DI1L4-17

## DIAGNOSTIC TROUBLE CODE CHART

HINT:

- As for the vehicle for Central America, refer to Repair Manual of 2002 LEXUS LS430 (Pub. No. RM874U1).
- Parameters listed in the chart may not be exactly the same as your reading due to the type of instrument or other factors.

If a malfunction code is displayed during the DTC check in check mode, check the circuit for the codes listed in the table below. For details of each code, turn to the page referred to under the "See page" for the respective "DTC No." in the DTC chart.

DTC No. (See page)	Detection Item	Trouble Area	MIL*1	Memory
P0010 (DI-28)	Camshaft Position "A" Actuator Circuit (Bank 1)	Open or short in OCV circuit OCV ECM	0	0
P0011 (DI-32)	Camshaft Position "A" –Timing Over– Advanced or System Per- formance (Bank 1)	Valve timing     OCV     VVT controller assembly     ECM	0	0
P0012 (DI-32)	Camshaft Position "A" –Timing Over– Retarded (Bank 1)	Valve timing     OCV     VVT controller assembly     ECM	0	0
P0016 (DI-39)	Crankshaft Position – Camshaft Position Correlation (Bank 1 Sensor A)	Open or short in VVT sensor circuit VVT sensor ECM	0	0
P0018 (DI-39)	Crankshaft Position – Camshaft Position Correlation (Bank 2 Sensor A)	Open or short in VVT sensor circuit VVT sensor ECM	0	0
P0020 (DI-28)	Camshaft Position "A" Actuator Circuit (Bank 2)	Open or short in OCV circuit OCV ECM	0	0
P0021 (DI-32)	Camshaft Position "A" –Timing Over– Advanced or System Per- formance (Bank 2)	Valve timing     OCV     VVT controller assembly     ECM	0	0
P0022 (DI-32)	Camshaft Position "A" –Timing Over– Retarded (Bank 2)	Valve timing     OCV     VVT controller assembly     ECM	0	0
P0031 (DI-41)	Oxygen Sensor Heater Control Circuit Low (Bank 1 Sensor 1)	Open in heater circuit of heated oxygen sensor Heated oxygen sensor heater ECM	0	0
P0032 (DI-41)	Oxygen Sensor Heater Control Circuit High (Bank 1 Sensor 1)	Short in heater circuit of heated oxygen sensor     Heated oxygen sensor heater     ECM	0	0
P0037 (DI-41)	Oxygen Sensor Heater Control Circuit Low (Bank 1 Sensor 2)	Open in heater circuit of heated oxygen sensor Heated oxygen sensor heater EFI MAIN relay ECM	0	0
P0038 (DI-41)	Oxygen Sensor Heater Control Circuit High (Bank 1 Sensor 2)	Short in heater circuit of heated oxygen sensor     Heated oxygen sensor heater     EFI MAIN relay     ECM	0	0

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P0051 (DI-41)	Oxygen Sensor Heater Control Circuit Low (Bank 2 Sensor 1)	Open in heater circuit of heated oxygen sensor Heated oxygen sensor heater  ECM	0	0
P0052 (DI-41)	Oxygen Sensor Heater Control Circuit High (Bank 2 Sensor 1)	Short in heater circuit of heated oxygen sensor     Heated oxygen sensor heater     ECM	0	0
P0057 (DI-41)	Oxygen Sensor Heater Control Circuit Low (Bank 2 Sensor 2)	Open in heater circuit of heated oxygen sensor     Heated oxygen sensor heater     ECM	0	0
P0058 (DI-41)	Oxygen Sensor Heater Control Circuit High (Bank 2 Sensor 2)	Short in heater circuit of heated oxygen sensor     Heated oxygen sensor heater     ECM	0	0
P0100 (DI-47)	Mass or Volume Air Flow Circuit	Open or short in mass air flow meter circuit  Mass air flow meter  ECM	0	0
P0101 (DI-52)	Mass or Volume Air Flow Circuit Range/Performance Problem	Mass air flow meter	0	0
P0102 (DI-47)	Mass or Volume Air Flow Circuit Low Input	Open or short in mass air flow meter circuit  Mass air flow meter  ECM	0	0
P0103 (DI-47)	Mass or Volume Air Flow Circuit High Input	Open in mass air flow meter circuit (EVG circuit) Short in mass air flow meter circuit (+B circuit) Mass air flow meter ECM	0	0
P0110 (DI-53)	Intake Air Temperature Circuit	Open or short in intake air temp. sensor circuit Intake air temp. sensor (built in mass air flow meter)  ECM	0	0
P0112 (DI-53)	Intake Air Temperature Circuit Low Input	Short in intake air temp. sensor circuit     Intake air temp. sensor (built in mass air flow meter)     ECM	0	0
P0113 (DI-53)	Intake Air Temperature Circuit High Input	Open in intake air temp. sensor circuit Intake air temp. sensor (built in mass air flow meter)  ECM	0	0
P0115 (DI–58)	Engine Coolant Temperature Circuit	Open or short in engine coolant temp. sensor circuit Engine coolant temp. sensor  ECM	0	0
P0116 (DI-62)	Engine Coolant Temperature Circuit Range/Performance Problem	Cooling system     Engine coolant temp. sensor	0	0
P0117 (DI-58)	Engine Coolant Temperature Circuit Low Input	Short in engine coolant temp. sensor circuit     Engine coolant temp. sensor     ECM	0	0
P0118 (DI-58)	Engine Coolant Temperature Circuit High Input	Open or short in engine coolant temp. sensor circuit Engine coolant temp. sensor  ECM	0	0
P0120 (DI-64)	Throttle Pedal Position Sensor/ Switch "A" Circuit	Open or short in throttle position sensor circuit Throttle position sensor ECM	0	0
P0121 (DI-69)	Throttle/Pedal Position Sensor/ Switch "A" Circuit Range/Perfor- mance Problem	Throttle position sensor	0	0
P0122 (DI-64)	Throttle/Pedal Position Sensor/ Switch "A" Circuit Low Input	Open in throttle position sensor circuit Throttle position sensor ECM	0	0

Throttle/Pedal Position Sensor/ Switch "A" Circuit High Input	Short in throttle position sensor circuit     Throttle position sensor     ECM	0	0
Insufficient Coolant Temperature for Closed Loop Fuel Control	Cooling system     Engine coolant temp. sensor	0	0
Coolant Thermostat (Coolant Temperature Below Thermostat Regulating Temperature)	Thermostat Cooling system Engine coolant temp. sensor  ECM	0	0
Oxygen Sensor Circuit (Bank 1 Sensor 1)	Open or short in heated oxygen sensor circuit (Bank 1 Sensor 1) Heated oxygen sensor (Bank 1 Sensor 1) Air induction system Fuel pressure Injector ECM	0	0
Oxygen Sensor Circuit Slow Response (Bank 1 Sensor 1)	Open or short in heated oxygen sensor circuit (Bank 1 Sensor 1) Heated oxygen sensor (Bank 1 Sensor 1) Air induction system Fuel pressure Injector ECM	0	0
Oxygen Sensor Circuit No Activity Detected (Bank 1 Sensor 1)	Open or short in heated oxygen sensor circuit (Bank 1 Sensor 1) Heated oxygen sensor (Bank 1 Sensor 1) Air induction system Fuel pressure Injector Gas leakage on exhaust system PCV piping ECM	0	0
Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 2)	Open or short in heated oxygen sensor circuit (Bank 1 Sensor 2) Heated oxygen sensor (Bank 1 Sensor 2)	0	0
Oxygen Sensor Circuit (Bank 2 Sensor 1)	Open or short in heated oxygen sensor circuit (Bank 2 Sensor 1) Heated oxygen sensor (Bank 2 Sensor 1) Air induction system Fuel pressure Injector ECM	0	0
Oxygen Sensor Circuit Slow Response (Bank 2 Sensor 1)	Open or short in heated oxygen sensor circuit (Bank 2 Sensor 1) Heated oxygen sensor (Bank 2 Sensor 1) Air induction system Fuel pressure Injector ECM	0	0
	Switch "A" Circuit High Input  Insufficient Coolant Temperature for Closed Loop Fuel Control  Coolant Thermostat (Coolant Temperature Below Thermostat Regulating Temperature)  Oxygen Sensor Circuit (Bank 1 Sensor 1)  Oxygen Sensor Circuit Slow Response (Bank 1 Sensor 1)  Oxygen Sensor Circuit No Activity Detected (Bank 1 Sensor 1)  Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 2)  Oxygen Sensor Circuit (Bank 2 Sensor 1)	Infortiter-Pedar Position Sensor Switch "A" Circuit High Input   Insufficient Coolant Temperature for Closed Loop Fuel Control   Coolant Thermostat (Coolant Temperature Bellow Thermostat Regulating Temperature)   Cooling system   Engine coolant temp. sensor   - **Thermostat   - **Cooling system   - **Engine coolant temp. sensor   - **ECM   - **Open or short in heated oxygen sensor circuit (Bank 1 Sensor 1)   - **Air induction system   - **Fuel pressure   - **Injector   - **ECM   - **Open or short in heated oxygen sensor circuit (Bank 1 Sensor 1)   - **Air induction system   - **Puel pressure   - **Injector   - **ECM   - **Open or short in heated oxygen sensor circuit (Bank 1 Sensor 1)   - **Air induction system   - **Puel pressure   - **Injector   - **ECM   - **Open or short in heated oxygen sensor circuit (Bank 1 Sensor 1)   - **Air induction system   - **Fuel pressure   - **Injector   - **ECM   - **Open or short in heated oxygen sensor circuit (Bank 1 Sensor 1)   - **Air induction system   - **Fuel pressure   - **Injector   - **Gas leakage on exhaust system   - **PCV piping   - **ECM   - **Open or short in heated oxygen sensor circuit (Bank 1 Sensor 2)   - **Open or short in heated oxygen sensor circuit (Bank 1 Sensor 2)   - **Open or short in heated oxygen sensor circuit (Bank 1 Sensor 1)   - **Air induction system   - **Fuel pressure   - **Injector   - **Gas leakage on exhaust system   - **PCV piping   - **ECM   - **Open or short in heated oxygen sensor circuit (Bank 2 Sensor 1)   - **Air induction system   - **Fuel pressure   - **Injector   - **ECM   - **Open or short in heated oxygen sensor circuit (Bank 2 Sensor 1)   - **Air induction system   - **Fuel pressure   - **Injector   - **ECM   - **Open or short in heated oxygen sensor circuit (Bank 2 Sensor 1)   - **Air induction system   - **Fuel pressure   - **Injector   - **ECM   - **Open or short in heated oxygen sensor circuit (Bank 2 Sensor 1)   - **Air induction system   - **Fuel pressure   - **Injector   - **Open or short in heated oxygen sensor circui	Infortier-Pead Profits Sensor / Switch "A" Circuit High Input  Insufficient Coolant Temperature for Closed Loop Fuel Control  Coolant Thermostat (Coolant Temperature)  Coolant Thermostat (Coolant Temperature)  Cooling system  Engine coolant temp. sensor  Thermostat Regulating Temperature)  Coxygen Sensor Circuit  (Bank 1 Sensor 1)  Coxygen Sensor Circuit Slow Response (Bank 1 Sensor 1)  Oxygen Sensor Circuit Slow Response (Bank 1 Sensor 1)  Oxygen Sensor Circuit Slow Response (Bank 1 Sensor 1)  Oxygen Sensor Circuit No Activity Detected (Bank 1 Sensor 1)  Coxygen Sensor Circuit Malfunction (Bank 1 Sensor 2)  Coxygen Sensor Circuit Malfunction (Bank 1 Sensor 2)  Oxygen Sensor Circuit Malfunction (Bank 2 Sensor 1)  Oxygen Sensor Circuit Slow Response (Bank 2 Sensor 1)  Oxygen Sensor Circuit Slow Response (Bank 2 Sensor 1)  Oxygen Sensor Circuit Slow Response (Bank 2 Sensor 1)  Oxygen Sensor Circuit Slow Response (Bank 2 Sensor 1)  Oxygen Sensor Circuit Slow Response (Bank 2 Sensor 1)  Heated oxygen sensor (Bank 2 Sensor 1)

P0154 (DI-78)	Oxygen Sensor Circuit No Activity Detected	Open or short in heated oxygen sensor circuit (Bank 2 Sensor 1) Heated oxygen sensor (Bank 2 Sensor 1) Air induction system Fuel pressure Injector Gas leakage on exhaust system PCV piping ECM	0	0
P0156 (DI-82)	Oxygen Sensor Circuit Malfunction (Bank 2 Sensor 2)	Open or short in heated oxygen sensor circuit (Bank 2 Sensor 2) Heated oxygen sensor (Bank 2 Sensor 2)	0	0
P0171 (DI-84)	System too Lean (Bank 1)	Air induction system Injector blockage Mass air flow meter Engine coolant temp. sensor Fuel pressure Gas leakage on exhaust system Open or short in heated oxygen sensor (Bank 1 sensor 1) circuit Heated oxygen sensor (Bank 1 sensor 1) PCV piping ECM	0	0
P0172 (DI-84)	System too Rich (Bank 1)	Injector leak, blockage  Mass air flow meter  Engine coolant temp. sensor  Ignition system  Fuel pressure  Gas leakage on exhaust system  Open or short in heated oxygen sensor (Bank 1 sensor 1) circuit  Heated oxygen sensor (Bank 1 sensor 1)  ECM	0	0
P0174 (DI-84)	System too Lean (Bank 2)	Air induction system Injector blockage Mass air flow meter Engine coolant temp. sensor Fuel pressure Gas leakage on exhaust system Open or short in heated oxygen sensor (Bank 2 sensor 1) circuit Heated oxygen sensor (Bank 2 sensor 1) PCV piping ECM	0	0
P0175 (DI-84)	System too Rich (Bank 2)	Injector leak, blockage  Mass air flow meter  Engine coolant temp. sensor  Ignition system  Fuel pressure  Gas leakage in exhaust system  Open or short in heated oxygen sensor (Bank 2 sensor 1) circuit  Heated oxygen sensor (Bank 2 sensor 1)  ECM	0	0
P0220 (DI-64)	Throttle/Pedal Position Sensor/ Switch "B" Circuit	Open or short in throttle position sensor circuit Throttle position sensor ECM	0	0

P0222 (DI-64)	Throttle/Pedal Position Sensor/ Switch "B" Circuit Low Input	Open in throttle position sensor circuit     Throttle position sensor     ECM	0	0
P0223 (DI-64)	Throttle/Pedal Position Sensor/ Switch "B" Circuit High Input	Short in throttle position sensor circuit     Throttle position sensor     ECM	0	0
P0230 (DI-89)	Fuel Pump Primary Circuit	Open or short in fuel pump relay circuit Fuel pump relay ECM	-	0
P0300 (DI-92)	Random/Multiple Cylinder Misfire Detected		<b>○*2</b>	0
P0301 (DI-92)	Cylinder 1 Misfire Detected	Open or short in engine wire	○*2	0
P0302 (DI-92)	Cylinder 2 Misfire Detected	Connector connection     Vacuum hose connection	<b>○*2</b>	0
P0303 (DI-92)	Cylinder 3 Misfire Detected	Ignition system     Injector	○*2	0
P0304 (DI-92)	Cylinder 4 Misfire Detected	Fuel pressure     Mass air flow meter     Engine coelent tome concer	○*2	0
P0305 (DI-92)	Cylinder 5 Misfire Detected	Engine coolant temp. sensor     Compression pressure     Valve clearance	○*2	0
P0306 (DI-92)	Cylinder 6 Misfire Detected	Valve timing PCV piping	○*2	0
P0307 (DI-92)	Cylinder 7 Misfire Detected	• ECM	○*2	0
P0308 (DI-92)	Cylinder 8 Misfire Detected		○*2	0
P0325 (DI-102)	Knock Sensor 1 Circuit (Bank 1 or Single Sensor)	Open or short in knock sensor 1 circuit Knock sensor 1 (looseness) ECM	0	0
P0330 (DI-102)	Knock Sensor 2 Circuit (Bank 2)	Open or short in knock sensor 2 circuit Knock sensor 2 (looseness) ECM	0	0
P0335 (DI-106)	Crankshaft Position Sensor "A" Circuit	Open or short in crankshaft position sensor circuit Crankshaft position sensor Signal plate (Timing belt guide) ECM	0	0
P0339 (DI-108)	Crankshaft Position Sensor "A" Circuit Intermittent	Open or short in crankshaft position sensor circuit Crankshaft position sensor Signal plate (Timing belt guide) ECM	-	0
P0340 (DI-109)	Camshaft Position Sensor "A" Circuit (Bank 1 or Single Sensor)	Open or short in camshaft position sensor circuit	0	0
P0341 (DI-109)	Camshaft Position Sensor "A" Circuit Range/Performance (Bank 1 or Single Sensor)	VVT sensor     ECM	0	0
P0345 (DI-109)	Camshaft Position Sensor "A" Circuit (Bank 2)	Open or short in camshaft position sensor circuit	0	0
P0346 (DI-109)	Camshaft Position Sensor "A" Circuit Range/Performance (Bank 2)	• VVT sensor • ECM	0	0

P0351 (DI-112)	Ignition Coil "A" Primary/Secondary Circuit	Open or short in IF1L and IGT1 circuit from No. 1 ignition coil with igniter to ECM  No. 1 ignition coil with igniter Ignition system  ECM	0	0
P0352 (DI-112)	Ignition Coil "B" Primary/Secondary Circuit	Open or short in IF2R and IGT2 circuit from No. 2 ignition coil with igniter to ECM  No. 2 ignition coil with igniter Ignition system  ECM	0	0
P0353 (DI-112)	Ignition Coil "C" Primary/Secondary Circuit	Open or short in IF2L and IGT3 circuit from No. 3 ignition coil with igniter to ECM  No. 3 ignition coil with igniter  Ignition system  ECM	0	0
P0354 (DI-112)	Ignition Coil "D" Primary/Secondary Circuit	Open or short in IF1R and IGT4 circuit from No. 4 ignition coil with igniter to ECM  No. 4 ignition coil with igniter Ignition system  ECM	0	0
P0355 (DI-112)	Ignition Coil "E" Primary/Secondary Circuit	Open or short in IF2L and IGT5 circuit from No. 5 ignition coil with igniter to ECM  No. 5 ignition coil with igniter Ignition system  ECM	0	0
P0356 (DI-112)	Ignition Coil "F" Primary/Secondary Circuit	Open or short in IF1R and IGT6 circuit from No. 6 ignition coil with igniter to ECM  No. 6 ignition coil with igniter Ignition system  ECM	0	0
P0357 (DI-112)	Ignition Coil "G" Primary/Secondary Circuit	Open or short in IF1L and IGT7 circuit from No. 7 ignition coil with igniter to ECM  No. 7 ignition coil with igniter  Ignition system  ECM	0	0
P0358 (DI-112)	Ignition Coil "H" Primary/Secondary Circuit	Open or short in IF2R and IGT8 circuit from No. 8 ignition coil with igniter to ECM  No. 8 ignition coil with igniter  Ignition system  ECM	0	0
P0420 (DI-119)	Catalyst System Efficiency Below Threshold (Bank 1)	Gas leakage on exhaust system Heated oxygen sensor (bank 1 sensor 1, 2) Three–way catalytic converter	0	0
P0430 (DI-119)	Catalyst System Efficiency Below Threshold (Bank 2)	Gas leakage on exhaust system Heated oxygen sensor (bank 2 sensor 1, 2) Three–way catalytic converter	0	0

Evaporative Emission Control System Incorrect Purge Flow	Vacuum hose cracks, holed, blocked, damaged or disconnected ((1), (2), (3), (4), (5), (6), (7), (8), (9), (10) and (11) in Fig. 1)  Fuel tank cap incorrectly installed  Fuel tank cap cracked or damaged  Open or short in vapor pressure sensor circuit  Vapor pressure sensor  Open or short in VSV circuit for EVAP  VSV for EVAP  Open or short in VSV circuit for CCV  VSV for CCV  Open or short in VSV circuit for pressure switching valve  VSV for pressure switching valve  Fuel tank cracked, holed or damaged  Charcoal canister cracked, holed or damaged  Fuel tank over fill check valve cracked or damaged  ECM	0	0
Evaporative Emission Control System Leak Detected (Small Leak)	Hose or tube cracked, holed, damaged or loose seal ((3) or (9) in Fig. 1)  Fuel tank cap incorrectly installed Fuel tank cap cracked or damaged  Vacuum hose cracked, holed, blocked, damaged or disconnected ((1), (2), (4), (5), (6), (7), (8), (10) and (11) in Fig. 1)  Fuel tank cracked, holed or damaged  Charcoal canister cracked, holed or damaged  Open or short in vapor pressure sensor circuit  Vapor pressure sensor  Fuel tank over fill check valve cracked or damaged  ECM	0	0
Evaporative Emission Control System Vent Control Circuit	Same as DTC No. P0441	0	0
Evaporative Emission Control System Pressure Sensor/Switch Range/Performance	Open or short in vapor pressure sensor circuit Vapor pressure sensor ECM	0	0
Evaporative Emission Control System Pressure Sensor/Switch Low Input	Short in vapor pressure sensor circuit     Vapor pressure sensor     ECM	0	0
Evaporative Emission Control System Pressure Sensor/Switch High Input	Open in vapor pressure sensor circuit Vapor pressure sensor ECM	0	0
Evaporative Emission Control System Leak Detected (Very Small Leak)	Same as DTC No. P0442	0	0
Vehicle Speed Sensor "A"	Combination meter     Open or short in vehicle speed sensor circuit     Vehicle speed sensor     ECM	0	0
Vehicle Speed Sensor "A" Intermittent/Erratic/High	Combination meter     Open or short in vehicle speed sensor circuit     Vehicle speed sensor     ECM	-	0
Brake Switch "A"/"B" Correlation	Stop light switch signal circuit     Stop light switch     ECM	ı	0
	Evaporative Emission Control System Leak Detected (Small Leak)  Evaporative Emission Control System Vent Control Circuit Evaporative Emission Control System Pressure Sensor/Switch Range/Performance Evaporative Emission Control System Pressure Sensor/Switch Low Input Evaporative Emission Control System Pressure Sensor/Switch High Input Evaporative Emission Control System Pressure Sensor/Switch High Input Evaporative Emission Control System Leak Detected (Very Small Leak)  Vehicle Speed Sensor "A"  Vehicle Speed Sensor "A"	nected ((1), (2), (3), (4), (5), (6), (7), (8), (9), (10) and (11) in Fig. 1)  Fuel tank cap cracked or damaged  Open or short in vapor pressure sensor circuit  Vapor pressure sensor  Open or short in VSV circuit for EVAP  VSV for EVAP  Open or short in VSV circuit for EVAP  VSV for EVAP  Open or short in VSV circuit for EVAP  VSV for EVAP  Open or short in VSV circuit for pressure switching valve  Fuel tank cap cracked, holed or damaged  Charcoal canister cracked, holed or damaged  Fuel tank cracked, holed or damaged  Fuel tank cap fill check valve cracked or damaged  Fuel tank cap incorrectly installed  Fuel tank cap racked or damaged or disconnected ((1), (2), (4), (5), (6), (7), (8), (10) and (11) in Fig. 1)  Fuel tank cap incorrectly installed  Fuel tank cap incorrectly in	nected ((1), (2), (3), (4), (5), (6), (7), (8), (9), (10) and (11) in Fig. 1) Fig. 1) Fig. 1) Fig. 1) Fuel tank cap incorrectly installed Fuel tank cap cracked or damaged Open or short in vapor pressure sensor circuit Vapor pressure sensor Open or short in VSV circuit for EVAP VSV for EVAP VSV for EVAP Open or short in VSV circuit for CCV Open or short in VSV circuit for pressure switching valve Fuel tank cracked, holed or damaged Charcoal canister cracked, holed or damaged Fuel tank core fill check valve cracked or damaged Fuel tank core fill check valve cracked or damaged Fuel tank cop incorrectly installed Fuel tank cap incorrectly installed Fuel tank cap incorrectly installed Fuel tank cap cracked or damaged Vacuum hose cracked, holed or damaged Fuel tank cap incorrectly installed Fuel tank cap incorrectly incorrectly installed Fuel tank cap incorrectly installed Fuel tank cap incorrectly incorrectly incorrectly incorrectly incorrectly incorrectly

P0505 (DI–187)	Idle Air Control System	Air induction system     Electric throttle control system     Electric throttle control system circuit     PCV piping     ECM	0	0
P0513 (DI-189)	Incorrect Immobilizer Key	•Key	-	0
P0560 (DI-190)	System Voltage	Open in back-up power source circuit EFI No.1 fuse ECM	0	0
P0604 (DI-192)	Internal Control Module Random Access Memory (RAM) Error	•ECM	0	0
P0606 (DI-192)	ECM/PCM Processor	•ECM	0	0
P0607 (DI-192)	Control Module Performance	• ECM	0	0
P0617 (DI-193)	Starter Relay Circuit High	Park/neutral position switch Starter relay circuit Ignition switch ECM	0	0
P0657 (DI-192)	Actuator Supply Voltage Circuit / Open	•ECM	0	0
P1340 (DI-199)	Camshaft Position Sensor "A" Circuit (Bank 1 Sensor 2)	Open or short in camshaft position sensor circuit	0	0
P1341 (DI–199)	Camshaft Position Sensor "A" Circuit Range/Performance (Bank 1 Sensor 2)	Camshaft position sensor     LH camshaft timing pulley     ECM	0	0
P1645 (DI-201)	Body ECU Malfunction	Body ECU     A/C ECU     Communication bus	0	-
P2102 (DI-202)	Throttle Actuator Control Motor Circuit Low	Open in throttle control motor circuit Throttle control motor  ECM	0	0
P2103 (DI-202)	Throttle Actuator Control Motor Circuit High	Short in throttle control motor circuit     Throttle control motor     ECM	0	0
P2111 (DI-206)	Throttle Actuator Control System – Stuck Open	Throttle control motor Throttle body	0	0
P2112 (DI-206)	Throttle Actuator Control System – Stuck Closed	Throttle control motor Throttle body	0	0
P2118 (DI-208)	Throttle Actuator Control Motor Current Range/Performance	Open in ETCS power source circuit ECM	0	0
P2119 (DI-210)	Throttle Actuator Control Throttle Body Range/Performance	Electric throttle control system     ECM	0	0
P2120 (DI-212)	Throttle/Pedal Position Sensor/ Switch "D" Circuit	Open or short in accelerator pedal position sensor circuit     Accelerator pedal position sensor     ECM	0	0
P2121 (DI–216)	Throttle/Pedal Position Sensor/ Switch "D" Circuit Range/Perfor- mance	Accelerator pedal position sensor	0	0
P2122 (DI-212)	Throttle/Pedal Position Sensor/ Switch "D" Circuit Low Input	Open in accelerator pedal position sensor circuit     Accelerator pedal position sensor     ECM	0	0

P2123 (DI-212)	Throttle/Pedal Position Sensor/ Switch "D" Circuit High Input	Short in accelerator pedal position sensor circuit     Accelerator pedal position sensor     ECM	0	0
P2125 (DI-212)	Throttle/Pedal Position Sensor/ Switch "E" Circuit	Short in accelerator pedal position sensor circuit     Accelerator pedal position sensor     ECM	0	0
P2127 (DI-212)	Throttle/Pedal Position Sensor/ Switch "E" Circuit Low Input	Short in accelerator pedal position sensor circuit     Accelerator pedal position sensor     ECM	0	0
P2128 (DI-212)	Throttle/Pedal Position Sensor/ Switch "E" Circuit High Input	Short in accelerator pedal position sensor circuit     Accelerator pedal position sensor     ECM	0	0
P2135 (DI-64)	Throttle Pedal Position Sensor/ Switch "A" / "B" Voltage Correla- tion	VTA1 and VTA2 circuit are short–circuited     Throttle position sensor     ECM	0	0
P2138 (DI-212)	Throttle/Pedal Position Sensor/ Switch "D"/"E" Voltage Correla- tion	Short in accelerator pedal position sensor circuit     Accelerator pedal position sensor     ECM	0	0
P2195 (DI-71)	Oxygen Sensor Signal Stuck Lean (Bank 1 Sensor 1)	Open or short in heated oxygen sensor circuit (Bank 1, 2 Sensor 1)	0	0
P2196 (DI-71)	Oxygen Sensor Signal Stuck Rich (Bank 1 Sensor 1)	Heated oxygen sensor (Bank 1, 2 Sensor 1)     EFI MAIN relay	0	0
P2197 (DI-71)	Oxygen Sensor Signal Stuck Lean (Bank 2 Sensor 1)	Air induction system     Fuel pressure	0	0
P2198 (DI-71)	Oxygen Sensor Signal Stuck Rich (Bank 2 Sensor 1)	• Injector • ECM	0	0

<sup>\*1:</sup> MIL lights up.

\*2: MIL lights up or blinks.

\*3: MIL does not light up, .... MIL lights up