DI1L4−25

DIAGNOSTIC TROUBLE CODE CHART

HINT:

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 the check mode, check the circuit for the listed in the table below. For details of each code, refer to the ''See page'' under the respective ''DTC No.'' in the DTC chart.

DTC No. (See page)	Detection Item	Trouble Area	MIL*1	Memory
P0010 (DI−492)	Camshaft Position ”A” Actuator Circuit (Bank 1)	• Open or short in OCV circuit • OCV • ECM	○	○
P0011 (DI−498)	Camshaft Position ”A” −Timing Over− Advanced or System Performance (Bank 1)	• Valve timing • OCV • VVT controller assembly • ECM	○	○
P0012 (DI−498)	Camshaft Position ”A” −Timing Over− Retarded (Bank 1)	• Valve timing • OCV • VVT controller assembly • ECM	○	○
P0016 (DI−504)	Crankshaft Position − Camshaft Position Correlation (Bank 1 Sensor A)	• Open or short in VVT sensor circuit • VVT sensor • ECM	○	○
P0018 (DI−504)	Crankshaft Position − Camshaft Position Correlation (Bank 2 Sensor A)	• Open or short in VVT sensor circuit • VVT sensor • ECM	○	○
P0020 (DI−492)	Camshaft Position ”A” Actuator Circuit (Bank 2)	• Open or short in OCV circuit • OCV • ECM	○	○
P0021 (DI−498)	Camshaft Position ”A” −Timing Over− Advanced or System Performance (Bank 2)	• Valve timing • OCV • VVT controller assembly • ECM	○	○
P0022 (DI−498)	Camshaft Position ”A” −Timing Over− Retarded (Bank 2)	• Valve timing • OCV • VVT controller assembly • ECM	○	○
P0031 (DI−507)	Oxygen (A/F) Sensor Heater Control Circuit Low (Bank 1 Sensor 1)	• Open in heater circuit of A/F sensor • A/F sensor heater • A/F relay • ECM	○	○
P0032 (DI−507)	Oxygen (A/F) Sensor Heater Control Circuit High (Bank 1 Sensor 1)	• Short in heater circuit of A/F sensor • A/F sensor heater • A/F relay • ECM	○	○
P0037 (DI−512)	Oxygen Sensor Heater Control Circuit Low (Bank 1 Sensor 2)	• Open in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • EFI relay • ECM	○	○
P0038 (DI−512)	Oxygen Sensor Heater Control Circuit High (Bank 1 Sensor 2)	• Short in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • EFI relay • ECM	○	○

P0051 (DI−507)	Oxygen (A/F) Sensor Heater Control Circuit Low (Bank 2 Sensor 1)	• Open in heater circuit of A/F sensor • A/F sensor heater • A/F relay • ECM	○	○
P0052 (DI−507)	Oxygen (A/F) Sensor Heater Control Circuit High (Bank 2 Sensor 1)	• Short in heater circuit of A/F sensor • A/F sensor heater • A/F relay • ECM	○	○
P0057 (DI−512)	Oxygen Sensor Heater Control Circuit Low (Bank 2 Sensor 2)	• Open in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • EFI relay • ECM	○	○
P0058 (DI−512)	Oxygen Sensor Heater Control Circuit High (Bank 2 Sensor 2)	• Short in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • EFI relay • ECM	○	○
P0100 (DI−522)	Mass or Volume Air Flow Circuit	• Open or short in mass air flow meter circuit • Mass air flow meter • ECM	○	○
P0101 (DI−531)	Mass or Volume Air Flow Circuit Range/Performance Problem	• Mass air flow meter	○	○
P0102 (DI−522)	Mass or Volume Air Flow Circuit Low Input	• Open or short in mass air flow meter circuit • Mass air flow meter • ECM	○	○
P0103 (DI−522)	Mass or Volume Air Flow Circuit High Input	• Open or short in mass air flow meter circuit • Mass air flow meter • ECM	○	○
P0110 (DI−534)	Intake Air Temperature Circuit	• Open or short in intake air temperature sensor circuit • Intake air temperature sensor (built in mass air flow meter) • ECM	○	○
P0112 (DI−534)	Intake Air Temperature Circuit Low Input	• Open or short in intake air temperature sensor circuit • Intake air temperature sensor (built in mass air flow meter) • ECM	○	○
P0113 (DI−534)	Intake Air Temperature Circuit High Input	• Open or short in intake air temperature sensor circuit • Intake air temperature sensor (built in mass air flow meter) • ECM	○	○
P0115 (DI−540)	Engine Coolant Temperature Circuit	• Open or short in engine coolant temperature sensor circuit • Engine coolant temperature sensor • ECM	○	○
P0116 (DI−546)	Engine Coolant Temperature Circuit Range/Performance Problem	• Engine coolant temperature sensor	○	○
P0117 (DI−540)	Engine Coolant Temperature Circuit Low Input	• Open or short in engine coolant temperature sensor circuit • Engine coolant temperature sensor • ECM	○	○
P0118 (DI−540)	Engine Coolant Temperature Circuit High Input	• Open or short in engine coolant temperature sensor circuit • Engine coolant temperature sensor • ECM	○	○
P0120 (DI−548)	Throttle/Pedal Position Sensor/ Switch ”A” Circuit	• Open or short in throttle control motor and sensor circuit • Throttle control motor and sensor • ECM	○	○
P0121 (DI−558)	Throttle/Pedal Position Sensor/ Switch ”A” Circuit Range/Performance Problem	• Throttle control motor and sensor	○	○

P0122 (DI−548)	Throttle/Pedal Position Sensor/ Switch ”A” Circuit Low Input	• Short in throttle control motor and sensor circuit • Throttle control motor and sensor • Short in VTA1 circuit • Open in VC circuit • ECM	○	○
P0123 (DI−548)	Throttle/Pedal Position Sensor/ Switch ”A” Circuit High Input	• Open in throttle control motor and sensor circuit • Throttle control motor and sensor • Open in VTA1 circuit • Open in E2 circuit • VC and VTA1 circuit are short−circuited • ECM	○	○
P0125 (DI−560)	Insufficient Coolant Temperature for Closed Loop Fuel Control	• Cooling system • Engine coolant temperature sensor • Thermostat	○	○
P0128 (DI−563)	Coolant Thermostat (Coolant Temperature Below Thermostat Regulating Temperature)	• Thermostat • Cooling system • Engine coolant temperature sensor • ECM	○	○
P0136 (DI−567)	Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 2)	• Open or short in HO2 sensor (sensor 2) circuit • HO2 sensor (sensor 2) • HO2 sensor heater (sensor 2) • Air−Fuel Ratio (A/F) sensor (sensor 1) • EFI relay • Gas leakage from exhaust system	○	○
P0137 (DI−567)	Oxygen Sensor Circuit Low Voltage (Bank 1 Sensor 2)	• Open in HO2 sensor (sensor 2) circuit • HO2 sensor (sensor 2) • HO2 sensor heater (sensor 2) • EFI relay • Gas leakage from exhaust system	○	○
P0138 (DI−567)	Oxygen Sensor Circuit High Voltage (Bank 1 Sensor 2)	• Short in HO2 sensor (sensor 2) circuit • HO2 sensor (sensor 2) • ECM internal circuit malfunction	○	○
P0156 (DI−567)	Oxygen Sensor Circuit Malfunction (Bank 2 Sensor 2)	• Open or short in HO2 sensor (sensor 2) circuit • HO2 sensor (sensor 2) • HO2 sensor heater (sensor 2) • Air−Fuel Ratio (A/F) sensor (sensor 1) • EFI relay • Gas leakage from exhaust system	○	○
P0157 (DI−567)	Oxygen Sensor Circuit Low Voltage (Bank 2 Sensor 2)	• Open in HO2 sensor (sensor 2) circuit • HO2 sensor (sensor 2) • HO2 sensor heater (sensor 2) • EFI relay • Gas leakage from exhaust system	○	○
P0158 (DI−567)	Oxygen Sensor Circuit High Voltage (Bank 2 Sensor 2)	• Short in HO2 sensor (sensor 2) circuit • HO2 sensor (sensor 2) • ECM internal circuit malfunction	○	○

P0171 (DI−586)	System too Lean (Bank 1)	• Air induction system • Injector blockage • Mass air flow meter • Engine coolant temperature 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) • Heated oxygen sensor heater • EFI relay • PCV piping • ECM	○	○
P0172 (DI−586)	System too Rich (Bank 1)	• Injector leak, blockage • Mass air flow meter • Engine coolant temperature sensor • Ignition system • Fuel pressure • Gas leakage in exhaust system • Open or short in heated oxygen sensor (bank 1 sensor 1) circuit • Heated oxygen sensor (bank 1 sensor 1) • ECM	○	○
P0174 (DI−586)	System too Lean (Bank 2)	• Air induction system • Injector blockage • Mass air flow meter • Engine coolant temperature 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) • Heated oxygen sensor heater • EFI relay • PCV piping • ECM	○	○
P0175 (DI−586)	System too Rich (Bank 2)	• Injector leak, blockage • Mass air flow meter • Engine coolant temperature 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	○	○
P0220 (DI−548)	Throttle/Pedal Position Sensor/ Switch ”B” Circuit	• Throttle control motor and sensor • ECM	○	○
P0222 (DI−548)	Throttle/Pedal Position Sensor/ Switch ”B” Circuit Low Input	• Throttle control motor and sensor • Short in VTA2 circuit • Open in VC circuit • ECM	○	○
P0223 (DI−548)	Throttle/Pedal Position Sensor/ Switch ”B” Circuit High Input	• Throttle control motor and sensor • Open in VTA2 circuit • Open in E2 circuit • VC and VTA2 circuit are short−circuited • ECM	○	○

P0230 (DI−600)	Fuel Pump Primary Circuit	• Open or short in fuel pump relay circuit • Fuel pump relay • Circuit opening relay • Fuel pump • ECM	−	○
P0300 (DI−605)	Random/Multiple Cylinder Misfire Detected	• Open or short in engine wire • Connector connection • Vacuum hose connection • Ignition system • Injector • Fuel pressure • Mass air flow meter • Engine coolant temperature sensor • Compression pressure • Valve clearance • Valve timing • PCV piping • ECM	○*2	○
P0301 (DI−605)	Cylinder 1 Misfire Detected	• Open or short in engine wire • Connector connection • Vacuum hose connection • Ignition system • Injector • Fuel pressure • Mass air flow meter • Engine coolant temperature sensor • Compression pressure • Valve clearance • Valve timing • PCV piping • ECM	○*2	○
P0302 (DI−605)	Cylinder 2 Misfire Detected	• Open or short in engine wire • Connector connection • Vacuum hose connection • Ignition system • Injector • Fuel pressure • Mass air flow meter • Engine coolant temperature sensor • Compression pressure • Valve clearance • Valve timing • PCV piping • ECM	○*2	○
P0303 (DI−605)	Cylinder 3 Misfire Detected	• Open or short in engine wire • Connector connection • Vacuum hose connection • Ignition system • Injector • Fuel pressure • Mass air flow meter • Engine coolant temperature sensor • Compression pressure • Valve clearance • Valve timing • PCV piping • ECM	○*2	○

P0304 (DI−605)	Cylinder 4 Misfire Detected	• Open or short in engine wire • Connector connection • Vacuum hose connection • Ignition system • Injector • Fuel pressure • Mass air flow meter • Engine coolant temperature sensor • Compression pressure • Valve clearance • Valve timing • PCV piping • ECM	○*2	○
P0305 (DI−605)	Cylinder 5 Misfire Detected	• Open or short in engine wire • Connector connection • Vacuum hose connection • Ignition system • Injector • Fuel pressure • Mass air flow meter • Engine coolant temperature sensor • Compression pressure • Valve clearance • Valve timing • PCV piping • ECM	○*2	○
P0306 (DI−605)	Cylinder 6 Misfire Detected	• Open or short in engine wire • Connector connection • Vacuum hose connection • Ignition system • Injector • Fuel pressure • Mass air flow meter • Engine coolant temperature sensor • Compression pressure • Valve clearance • Valve timing • PCV piping • ECM	○*2	○
P0307 (DI−605)	Cylinder 7 Misfire Detected	• Open or short in engine wire • Connector connection • Vacuum hose connection • Ignition system • Injector • Fuel pressure • Mass air flow meter • Engine coolant temperature sensor • Compression pressure • Valve clearance • Valve timing • PCV piping • ECM	○*2	○

P0308 (DI−605)	Cylinder 8 Misfire Detected	• Open or short in engine wire • Connector connection • Vacuum hose connection • Ignition system • Injector • Fuel pressure • Mass air flow meter • Engine coolant temperature sensor • Compression pressure • Valve clearance • Valve timing • PCV piping • ECM	○*2	○
P0327 (DI−626)	Knock Sensor 1 Circuit Low Input (Bank 1 or Single Sensor)	• Short in knock sensor circuit • Knock sensor • ECM	○	○
P0328 (DI−626)	Knock Sensor 1 Circuit High Input (Bank 1 or Single Sensor)	• Open in knock sensor circuit • Knock sensor • ECM	○	○
P0332 (DI−626)	Knock Sensor 2 Circuit High Input (Bank 2)	• Open in knock sensor circuit • Knock sensor • ECM	○	○
P0333 (DI−626)	Knock Sensor 2 Circuit High Input (Bank 2)	• Open in knock sensor circuit • Knock sensor • ECM	○	○
P0335 (DI−632)	Crankshaft Position Sensor ”A” Circuit	• Open or short in crankshaft position sensor circuit • Crankshaft position sensor • Signal plate • ECM	○	○
P0339 (DI−632)	Crankshaft Position Sensor ”A” Circuit Intermittent	• Open or short in crankshaft position sensor circuit • Crankshaft position sensor • Signal plate • ECM	−	○
P0340 (DI−637)	Camshaft Position Sensor ”A” Circuit (Bank 1 or Single Sensor)	• Open or short in camshaft position sensor circuit • Camshaft position sensor • LH camshaft timing pulley • Jumping teeth of timing belt • ECM	○	○
P0341 (DI−637)	Camshaft Position Sensor ”A” Circuit Range/Performance (Bank 1 or Single Sensor)	• Open or short in camshaft position sensor circuit • Camshaft position sensor • LH camshaft timing pulley • Jumping teeth of timing belt • ECM	○	○
P0345 (DI−637)	Camshaft Position Sensor ”A” Circuit (Bank 2)	• Open or short in camshaft position sensor circuit • VVT sensor • ECM	○	○
P0346 (DI−637)	Camshaft Position Sensor ”A” Circuit Range/Performance (Bank 2)	• Open or short in camshaft position sensor circuit • VVT sensor • ECM	○	○
P0351 (DI−642)	Ignition Coil ”A” Primary/Secondary Circuit	• Open or short in IGF 1 and IGT 1 circuit from No. 1 ignition coil with igniter to ECM • No. 1 ignition coil with igniter • Ignition system • ECM	○	○

P0352 (DI−642)	Ignition Coil "B" Primary/Secondary Circuit	• Open or short in IGF 2 and IGT 2 circuit from No. 2 ignition coil with igniter to ECM • No. 2 ignition coil with igniter • Ignition system • ECM	○	○
P0353 (DI−642)	Ignition Coil "C" Primary/Secondary Circuit	• Open or short in IGF 2 and IGT 3 circuit from No. 3 ignition coil with igniter to ECM • No. 3 ignition coil with igniter • Ignition system • ECM	○	○
P0354 (DI−642)	Ignition Coil "D" Primary/Secondary Circuit	• Open or short in IGF 1 and IGT 4 circuit from No. 4 ignition coil with igniter to ECM • No. 4 ignition coil with igniter • Ignition system • ECM	○	○
P0355 (DI−642)	Ignition Coil "E" Primary/Secondary Circuit	• Open or short in IGF 2 and IGT 5 circuit from No. 5 ignition coil with igniter to ECM • No. 5 ignition coil with igniter • Ignition system • ECM	○	○
P0356 (DI−642)	Ignition Coil "F" Primary/Secondary Circuit	• Open or short in IGF 1 and IGT 6 circuit from No. 6 ignition coil with igniter to ECM • No. 6 ignition coil with igniter • Ignition system • ECM	○	○
P0357 (DI−642)	Ignition Coil "G" Primary/Secondary Circuit	• Open or short in IGF 1 and IGT 7 circuit from No. 7 ignition coil with igniter to ECM • No. 7 ignition coil with igniter • Ignition system • ECM	○	○
P0358 (DI−642)	Ignition Coil "H" Primary/Secondary Circuit	• Open or short in IGF 2 and IGT 8 circuit from No. 8 ignition coil with igniter to ECM • No. 8 ignition coil with igniter • Ignition system • ECM	○	○
P0412 (DI−656)	Air Injection System Air Switching Valve Malfunction	• Open in air switching valve drive circuit • Short between air switching valve circuit and +B circuit • Air injection driver • ECM	○	○
P0418 (DI−665)	Air Injection System Air Pump Malfunction	• Open in air pump drive circuit • Short between air pump circuit and +B circuit • Air injection driver • ECM	○	○
P0420 (DI−672)	Catalyst System Efficiency Below Threshold (Bank 1)	• Gas leakage on exhaust system • Heated oxygen sensor (bank 1 sensor 1, 2) • Three−way catalytic converter	○	○
P0430 (DI−672)	Catalyst System Efficiency Below Threshold (Bank 2)	• Gas leakage on exhaust system • Heated oxygen sensor (bank 2 sensor 1, 2) • Three−way catalytic converter	○	○
P043E (DI−869)	Evaporate Emission System Reference Orifice Clog Up	• Pump module	○	○
P043F (DI−869)	Evaporate Emission System Reference Orifice High Flow	• Pump module	○	○

P0441 (DI−680)	Evaporative Emission Control System Incorrect Purge Flow	• Purge valve • Purge valve circuit (between purge valve and ECM) • Leakage from EVAP line (between purge valve and intake manifold) • EVAP line (between purge valve and canister) clogged • ECM	○	○
P0450 (DI−687)	Evaporative Emission Control System Pressure Sensor/Switch [Fuel Tank Pressure Sensor]	• Pump module (including pressure sensor)	○	○
P0451 (DI−687)	Evaporative Emission Control System Pressure Sensor/Switch Range/Performance	• Pump module (including pressure sensor)	○	○
P0452 (DI−687)	Evaporative Emission Control System Pressure Sensor/Switch Low Input	• Pump module (including pressure sensor) • Connector/Wire harness (between pump module and ECM) • ECM	○	○
P0453 (DI−687)	Evaporative Emission Control System Pressure Sensor/Switch High Input	• Pump module (include pressure sensor) • Connector/Wire harness (between pump module and ECM) • ECM	○	○
P0455 (DI−696)	Evaporative Emission Control System Leak Detected (Gross Leak)	• Fuel tank cap (loose) • Leakage from EVAP line (between canister and fuel tank) • Leakage from EVAP line (between purge valve and canister) • Leakage from pump module • Leakage from fuel tank • Leakage from canister	○	○
P0456 (DI−696)	Evaporative Emission Control System Leak Detected (Very Small Leak)	• Same as DTC No. P0445	○	○
P0500 (DI−701)	Vehicle Speed Sensor ”A”	• Combination meter • Open or short in vehicle speed sensor circuit • Vehicle speed sensor • ECM	○	○
P0503 (DI−701)	Vehicle Speed Sensor ”A” Intermittent/Erratic/High	• Combination meter • Open or short in vehicle speed sensor circuit • Vehicle speed sensor • ECM	−	○
P0504 (DI−706)	Brake Switch ”A”/”B” Correlation	• Short in stop lamp switch signal circuit • STOP fuse • Stop lamp switch • ECM	−	○
P0505 (DI−712)	Idle Air Control System	• Air induction system • Electric throttle control system • PCV hose connection	○	○
P050A (DI−715−1)	Cold Start Idle Air Control System Performance	• ETCS (Electronic Throttle Control System) • Mass air flow meter • Air induction system • PCV hose connections • ECM	○	○
P0560 (DI−716)	System Voltage	• Back−up power source circuit • EFI No. 1 fuse • ECM	○	○
P0604 (DI−721)	Internal Control Module Random Access Memory (RAM) Error	• ECM	○	○
P0606 (DI−721)	ECM/PCM Processor	• ECM	○	○

P0607 (DI−721)	Control Module Performance	• ECM	○	○
P0617 (DI−723)	Starter Relay Circuit High	• Park/neutral position switch • Starter relay circuit • Ignition switch • ECM	○	○
P0630 (DI−728)	VIN not Programmed or Mis-match−ECM/PCM	• ECM	○	○
P0657 (DI−721)	Actuator Supply Voltage Circuit/ Open	• ECM	○	○
P0705 (DI−1159)	Transmission Range Sensor Cir-cuit Malfunction (PRNDL Input)	• Electronic Controlled Automatic Transaxle (ECT)	○	○
P0710 (DI−1166)	Transmission Fluid Temperature Sensor ”A” Circuit	• Electronic control automatic transmission (ECT)	○	○
P0711 (DI−1172)	Transmission Fluid Temperature Sensor ”A” Performance	• Electronic control automatic transmission (ECT)	○	○
P0712 (DI−1166)	Transmission Fluid Temperature Sensor ”A” Circuit Low Input	• Electronic control automatic transmission (ECT)	○	○
P0713 (DI−1166)	Transmission Fluid Temperature Sensor ”A” Circuit High Input	• Electronic control automatic transmission (ECT)	○	○
P0717 (DI−1175)	Input/Turbine Speed Sensor ”A” Circuit No Signal	• Electronic control automatic transmission (ECT)	○	○
P0722 (DI−1180)	Output Speed Sensor Circuit No Signal	• Electronic control automatic transmission (ECT)	○	○
P0724 (DI−1184)	Brake Switch ”B” Circuit High	• Electronic control automatic transmission (ECT)	○	○
P0748 (DI−1188)	Pressure Control Solenoid ”A” Electrical (Shift Solenoid Valve SL1)	• Electronic control automatic transmission (ECT)	○	○
P0751 (DI−1193)	Shift Solenoid ”A” Performance (Shift Solenoid Valve S1)	• Electronic control automatic transmission (ECT)	○	○
P0756 (DI−1199)	Shift Solenoid ”B” Performance (Shift Solenoid Valve S2)	• Electronic control automatic transmission (ECT)	○	○
P0771 (DI−1205)	Shift Solenoid ”E” Performance (Shift Solenoid Valve SR)	• Electronic control automatic transmission (ECT)	○	○
P0776 (DI−1210)	Pressure Control Solenoid ”B” Performance (Shift Solenoid Valve SL2)	• Electronic control automatic transmission (ECT)	○	○
P0778 (DI−1216)	Pressure Control Solenoid ”B” Electrical (Shift Solenoid Valve SL2)	• Electronic control automatic transmission (ECT)	○	○
P0781 (DI−1221)	1−2 Shift (1−2 Shift Valve)	• Electronic control automatic transmission (ECT)	○	○
P0973 (DI−1226)	Shift Solenoid ”A” Control Circuit Low (Shift solenoid Valve S1)	• Electronic control automatic transmission (ECT)	○	○
P0974 (DI−1226)	Shift Solenoid ”A” Control Circuit High (Shift solenoid Valve S1)	• Electronic control automatic transmission (ECT)	○	○
P0976 (DI−1231)	Shift Solenoid ”B” Control Circuit Low (Shift solenoid Valve S2)	• Electronic control automatic transmission (ECT)	○	○
P0977 (DI−1231)	Shift Solenoid ”B” Control Circuit High (Shift solenoid Valve S2)	• Electronic control automatic transmission (ECT)	○	○

P0985 (DI−1236)	Shift Solenoid ”E” Control Circuit Low (Shift Solenoid Valve SR)	• Electronic control automatic transmission (ECT)	○	○
P0986 (DI−1236)	Shift Solenoid ”E” Control Circuit High (Shift Solenoid Valve SR)	• Electronic control automatic transmission (ECT)	○	○
P1340 (DI−730)	Camshaft Position Sensor ”A” Circuit (Bank 1 Sensor 2)	• Open or short in camshaft position sensor circuit • Camshaft position sensor • LH camshaft timing pulley • ECM	○	○
P1341 (DI−730)	Camshaft Position Sensor ”A” Circuit Range/Performance (Bank 1 Sensor 2)	• Open or short in camshaft position sensor circuit • Camshaft position sensor • LH camshaft timing pulley • ECM	○	○
P1440 (DI−735)	Scondary Air Injection System Control Valve Circuit Bank 1	• Open or short in VSV for air injection control circuit • ECM	○	○
P1441 (DI−739)	Scondary Air Injection System Switching Valve No.2 Bank 1 Stuck Open	• VSV for air injection control circuit (Bank 1) • Air switching valve No.2 (Bank 1) • VSV for air injection system (Bank 1) • ECM	○	○
P1442 (DI−754)	Scondary Air Injection System Switching Valve No.2 Bank 1 Stuck Close	• VSV for air injection control circuit (Bank 1) • Vacuum hose (VSV for air injection control − air switching valve No.2) • Air injector pipe (Air switching valve No.2 − exhaust manifold) • Air switching valve No.2 (Bank 1) • VSV for air injection control (Bank 1) • ECM	○	○
P1443 (DI−735)	Scondary Air Injection System Control Valve Circuit Bank 2	• Open or short in VSV for air injection control circuit • ECM	○	○
P1444 (DI−739)	Scondary Air Injection System Switching Valve No.2 Bank 2 Stuck Open	• VSV for air injection control circuit (Bank 2) • Air switching valve No.2 (Bank 2) • VSV for air injection system (Bank 2) • ECM	○	○
P1445 (DI−754)	Scondary Air Injection System Switching Valve No.2 Bank 2 Stuck Cloes	• VSV for air injection control circuit (Bank 2) • Vacuum hose (VSV for air injection control − air switching valve No.2) • Air injector pipe (Air switching valve No.2 − exhaust manifold) • Air switching valve No.2 (Bank 2) • VSV for air injection control (Bank 2) • ECM	○	○
P1613 (DI−767)	Air Injection System Air Injection Driver	• Short between air pump circuit and body ground • Open in air pump drive circuit • Short between air pump circuit and +B circuit • Air injection driver • ECM	○	○
P2102 (DI−778)	Throttle Actuator Control Motor Circuit Low	• Open in throttle control motor and sensor circuit • Throttle control motor and sensor • ECM	○	○
P2103 (DI−778)	Throttle Actuator Control Motor Circuit High	• Short in throttle control motor and sensor circuit • Throttle control motor and sensor • Throttle valve • Throttle body • ECM	○	○
P2111 (DI−782)	Throttle Actuator Control System − Stuck Open	• Throttle control motor and sensor circuit • Throttle control motor and sensor • Throttle valve • Throttle body	○	○

P2112 (DI−782)	Throttle Actuator Control System − Stuck Closed	• Throttle control motor and sensor circuit • Throttle control motor and sensor • Throttle valve • Throttle body	○	○
P2118 (DI−786)	Throttle Actuator Control Motor Current Range/Performance	• Open in throttle control motor and sensor power source circuit • ETCS fuse • ECM	○	○
P2119 (DI−791)	Throttle Actuator Control Throttle Body Range/Performance	• Electric throttle control system • Throttle body	○	○
P2120 (DI−794)	Throttle/Pedal Position Sensor/ Switch ”D” Circuit	• Accelerator pedal position sensor • ECM	○	○
P2121 (DI−803)	Throttle/Pedal Position Sensor/ Switch ”D” Circuit Range/Performance	• Accelerator pedal position sensor	○	○
P2122 (DI−794)	Throttle/Pedal Position Sensor/ Switch ”D” Circuit Low Input	• Accelerator pedal position sensor • VCPA circuit open • VPA circuit open or ground short • ECM	○	○
P2123 (DI−794)	Throttle/Pedal Position Sensor/ Switch ”D” Circuit High Input	• Accelerator pedal position sensor • EPA circuit open • ECM	○	○
P2125 (DI−794)	Throttle/Pedal Position Sensor/ Switch ”E” Circuit	• Accelerator pedal position sensor • ECM	○	○
P2127 (DI−794)	Throttle/Pedal Position Sensor/ Switch ”E” Circuit Low Input	• Accelerator pedal position sensor • VCP2 circuit open • VPA2 circuit open or ground short • ECM	○	○
P2128 (DI−794)	Throttle/Pedal Position Sensor/ Switch ”E” Circuit High Input	• Accelerator pedal position sensor • EPA circuit open • ECM	○	○
P2135 (DI−548)	Throttle Pedal Position Sensor/ Switch ”A” / ”B” Voltage Correlation	• Throttle control motor and sensor • VTA1 and VTA2 circuit are short−circuited • ECM	○	○
P2138 (DI−794)	Throttle Pedal Position Sensor/ Switch ”D” / ”E” Voltage Correlation	• VPA and VPA2 circuit are short circuited • Accelerator pedal position sensor • ECM	○	○
P2195 (DI−806)	Oxygen (A/F) Sensor Signal Stuck Lean (Bank 1 Sensor 1)	• Open or short in A/F sensor (sensor 1) circuit • A/F sensor (sensor 1) • A/F sensor heater (sensor 1) • A/F relay • A/F sensor heater and EFI relay circuits • Air induction system • Fuel pressure • Injector • ECM	○	○
P2196 (DI−806)	Oxygen (A/F) Sensor Signal Stuck Rich (Bank 1 Sensor 1)	• Open or short in A/F sensor (sensor 1) circuit • A/F sensor (sensor 1) • A/F sensor heater (sensor 1) • A/F relay • A/F sensor heater and EFI relay circuits • Air induction system • Fuel pressure • Injector • ECM	○	○

P2197 (DI−806)	Oxygen (A/F) Sensor Signal Stuck Lean (Bank 2 Sensor 1)	• Open or short in A/F sensor (sensor 1) circuit • A/F sensor (sensor 1) • A/F sensor heater (sensor 1) • A/F relay • A/F sensor heater and EFI relay circuits • Air induction system • Fuel pressure • Injector • ECM	○	○
P2198 (DI−806)	Oxygen (A/F) Sensor Signal Stuck Rich (Bank 2 Sensor 1)	• Open or short in A/F sensor (sensor 1) circuit • A/F sensor (sensor 1) • A/F sensor heater (sensor 1) • A/F relay • A/F sensor heater and EFI relay circuits • Air induction system • Fuel pressure • Injector • ECM	○	○
P2238 (DI−826)	Oxygen Sensor Pumping Current Circuit Low (For A/F Sensor) (Bank 1 Sensor 1)	• Open or short in A/F sensor (sensor 1) circuit • A/F sensor (sensor 1) • A/F sensor heater (sensor 1) • A/F relay • A/F sensor heater and EFI relay circuits	○	○
P2239 (DI−826)	Oxygen Sensor Pumping Current Circuit High (For A/F Sensor) (Bank 1 Sensor 1)	• Open or short in A/F sensor (sensor 1) circuit • A/F sensor (sensor 1) • A/F sensor heater (sensor 1) • A/F relay • A/F sensor heater and EFI relay circuits	○	○
P2241 (DI−826)	Oxygen Sensor Pumping Current Circuit Low (For A/F Sensor) (Bank 2 Sensor 1)	• Open or short in A/F sensor (sensor 1) circuit • A/F sensor (sensor 1) • A/F sensor heater (sensor 1) • A/F relay • A/F sensor heater and EFI relay circuits	○	○
P2242 (DI−826)	Oxygen Sensor Pumping Current Circuit High (For A/F Sensor) (Bank 2 Sensor 1)	• Open or short in A/F sensor (sensor 1) circuit • A/F sensor (sensor 1) • A/F sensor heater (sensor 1) • A/F relay • A/F sensor heater and EFI relay circuits	○	○
P2252 (DI−826)	Oxygen Sensor Reference Ground Current Circuit Low (For A/F Sensor) (Bank 1 Sensor 1)	• Open or short in A/F sensor (sensor 1) circuit • A/F sensor (sensor 1) • A/F sensor heater (sensor 1) • A/F relay • A/F sensor heater and EFI relay circuits	○	○
P2253 (DI−826)	Oxygen Sensor Reference Current Circuit High (For A/F Sensor) (Bank 1 Sensor 1)	• Open or short in A/F sensor (sensor 1) circuit • A/F sensor (sensor 1) • A/F sensor heater (sensor 1) • A/F relay • A/F sensor heater and EFI relay circuits	○	○
P2255 (DI−826)	Oxygen Sensor Reference Ground Current Circuit Low (For A/F Sensor) (Bank 2 Sensor 1)	• Open or short in A/F sensor (sensor 1) circuit • A/F sensor (sensor 1) • A/F sensor heater (sensor 1) • A/F relay • A/F sensor heater and EFI relay circuits	○	○
P2256 (DI−826)	Oxygen Sensor Reference Current Circuit High (For A/F Sensor) (Bank 2 Sensor 1)	• Open or short in A/F sensor (sensor 1) circuit • A/F sensor (sensor 1) • A/F sensor heater (sensor 1) • A/F relay • A/F sensor heater and EFI relay circuits	○	○

P2401 (DI−834)	Evaporative Emission System Leak Detection Pump Control Circuit Low	• Pump module • Connector/Wire harness (between pump module and ECM) • ECM	○	○
P2402 (DI−834)	Evaporative Emission System Leak Detection Pump Control Circuit High	• Pump module • Connector/Wire harness (between pump module and ECM) • ECM	○	○
P2419 (DI−840)	Evaporate Emission System Switching Valve Control Circuit Low	• Pump module • Connector/Wire harness (between pump module and ECM) • ECM	○	○
P2420 (DI−840)	Evaporate Emission System Switching Valve Control Circuit High	• Pump module • Connector/Wire harness (between pump module and ECM) • ECM	○	○
P2430 (DI−846)	Secondary Air Injection System Air Flow/Pressure Sensor Circuit Bank 1	• Pressure sensor • Open or short in pressure sensor circuit • Vacuum hose • Check valve • ECM	○	○
P2431 (DI−846)	Secondary Air Injection System Air Flow/Pressure Sensor Circuit Range/Performance Bank 1	• Pressure sensor • Open or short in pressure sensor circuit • Vacuum hose • Check valve • ECM	○	○
P2432 (DI−846)	Secondary Air Injection System Air Flow/Pressure Sensor Circuit Low Bank 1	• Pressure sensor • Open or short in pressure sensor circuit • Vacuum hose • Check valve • ECM	○	○
P2433 (DI−846)	Secondary Air Injection System Air Flow/Pressure Sensor Circuit High Bank 1	• Pressure sensor • Open or short in pressure sensor circuit • Vacuum hose • Check valve • ECM	○	○
P2440 (DI−739)	Secondary Air Injection System Switching Valve Stuck Open Bank 1	• Electromagnetic air switching valve • Air switching valve No.2 (Bank 1 and/or 2) • VSV for air injection system (Bank 1 and/or 2) • Air injection driver • Air injection driver circuit • ECM	○	○
P2441 (DI−754)	Secondary Air Injection System Switching Valve Stuck Close Bank 1	• Vacuum hoses (Throttle body − VSVs for air injection control) • Electromagnetic air switching valve • Air injector pipe (Air switching valve No.2 − exhaust manifold) • Air injection hose • Air switching valve No.2 (Bank 1 and/or 2) • VSV for air injection control (Bank 1 and/or 2) • Air injection driver • Air injection driver circuit • ECM	○	○
P2444 (DI−850)	Secondary Air Injection System Pump Stuck On Bank 1	• Short in air pump circuit • Pressure sensor • Air pump assembly • Open or short in pressure sensor circuit • ECM	○	○

P2445 (DI−850)	Secondary Air Injection System Pump Stuck On Bank 1	• Air pump fuse • Vacuum hose • Air pump assembly • Open in air pump circuit • Air injection system piping • Pressure sensor • Open or short in pressure sensor circuit • ECM	○	○
P2610 (DI−866)	ECM/PCM Internal Engine Off Timer Performance	• ECM	○	○
P2714 (DI−1241)	Pressure Control Solenoid ”D” Performance (Shift Solenoid Valve SLT)	• Electronic control automatic transmission (ECT)	○	○
P2716 (DI−1247)	Pressure Control Solenoid ”D” Electrical (Shift Solenoid Valve SLT)	• Electronic control automatic transmission (ECT)	○	○
P2740 (DI−1251)	Transmission Fluid Temperature Sensor ”B” Circuit	• Electronic control automatic transmission (ECT)	○	○
P2742 (DI−1251)	Transmission Fluid Temperature Sensor ”B” Circuit Low Input	• Electronic control automatic transmission (ECT)	○	○
2743 (DI−1251)	Transmission Fluid Temperature Sensor ”B” Circuit High Input	• Electronic control automatic transmission (ECT)	○	○
P2757 (DI−1257)	Torque Converter clutch Pressure Control Solenoid Performance (Shift Solenoid Valve SLU)	• Electronic control automatic transmission (ECT)	○	○
P2759 (DI−1265)	Torque Converter clutch Pressure Control Solenoid Electrical (Shift Solenoid Valve SLU)	• Electronic control automatic transmission (ECT)	○	○
P2772 (DI−1270)	Transfer L4 SW Circuit	• Electronic control automatic transmission (ECT)	○	○
P2A00 (DI−875)	A/F Sensor Circuit Slow Response (Bank 1 Sensor 1)	• Open or short in A/F sensor (sensor 1) circuit • A/F sensor (sensor 1) • ECM	○	○
P2A03 (DI−875)	A/F Sensor Circuit Slow Response (Bank 2 Sensor 1)	• Open or short in A/F sensor (sensor 1) circuit • A/F sensor (sensor 1) • ECM	○	○

*1: − .... MIL does not light up, ○ .... MIL lights up

*2: MIL lights up or blinks.