DIAGNOSTIC TROUBLE CODE CHART

HINT:

Parameters listed in the chart may be different than your readings depending on the type of instrument used and other factors.

During the DTC check, refer to the table below if a malfunction code is displayed. For details about each code, refer to the page number in the DTC chart's left column.

DTC No. (See Page)	Detection Item	Trouble Area	MIL*1	Memory
P0010 (05–59)	Camshaft Position "A" Actuator Circuit (Bank 1)	Open or short in OCV circuit OCV valve ECM	0	0
P0011 (05–65)	Camshaft Position "A" –Timing Over– Advanced or System Per- formance (Bank 1)	Valve timing OCV VVT controller assembly ECM	0	0
P0012 (05–65)	Camshaft Position "A" –Timing Over– Retarded (Bank 1)	Same as DTC No. P0011	0	0
P0016 (05–73)	Crankshaft Position – Camshaft Position Correlation (Bank 1 Sensor 1)	Mechanical system (jumped tooth of timing chain, chain stretched) ECM	0	0
P0031*4 (05-75)	Oxygen (A/F) Sensor Heater Circuit Low (Bank 1 Sensor 1)	Open in heater circuit of A/F sensor A/F sensor heater EFI relay ECM	0	0
P0032*4 (05-75)	Oxygen (A/F) Sensor Heater Circuit High (Bank 1 Sensor 1)	Short in heater circuit of A/F sensor A/F sensor heater EFI relay ECM	0	0
P0037 (05–80)	Oxygen Sensor Heater Control Circuit Low (Bank 1 Sensor 2)	Open or short in heater circuit of heated oxygen sensor Heated oxygen sensor heater EFI relay ECM	0	0
P0038 (05–80)	Oxygen Sensor Heater Control Circuit High (Bank 1 Sensor 2)	Same as DTC No. P0037	0	0
P0100 (05–84)	Mass or volume Air Flow Circuit	Open or short in mass air flow meter circuit Mass air flow meter ECM	0	0
P0101 (05–91)	Mass or volume Air Flow Circuit Range/Performance Problem	Mass air flow meter	0	0
P0102 (05–84)	Mass or volume Air Flow Circuit Low Input	Open in mass air flow meter circuit Short in ground circuit Mass air flow meter ECM	0	0
P0103 (05–84)	Mass or volume Air Flow Circuit High Input	Short in mass air flow meter circuit (to +B circuit) Mass air flow meter ECM	0	0
P0110 (05–93)	Intake Air Temperature Circuit	Open or short in intake air temp. sensor circuit Intake air temperature sensor (built in mass air flow meter) ECM	0	0
P0112 (05–93)	Intake Air Temperature Circuit Low Input	Same as DTC No. P0110	0	0
P0113 (05–93)	Intake Air Temperature Circuit High Input	Same as DTC No. P0110	0	0
P0115 (05–98)	Engine Coolant Temperature Circuit	Open or short in engine coolant temperature sensor circuit Engine coolant temperature sensor ECM	0	0

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P0116 (05–103)	Engine Coolant Temperature Circuit Range/Performance Problem	Cooling system Engine coolant temperature sensor	0	0
P0117 (05–98)	Engine Coolant Temperature Circuit Low Input	Same as DTC No. P0115	0	0
P0118 (05–98)	Engine Coolant Temperature Circuit High Input	Same as DTC No. P0115	0	0
P0120 (05–105)	Throttle/Pedal Position Sensor/ Switch "A" Circuit	Throttle position sensor (built in throttle body) ECM	0	0
P0121 (05–115)	Throttle/Pedal Position Sensor/ Switch "A" Circuit Range/Perfor- mance Problem	Throttle body assy (Throttle position sensor)	0	0
P0122 (05–105)	Throttle/Pedal Position Sensor/ Switch "A" Circuit Low Input	Throttle position sensor (built in throttle body) Short in VTA1 circuit Open in VC circuit ECM	0	0
P0123 (05–105)	Throttle/Pedal Position Sensor/ Switch "A" Circuit High Input	Throttle position sensor (built in throttle body) Open in VTA1 circuit Open in E2 circuit VC and VTA1 circuit are short–circuited ECM	0	0
P0125 (05–117)	Insufficient Coolant Temperature for Closed Loop Fuel Control	Cooling system Engine coolant temperature sensor Thermostat	0	0
P0128 (05–120)	Coolant Thermostat (Coolant Temperature Below Thermostat regulating temperature)	Thermostat Cooling system Engine coolant temperature sensor ECM	0	0
P0136 (05–123)	Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 2)	Open or short in heated oxygen sensor 2 (bank 1 sensor 2) circuit Heated oxygen sensor 2 (bank 1 sensor 2) Heated oxygen sensor 2 heater (bank 1 sensor 2) A/F sensor A/F sensor heater EFI relay	0	0
P0137 (05–123)	Oxygen Sensor Circuit Low Voltage (Bank 1 Sensor 2)	Open or short in heated oxygen sensor (bank 1 sensor 2) circuit (sensor to ECM) Open or short in heated oxygen sensor (bank 1 sensor 2) inside	0	0
P0138 (05–123)	Oxygen Sensor Circuit High Voltage (Bank 1 Sensor 2)	Short in heated oxygen sensor (bank 1 sensor 2) circuit Short in heated oxygen sensor (bank 1 sensor 2) ECM inside circuit malfunction	0	0
P0139	Oxygen Sensor Circuit Slow Response (Bank 1 Sensor 2)	Short in heated oxygen sensor (bank 1 sensor 2) circuit Short in heated oxygen sensor (bank 1 sensor 2) ECM inside circuit malfunction	0	0
P0171 (05–138)	System too Lean (Bank 1)	Air induction system Injector blockage Mass air flow meter Engine coolant temperature sensor Fuel pressure Gas leakage in exhaust system Open or short in A/F sensor circuit A/F sensor A/F sensor heater EFI relay A/F sensor heater and EFI relay circuit PCV hose connection PCV hose	0	0

P0172 (05–138)	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 A/F sensor circuit A/F sensor A/F sensor heater A/F sensor heater and EFI relay circuit EFI relay 	0	0
P0220 (05–105)	Throttle/Pedal Position Sensor/ Switch "B" Circuit	Throttle position sensor (built in throttle body) ECM	0	0
P0222 (05–105)	Throttle/Pedal Position Sensor/ Switch "B" Circuit Low Input	Throttle position sensor (built in throttle body) Short in VTA2 circuit Open in VC circuit ECM	0	0
P0223 (05–105)	Throttle/Pedal Position Sensor/ Switch "B" Circuit High Input	Throttle position sensor (built in throttle body) Open in VTA2 circuit Open in E2 circuit VC and VTA2 circuit are short-circuited ECM	0	0
P0300 (05–152)	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 temp. sensor Compression pressure Valve clearance Valve timing PCV hose connection PCV hose ECM	○*2	0
P0301 (05–152)	Cylinder 1 Misfire Detected	Same as DTC No. P0300	○*2	0
P0302 (05–152)	Cylinder 2 Misfire Detected	Same as DTC No. P0300	○*2	0
P0303 (05–152)	Cylinder 3 Misfire Detected	Same as DTC No. P0300	○*2	0
P0304 (05–152)	Cylinder 4 Misfire Detected	• Same as DTC No. P0300	○*2	0
P0327 (05–166)	Knock Sensor 1 Circuit Low Input (Bank 1 or Single Sensor)	Short in knock sensor circuit Knock sensor ECM	0	0
P0328 (05–166)	Knock Sensor 1 Circuit High Input (Bank 1 or Single Sensor)	Open in knock sensor circuit Knock sensor ECM	0	0
P0335 (05–171)	Crankshaft Position Sensor "A" Circuit	Open or short in crankshaft position sensor circuit Crankshaft position sensor Signal plate (Crankshaft position sensor plate No. 1) ECM	0	0
P0339 (05–171)	Crankshaft Position Sensor "A" Circuit Intermittent	Same as DTC No. P0335	-	0

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P0340 (05–176)	Camshaft Position Sensor "A" Circuit (Bank 1 or Single Sensor)	Open or short in camshaft position sensor circuit Camshaft position sensor Camshaft timing gear Timing chain has a jumped tooth ECM	0	0
P0341 (05–176)	Camshaft Position Sensor "A" Circuit Range/Performance (Bank 1 or Single Sensor)	Same as DTC No. P0340	0	0
P0351 (05–180)	Ignition Coil "A" Primary/Secondary Circuit	Ignition system Open or short in IGF and IGT1 to 4 circuits from ignition coil with igniter assy to ECM No.1 – 4 ignition coil assy ECM	0	0
P0352 (05–180)	Ignition Coil "B" Primary/Secondary Circuit	Same as DTC No. P0351	0	0
P0353 (05–180)	Ignition Coil "C" Primary/Secondary Circuit	Same as DTC No. P0351	0	0
P0354 (05–180)	Ignition Coil "D" Primary/Secondary Circuit	Same as DTC No. P0351	0	0
P0420 (05–190)	Catalyst System Efficiency Below Threshold (Bank 1)	Gas leakage on exhaust system A/F sensor Heated oxygen sensor Exhaust manifold converter (Three way catalytic converter)	0	0
P0441 (05–195)	Evaporative Emission Control System Incorrect Purge Flow	Vacuum hose has cracks, holes, or is blocked, damaged or disconnected Fuel tank cap incorrectly installed Fuel tank cap has cracks or is damaged Open or short in vapor pressure sensor circuit Vapor pressure sensor Open or short in EVAP VSV circuit EVAP VSV Open or short in CCV circuit CCV Fuel tank has cracks, holes, or is damaged Charcoal canister has cracks, holes, or is damaged Fuel tank over fill check valve cracks, or is damaged ECM	0	0
P0442 (05–195)	Evaporative Emission Control System Leak detected (small leak)	Same as DTC No. P0441	0	0
P0446 (05–195)	Evaporative Emission Control System Vent Control Circuit	Same as DTC No. P0441	0	0
P0451 (05–211)	Evaporative Emission Control System Pressure Sensor/Switch Range/Performance	Open or short in vapor pressure sensor circuit Vapor pressure sensor ECM	0	0
P0452 (05–211)	Evaporative Emission Control System Pressure Sensor/Switch Low Input	• Same as DTC No. P0451	0	0
P0453 (05–211)	Evaporative Emission Control System Pressure Sensor/Switch High Input	• Same as DTC No. P0451	0	0
P0455 (05–195)	Evaporative Emission Control System Leak Detected (gross leak)	• Same as DTC No. P0441	0	0
P0456 (05–195)	Evaporative Emission Control System Leak Detected (very small leak)	Same as DTC No. P0441	0	0

P0500 (05–216)	Vehicle Speed Sensor "A"	Combination meter Open or short in speed sensor circuit Vehicle speed sensor ECM Skid control ECU	0	0
P0504 (05–219)	Brake Switch Correlation	Short in stop lamp switch signal circuit Stop lamp fuse Stop lamp switch ECM		0
P0505 (05–225)	Idle Control System	Electric throttle control system Air induction system PCV hose connection ECM	0	0
P0560 (05–228)	System Voltage	Open in back-up power source circuit ECM	0	0
P0604 (05–232)	Internal Control Module Random Access Memory (RAM) Error	•ECM	0	0
P0606 (05–232)	ECM/PCM Processor	•ECM	0	0
P0607 (05–232)	Control Module Performance	•ECM	0	0
P0617 (05–234)	Starter Relay Circuit High	Short in park/neutral position switch (A/T) or clutch start switch (M/T) Park/neutral position switch (A/T) Clutch start switch (M/T) Ignition switch ECM	0	0
P0630 (05–240)	VIN not Programmed or Mis- match – ECM/PCM	•ECM	0	0
P0657 (05–232)	Actuator Supply Voltage Circuit / Open	•ECM	0	0
P0705 (05–1154)	Transmission Range Sensor Circuit Malfunction (PRNDL Input)	Short in park/neutral position switch circuit Park/Neutral position switch ECM	0	0
P0710 (05–1159)	Transmission Fluid Temperature Sensor "A" circuit	Electronic controlled automatic transmission (ECT)	0	0
P0711 (05–1164)	Transmission Fluid Temperature Sensor "A" Performance	Electronic controlled automatic transmission (ECT)	0	0
P0712 (05–1159)	Transmission Fluid Temperature Sensor "A" Circuit Low Input	Electronic controlled automatic transmission (ECT)	0	0
P0713 (05–1159)	Transmission Fluid Temperature Sensor "A" Circuit High Input	Electronic controlled automatic transmission (ECT)	0	0
P0717 (05–1168)	Input/Turbine Speed Sensor "A" Circuit No Signal	Electronic controlled automatic transmission (ECT)	0	0
P0724 (05–1172)	Brake Switch "B" Circuit High	Electronic controlled automatic transmission (ECT)	0	0
P0741 (05–1175)	Torque Converter Clutch Sole- noid Performance (Shift Solenoid Valve DSL) Stuck Off	Electronic controlled automatic transmission (ECT)	0	0
P0746 (05–1180)	Pressure Control Solenoid "A" Performance (Shift Solenoid Valve SL1)	Electronic controlled automatic transmission (ECT)	0	0
P0748 (05–1184)	Pressure Control Solenoid "A" Electrical (Shift Solenoid Valve SL1)	Electronic controlled automatic transmission (ECT)	0	0
P0766 (05–1187)	Shift Solenoid "D" Performance (Shift Solenoid Valve S4)	Electronic controlled automatic transmission (ECT)	0	0

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P0771 (05–1192)	Shift Solenoid "E" Performance (Shift Solenoid Valve SR)	Electronic controlled automatic transmission (ECT)	0	0
P0776 (05–1197)	Pressure Control Solenoid "B" Performance (Shift Solenoid Valve SL2)	Electronic controlled automatic transmission (ECT)	0	0
P0778 (05–1202)	Pressure Control Solenoid "B" Electrical (Shift Solenoid Valve SL2)	Electronic controlled automatic transmission (ECT)	0	0
P0793 (05–1205)	Intermediate Shaft Speed Sensor "A" Circuit No Signal	Electronic controlled automatic transmission (ECT)	0	0
P0796 (05–1209)	Pressure Control Solenoid "C" Performance (Shift Solenoid Valve SL3)	Electronic controlled automatic transmission (ECT)	0	0
P0798 (05–1214)	Pressure Control Solenoid "C" Electrical (Shift Solenoid Valve SL3)	Electronic controlled automatic transmission (ECT)	0	0
P0982 (05–1217)	Shift Solenoid "D" Control Low	Electronic controlled automatic transmission (ECT)	0	0
P0983 (05–1217)	Shift Solenoid "D" Control High	Electronic controlled automatic transmission (ECT)	0	0
P0985 (05–1220)	Pressure Control Solenoid "E" Performance (Shift Solenoid Valve SR)	Electronic controlled automatic transmission (ECT)	0	0
P0986 (05–1220)	Pressure Control Solenoid "E" Electrical (Shift Solenoid Valve SR)	Electronic controlled automatic transmission (ECT)	0	0
P2102 (05–242)	Throttle Actuator Control Motor Circuit Low	Open in throttle control motor circuit Throttle control motor ECM	0	0
P2103 (05–242)	Throttle Actuator Control Motor Circuit High	Short in throttle control motor circuit Throttle control motor Throttle valve Throttle body assy ECM	0	0
P2111 (05–246)	Throttle Actuator Control System – Stuck Open	Throttle control motor circuit Throttle control motor Throttle body Throttle valve	0	0
P2112 (05–246)	Throttle Actuator Control System – Stuck Closed	Same as DTC No. P2111	0	0
P2118 (05–249)	Actuator Control Motor Current Range/Performance	Open in ETCS power source circuit ECM	0	0
P2119 (05–254)	Throttle Actuator Control Throttle Body Range/Performance	Electronic throttle control system ECM	0	0
P2120 (05–256)	Throttle/Pedal Position Sensor/ Switch "D" Circuit	Open or short in accelerator pedal position sensor circuit Accelerator pedal position sensor ECM	0	0
P2121 (05–265)	Throttle/Pedal Position Sensor/ Switch "D" Circuit Range/Perfor- mance	Accelerator pedal position sensor circuit Accelerator pedal position sensor ECM	0	0
P2122 (05–256)	Throttle/Pedal Position Sensor/ Switch "D" Circuit Low Input	Same as DTC No. P2120	0	0
P2123 (05–256)	Throttle/Pedal Position Sensor/ Switch "D" Circuit High Input	Same as DTC No. P2120	0	0
P2125 (05–256)	Throttle/Pedal Position Sensor/ Switch "E" Circuit	Same as DTC No. P2120	0	0
P2127 (05–256)	Throttle/Pedal Position Sensor/ Switch "E" Circuit Low Input	Same as DTC No. P2120	0	0

P2128 (05–256)	Throttle/Pedal Position Sensor/ Switch "E" Circuit High Input	Same as DTC No. P2120	0	0
P2135 (05–105)	Throttle Pedal Position Sensor/ Switch "A"/"B" Voltage Correla- tion	Same as DTC No. P0120	0	0
P2138 (05–256)	Throttle Pedal Position Sensor/ Switch "D"/"E" Voltage Correla- tion	Same as DTC No. P2120	0	0
P2195*4 (05–269)	Oxygen (A/F) Sensor Signal Stuck Lean (Bank 1 Sensor 1)	Open or short in A/F sensor circuit A/F sensor A/F sensor heater EFI relay A/F sensor heater and EFI relay circuit Air induction system Fuel pressure Injector ECM	0	0
P2196*4 (05–269)	Oxygen (A/F) Sensor Signal Stuck Rich (Bank 1 Sensor 1)	Same as DTC No. P2195	0	0
P2237*4 (05–282)	Oxygen Sensor Pumping Current Circuit/ Open (for A/F sensor) (Bank 1 Sensor 1)	Open or short in A/F sensor circuit A/F sensor A/F sensor heater FFI relay A/F sensor heater and EFI relay circuit ECM	0	0
P2238* ⁴ (05–282)	Oxygen Sensor Pumping Current Circuit Low (for A/F sensor) (Bank 1 Sensor 1)	• Same as DTC No. P2237	0	0
P2239*4 (05-282)	Oxygen Sensor Pumping Current Circuit High (for A/F sensor) (Bank 1 Sensor 1)	• Same as DTC No. P2237	0	0
P2251*4 (05-282)	Oxygen Sensor Reference Ground Circuit/ Open (for A/F sensor) (Bank 1 Sensor 1)	• Same as DTC No. P2237	0	0
P2252*4 (05-282)	Oxygen Sensor Reference Ground Circuit Low (for A/F sen- sor) (Bank 1 Sensor 1)	• Same as DTC No. P2237	0	0
P2253*4 (05-282)	Oxygen Sensor Reference Ground Circuit High (for A/F sen- sor) (Bank 1 Sensor 1)	Same as DTC No. P2237	0	0
P2716 (05–1223)	Pressure Control Solenoid "D" Electrical	Electronic controlled automatic transmission (ECT)	0	0
P2769 (05–1227)	DSL Solenoid Circuit Low	Electronic controlled automatic transmission (ECT)	0	0
P2770 (05–1227)	DSL Solenoid Circuit High	Electronic controlled automatic transmission (ECT)	0	0
P2A00 (05-288)	A/F Sensor Circuit Slow Response (Bank 1 Sensor 1)	Open or short in A/F sensor circuit A/F sensor A/F sensor heater EFI relay A/F sensor heater and EFI relay circuit Air induction system Fuel pressure Injector ECM	0	0
P2769 (05–1227)	DSL Solenoid Circuit Low	Electronic controlled automatic transmission (ECT)	0	0

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P2770 (05–1227)	DSL Solenoid Circuit High	Electronic controlled automatic transmission (ECT)	0	0
B2799 (05–2131)	Engine Immobilizer System Mal- function	• Immobilizer system	-	0

^{*1:} MIL illuminates

^{*2:} MIL illuminates or flashes continuously

^{*3:} Replace ECM
*4: Although the title (DTC description) says "oxygen sensor", this DTC is related to the "A/F sensor".