

# DIAGNOSTIC TROUBLE CODE CHART

## SAE CONTROLLED

### 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 that code 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*	Memory
P0100 (DI-28)	Mass Air Flow Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in mass air flow meter circuit</li> <li>• Mass air flow meter</li> <li>• ECM</li> </ul>	○	○
P0101 (DI-32)	Mass Air Flow Circuit Range/Performance Problem	<ul style="list-style-type: none"> <li>• Mass air flow meter</li> </ul>	○	○
P0110 (DI-33)	Intake Air Temp. Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in intake air temp. sensor circuit</li> <li>• Intake air temp. sensor (built mass air flow meter)</li> <li>• ECM</li> </ul>	○	○
P0115 (DI-38)	Engine Coolant Temp. Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in engine coolant temp. sensor circuit</li> <li>• Engine coolant temp. sensor</li> <li>• ECM</li> </ul>	○	○
P0116 (DI-42)	Engine Coolant Temp. Circuit Range/Performance Problem	<ul style="list-style-type: none"> <li>• Engine coolant temp. sensor</li> <li>• Cooling system</li> </ul>	○	○
P0120 (DI-44)	Throttle/Pedal Position Sensor/Switch "A" Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in throttle position sensor circuit</li> <li>• Throttle position sensor</li> <li>• ECM</li> </ul>	○	○
P0121 (DI-50)	Throttle/Pedal Position Sensor/Switch "A" Circuit Range/Performance Problem	<ul style="list-style-type: none"> <li>• Throttle position sensor</li> <li>• ECM</li> </ul>	○	○
P0125 (DI-51)	Insufficient Coolant Temp. for Closed Loop Fuel Control	<ul style="list-style-type: none"> <li>• Open or short in heated oxygen sensor (bank 1, 2 sensor 1) circuit</li> <li>• Heated oxygen sensor (bank 1, 2 sensor 1)</li> <li>• Air induction system</li> <li>• Fuel pressure</li> <li>• Injector</li> <li>• Gas leakage on exhaust system</li> </ul>	○	○
P0130 (DI-56)	Heated Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 1)	<ul style="list-style-type: none"> <li>• Open or short in heated oxygen sensor circuit</li> <li>• Heated oxygen sensor</li> <li>• Air induction system</li> <li>• Fuel pressure</li> <li>• Injector</li> </ul>	○	○
P0133 (DI-60)	Heated Oxygen Sensor Circuit Slow Response (Bank 1 Sensor 1)	<ul style="list-style-type: none"> <li>• Open or short in heated oxygen sensor circuit</li> <li>• Heated oxygen sensor</li> <li>• Air induction system</li> <li>• Fuel pressure</li> <li>• Injector</li> </ul>	○	○

\*: MIL lights up

DTC No. (See Page)	Detection Item	Trouble Area	MIL	Memory
P0135 (DI-63)	Heated Oxygen Sensor Heater Circuit Malfunction (Bank 1 Sensor 1)	<ul style="list-style-type: none"> <li>• Open or short in heater circuit of heated oxygen sensor</li> <li>• Heated oxygen sensor heater</li> <li>• ECM</li> </ul>	○	○
P0136 (DI-65)	Heated Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 2)	<ul style="list-style-type: none"> <li>• Open or short in heated oxygen sensor circuit</li> <li>• Heated oxygen sensor</li> </ul>	○	○
P0141 (DI-63)	Heated Oxygen Sensor Heater Circuit Malfunction (Bank 1 Sensor 2)	<ul style="list-style-type: none"> <li>• Same as DTC No. P0135</li> </ul>	○	○
P0150 (DI-56)	Heated Oxygen Sensor Circuit Malfunction (Bank 2 Sensor 1)	<ul style="list-style-type: none"> <li>• Same as DTC No. P0130</li> </ul>	○ *1	○
P0153 (DI-60)	Heated Oxygen Sensor Circuit Slow Response (Bank 2 Sensor 1)	<ul style="list-style-type: none"> <li>• Same as DTC No. P0133</li> </ul>	○ *1	○
P0155 (DI-63)	Heated Oxygen Sensor Heater Circuit Malfunction (Bank 2 Sensor 1)	<ul style="list-style-type: none"> <li>• Same as DTC No. P0135</li> </ul>	○ *1	○
P0156 (DI-65)	Heated Oxygen Sensor Circuit Malfunction (Bank 2 Sensor 2)	<ul style="list-style-type: none"> <li>• Same as DTC No. P0136</li> </ul>	○ *1	○
P0161 (DI-63)	Heated Oxygen Sensor Heater Circuit Malfunction (Bank 2 Sensor 2)	<ul style="list-style-type: none"> <li>• Same as DTC No. P0135</li> </ul>	○ *1	○
P0171 (DI-67)	System too Lean (Fuel Trim)	<ul style="list-style-type: none"> <li>• Air induction system</li> <li>• Injector blockage</li> <li>• Mass air flow meter</li> <li>• Engine coolant temp. sensor</li> <li>• Fuel pressure</li> <li>• Gas leakage on exhaust system</li> <li>• Open or short in heated oxygen sensor (bank 1, 2 sensor 1) circuit</li> <li>• Heated oxygen sensor (bank 1, 2 sensor 1)</li> </ul>	○ *1	○
P0172 (DI-67)	System too Rich (Fuel Trim)	<ul style="list-style-type: none"> <li>• Injector leak, blockage</li> <li>• Mass air flow meter</li> <li>• Engine coolant temp. sensor</li> <li>• Ignition system</li> <li>• Fuel pressure</li> <li>• Gas leakage on exhaust system</li> <li>• Open or short in heated oxygen sensor (bank 1, 2 sensor 1) circuit</li> <li>• Heated oxygen sensor (bank 1, 2 sensor 1)</li> </ul>	○ *1	○

\*1: MIL lights up

## DIAGNOSTICS – ENGINE

DTC No. (See Page)	Detection Item	Trouble Area	MIL	Memory
P0300 (DI-71)	Random/Multiple Cylinder Misfire Detected	<ul style="list-style-type: none"> <li>• Open or short in engine wire</li> <li>• Connector connection</li> <li>• Vacuum hose connection</li> </ul>		
P0301 P0302 P0303 P0304 P0305 P0306 P0307 P0308 (DI-71)	Misfire Detected – Cylinder 1 – Cylinder 2 – Cylinder 3 – Cylinder 4 – Cylinder 5 – Cylinder 6 – Cylinder 7 – Cylinder 8	<ul style="list-style-type: none"> <li>• Ignition system</li> <li>• Injector</li> <li>• Fuel pressure</li> <li>• Mass air flow meter</li> <li>• Engine coolant temp. sensor</li> <li>• Compression pressure</li> <li>• Valve clearance</li> <li>• Valve timing</li> <li>• ECM</li> </ul>	○ *2	○
P0325 (DI-78)	Knock Sensor 1 Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in knock sensor 1 circuit</li> <li>• Knock sensor 1 (looseness)</li> <li>• ECM</li> </ul>	○ *1	○
P0330 (DI-78)	Knock Sensor 2 Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in knock sensor 2 circuit</li> <li>• Knock sensor 2 (looseness)</li> <li>• ECM</li> </ul>	○ *1	○
P0335 (DI-82)	Crankshaft Position Sensor "A" Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in crankshaft position sensor circuit</li> <li>• Crankshaft position sensor</li> <li>• Signal plate</li> <li>• ECM</li> </ul>	○ *1	○
P0340 (DI-85)	Camshaft Position Sensor Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in camshaft position sensor circuit</li> <li>• Camshaft position sensor</li> <li>• ECM</li> </ul>	○ *1	○
P0420 (DI-87)	Catalyst System Efficiency Below Threshold (Bank 1)	<ul style="list-style-type: none"> <li>• Gas leakage on exhaust system</li> <li>• Open or short in heated oxygen sensor circuit</li> <li>• Heated oxygen sensor</li> <li>• Three-way catalytic converter</li> </ul>	○ *1	○
P0430 (DI-87)	Catalyst System Efficiency Below Threshold (Bank 2)	• Same as DTC No. P0420	○ *1	○
P0440 (DI-90)	Evaporative Emission Control System Malfunction	<ul style="list-style-type: none"> <li>• Open or short in vapor pressure sensor circuit</li> <li>• Vapor pressure sensor</li> <li>• Fuel tank cap incorrectly installed</li> <li>• Fuel tank cap cracked or damaged</li> <li>• Vacuum hose cracked, hole, blocked, damaged or disconnected</li> <li>• Hose or tube cracked, hole, damaged or loose seal</li> <li>• Fuel tank cracked, hole or damaged</li> <li>• Charcoal canister cracked, hole or damaged</li> </ul>	○ *1	○
P0441 (DI-97)	Evaporative Emission Control System Incorrect Purge Flow	<ul style="list-style-type: none"> <li>• Open or short in VSV circuit for EVAP</li> <li>• VSV for EVAP</li> <li>• Open or short in VSV circuit for vapor pressure sensor</li> <li>• VSV for vapor pressure sensor</li> </ul>	○ *1	○
P0446 (DI-97)	Evaporative Emission Control System Vent Control Malfunction	<ul style="list-style-type: none"> <li>• Open or short in vapor pressure sensor circuit</li> <li>• Vapor pressure sensor</li> <li>• Vacuum hose cracked, hole, blocked damaged or disconnected</li> <li>• Charcoal canister cracked, hole or damaged</li> </ul>	○ *1	○

\*1: MIL lights up

\*2: MIL lights up or blinking

DTC No. (See Page)	Detection Item	Trouble Area	MIL	Memory
P0450 (DI-110)	Evaporative Emission Control System Pressure Sensor Malfunction	<ul style="list-style-type: none"> <li>• Open or short in vapor pressure sensor circuit</li> <li>• Vapor pressure sensor</li> <li>• ECM</li> </ul>	○ *1	○
P0451 (DI-110)	Evaporative Emission Control System Pressure Sensor Range/Performance		○ *1	○
P0500 (DI-113)	Vehicle Speed Sensor Malfunction	<ul style="list-style-type: none"> <li>• Open or short in No.1 vehicle speed sensor circuit</li> <li>• No.1 vehicle speed sensor</li> <li>• Combination meter</li> <li>• ECM</li> </ul>	○ *1	○
P0505 (DI-116)	Idle Control System Malfunction	<ul style="list-style-type: none"> <li>• Electric throttle control system</li> <li>• Air induction system</li> </ul>	○ *1	○

\*1: MIL lights up

**MANUFACTURER CONTROLLED**

DTC No. (See Page)	Detection Item	Trouble Area	MIL*	Memory
P1120 (DI-117)	Accelerator Pedal Position Sensor Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in accelerator pedal position sensor circuit</li> <li>• Accelerator pedal position sensor</li> <li>• ECM</li> </ul>	○	○
P1121 (DI-122)	Accelerator Pedal Position Sensor Range/Performance Problem	<ul style="list-style-type: none"> <li>• Accelerator pedal position sensor</li> <li>• ECM</li> </ul>	○	○
P1125 (DI-123)	Throttle Control Motor Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in throttle control motor circuit</li> <li>• Throttle control motor</li> <li>• ECM</li> </ul>	○	○
P1126 (DI-126)	Magnetic Clutch Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in magnetic clutch circuit</li> <li>• Magnetic clutch</li> <li>• ECM</li> </ul>	○	○
P1127 (DI-129)	ETCS Actuator Power Source Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open in ETCS power source circuit</li> <li>• ECM</li> </ul>	○	○
P1128 (DI-131)	Throttle Control Motor Lock Malfunction	<ul style="list-style-type: none"> <li>• Throttle control motor</li> <li>• Throttle body assembly</li> <li>• ECM</li> </ul>	○	○
P1129 (DI-133)	Electric Throttle Control System Malfunction	<ul style="list-style-type: none"> <li>• Electric throttle control system</li> <li>• ECM</li> </ul>	○	○
P1200 (DI-134)	Fuel Pump Relay/ECU Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in fuel pump ECU</li> <li>• Fuel pump ECU</li> <li>• ECM power source circuit</li> <li>• Fuel pump</li> <li>• ECM</li> </ul>	—	○
P1300 (DI-139)	Igniter Circuit Malfunction (No.1)	<ul style="list-style-type: none"> <li>• Open or short in IGF1 and IGT1 circuit from No.1 ignition coil with igniter to ECM</li> <li>• No.1 ignition coil with igniter</li> <li>• Ignition coil</li> <li>• ECM</li> </ul>	○	○
P1305 (DI-139)	Igniter Circuit Malfunction (No.2)	<ul style="list-style-type: none"> <li>• Open or short in IGF2 and IGT2 circuit from No.2 ignition coil with igniter to ECM</li> <li>• No.2 ignition coil with igniter</li> <li>• ECM</li> </ul>	○	○
P1310 (DI-139)	Igniter Circuit Malfunction (No.3)	<ul style="list-style-type: none"> <li>• Open or short in IGF2 and IGT3 circuit from No.3 ignition coil with igniter to ECM</li> <li>• No.3 ignition coil with igniter</li> <li>• ECM</li> </ul>	○	○
P1315 (DI-139)	Igniter Circuit Malfunction (No.4)	<ul style="list-style-type: none"> <li>• Open or short in IGF1 and IGT4 circuit from No.4 ignition coil with igniter to ECM</li> <li>• No.4 ignition coil with igniter</li> <li>• ECM</li> </ul>	○	○
P1320 (DI-139)	Igniter Circuit Malfunction (No.5)	<ul style="list-style-type: none"> <li>• Open or short in IGF2 and IGT5 circuit from No.5 ignition coil with igniter to ECM</li> <li>• No.5 ignition coil with igniter</li> <li>• ECM</li> </ul>	○	○

\*: — ... MIL does not light up, ○ ... MIL lights up

DTC No. (See Page)	Detection Item	Trouble Area	MIL*	Memory
P1325 (DI-139)	Igniter Circuit Malfunction (No.6)	<ul style="list-style-type: none"> <li>• Open or short in IGF1 and IGT6 circuit from No.6 ignition coil with igniter to ECM</li> <li>• No.6 ignition coil with igniter</li> <li>• ECM</li> </ul>	○	○
P1330 (DI-139)	Igniter Circuit Malfunction (No.7)	<ul style="list-style-type: none"> <li>• Open or short in IGF1 and IGT7 circuit from No.7 ignition coil with igniter to ECM</li> <li>• No.7 ignition coil with igniter</li> <li>• ECM</li> </ul>	○	○
P1335 (DI-146)	Crankshaft Position Sensor Circuit Malfunction (during engine running)	<ul style="list-style-type: none"> <li>• Open or short in crankshaft position sensor circuit</li> <li>• Crankshaft position sensor</li> <li>• ECM</li> </ul>	–	○
P1340 (DI-139)	Igniter Circuit Malfunction (No.8)	<ul style="list-style-type: none"> <li>• Open or short in IGF2 and IGT8 circuit from No.8 ignition coil with igniter to ECM</li> <li>• No.8 ignition coil with igniter</li> <li>• ECM</li> </ul>	○	○
P1520 (DI-147)	Stop Light Switch Signal Malfunction	<ul style="list-style-type: none"> <li>• Short in stop light switch signal circuit</li> <li>• Stop light switch</li> <li>• ECM</li> </ul>	○	○
P1600 (DI-150)	ECM BATT Malfunction	<ul style="list-style-type: none"> <li>• Open in back up power source circuit</li> <li>• ECM</li> </ul>	○	○
P1633 (DI-152)	ECM Malfunction (ETCS Circuit)	<ul style="list-style-type: none"> <li>• ECM</li> </ul>	○	○
P1780 (DI-153)	Park/Neutral Position Switch Malfunction	<ul style="list-style-type: none"> <li>• Short in park/neutral position switch circuit</li> <li>• Park/neutral position switch</li> <li>• ECM</li> </ul>	○	○
B2795 (DI-691)	Unmatch Key Code	<ul style="list-style-type: none"> <li>• Key</li> <li>• Unregistered key inserted before?</li> </ul>	–	○
B2796 (DI-692)	No Communication in Immobilizer System	<ul style="list-style-type: none"> <li>• Key</li> <li>• Transponder key coil</li> <li>• Amplifier</li> <li>• Wire harness</li> <li>• ECM</li> </ul>	–	○
B2797 (DI-694)	Communication Malfunction No.1	<ul style="list-style-type: none"> <li>• Communication contests</li> <li>• Unregistered key inserted before?</li> </ul>	–	○
B2798 (DI-695)	Communication Malfunction No.2	<ul style="list-style-type: none"> <li>• Key</li> <li>• Transponder key coil</li> <li>• Amplifier</li> <li>• Wire harness</li> <li>• ECM</li> </ul>	–	○

\*: – ... MIL does not light up, ○ ... MIL lights up