

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 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
P0031 (DI-34)	Oxygen Sensor Heater Control Circuit Low (Bank 1 Sensor 1)	• Open in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • ECM	○	○
P0032 (DI-34)	Oxygen Sensor Heater Control Circuit High (Bank 1 Sensor 1)	• Short in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • ECM	○	○
P0037 (DI-34)	Oxygen Sensor Heater Control Circuit Low (Bank 1 Sensor 2)	• Open in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • ECM	○	○
P0038 (DI-34)	Oxygen Sensor Heater Control Circuit High (Bank 1 Sensor 2)	• Short in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • ECM	○	○
P0051 (DI-34)	Oxygen Sensor Heater Control Circuit Low (Bank 2 Sensor 1)	• Open in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • ECM	○	○
P0052 (DI-34)	Oxygen Sensor Heater Control Circuit High (Bank 2 Sensor 1)	• Short in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • ECM	○	○
P0057 (DI-34)	Oxygen Sensor Heater Control Circuit Low (Bank 2 Sensor 2)	• Open in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • ECM	○	○
P0058 (DI-34)	Oxygen Sensor Heater Control Circuit High (Bank 2 Sensor 2)	• Short in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • ECM	○	○
P0100 (DI-38)	Mass or Volume Air Flow Circuit	• Open or short in mass air flow meter circuit • Mass air flow meter • ECM	○	○
P0101 (DI-43)	Mass or Volume Air Flow Circuit Range/Performance Problem	• Mass air flow meter	○	○
P0102 (DI-38)	Mass or Volume Air Flow Circuit Low Input	• Open in mass air flow meter circuit • Mass air flow meter • ECM	○	○
P0103 (DI-38)	Mass or Volume Air Flow Circuit High Input	• Short in mass air flow meter circuit (+B circuit) • Mass air flow meter • ECM	○	○
P0110 (DI-44)	Intake Air Temperature Circuit	• Open or short in intake air temp. sensor circuit • Intake air temp. sensor (built in mass air flow meter) • ECM	○	○
P0112 (DI-44)	Intake Air Temperature Circuit Low Input	• Short in intake air temp. sensor circuit • Intake air temp. sensor (built in mass air flow meter) • ECM	○	○
P0113 (DI-44)	Intake Air Temperature Circuit High Input	• Open in intake air temp. sensor circuit • Intake air temp. sensor (built in mass air flow meter) • ECM	○	○

DIAGNOSTICS – ENGINE

P0115 (DI-49)	Engine Coolant Temperature Circuit	• Open or short in engine coolant temp. sensor circuit • Engine coolant temp. sensor • ECM	☐	☐
P0116 (DI-53)	Engine Coolant Temperature Circuit Range/Performance Problem	• Cooling system • Engine coolant temp. sensor	☐	☐
P0117 (DI-49)	Engine Coolant Temperature Circuit Low Input	• Short in engine coolant temp. sensor circuit • Engine coolant temp. sensor • ECM	☐	☐
P0118 (DI-49)	Engine Coolant Temperature Circuit High Input	• Open in engine coolant temp. sensor circuit • Engine coolant temp. sensor • ECM	☐	☐
P0120 (DI-55)	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-64)	Throttle/Pedal Position Sensor/Switch "A" Circuit Range/Performance Problem	• Throttle control motor and sensor	☐	☐
P0122 (DI-55)	Throttle/Pedal Position Sensor/Switch "A" Circuit Low Input	• Short in throttle control motor and sensor circuit • Throttle control motor and sensor • ECM	☐	☐
P0123 (DI-55)	Throttle/Pedal Position Sensor/Switch "A" Circuit High Input	• Open in throttle control motor and sensor circuit • Throttle control motor and sensor • ECM	☐	☐
P0125 (DI-53)	Insufficient Coolant Temperature for Closed Loop Fuel Control	• Cooling system • Engine coolant temp. sensor	☐	☐
P0128 (DI-65)	Coolant Thermostat (Coolant Temperature Below Thermostat Regulating Temperature)	• Thermostat • Cooling system • ECM	☐	☐
P0130 (DI-66)	Oxygen Sensor Circuit (Bank 1 Sensor 1)	• Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Air induction system • Fuel pressure • Injector • ECM	☐	☐
P0133 (DI-71)	Oxygen Sensor Circuit Slow Response (Bank 1 Sensor 1)	• Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Air induction system • Fuel pressure • Injector • ECM	☐	☐
P0134 (DI-74)	Oxygen Sensor Circuit No Activity Detected (Bank 1 Sensor 1)	• Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Air induction system • Fuel pressure • Injector • Gas leakage on exhaust system • PCV piping • ECM	☐	☐
P0136 (DI-78)	Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 2)	• Open or short in heated oxygen sensor circuit • Heated oxygen sensor	☐	☐

P0150 (DI-66)	Oxygen Sensor Circuit (Bank 2 Sensor 1)	• Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Air induction system • Fuel pressure • Injector • ECM	○	○
P0153 (DI-71)	Oxygen Sensor Circuit Slow Response (Bank 2 Sensor 1)	• Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Air induction system • Fuel pressure • Injector • ECM	○	○
P0154 (DI-74)	Oxygen Sensor Circuit No Activity Detected (Bank 2 Sensor 1)	• Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Air induction system • Fuel pressure • Injector • Gas leakage on exhaust system • PCV piping • ECM	○	○
P0156 (DI-78)	Oxygen Sensor Circuit Malfunction (Bank 2 Sensor 2)	• Open or short in heated oxygen sensor circuit • Heated oxygen sensor	○	○
P0171 (DI-80)	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	○	○
P0172 (DI-80)	System too Rich (Bank 1)	• Injector 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 1 sensor 1) circuit • Heated oxygen sensor (bank 1 sensor 1) • ECM	○	○
P0174 (DI-80)	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	○	○

DIAGNOSTICS – ENGINE

P0175 (DI-80)	System too Rich (Bank 2)	•Injector 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	○	○
P0220 (DI-55)	Throttle/Pedal Position Sensor/ Switch "B" Circuit	•Open or short in throttle control motor and sensor circuit •Throttle control motor and sensor •ECM	○	○
P0222 (DI-55)	Throttle/Pedal Position Sensor/ Switch "B" Circuit Low Input	•Open in throttle control motor and sensor circuit •Throttle control motor and sensor •ECM	○	○
P0223 (DI-55)	Throttle/Pedal Position Sensor/ Switch "B" Circuit High Input	•Short in throttle control motor and sensor circuit •Throttle control motor and sensor •ECM	○	○
P0230 (DI-85)	Fuel Pump Primary Circuit	•Open or short in fuel pump relay circuit •Fuel pump relay •C/OPN relay •Fuel pump •ECM	–	○
P0300 (DI-90)	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 temp. sensor •Compression pressure •Valve clearance •Valve timing •PCV piping	○*2	○
P0301 (DI-90)	Cylinder 1 Misfire Detected		○*2	○
P0302 (DI-90)	Cylinder 2 Misfire Detected		○*2	○
P0303 (DI-90)	Cylinder 3 Misfire Detected		○*2	○
P0304 (DI-90)	Cylinder 4 Misfire Detected		○*2	○
P0305 (DI-90)	Cylinder 5 Misfire Detected		○*2	○
P0306 (DI-90)	Cylinder 6 Misfire Detected		○*2	○
P0307 (DI-90)	Cylinder 7 Misfire Detected		○*2	○
P0308 (DI-90)	Cylinder 8 Misfire Detected		○*2	○
P0325 (DI-108)	Knock Sensor 1 Circuit (Bank 1 or Single Sensor)	•Open or short in knock sensor 1 circuit •Knock sensor 1 (looseness) •ECM	○	○
P0330 (DI-108)	Knock Sensor 2 Circuit (Bank 2)	•Open or short in knock sensor 2 circuit •Knock sensor 2 (looseness) •ECM	○	○
P0335 (DI-112)	Crankshaft Position Sensor "A" Circuit	•Open or short in crankshaft position sensor circuit •Crankshaft position sensor •Signal plate •ECM	○	○

P0339 (DI-115)	Crankshaft Position Sensor "A" Circuit Intermittent	• Open or short in crankshaft position sensor circuit • Crankshaft position sensor • Signal plate • ECM	-	○
P0340 (DI-116)	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 • ECM	○	○
P0341 (DI-116)	Camshaft Position Sensor "A" Circuit Range/Performance (Bank 1 or Single Sensor)		○	○
P0351 (DI-118)	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-118)	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-118)	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-118)	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-118)	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-118)	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-118)	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-118)	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	○	○
P0420 (DI-125)	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-125)	Catalyst System Efficiency Below Threshold (Bank 2)	• Gas leakage on exhaust system • Heated oxygen sensor (bank 2 sensor 1, 2) • Three-way catalytic converter	○	○

DIAGNOSTICS – ENGINE

P0441 (DI-128)	Evaporative Emission Control System Incorrect Purge Flow	• Vacuum hose cracks, holed, blocked, damaged or disconnected ((1), (2), (3), (4), (5), (6), (7), (8) and (9) 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 • ECM	○	○
P0442 (DI-163)	Evaporative Emission Control System Leak Detected (Small Leak)	• Hose or tube cracked, holed, damaged or loose seal ((3) 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) and (9) 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 • ECM	○	○
P0446 (DI-128)	Evaporative Emission Control System Vent Control Circuit	• Same as DTC No. P0441	○	○
P0451 (DI-185)	Evaporative Emission Control System Pressure Sensor/Switch Range/Performance	• Open or short in vapor pressure sensor circuit • Vapor pressure sensor • ECM	○	○
P0452 (DI-185)	Evaporative Emission Control System Pressure Sensor/Switch Low Input	• Open in vapor pressure sensor circuit • Vapor pressure sensor • ECM	○	○
P0453 (DI-185)	Evaporative Emission Control System Pressure Sensor/Switch High Input	• Short in vapor pressure sensor circuit • Vapor pressure sensor • ECM	○	○
P0456 (DI-163)	Evaporative Emission Control System Leak Detected (Very Small Leak)	• Same as DTC No. P0442	○	○
P0500 (DI-188)	Vehicle Speed Sensor "A"	• Combination meter • Open or short in vehicle speed sensor circuit	○	○
P0503 (DI-188)	Vehicle Speed Sensor "A" Inter-mittent/Erratic/High	• Vehicle speed sensor • ECM	–	○
P0504 (DI-191)	Brake Switch "A"/"B" Correlation	• Stop light switch signal circuit • Stop light switch • ECM	–	○
P0505 (DI-195)	Idle Air Control System	• Air induction system • Electric throttle control system • Electric throttle control system circuit • PCV piping • ECM	○	○
P0560 (DI-197)	System Voltage	• Back-up power source circuit • EFI or ECD No.1 fuse • ECM	○	○

P0571 (DI-1030)	Brake Switch "A" Circuit	• Stop light switch signal circuit • Stop light switch • ECM	-	○
P0604 (DI-199)	Internal Control Module Random Access Memory (RAM) Error	• ECM	○	○
P0606 (DI-199)	ECM/PCM Processor	• ECM	○	○
P0607 (DI-199)	Control Module Performance	• ECM	○	○
P0617 (DI-200)	Starter Relay Circuit High	• Park/neutral position switch • Starter relay circuit • Ignition switch • ECM	○	○
P0657 (DI-199)	Actuator Supply Voltage Circuit / Open	• ECM	○	○
P2102 (DI-205)	Throttle Actuator Control Motor Circuit Low	• Open in throttle control motor and sensor circuit • Throttle control motor and sensor • ECM	○	○
P2103 (DI-205)	Throttle Actuator Control Motor Circuit High	• Short in throttle control motor and sensor circuit • Throttle control motor and sensor • ECM	○	○
P2111 (DI-208)	Throttle Actuator Control System – Stuck Open	• Throttle control motor and sensor	○	○
P2112 (DI-208)	Throttle Actuator Control System – Stuck Closed	• Throttle control motor and sensor	○	○
P2118 (DI-210)	Throttle Actuator Control Motor Current Range/Performance	• Open in throttle control motor and sensor power source circuit • ECM	○	○
P2119 (DI-212)	Throttle Actuator Control Throttle Body Range/Performance	• Throttle control motor and sensor system • ECM	○	○
P2120 (DI-213)	Throttle/Pedal Position Sensor/ Switch "D" Circuit	• Open or short in accelerator pedal position sensor circuit • Accelerator pedal position sensor • ECM	○	○
P2121 (DI-221)	Throttle/Pedal Position Sensor/ Switch "D" Circuit Range/Performance	• Accelerator pedal position sensor	○	○
P2122 (DI-213)	Throttle/Pedal Position Sensor/ Switch "D" Circuit Low Input	• Open in accelerator pedal position sensor circuit • Accelerator pedal position sensor • ECM	○	○
P2123 (DI-213)	Throttle/Pedal Position Sensor/ Switch "D" Circuit High Input	• Short in accelerator pedal position sensor circuit (+B circuit) • Accelerator pedal position sensor • ECM	○	○
P2125 (DI-213)	Throttle/Pedal Position Sensor/ Switch "E" Circuit	• Open or short in accelerator pedal position sensor circuit • Accelerator pedal position sensor • ECM	○	○
P2127 (DI-213)	Throttle/Pedal Position Sensor/ Switch "E" Circuit Low Input	• Open in accelerator pedal position sensor circuit • Accelerator pedal position sensor • ECM	○	○
P2128 (DI-213)	Throttle/Pedal Position Sensor/ Switch "E" Circuit High Input	• Short in accelerator pedal position sensor circuit (+B circuit) • Accelerator pedal position sensor • ECM	○	○
P2135 (DI-55)	Throttle Pedal Position Sensor/ Switch "A" / "B" Voltage Correlation	• Open or short in throttle control motor and sensor circuit • Throttle control motor and sensor • ECM	○	○

DIAGNOSTICS – ENGINE

P2138 (DI-213)	Throttle Pedal Position Sensor/ Switch "D" / "E" Voltage Correla- tion	• Open or short in accelerator pedal position and sensor circuit • Accelerator pedal position sensor • ECM	○	○
P2195 (DI-66)	Oxygen Sensor Signal Stuck Lean (Bank 1 Sensor 1)	• Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Air induction system • Fuel pressure • Injector • ECM	○	○
P2196 (DI-66)	Oxygen Sensor Signal Stuck Rich (Bank 1 Sensor 1)		○	○
P2197 (DI-66)	Oxygen Sensor Signal Stuck Lean (Bank 2 Sensor 1)		○	○
P2198 (DI-66)	Oxygen Sensor Signal Stuck Rich (Bank 2 Sensor 1)		○	○

*1: – MIL does not light up. ○ MIL lights up.

*2: MIL lights up or blinks.