT between 75°C & 125°C Idle ≤ 45 sec MPH < 3 Test attempted this trip ≤ 12 -75 RPM ≤ (Engine Speed - Desired Speed) ≤ 150 RPM Engine run time > 520 sec Battery voltage > 9 V Flow < 14 g/sec Rapid Step Response Enable Criteria OSC Time Difference Step ≥ .210 sec OSC Time Difference Step ≥ 0.00 sec None of the following DTC's set: 105, 107, 108, 112, 113, 117, 118, 122, 123, 131, 132, 133, 134, 1133, 137, 138, 140, 141, 172, 200, 300, 1336, 440, 1441, 442, 452, 453, 503	Maximum 1 test attempt per idle period Minimum of 1 test per trip Maximum of 6 tests per trip Maximum of 6 trips to detect failure when Rapid Step Response is enabled 15.6 Ms/Ct	DTC Type A

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EVAP System Large Leak Detected	P0440	Checks for adequate vacuum being held in the fuel tank when applied	Vac < 3.0 V	Baro > 75 kPa SUC and SUM between 4°C & 30°C SUC - SUM < 8°C SUM - SUC < 1.5°C Fuel Level between 15% - 85% 7% < TPS < 35% MPH < 70 Purge Solenoid enabled None of the following DTC's set: 105, 107, 108, 112, 113, 117, 118, 122, 123, 125, 131, 132, 133, 134, 1133, 452, 453, 502, 503, 601, 602, 1621	400 sec Once per ignition cycle	DTC Type A
EVAP Purge Valve Leaking	P1441	Checks for a stuck open purge solenoid	Vac >2.0 V	Baro > 75 kPa SUC and SUM between 4°C & 30°C SUC - SUM < 8°C SUM - SUC < 1.5°C Fuel Level between 15% - 85% 7% < TPS < 35% MPH < 70 Engine running None of the following DTC's set: 105, 107, 108, 112, 113, 117, 118, 122, 123, 125, 131, 132, 133, 134, 1133, 452, 453, 502, 503, 601, 602, 1621	75 sec Once per ignition cycle	DTC Type A
EVAP System Small Leak Detected	P0442	Checks for a small leak in the fuel vapor handling system	0.024 - 0.10 V Per Sec Decay Varies With Fuel Level	Baro > 75 kPa SUC and SUM between 4°C & 30°C SUC - SUM < 8°C SUM - SUC < 1.5°C Fuel Level between 15% - 85% 7% < TPS < 35% MPH < 70 Purge Solenoid enabled None of the following DTC's set: 105, 107, 108, 112, 113, , 117, 118, 122, 123, 125, 131, 132, 133, 134, 1133, 452, 453, 502, 503, 601, 602, 1621	15 sec Once per ignition cycle	DTC Type A

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EVAP Canister Vent Blocked	P0446	Checks for excessively high vacuum in the vapor handling system	Vac > 4.2 V	Baro > 75 kPa SUC and SUM between 4°C & 30°C SUC - SUM < 8°C SUM - SUC < 1.5°C Fuel Level between 15% - 85% 7% < TPS < 35% MPH < 70 Purge Solenoid enabled None of the following DTC's set: 105, 107, 108, 112, 113, 117, 118, 122, 123, 125, 131, 132, 133, 134, 1133, 452, 453, 502, 503, 601, 602, 1621	100 sec Once per ignition cycle	DTC Type A
EVAP Tank Vacuum Sensor Low	P0452	Detects a continuous short to ground or a disconnected tank vacuum sensor	Tank vacuum transducer < .1 V	Engine running	25 sec Continuous check	DTC Type A
EVAP Tank Vacuum Sensor High	P0453	Detects a tank vacuum sensor that is shorted to voltage	Tank vacuum transducer > 4.9 V	Engine running	25 sec Continuous check	DTC Type A
Low Speed Fan Fault	P0480	Checks commanded fan state against output to fan relay	Battery voltage > 10 V		50/100 Cts Continuous check	DTC Type A
Vehicle Speed Sensor Loss SMT	P0502	Detects a missing VSS signal	VSS < 2 MPH	RPM between 1700 & 3600 TPS < 1% Vacuum between 70 kPa & 80 kPa	5 sec Continuous check	DTC Type B
Idle Speed Low	P0506	Detects an idle speed which is less than a delta from desired	IAC > 145 Steps	Engine run time > 20 sec Baro > 72 kPa ECT > 40°C Idle Speed > 100 RPM below desired Idle stabilized for 5 sec Battery voltage > 10 V, < 17.1 V None of the following DTC's set: 105, 107, 108, 112, 113, 117, 118, 122, 123, 125, 131, 132, 133, 134, 1133, 171, 172, 200, 300, 325, 335, 341, 342, 440, 1441, 442, 446, 452, 453, 480, 502, 503, 601, 602, 652, 653, 705	18.8 sec Continuous check	DTC Type B

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Idle Speed High	P0507	Detects an idle speed which is greater than a delta from desired	IAC < 2 Steps	Engine run time > 20 sec Baro > 72 kPa ECT > 40°C Idle Speed > 60 RPM above desired Idle stabilized for 5 sec Battery voltage > 10 V, < 17.1 V None of the following DTC's set: 105, 107, 108, 112, 113, 117, 118, 122, 123, 125, 131, 132, 133, 134, 1133, 171, 172, 200, 300, 325, 335, 341, 342, 440, 1441, 442, 446, 452, 453, 480, 502, 503, 601, 602, 652, 653, 705	12.5 sec Continuous check	DTC Type B
PCM Has EE PROM Flash Error	P0601	Checks for an incorrect checksum or Program ID failure	Checksum Detection Incorrect > 3 Times		Continuous check	DTC Type A
EE PROM Not Programmed	P0602	Checks for a PCM that is not programmed	Unprogrammed EE PROM		Immediately Once per key cycle	DTC Type A
EE PROM General Fault	P1621	Checks for a write error	Incorrect Checksum		Immediately on next key up if flagged on previous key down Once at key down	DTC Type A