

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
P0031 (05-30)	Oxygen Sensor Heater Control Circuit Low (Bank 1 Sensor 1)	<ul style="list-style-type: none"> • Open or short in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • EFI relay • ECM 	○	○
P0032 (05-30)	Oxygen Sensor Heater Control Circuit High (Bank 1 Sensor 1)	<ul style="list-style-type: none"> • Short in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • EFI relay • ECM 	○	○
P0037 (05-30)	Oxygen Sensor Heater Control Circuit Low (Bank 1 Sensor 2)	• Same as DTC No. P0031	○	○
P0038 (05-30)	Oxygen Sensor Heater Control Circuit High (Bank 1 Sensor 2)	• Same as DTC No. P0032	○	○
P0051 (05-30)	Oxygen Sensor Heater Control Circuit Low (Bank 2 Sensor 1)	• Same as DTC No. P0031	○	○
P0052 (05-30)	Oxygen Sensor Heater Control Circuit High (Bank 2 Sensor 1)	• Same as DTC No. P0032	○	○
P0057 (05-30)	Oxygen Sensor Heater Control Circuit Low (Bank 2 Sensor 2)	• Same as DTC No. P0031	○	○
P0058 (05-30)	Oxygen Sensor Heater Control Circuit High (Bank 2 Sensor 2)	• Same as DTC No. P0032	○	○
P0100 (05-35)	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 (05-40)	Mass or volume Air Flow Circuit Range/Performance Problem	• Mass air flow meter	○	○
P0102 (05-35)	Mass or volume Air Flow Circuit Low Input	<ul style="list-style-type: none"> • Open in mass air flow meter circuit • Short in ground circuit • Mass air flow meter • ECM 	○	○
P0103 (05-35)	Mass or volume Air Flow Circuit High Input	<ul style="list-style-type: none"> • Open in mass air flow meter circuit (E2G circuit) • Short in mass air flow meter circuit (+B circuit) • Mass air flow meter • ECM 	○	○
P0110 (05-41)	Intake Air Temperature Circuit	<ul style="list-style-type: none"> • Open or short in intake air temp. sensor circuit • Intake air temp. sensor (built in mass air flow meter) • ECM 	○	○
P0112 (05-41)	Intake Air Temperature Circuit Low Input	<ul style="list-style-type: none"> • Short in intake air temp. sensor circuit • Intake air temp. sensor (built in mass air flow meter) • ECM 	○	○
P0113 (05-41)	Intake Air Temperature Circuit High Input	<ul style="list-style-type: none"> • Open in intake air temp. sensor circuit • Intake air temp. sensor (built in mass air flow meter) • ECM 	○	○
P0115 (05-45)	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 (05-49)	Engine Coolant Temperature Circuit Range/Performance Problem	<ul style="list-style-type: none"> • Cooling system • Engine coolant temp. sensor 	○	○

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P0117 (05-45)	Engine Coolant Temperature Circuit Low Input	<ul style="list-style-type: none"> • Short in engine coolant temp. sensor circuit • Engine coolant temp. sensor • ECM 	○	○
P0118 (05-45)	Engine Coolant Temperature Circuit High Input	<ul style="list-style-type: none"> • Open or short in engine coolant temp. sensor circuit • Engine coolant temp. sensor • ECM 	○	○
P0120 (05-51)	Throttle/Pedal Position Sensor/Switch "A" Circuit	<ul style="list-style-type: none"> • Throttle position sensor (built in throttle body) • ECM 	○	○
P0121 (05-58)	Throttle/Pedal Position Sensor/Switch "A" Circuit Range/Performance Problem	<ul style="list-style-type: none"> • Throttle position sensor (built in throttle body) 	○	○
P0122 (05-51)	Throttle/Pedal Position Sensor/Switch "A" Circuit Low Input	<ul style="list-style-type: none"> • Throttle position sensor (built in throttle body) • VTA1 circuit short • VC circuit open • ECM 	○	○
P0123 (05-51)	Throttle/Pedal Position Sensor/Switch "A" Circuit High Input	<ul style="list-style-type: none"> • Throttle position sensor (built in throttle body) • VTA1 circuit open • E2 circuit open • VC and VTA1 circuit are short-circuited • ECM 	○	○
P0125 (05-49)	Insufficient Coolant Temperature for Closed Loop Fuel Control	<ul style="list-style-type: none"> • Same as DTC No. P0116 	○	○
P0128 (05-59)	Coolant Thermostat (Coolant Temperature Below Thermostat Regulating Temperature)	<ul style="list-style-type: none"> • Thermostat • Cooling system • Engine coolant temp. sensor • ECM 	○	○
P0130 (05-60)	Oxygen Sensor Circuit (Bank 1 Sensor 1)	<ul style="list-style-type: none"> • Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Heated oxygen sensor heater • EFI relay • Air induction system • Fuel pressure • Injector • ECM 	○	○
P0133 (05-69)	Oxygen Sensor Circuit Slow Response (Bank 1 Sensor 1)	<ul style="list-style-type: none"> • Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Heated oxygen sensor heater • EFI relay • Air induction system • Fuel pressure • Injector • ECM 	○	○
P0134 (05-74)	Oxygen Sensor Circuit No Activity Detected (Bank 1 Sensor 1)	<ul style="list-style-type: none"> • Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Heated oxygen sensor heater • EFI relay • Air induction system • Fuel pressure • Injector • Gas leakage in exhaust system • PCV valve and hose • PCV hose connection • ECM 	○	○
P0136 (05-80)	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 • Heated oxygen sensor heater • EFI relay 	○	○
P0150 (05-60)	Oxygen Sensor Circuit (Bank 2 Sensor 1)	<ul style="list-style-type: none"> • Same as DTC No. P0130 	○	○

P0153 (05-69)	Oxygen Sensor Circuit Slow Response (Bank 2 Sensor 1)	<ul style="list-style-type: none"> • Same as DTC No. P0133 	○	○
P0154 (05-74)	Oxygen Sensor Circuit No Activity Detected (Bank 2 Sensor 1)	<ul style="list-style-type: none"> • Same as DTC No. P0134 	○	○
P0156 (05-80)	Oxygen Sensor Circuit Malfunction (Bank 2 Sensor 2)	<ul style="list-style-type: none"> • Same as DTC No. P0136 	○	○
P0171 (05-86)	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 heated oxygen sensor (bank 1 sensor 1) circuit • Heated oxygen sensor (bank 1 sensor 1) • Heated oxygen sensor heater (bank 1 sensor 1) • EFI relay • PCV valve and hose • PCV hose connection • ECM 	○	○
P0172 (05-86)	System too Rich (Bank 1)	<ul style="list-style-type: none"> • Injector leak, 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 (05-86)	System too Lean (Bank2)	<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 heated oxygen sensor (bank 2 sensor 1) circuit • Heated oxygen sensor (bank 2 sensor 1) • Heated oxygen sensor heater (bank 2 sensor 1) • EFI relay • PCV valve and hose • PCV hose connection • ECM 	○	○
P0175 (05-86)	System too Rich (Bank2)	<ul style="list-style-type: none"> • Injector leak, 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 (05-51)	Throttle/Pedal Position Sensor/Switch "B" Circuit	<ul style="list-style-type: none"> • Throttle position sensor (built in throttle body) • ECM 	○	○
P0222 (05-51)	Throttle/Pedal Position Sensor/Switch "B" Circuit Low Input	<ul style="list-style-type: none"> • Throttle position sensor (built in throttle body) • VTA2 circuit short • VC circuit open • ECM 	○	○

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P0223 (05-51)	Throttle/Pedal Position Sensor/ Switch "B" Circuit High Input	<ul style="list-style-type: none"> • Throttle position sensor (built in throttle body) • VTA2 circuit open • E2 circuit open • VC and VTA2 circuit are short-circuited • ECM 	○	○
P0230 (05-95)	Fuel Pump Primary Circuit	<ul style="list-style-type: none"> • Open or short in fuel pump relay circuit • Fuel pump relay • ECM 	—	○
P0300 (05-99)	Random/Multiple Cylinder Misfire Detected	<ul style="list-style-type: none"> • 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 hose connection • PCV hose • ECM 	○*2	○
P0301 (05-99)	Cylinder 1 Misfire Detected		○*2	○
P0302 (05-99)	Cylinder 2 Misfire Detected		○*2	○
P0303 (05-99)	Cylinder 3 Misfire Detected		○*2	○
P0304 (05-99)	Cylinder 4 Misfire Detected		○*2	○
P0305 (05-99)	Cylinder 5 Misfire Detected		○*2	○
P0306 (05-99)	Cylinder 6 Misfire Detected		○*2	○
P0307 (05-99)	Cylinder 7 Misfire Detected		○*2	○
P0308 (05-99)	Cylinder 8 Misfire Detected		○*2	○
P0325 (05-112)	Knock Sensor 1 Circuit (Bank 1 or Single Sensor)	<ul style="list-style-type: none"> • Open or short in knock sensor 1 circuit • Knock sensor 1 (looseness) • ECM 	○	○
P0330 (05-112)	Knock Sensor 2 Circuit (Bank 2)	<ul style="list-style-type: none"> • Open or short in knock sensor 2 circuit • Knock sensor 2 (looseness) • ECM 	○	○
P0335 (05-116)	Crankshaft Position Sensor "A" Circuit	<ul style="list-style-type: none"> • Open or short in crankshaft position sensor circuit • Crankshaft position sensor • Signal plate (crankshaft position sensor plate No. 1) • ECM 	○	○
P0339 (05-116)	Crankshaft Position Sensor "A" Circuit Intermittent	<ul style="list-style-type: none"> • Open or short in crankshaft position sensor circuit • Crankshaft position sensor • Signal plate (crankshaft position sensor plate No. 1) • ECM 	—	○
P0340 (05-119)	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 (05-119)	Camshaft Position Sensor "A" Circuit Range/Performance (Bank 1 or Single Sensor)	<ul style="list-style-type: none"> • Camshaft timing pulley LH • Jumping teeth of timing belt • ECM 	○	○

P0351 (05-122)	Ignition Coil "A" Primary/Secondary Circuit	<ul style="list-style-type: none"> • Ignition system • Open or short in IGF or IGT1 - 8 circuit from ignition coil with igniter to ECM • No.1 - No.8 ignition coil with igniter • ECM 	<input type="radio"/>	<input type="radio"/>
P0352 (05-122)	Ignition Coil "B" Primary/Secondary Circuit		<input type="radio"/>	<input type="radio"/>
P0353 (05-122)	Ignition Coil "C" Primary/Secondary Circuit		<input type="radio"/>	<input type="radio"/>
P0354 (05-122)	Ignition Coil "D" Primary/Secondary Circuit		<input type="radio"/>	<input type="radio"/>
P0355 (05-122)	Ignition Coil "E" Primary/Secondary Circuit		<input type="radio"/>	<input type="radio"/>
P0356 (05-122)	Ignition Coil "F" Primary/Secondary Circuit		<input type="radio"/>	<input type="radio"/>
P0357 (05-122)	Ignition Coil "G" Primary/Secondary Circuit		<input type="radio"/>	<input type="radio"/>
P0358 (05-122)	Ignition Coil "H" Primary/Secondary Circuit		<input type="radio"/>	<input type="radio"/>
P0420 (05-130)	Catalyst System Efficiency Below Threshold (Bank 1)	<ul style="list-style-type: none"> • Gas leakage in exhaust system • Heated oxygen sensor (bank 1 sensor 1, 2) • Three-way catalytic converter (inside exhaust manifold) 	<input type="radio"/>	<input type="radio"/>
P0430 (05-130)	Catalyst System Efficiency Below Threshold (Bank 2)	<ul style="list-style-type: none"> • Gas leakage in exhaust system • Heated oxygen sensor (bank 2 sensor 1, 2) • Three-way catalytic converter (inside exhaust manifold) 	<input type="radio"/>	<input type="radio"/>
P0441 (05-133)	Evaporative Emission Control System Incorrect Purge Flow	<ul style="list-style-type: none"> • Vacuum hose cracks, holed blocked, damaged or disconnected • 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 • Fuel tank cracked, holed or damaged • Charcoal canister cracked, holed or damaged • Fuel tank over fill check valve cracked or damaged • ECM 	<input type="radio"/>	<input type="radio"/>
P0442 (05-133)	Evaporative Emission Control System Leak detected (small leak)	<ul style="list-style-type: none"> • Hose or tube cracked, holed, damaged or insufficient seal • Fuel tank cap incorrectly installed • Fuel tank cap cracked or damaged • 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 • Vapor pressure sensor • Fuel tank over fill check valve cracked or damaged • ECM 	<input type="radio"/>	<input type="radio"/>
P0446 (05-133)	Evaporative Emission Control System Vent Control Circuit	<ul style="list-style-type: none"> • Same as DTC No. P0441 	<input type="radio"/>	<input type="radio"/>
P0451 (05-159)	Evaporative Emission Control System Pressure Sensor/Switch Range/Performance	<ul style="list-style-type: none"> • Open or short in vapor pressure sensor circuit • Vapor pressure sensor • ECM 	<input type="radio"/>	<input type="radio"/>
P0452 (05-159)	Evaporative Emission Control System Pressure Sensor/Switch Low Input	<ul style="list-style-type: none"> • Open in vapor pressure sensor circuit • Vapor pressure sensor • ECM 	<input type="radio"/>	<input type="radio"/>
P0453 (05-159)	Evaporative Emission Control System Pressure Sensor/Switch High Input	<ul style="list-style-type: none"> • Short in vapor pressure sensor circuit • Vapor pressure sensor • ECM 	<input type="radio"/>	<input type="radio"/>

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P0456 (05-133)	Evaporative Emission Control System Leak Detected (very small leak)	• Same as DTC No. P0442	○	○
P0500 (05-163)	Vehicle Speed Sensor "A"	• Open or short in speed sensor circuit • Speed sensor • Combination meter • ECM • Skid control computer assy	○	○
P0503 (05-163)	Vehicle Speed Sensor "A" Intermittent/Erratic/High	• Open or short in speed sensor circuit • Speed sensor • Combination meter • ECM • Skid control computer assy	—	○
P0504 (05-166)	Brake Switch Correlation	• Short in stop lamp switch signal circuit • Stop lamp switch • ECM	—	○
P0505 (05-171)	Idle Air Control System	• Electric throttle control system • Air induction system • PCV hose connection • ECM	○	○
P0560 (05-173)	System Voltage	• Open in back up power source circuit • ECM	○	○
P0571 (05-176)	Brake Switch "A" Circuit	• Short in stop lamp switch signal circuit • Stop lamp switch • ECM	—	○
P0604 (05-177)	Internal Control Module Random Access Memory (RAM) Error	• ECM	○	○
P0606 (05-177)	ECM/PCM Processor		○	○
P0607 (05-177)	Control Module Performance		○	○
P0617 (05-178)	Starter Relay Circuit High	• Short in Park/neutral position switch circuit • Park/neutral position switch • Cranking holding function circuit • ECM	○	○
P0657 (05-177)	Actuator Supply Voltage Circuit / Open	• ECM	○	○
P0705 (05-181)	Transmission Range Sensor Circuit Malfunction (PRNDL Input)	• Short in park/neutral position switch circuit • Park/neutral position switch • ECM	○	○
P0710 (05-468)	Transmission Fluid Temperature Sensor "A" Circuit	• Electronic controlled automatic transmission (ECT)	○	○
P0711 (05-470)	Transmission Fluid Temperature Sensor "A" Circuit Range/Performance		○	○
P0712 (05-468)	Transmission Fluid Temperature Sensor "A" Circuit Low Input		○	○
P0713 (05-468)	Transmission Fluid Temperature Sensor "A" Circuit High Input		○	○
P0717 (05-472)	Input/Turbine Speed Sensor "A" Circuit No Signal		○	○
P0722 (05-474)	Output Speed Sensor Circuit No Signal		○	○
P0724 (05-476)	Brake Switch "B" Circuit High		• Short in Stop lamp Switch signal Circuit • Stop lamp Switch • ECM	○

P0748 (05-477)	Pressure Control Solenoid "A" Electrical		○	○	
P0751 (05-483)	Shift Solenoid "A" Performance or Stuck Off		○	○	
P0756 (05-484)	Shift Solenoid "B" Performance or Stuck Off		○	○	
P0771 (05-485)	Shift Solenoid "E" Performance or Stuck Off		○	○	
P0776 (05-487)	Pressure Control Solenoid "B" Performance or Stuck Off		○	○	
P0778 (05-488)	Pressure Control Solenoid "B" Electrical		○	○	
P0781 (05-491)	1 - 2 Shift	• Electronic controlled automatic transmission (ECT)	○	○	
P0973 (05-492)	Shift Solenoid "A" Control Circuit Low		○	○	
P0974 (05-492)	Shift Solenoid "A" Control Circuit High		○	○	
P0976 (05-494)	Shift Solenoid "B" Control Circuit Low		○	○	
P0977 (05-494)	Shift Solenoid "B" Control Circuit High		○	○	
P0985 (05-496)	Shift Solenoid "E" Control Circuit Low		○	○	
P0986 (05-496)	Shift Solenoid "E" Control Circuit High		○	○	
P1782 (05-498)	Transfer L4 SW Circuit		○	○	
P2102 (05-182)	Throttle Actuator Control Motor Circuit Low		• Open in throttle control motor circuit • Throttle control motor • ECM	○	○
P2103 (05-182)	Throttle Actuator Control Motor Circuit High		• Short in throttle control motor circuit • Throttle control motor • ECM	○	○
P2111 (05-184)	Throttle Actuator Control System - Stuck Open	• Throttle control motor circuit • Throttle control motor	○	○	
P2112 (05-184)	Throttle Actuator Control System - Stuck Closed	• Throttle body • Throttle valve	○	○	
P2118 (05-186)	Actuator Control Motor Current Range/Performance	• Open in ETCS power source circuit • ECM	○	○	
P2119 (05-189)	Throttle Actuator Control Throttle Body Range/Performance	• Electric throttle control system • ECM	○	○	
P2120 (05-191)	Throttle/Pedal Position Sensor/ Switch "D" Circuit	• Accelerator pedal position sensor • ECM	○	○	
P2121 (05-199)	Throttle/Pedal Position Sensor/ Switch "D" Circuit Range/Perfor- mance	• Accelerator pedal position sensor circuit • Accelerator pedal position sensor • ECM	○	○	
P2122 (05-191)	Throttle/Pedal Position Sensor/ Switch "D" Circuit Low Input	• Accelerator pedal position sensor • VCP1 circuit open • VPA1 circuit open or ground short • ECM	○	○	
P2123 (05-191)	Throttle/Pedal Position Sensor/ Switch "D" Circuit High Input	• Accelerator pedal position sensor • EPA1 circuit open • ECM	○	○	
P2125 (05-191)	Throttle/Pedal Position Sensor/ Switch "E" Circuit	• Accelerator pedal position sensor • ECM	○	○	

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P2127 (05-191)	Throttle/Pedal Position Sensor/ Switch "E" Circuit Low Input	<ul style="list-style-type: none"> • Accelerator pedal position sensor • VCP2 circuit open • VPA2 circuit open or ground short • ECM 	○	○
P2128 (05-191)	Throttle/Pedal Position Sensor/ Switch "E" Circuit High Input	<ul style="list-style-type: none"> • Accelerator pedal position sensor • EPA2 circuit open • ECM 	○	○
P2135 (05-51)	Throttle Pedal Position Sensor/ Switch "A"/"B" Voltage Correlation	<ul style="list-style-type: none"> • VTA1 and VTA2 circuit are short-circuited • Throttle position sensor (built in throttle body) • ECM 	○	○
P2138 (05-191)	Throttle Pedal Position Sensor/ Switch "D"/"E" Voltage Correlation	<ul style="list-style-type: none"> • VPA1 and VPA2 circuit are short circuited • Accelerator pedal position sensor • ECM 	○	○
P2195 (05-60)	Oxygen Sensor Signal Stuck Lean (Bank 1 Sensor 1)	<ul style="list-style-type: none"> • Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Heated oxygen sensor heater • EFI relay • Air induction system • Fuel pressure • Injector • ECM 	○	○
P2196 (05-60)	Oxygen Sensor Signal Stuck Rich (Bank 1 Sensor 1)		○	○
P2197 (05-60)	Oxygen Sensor Signal Stuck Lean (Bank 2 Sensor 1)		○	○
P2198 (05-60)	Oxygen Sensor Signal Stuck Rich (Bank 2 Sensor 1)		○	○
P2714 (05-500)	Pressure Control Solenoid "D" Performance or Stuck Off		<ul style="list-style-type: none"> • Electronic controlled automatic transmission (ECT) 	○
P2716 (05-502)	Pressure Control Solenoid "D" Electrical	○		○
P2743 (05-468)	Transmission Fluid Temperature Sensor "B" Circuit High	○		○
P2757 (05-505)	Torque Converter Clutch Pressure Control Solenoid Control Circuit Performance or Stuck Off	○		○
P2759 (05-507)	Torque Converter Clutch Pressure Control Solenoid Control Circuit Electrical	○		○
B2799 (05-1245)	Engine Immobilizer System Malfunction	<ul style="list-style-type: none"> • Immobilizer system 	—	○

*1: MIL lights up

*2: MIL lights up or blinks