

DIAGNOSTIC TROUBLE CODE CHART

HINT:

Parameters listed in the chart may not be exactly the same as your readings 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 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
P0036 (DI-25)	Oxygen Sensor Heater Control Circuit (Bank 1 Sensor 2)	<ul style="list-style-type: none"> • Open or short in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • EFI main relay • ECM 	○	○
P0100 (DI-28)	Mass or Volume Air Flow Circuit	<ul style="list-style-type: none"> • Open or short in mass air flow meter circuit • Mass air flow meter • ECM 	○	○
P0101 (DI-32)	Mass or Volume Air Flow Circuit Range/Performance Problem	<ul style="list-style-type: none"> • Mass air flow meter 	○	○
P0110 (DI-33)	Intake Air Temperature Circuit	<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-38)	Engine Coolant Temperature Circuit	<ul style="list-style-type: none"> • Open or short in engine coolant temp. sensor circuit • Engine coolant temp. sensor • ECM 	○	○
P0116 (DI-42)	Engine Coolant Temperature Circuit Range/Performance Problem	<ul style="list-style-type: none"> • Cooling system • Engine coolant temp. sensor 	○	○
P0120 (DI-44)	Throttle Pedal Position Sensor/Switch "A" Circuit	<ul style="list-style-type: none"> • Open or short in throttle position sensor circuit • Throttle position sensor • ECM 	○	○
P0121 (DI-48)	Throttle Pedal Position Sensor/Switch "A" Circuit Range/Performance Problem	<ul style="list-style-type: none"> • Throttle position sensor 	○	○
P0125 (DI-42)	Insufficient Coolant Temperature for Closed Loop Fuel Control	<ul style="list-style-type: none"> • Same as DTC No. P0116 	○	○
P0128 (DI-49)	Coolant Thermostat (Coolant Temperature Below Thermostat Regulating Temperature)	<ul style="list-style-type: none"> • Thermostat • Cooling system • Engine coolant temp. sensor • ECM 	⊡	⊡
P0134 *4 (DI-50)	Oxygen Sensor Circuit No Activity Detected (Bank 1 Sensor 1)	<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) • A/F sensor heater • EFI main relay • A/F sensor heater and relay circuit • Air induction system • Fuel pressure • Injector • Gas leak in exhaust system • PCV hose connection • PCV valve and hose • ECM 	○	○

DIAGNOSTICS – ENGINE (2RZ-FE, 3RZ-FE)

P0135 (DI-61)	Oxygen Sensor Heater Circuit (Bank 1 Sensor 1)	<ul style="list-style-type: none"> • Open or in heater circuit of A/F sensor • A/F sensor heater • ECM 	○	○
P0136 (DI-64)	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 	○	○
P0171 (DI-68)	System too Lean (Bank 1)	<ul style="list-style-type: none"> • Air induction system • Injector blockage • Mass air flow meter • Engine coolant temp. sensor • Fuel pressure • Gas leakage in exhaust system • Open or short in A/F sensor (bank 1 sensor 1) circuit • A/F sensor (bank 1 sensor 1) • PCV valve and hose • PCV hose connection • EFI main relay • A/F sensor heater and relay circuit 	○	○
P0172 (DI-68)	System too Rich (Bank 1)	<ul style="list-style-type: none"> • Injector leak or blockage • Mass air flow meter • Engine coolant temp. sensor • Ignition system • Fuel pressure • Gas leakage in exhaust system • Open or short in A/F sensor (bank 1 sensor 1) circuit • A/F sensor (bank 1 sensor 1) • EFI main relay • A/F sensor heater and relay circuit 	○	○
P0300 (DI-77)	Random/Multiple Cylinder Misfire Detected	<ul style="list-style-type: none"> • Open or short in engine wire • Connector connection • Vacuum hose connection 	○*2	○
P0301 (DI-77)	Cylinder 1 Misfire Detected	<ul style="list-style-type: none"> • Ignition system • Injector • Fuel pressure 		
P0302 (DI-77)	Cylinder 2 Misfire Detected	<ul style="list-style-type: none"> • EGR system (Only for 3RZ-FE) • Mass air flow meter • Engine coolant temp. sensor 		
P0303 (DI-77)	Cylinder 3 Misfire Detected	<ul style="list-style-type: none"> • Compression pressure • Valve clearance • Valve timing 		
P0304 (DI-77)	Cylinder 4 Misfire Detected	<ul style="list-style-type: none"> • PCV hose connection • PCV hose • ECM 		
P0325 (DI-87)	Knock Sensor 1 Circuit (Bank 1 or Single Sensor)	<ul style="list-style-type: none"> • Open or short in knock sensor circuit • Knock sensor (looseness) • ECM 	○	○
P0335 (DI-90)	Crankshaft Position Sensor "A" Circuit	<ul style="list-style-type: none"> • Open or short in crankshaft position sensor circuit • Crankshaft position sensor 	○	○
P0339 (DI-90)	Crankshaft Position Sensor "A" Circuit Intermittent	<ul style="list-style-type: none"> • Signal plate (Crankshaft position sensor rotor) • ECM 	–	○
P0340 (DI-93)	Camshaft Position Sensor "A" Circuit (Bank 1 or Single Sensor)	<ul style="list-style-type: none"> • Open or short in camshaft position sensor circuit • Camshaft position sensor 	○	○
P0341 (DI-93)	Camshaft Position Sensor "A" Circuit Range/Performance (Bank 1 or Single Sensor)	<ul style="list-style-type: none"> • Camshaft • Jumping teeth of timing chain • ECM 	○	○

P0351 (DI-95)	Ignition Coil "A" Primary/Secondary Circuit	<ul style="list-style-type: none"> • Ignition system • Open or short in IGF and IGT1 circuit from ignition coil with igniter • Ignition coil with igniter • ECM 	○	○
P0352 (DI-95)	Ignition Coil "B" Primary/Secondary Circuit	<ul style="list-style-type: none"> • Ignition system • Open or short in IGF and IGT 2 circuit from No. 2 ignition coil with igniter to ECM • NO. 2 ignition coil with igniter • ECM 	○	○
P0353 (DI-95)	Ignition Coil "C" Primary/Secondary Circuit	<ul style="list-style-type: none"> • Ignition system • Open or short in IGF and IGT 3 circuit from No. 3 ignition coil with igniter to ECM • NO. 3 ignition coil with igniter • ECM 	○	○
P0354 (DI-95)	Ignition Coil "D" Primary/Secondary Circuit	<ul style="list-style-type: none"> • Ignition system • Open or short in IGF and IGT 4 circuit from No. 4 ignition coil with igniter to ECM • NO. 4 ignition coil with igniter • ECM 	○	○
P0401 (DI-101)	Exhaust Gas Recirculation Flow Insufficient Detected (Only for 3RZ-FE)	<ul style="list-style-type: none"> • Open in EGR gas temp. sensor circuit • EGR gas temp. sensor • Vacuum or EGR hose disconnected • Open or short in VSV circuit for EGR • VSV for EGR • EGR system • EGR vacuum modulator • EGR valve stuck closed • ECM 	○	○
P0402 (DI-111)	Exhaust Gas Recirculation Flow Excessive Detected (Only for 3RZ-FE)	<ul style="list-style-type: none"> • Short in EGR gas temp. sensor circuit • EGR gas temp. sensor • Open in VSV circuit for EGR • VSV for EGR • EGR valve stuck open • ECM 	○	○
P0420 (DI-115)	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 	○	○
P0441 (DI-118)	Evaporative Emission Control System Incorrect Purge Flow	<ul style="list-style-type: none"> • Fuel tank cap incorrectly installed • Fuel tank cap cracked or damaged • Vacuum hose cracks, holed blocked, damaged or disconnected • 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 • Fuel tank over fill check valve cracked or damaged • ECM 	○	○

DIAGNOSTICS – ENGINE (2RZ-FE, 3RZ-FE)

P0442 (DI-151)	Evaporative Emission Control System Leak detected (Small Leak)	<ul style="list-style-type: none"> • Fuel tank cap incorrectly installed • Fuel tank cap cracked or damaged • Hose or tube cracked, hole, damaged or loose seal • Vacuum hose cracked, holed, blocked, damaged or disconnected • Fuel tank cracked, holed or damaged • Charcoal canister cracked, holed or damaged • Open or short in vapor pressure sensor circuit • VSV for CCV • VSV for EVAP • VSV for pressure switching valve • Vapor pressure sensor • Fuel tank over fill check valve cracked or damaged • ECM 	○	○
P0446 (DI-118)	Evaporative Emission Control System Vent Control Circuit	<ul style="list-style-type: none"> • Same as DTC No. P0441 	○	○
P0450 (DI-165)	Evaporative Emission Control System Pressure Sensor Malfunction	<ul style="list-style-type: none"> • Open or short in vapor pressure sensor circuit • Vapor pressure sensor • ECM 	○	○
P0451 (DI-165)	Evaporative Emission Control System Pressure Sensor Range/Performance			
P0456 (DI-151)	Evaporative Emission Control System Leak detected (very small leak)	<ul style="list-style-type: none"> • Same as DTC No. P0442 	○	○
P0500 (DI-167)	Vehicle Speed Sensor "A"	<ul style="list-style-type: none"> • Combination meter • Open or short in No. 1 vehicle speed sensor circuit • ECM • No. 1 vehicle speed sensor 	○	○
P0505 (DI-169)	Idle Air Control System	<ul style="list-style-type: none"> • PCV hose connection • PCV hose • Open or short in IAC valve circuit • IAC valve is stuck or closed • Open or short in A/C switch circuit • Air induction system • ECM 	○	○
P0511 (DI-169)	Idle Air Control Circuit			
P0560 (DI-173)	System Voltage	<ul style="list-style-type: none"> • Open in back up power source circuit • ECM 	○	○
P0617 (DI-175)	Starter Relay Circuit High	<ul style="list-style-type: none"> • Short in Park/neutral position (PNP) switch (A/T) or Clutch start switch (M/T) circuit • Park/neutral position (PNP) switch (A/T) • Clutch start switch (M/T) • Ignition switch • ECM 	○	○
P0705 *3 (DI-181)	Transmission Range Sensor Circuit Malfunction (PRNDL Input)	<ul style="list-style-type: none"> • Open in park/neutral position switch circuit • Park/neutral position switch • ECM 	○	○
P0724 *3 (DI-182)	Brake Switch "B" Circuit High	<ul style="list-style-type: none"> • Short in stop light switch signal circuit • Stop light switch • ECM 	○	○
P0850 *3 (DI-181)	Park/Neutral Switch Input Circuit Low	<ul style="list-style-type: none"> • Open in park/neutral position switch circuit • Park/neutral position switch • ECM 	○	○

P2195 *4 (DI-185)	Oxygen Sensor Signal Stuck Lean (Bank 1 Sensor 1)	<ul style="list-style-type: none"> • Open or short in A/F sensor circuit • A/F sensor • A/F sensor heater • EFI main relay 	○	○
P2196 *4 (DI-185)	Oxygen (Sensor Signal Stuck Rich (Bank 1 Sensor 1)	<ul style="list-style-type: none"> • Air induction system • Fuel pressure • Injector • ECM 	○	○
P2237 *4 (DI-194)	Oxygen Sensor Pumping Current Circuit / Open (for A/F sensor) (Bank 1 Sensor 1)	<ul style="list-style-type: none"> • Open or short in A/F sensor circuit • A/F sensor • A/F sensor heater • EFI main relay 	○	○
P2A00 (DI-198)	A/F Sensor Circuit Slow Response (Bank 1 Sensor 1)	<ul style="list-style-type: none"> • Open or short in A/F sensor circuit • A/F sensor • A/F sensor heater • EFI main relay • Air induction system • Fuel pressure • Injector • ECM 	○	○

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

*2: MIL lights up or blinks.

*3: A/T only.

*4: This DTC is related to A/F sensor is in a malfunction, although the detection item is oxygen sensor.