DI3HB–09

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, 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
P0031 (DI–49)	Oxygen Sensor Heater Control Circuit Low (Bank 1 Sensor 1)	• Open in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • EFI or ECD relay • ECM	○	○
P0032 (DI–49)	Oxygen Sensor Heater Control Circuit High (Bank 1 Sensor 1)	• Short in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • EFI or ECD relay • ECM	○	○
P0037 (DI–49)	Oxygen Sensor Heater Control Circuit Low (Bank 1 Sensor 2)	• Open in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • EFI or ECD relay • ECM	○	○
P0038 (DI–49)	Oxygen Sensor Heater Control Circuit High (Bank 1 Sensor 2)	• Short in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • EFI or ECD relay • ECM	○	○
P0051 (DI–49)	Oxygen Sensor Heater Control Circuit Low (Bank 2 Sensor 1)	• Open in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • EFI or ECD relay • ECM	○	○
P0052 (DI–49)	Oxygen Sensor Heater Control Circuit High (Bank 2 Sensor 1)	• Short in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • EFI or ECD relay • ECM	○	○
P0057 (DI–49)	Oxygen Sensor Heater Control Circuit Low (Bank 2 Sensor 2)	• Open in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • EFI or ECD relay • ECM	○	○
P0058 (DI–49)	Oxygen Sensor Heater Control Circuit High (Bank 2 Sensor 2)	• Short in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • EFI or ECD relay • ECM	○	○
P0100 (DI–57)	Mass or Volume Air Flow Circuit	• Open or short in mass air flow meter circuit • Mass air flow meter • ECM	○	○
P0101 (DI–65)	Mass or Volume Air Flow Circuit Range/Performance Problem	• Mass air flow meter	○	○
P0102 (DI–57)	Mass or Volume Air Flow Circuit Low Input	• Open or short in mass air flow meter circuit • Mass air flow meter • ECM	○	○
P0103 (DI–57)	Mass or Volume Air Flow Circuit High Input	• Open or short in mass air flow meter circuit (+B circuit) • Mass air flow meter • ECM	○	○

P0110 (DI–68)	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–68)	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–68)	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–75)	Engine Coolant Temperature Circuit	• Open or short in engine coolant temperature sensor circuit • Engine coolant temperature sensor • ECM	○	○
P0116 (DI–82)	Engine Coolant Temperature Circuit Range/Performance Problem	• Engine coolant temperature sensor	○	○
P0117 (DI–75)	Engine Coolant Temperature Circuit Low Input	• Open or short in engine coolant temperature sensor circuit • Engine coolant temperature sensor • ECM	○	○
P0118 (DI–75)	Engine Coolant Temperature Circuit High Input	• Open or short in engine coolant temperature sensor circuit • Engine coolant temperature sensor • ECM	○	○
P0120 (DI–84)	Throttle Pedal Position Sensor/ Switch "A" Circuit	• Throttle control motor and sensor • ECM	○	○
P0121 (DI–97)	Throttle/Pedal Position Sensor/ Switch "A" Circuit Range/Performance Problem	• Throttle control motor and sensor	○	○
P0122 (DI–84)	Throttle/Pedal Position Sensor/ Switch "A" Circuit Low Input	• Throttle control motor and sensor • Short in VTA1 circuit • Open in VC circuit • ECM	○	○
P0123 (DI–84)	Throttle/Pedal Position Sensor/ Switch "A" Circuit High Input	• Throttle control motor and sensor • Open in VTA1 circuit • Open in E2 circuit • VC and VTA1 circuit are short–circuited • ECM	○	○
P0125 (DI–99)	Insufficient Coolant Temperature for Closed Loop Fuel Control	• Cooling system • Engine coolant temperature sensor • Thermostat	○	○
P0128 (DI–102)	Coolant Thermostat (Coolant Temperature Below Thermostat Regulating Temperature)	• Thermostat • Cooling system • Engine coolant temperature sensor • ECM	○	○
P0130 (DI–106)	Oxygen Sensor Circuit (Bank 1 Sensor 1)	• Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Heated oxygen sensor heater • EFI or ECD relay • Air induction system • Fuel pressure • Injector • ECM	○	○

P0133 (DI–117)	Oxygen Sensor Circuit Slow Response (Bank 1 Sensor 1)	• Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Heated oxygen sensor heater • EFI or ECD relay • Air induction system • Fuel pressure • Injector • ECM	○	○
P0134 (DI–129)	Oxygen Sensor Circuit No Activity Detected (Bank 1 Sensor 1)	• Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Heated oxygen sensor heater • EFI or ECD relay • Air induction system • Fuel pressure • PCV hose connection • PCV valve and hose • Injector • Gas leakage on exhaust system • PCV piping • ECM	○	○
P0136 (DI–138)	Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 2)	• Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Heated oxygen sensor heater • EFI or ECD relay	○	○
P0150 (DI–106)	Oxygen Sensor Circuit (Bank 2 Sensor 1)	• Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Heated oxygen sensor heater • EFI or ECD relay • Air induction system • Fuel pressure • Injector • ECM	○	○
P0153 (DI–117)	Oxygen Sensor Circuit Slow Response (Bank 2 Sensor 1)	• Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Heated oxygen sensor heater • EFI or ECD relay • Air induction system • Fuel pressure • Injector • ECM	○	○
P0154 (DI–129)	Oxygen Sensor Circuit No Activity Detected (Bank 2 Sensor 1)	• Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Heated oxygen sensor heater • EFI or ECD relay • Air induction system • Fuel pressure • PCV hose connection • PCV valve and hose • Injector • Gas leakage on exhaust system • PCV piping • ECM	○	○
P0156 (DI–138)	Oxygen Sensor Circuit Malfunction (Bank 2 Sensor 2)	• Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Heated oxygen sensor heater • EFI or ECD relay	○	○

P0171 (DI–147)	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 or ECD relay • PCV piping • ECM	○	○
P0172 (DI–147)	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–147)	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 or ECD relay • PCV piping • ECM	○	○
P0175 (DI–147)	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–84)	Throttle/Pedal Position Sensor/ Switch "B" Circuit	• Throttle control motor and sensor • ECM	○	○
P0222 (DI–84)	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–84)	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–162)	Fuel Pump Primary Circuit	• Open or short in fuel pump relay circuit • Fuel pump relay • Circuit opening relay • Fuel pump • ECM	–	○
P0300 (DI–167)	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–167)	Cylinder 1 Misfire Detected		○*2	○
P0302 (DI–167)	Cylinder 2 Misfire Detected		○*2	○
P0303 (DI–167)	Cylinder 3 Misfire Detected		○*2	○
P0304 (DI–167)	Cylinder 4 Misfire Detected		○*2	○
P0305 (DI–167)	Cylinder 5 Misfire Detected		○*2	○
P0306 (DI–167)	Cylinder 6 Misfire Detected		○*2	○
P0307 (DI–167)	Cylinder 7 Misfire Detected		○*2	○
P0308 (DI–167)	Cylinder 8 Misfire Detected		○*2	○
P0325 (DI–186)	Knock Sensor 1 Circuit (Bank 1 or Single Sensor)	• Open or short in knock sensor 1 circuit • Knock sensor 1 (looseness) • ECM	○	○
P0330 (DI–186)	Knock Sensor 2 Circuit (Bank 2)	• Open or short in knock sensor 2 circuit • Knock sensor 2 (looseness) • ECM	○	○
P0335 (DI–191)	Crankshaft Position Sensor ”A” Circuit	• Open or short in crankshaft position sensor circuit • Crankshaft position sensor • Signal plate • ECM	○	○
P0339 (DI–191)	Crankshaft Position Sensor ”A” Circuit Intermittent	• Open or short in crankshaft position sensor circuit • Crankshaft position sensor • Signal plate • ECM	–	○
P0340 (DI–197)	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–197)	Camshaft Position Sensor ”A” Circuit Range/Performance (Bank 1 or Single Sensor)		○	○
P0351 (DI–202)	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–202)	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–202)	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–202)	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–202)	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–202)	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–202)	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–202)	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–215)	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–215)	Catalyst System Efficiency Below Threshold (Bank 2)	• Gas leakage on exhaust system • Heated oxygen sensor (bank 2 sensor 1, 2) • Three–way catalytic converter	○	○
P0441 (DI–222)	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 • EVAP VSV • Open or short in VSV circuit for CCV • CCV • Open or short in VSV circuit for pressure switching valve • Pressure switching valve • Fuel tank cracked, holed or damaged • Charcoal canister cracked, holed or damaged • ECM	○	○

P0442 (DI–245)	Evaporative Emission Control System Leak Detected (Small Leak)	After the negative pressure introduction has been completed, if the pressure in the EVAP system sharply increases. • 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–222)	Evaporative Emission Control System Vent Control Circuit	• Same as DTC No. P0441	○	○
P0451 (DI–268)	Evaporative Emission Control System Pressure Sensor/Switch Range/Performance	• Open or short in vapor pressure sensor circuit • Vapor pressure sensor • ECM	○	○
P0452 (DI–268)	Evaporative Emission Control System Pressure Sensor/Switch Low Input	• Open in vapor pressure sensor circuit • Vapor pressure sensor • ECM	○	○
P0453 (DI–268)	Evaporative Emission Control System Pressure Sensor/Switch High Input	• Short in vapor pressure sensor circuit • Vapor pressure sensor • ECM	○	○
P0455 (DI–245)	Evaporative Emission Control System Leak Detected (Gross Leak)	• Same as DTC No. P0442	○	○
P0456 (DI–245)	Evaporative Emission Control System Leak Detected (Very Small Leak)	• Same as DTC No. P0442	○	○
P0500 (DI–274)	Vehicle Speed Sensor ”A”	• Combination meter • Open or short in vehicle speed sensor circuit • Vehicle speed sensor • ECM	○	○
P0503 (DI–274)	Vehicle Speed Sensor ”A” Intermittent/Erratic/High		–	○
P0504 (DI–278)	Brake Switch ”A”/”B” Correlation	• Short in stop lamp switch signal circuit • STOP fuse • Stop lamp switch • ECM	–	○
P0505 (DI–286)	Idle Air Control System	• Air induction system • Electric throttle control system • PCV hose connection	○	○
P0560 (DI–290)	System Voltage	• Back–up power source circuit • EFI or ECD No. 1 fuse • ECM	○	○
P0571 (DI–1200)	Brake Switch ”A” Circuit	• Stop light switch signal circuit • Stop light switch • ECM	–	○
P0604 (DI–296)	Internal Control Module Random Access Memory (RAM) Error	• ECM	○	○
P0606 (DI–296)	ECM/PCM Processor	• ECM	○	○
P0607 (DI–296)	Control Module Performance	• ECM	○	○

P0617 (DI–296)	Starter Relay Circuit High	• Park/neutral position switch • Starter relay circuit • Ignition switch • ECM	○	○
P0657 (DI–294)	Actuator Supply Voltage Circuit / Open	• ECM	○	○
P0724 (DI–425)	Brake Switch "B" Circuit High	• Short in stop light switch signal circuit • Stop light switch • ECM	○	○
P2102 (DI–302)	Throttle Actuator Control Motor Circuit Low	• Open in throttle control motor and sensor circuit • Throttle control motor and sensor • ECM	○	○
P2103 (DI–302)	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–306)	Throttle Actuator Control System – Stuck Open	• Throttle control motor and sensor circuit • Throttle control motor and sensor • Throttle valve • Throttle body	○	○
P2112 (DI–306)	Throttle Actuator Control System – Stuck Closed	• Throttle control motor and sensor circuit • Throttle control motor and sensor • Throttle valve • Throttle body	○	○
P2118 (DI–310)	Throttle Actuator Control Motor Current Range/Performance	• Open in throttle control motor and sensor power source circuit • ETCS fuse • ECM	○	○
P2119 (DI–315)	Throttle Actuator Control Throttle Body Range/Performance	• Electric throttle control system • Throttle body	○	○
P2120 (DI–318)	Throttle/Pedal Position Sensor/ Switch "D" Circuit	• Accelerator pedal position sensor • ECM	○	○
P2121 (DI–331)	Throttle/Pedal Position Sensor/ Switch "D" Circuit Range/Performance	• Accelerator pedal position sensor	○	○
P2122 (DI–318)	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–318)	Throttle/Pedal Position Sensor/ Switch "D" Circuit High Input	• Accelerator pedal position sensor • EPA circuit open • ECM	○	○
P2125 (DI–318)	Throttle/Pedal Position Sensor/ Switch "E" Circuit	• Accelerator pedal position sensor • ECM	○	○
P2127 (DI–318)	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–318)	Throttle/Pedal Position Sensor/ Switch "E" Circuit High Input	• Accelerator pedal position sensor • EPA circuit open • ECM	○	○
P2135 (DI–84)	Throttle Pedal Position Sensor/ Switch "A" / "B" Voltage Correlation	• VTA1 and VTA2 circuit are short–circuited • Throttle control motor and sensor • ECM	○	○

P2138 (DI–318)	Throttle Pedal Position Sensor/ Switch "D" / "E" Voltage Correlation	• VPA and VPA2 circuit are short circuited • Accelerator pedal position sensor • ECM	○	○
P2195 (DI–106)	Oxygen Sensor Signal Stuck Lean (Bank 1 Sensor 1)	• Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Heated oxygen sensor heater • EFI or ECD relay • Air induction system • Fuel pressure • Injector • ECM	○	○
P2196 (DI–106)	Oxygen Sensor Signal Stuck Rich (Bank 1 Sensor 1)		○	○
P2197 (DI–106)	Oxygen Sensor Signal Stuck Lean (Bank 2 Sensor 1)		○	○
P2198 (DI–106)	Oxygen Sensor Signal Stuck Rich (Bank 2 Sensor 1)		○	○
P2418 (DI–222)	Evaporative Emission System Valve Control Circuit/Open	• Same as DTC No. P0441	○	○

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