


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. 

SAE CONTROLLED

DTC No. (See page)	Detection Item	Trouble Area	MIL*1	Memory
P0100 (DI-21)	Mass Air Flow Circuit Malfunction	<ul style="list-style-type: none"> • Open or short in mass air flow meter circuit • Mass air flow meter • ECM 	○	○
P0101 (DI-25)	Mass Air Flow Circuit Range/Performance Problem	<ul style="list-style-type: none"> • Mass air flow meter 	○	○
P0110 (DI-26)	Intake Air Temp. Circuit Malfunction	<ul style="list-style-type: none"> • Open or short in intake air temp. sensor circuit • Intake air temp. sensor (built into mass air flow meter) • ECM 	○	○
P0115 (DI-30)	Engine Coolant Temp. Circuit Malfunction	<ul style="list-style-type: none"> • Open or short in engine coolant temp. sensor circuit • Engine coolant temp. sensor • ECM 	○	○
P0116 (DI-34)	Engine Coolant Temp. Circuit Range/Performance Problem	<ul style="list-style-type: none"> • Cooling system • Engine coolant temp. sensor 	○	○
P0120 (DI-36)	Throttle/Pedal Position Sensor/Switch "A" Circuit Malfunction	<ul style="list-style-type: none"> • Open or short in throttle position sensor circuit • Throttle position sensor • ECM 	○	○
P0121 (DI-41)	Throttle/Pedal Position Sensor/Switch "A" Circuit Range/Performance Problem	<ul style="list-style-type: none"> • Throttle position sensor 	○	○
P0125 (DI-42)	Insufficient Coolant Temp. for Closed Loop Fuel Control	<ul style="list-style-type: none"> • Open or short in A/F sensor (bank 1 sensor 1) circuit • A/F sensor (bank 1 sensor 1) • Air induction system • Fuel pressure • Injector • Gas leakage on exhaust system • ECM 	○	○
P0128 (DI-47)	Thermostat Malfunction	<ul style="list-style-type: none"> • Thermostat • Cooling system • Engine Coolant temp. sensor • ECM 	○	○
P0136 (DI-48)	Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 2)	<ul style="list-style-type: none"> • Open or short in heated oxygen sensor circuit • Heated oxygen sensor 	○	○
P0141 (DI-50)	Oxygen Sensor Heater Circuit Malfunction (Bank 1 Sensor 2)	<ul style="list-style-type: none"> • Same as DTC No. P0135 	○	○
P0171 (DI-52)	System too Lean (Fuel Trim)	<ul style="list-style-type: none"> • Air induction system • Injector blockage • Mass air flow meter • Engine coolant temp. sensor • Fuel pressure • Gas leakage on exhaust system • Open or short in A/F sensor (bank 1 sensor 1) circuit • A/F sensor (bank 1 sensor 1) • ECM 	○	○

P0172 (DI-52)	System too Rich (Fuel Trim)	<ul style="list-style-type: none"> • Injector leak, blockage • Mass air flow meter • Engine coolant temp. sensor • Ignition system • Fuel pressure • Gas leakage on exhaust system • Open or short in A/F sensor (bank 1 sensor 1) circuit • A/F sensor (bank 1 sensor 1) • ECM 	○	○
P0300 (DI-56)	Random/Multiple Cylinder Misfire Detected	<ul style="list-style-type: none"> • Open or short in engine wire • Connector connection • Vacuum hose connector • Ignition system • Injector • Fuel pressure • Mass air flow meter • Engine coolant temp. sensor • Compression pressure • Valve clearance • Valve timing • ECM 	○*2	○
P0301 (DI-56)	Cylinder 1 Misfire Detected			
P0302 (DI-56)	Cylinder 2 Misfire Detected			
P0303 (DI-56)	Cylinder 3 Misfire Detected			
P0304 (DI-56)	Cylinder 4 Misfire Detected			
P0305 (DI-56)	Cylinder 5 Misfire Detected			
P0306 (DI-56)	Cylinder 6 Misfire Detected			
P0325 (DI-61)	Knock Sensor 1 Circuit Malfunction (Bank 1)	<ul style="list-style-type: none"> • Open or short in knock sensor 1 circuit • Knock sensor 1 (looseness) • ECM 	○	○
P0330 (DI-61)	Knock Sensor 2 Circuit Malfunction (Bank 2)	<ul style="list-style-type: none"> • Open or short in knock sensor 2 circuit • Knock sensor 2 (looseness) • ECM 	○	○
P0335 (DI-64)	Crankshaft Position Sensor "A" Circuit Malfunction	<ul style="list-style-type: none"> • Open or short in crankshaft position sensor circuit • Crankshaft position sensor • Crankshaft timing pulley • ECM 	○	○
P0340 (DI-66)	Camshaft Position Sensor Circuit Malfunction	<ul style="list-style-type: none"> • Open or short in camshaft position sensor circuit • Camshaft position sensor • RH camshaft timing pulley • ECM 	○	○
P0420 (DI-68)	Catalyst System Efficiency Below Threshold (Bank 1)	<ul style="list-style-type: none"> • Gas leakage on exhaust system • A/F sensor (bank 1 sensor 1) • Heated oxygen sensor (bank 1 sensor 2) • Three-way catalytic converter 	○	○
P0440 (DI-71)	Evaporative Emission Control System Malfunction	<ul style="list-style-type: none"> • 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) or (2) 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 	○	○

DIAGNOSTICS - ENGINE (5VZ-FE)

P0441 (DI-80)	Evaporative Emission Control System Incorrect Purge Flow	<ul style="list-style-type: none"> • Vacuum hose cracks, holed, damaged or disconnected ((1), (4), (5), (6) and (7) in Fig. 1) • 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 vapor pressure sensor • VSV for vapor pressure sensor • Charcoal canister cracks, holed or damaged • ECM 	○	○
P0442 (DI-71)	Evaporative Emission Control System Leak detected (Small Leak)	<ul style="list-style-type: none"> • Same as DTC No. P0440 	○	○
P0446 (DI-80)	Evaporative Emission Control System Vent Control Malfunction	<ul style="list-style-type: none"> • Vacuum hose cracks, holed, damaged or disconnected ((1), (4), (5), (6) and (7) in Fig. 1) • 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 vapor pressure sensor • VSV for vapor pressure sensor • Charcoal canister cracks, holed or damaged • ECM 	○	○
P0450 (DI-98)	Evaporative Emission Control System Pressure Sensor Malfunction	<ul style="list-style-type: none"> • Open or short in vapor pressure sensor circuit • Vapor pressure sensor 	○	○
P0451 (DI-98)	Evaporative Emission Control System Pressure Sensor Range/Performance	<ul style="list-style-type: none"> • ECM 		
P0500 (DI-100)	Vehicle Speed Sensor Malfunction	<ul style="list-style-type: none"> • Speedometer cable • Open or short in speed signal circuit • ECM 	○	○
P0505 (DI-102)	Idle Control System Malfunction	<ul style="list-style-type: none"> • Air induction system • Electric throttle control system 	○	○

*1: MIL lights up.

*2: MIL lights up or blinking.

MANUFACTURER CONTROLLED

DTC No. (See page)	Detection Item	Trouble Area	MIL*	Memory
P1120 (DI-103)	Accelerator Pedal Position Sensor Circuit Malfunction	<ul style="list-style-type: none"> • Open or short in accelerator pedal position sensor circuit • Accelerator pedal position sensor • ECM 	○	○
P1121 (DI-108)	Accelerator Pedal Position Sensor Range/Performance Problem	<ul style="list-style-type: none"> • Accelerator pedal position sensor 	○	○
P1125 (DI-109)	Throttle Control Motor Circuit Malfunction	<ul style="list-style-type: none"> • Open or short in throttle control motor circuit • Throttle control motor • ECM 	○	○
P1126 (DI-111)	Magnetic Clutch Circuit Malfunction	<ul style="list-style-type: none"> • Open or short in magnetic clutch circuit • Magnetic clutch • ECM 	○	○
P1127 (DI-114)	ETCS Actuator Power Source Circuit Malfunction	<ul style="list-style-type: none"> • Open in ETCS power source circuit • ECM 	○	○
P1128 (DI-117)	Throttle Control Motor Lock Malfunction	<ul style="list-style-type: none"> • Throttle control motor • Throttle body assembly 	○	○

P1129 (DI-117)	Electric Throttle Control System Malfunction	<ul style="list-style-type: none"> • Electric throttle control system • ECM 	○	○
P1130 (DI-118)	A/F Sensor Circuit Range/Performance Malfunction (Bank 1 Sensor 1)	<ul style="list-style-type: none"> • Open or short in A/F sensor circuit • A/F sensor • Air induction system • Fuel pressure • Injector • ECM 	○	○
P1133 (DI-122)	A/F Sensor Circuit Response Malfunction (Bank 1 Sensor 1)	<ul style="list-style-type: none"> • Open or short in A/F sensor circuit • A/F sensor • Air induction system • Fuel pressure • Injector • ECM 	○	○
P1135 (DI-126)	A/F Sensor Heater Circuit Malfunction (Bank1 Sensor 1)	<ul style="list-style-type: none"> • Open or short in heater circuit of A/F sensor • A/F sensor heater • ECM 	○	○
P1300 (DI-128)	Igniter Circuit Malfunction	<ul style="list-style-type: none"> • Ignition system • Open or short in IGF and IGT circuits from igniter to ECM • Igniter • Ignition coil • ECM 	○	○
P1335 (DI-133)	Crankshaft Position Sensor Circuit Malfunction (During engine running)	<ul style="list-style-type: none"> • Open or short in crankshaft position sensor circuit • Crankshaft position sensor • Signal plate • ECM 	-	○
P1520 (DI-134)	Stop Light Switch Signal Malfunction	<ul style="list-style-type: none"> • Short in stop light switch signal circuit • Stop light switch • ECM 	○	○
P1600 (DI-137)	ECM BATT Malfunction	<ul style="list-style-type: none"> • Open in back up power source circuit • ECM 	○	○
P1633 (DI-139)	ECM Malfunction (ETCS Circuit)	<ul style="list-style-type: none"> • ECM 	○	○
P1780 (DI-140)	Park/Neutral Position Switch Malfunction (Only for A/T)	<ul style="list-style-type: none"> • Short in park/neutral position switch circuit • Park/neutral position switch • ECM 	○	○

*: ○ ... MIL lights up. - ... MIL does not light up.