DIAGNOSTIC TROUBLE CODE CHART

054JD–03

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	*1 CHK ENG	Memory
P0010/39 (05–34)	Camshaft Position ”A” Actuator Circuit (Bank 1)	• Open or short in OCV circuit • OCV (bank 1) • ECM	○	○
P0011/59 (05–39)	Camshaft Position ”A” –Timing Over–Advanced or System Performance (Bank 1)	• Valve timing • OCV • Camshaft timing gear assy • ECM	○ *4 — *5, *6	○
P0012/59 (05–39)	Camshaft Position ”A” –Timing Over– Retarded (Bank 1)	• Valve timing • OCV • Camshaft timing gear assy • ECM	○ *4 — *5, *6	○
P0016/18 (05–46)	Crankshaft Position – Camshaft Position Correlation (Bank 1 Sensor A)	• Mechanical system (Jumping teeth of timing chain, chain stretched) • ECM	○ *4 — *5, *6	○
P0018/18 (05–46)	Crankshaft Position – Camshaft Position Correlation (Bank 2 Sensor A)	• Same as DTC No. P0016	○ *4 — *5, *6	○
P0020/39 (05–34)	Camshaft Position ”A” Actuator Circuit (Bank 2)	• Open or short in OCV circuit • OCV (bank 2) • ECM	○	○
P0021/59 (05–39)	Camshaft Position ”A” –Timing Over–Advanced or System Performance (Bank 2)	• Same as DTC No. P0011	○ *4 — *5, *6	○
P0022/59 (05–39)	Camshaft Position ”A” –Timing Over– Retarded (Bank 2)	• Same as DTC No. P0012	○ *4 — *5, *6	○
P0031/28 *2 (05–47)	Oxygen (A/F) Sensor Heater Control Circuit Low (Bank 1 Sensor 1)	• Open or short in heater circuit of A/F sensor • A/F sensor heater • A/F sensor heater relay • ECM	○ *4, *5 — *6	○
P0032/28 *2 (05–47)	Oxygen (A/F) Sensor Heater Control Circuit High (Bank 1 Sensor 1)	• Short in heater circuit of A/F sensor • A/F sensor heater • A/F sensor heater relay • ECM	○ *4, *5 — *6	○
P0037 *4, *5 (05–50)	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	—	○
P0038 *4, *5 (05–50)	Oxygen Sensor Heater Control Circuit High (Bank 1 Sensor 2)	• Short in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • EFI relay • ECM	○	○
P0051/21 *2 (05–47)	Oxygen (A/F) Sensor Heater Control Circuit Low (Bank 2 Sensor 1)	• Same as DTC No. P0031	○ *4, *5 — *6	○
P0052/21 *2 (05–47)	Oxygen (A/F) Sensor Heater Control Circuit High (Bank 2 Sensor 1)	• Same as DTC No. P0032	○ *4, *5 — *6	○
P0057 *4, *5 (05–50)	Oxygen Sensor Heater Control Circuit Low (Bank 2 Sensor 2)	• Same as DTC No. P0037	○	○

P0058 *6 (05–50)	Oxygen Sensor Heater Control Circuit High (Bank 2 Sensor 2)	• Same as DTC No. P0038	○	○
P0100/31 (05–53)	Mass or volume Air Flow Circuit	• Open or short in mass air flow meter circuit • Mass air flow meter • ECM	○	○
P0102/31 (05–53)	Mass or volume Air Flow Circuit Low Input	• Open in mass air flow meter circuit • Short in ground circuit • Mass air flow meter • ECM	○	○
P0103/31 (05–53)	Mass or volume Air Flow Circuit High Input	• Short in mass air flow meter circuit (+B circuit) • Mass air flow meter • ECM	○	○
P0110/24 (05–61)	Intake Air Temperature Circuit	• Open or short in intake air temp. sensor circuit • Intake air temp. sensor (built in mass air flow meter) • ECM	○ *4, *5 — *6	○
P0112/24 (05–61)	Intake Air Temperature Circuit Low Input	• Short in intake air temp. sensor circuit • Intake air temp. sensor (built in mass air flow meter) • ECM	○ *4, *5 — *6	○
P0113/24 (05–61)	Intake Air Temperature Circuit High Input	• Open in intake air temp. sensor circuit • Intake air temp. sensor (built in mass air flow meter) • ECM	○ *4, *5 — *6	○
P0115/22 (05–66)	Engine Coolant Temperature Circuit	• Open or short in engine coolant temp. sensor circuit • Engine coolant temp. sensor • ECM	○	○
P0116 *4, *5 (05–71)	Engine Coolant Temperature Circuit Range/Performance Problem	• Cooling system • Engine coolant temp. sensor • Thermostat (water inlet)	○	○
P0117/22 (05–66)	Engine Coolant Temperature Circuit Low Input	• Short in engine coolant temp. sensor circuit • Engine coolant temp. sensor • ECM	○	○
P0118/22 (05–66)	Engine Coolant Temperature Circuit High Input	• Open or short in engine coolant temp. sensor circuit • Engine coolant temp. sensor • ECM	○	○
P0120/41 (05–73)	Throttle/Pedal Position Sensor/ Switch "A" Circuit	• Throttle position sensor (built in throttle w/ motor body) • ECM	○	○
P0121/41 (05–80)	Throttle/Pedal Position Sensor/ Switch "A" Circuit Range/Performance Problem	• Throttle position sensor (built in throttle w/ motor body)	○	○
P0122/41 (05–73)	Throttle/Pedal Position Sensor/ Switch "A" Circuit Low Input	• Throttle position sensor (built in throttle w/ motor body) • Short in VTA1 circuit • Open in VC circuit • ECM	○	○
P0123/41 (05–73)	Throttle/Pedal Position Sensor/ Switch "A" Circuit High Input	• Throttle position sensor (built in throttle w/ motor body) • Open in VTA1 circuit • open in E2 circuit • VC and VTA1 circuit are short–circuited • ECM	○	○
P0136/29 (05–81)	Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 2)	• Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Heated oxygen sensor heater • EFI relay	○ *4, *5 — *6	○
P0141/29 *6 (05–88)	Oxygen Sensor Heater Circuit (Bank 1 Sensor 2)	• Open or short in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • EFI relay • ECM	—	○
P0156/27 (05–81)	Oxygen Sensor Circuit Malfunction (Bank 2 Sensor 2)	• Same as DTC No. P0136	○ *4, *5 — *6	○

P0161/27 *6 (05–88)	Oxygen Sensor Heater Circuit (Bank 2 Sensor 2)	• Open or short in heater circuit of heated oxygen sensor • Heated oxygen sensor heater • EFI relay • ECM	—	○
P0171 *4 (05–91)	System too Lean (Bank 1)	• 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) • A/F sensor heater (bank 1 sensor 1) • A/F sensor heater relay • PCV valve and hose • PCV hose connection	○	○
P0172 *4 (05–91)	System too Rich (Bank 1)	• Injector leak, 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) • A/F sensor heater • A/F sensor heater relay	○	○
P0174 *4 (05–91)	System too Lean (Bank2)	• 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 2 sensor 1) circuit • A/F sensor (bank 2 sensor 1) • A/F sensor heater (bank 2 sensor 1) • A/F sensor heater relay • PCV valve and hose • PCV hose connection	○	○
P0175 *4 (05–91)	System too Rich (Bank2)	• Injector leak, 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 2 sensor 1) circuit • A/F sensor (bank 2 sensor 1) • A/F sensor heater • A/F sensor heater relay	○	○
P0220/41 (05–73)	Throttle/Pedal Position Sensor/ Switch "B" Circuit	• Throttle position sensor (built in throttle w/ motor body) • ECM	○	○
P0222/41 (05–73)	Throttle/Pedal Position Sensor/ Switch "B" Circuit Low Input	• Throttle position sensor (built in throttle w/ motor body) • Short in VTA2 circuit • open in VC circuit • ECM	○	○
P0223/41 (05–73)	Throttle/Pedal Position Sensor/ Switch "B" Circuit High Input	• Throttle position sensor (built in throttle w/ motor body) • Open in VTA2 circuit • Open in E2 circuit • VC and VTA2 circuit are short–circuited • ECM	○	○
P0230/78 (05–101)	Fuel Pump Primary Circuit	• Open or short in fuel pump relay circuit • Fuel pump relay • ECM	—	○

P0300 *4 (05–105)	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	○
P0301 *4 (05–105)	Cylinder 1 Misfire Detected		○*2	○
P0302 *4 (05–105)	Cylinder 2 Misfire Detected		○*2	○
P0303 *4 (05–105)	Cylinder 3 Misfire Detected		○*2	○
P0304 *4 (05–105)	Cylinder 4 Misfire Detected		○*2	○
P0305 *4 (05–105)	Cylinder 5 Misfire Detected		○*2	○
P0306 *4 (05–105)	Cylinder 6 Misfire Detected		○*2	○
P0325/55 (05–117)	Knock Sensor 1 Circuit (Bank 1 or Single Sensor)	• Knock sensor 1 • Knock sensor 1 (loose) • ECM	○	○
P0327/55 (05–117)	Knock Sensor 1 Circuit Low Input (Bank 1 or Single Sensor)	• Short in knock sensor 1 circuit • Knock sensor 1 • ECM	○	○
P0328/55 (05–117)	Knock Sensor 1 Circuit High Input (Bank 1 or Single Sensor)	• Open in knock sensor 1 circuit • Knock sensor 1 • ECM	○	○
P0330/52 (05–117)	Knock Sensor 2 Circuit (Bank 2)	• Knock sensor 2 • Knock sensor 2 (loose) • ECM	○	○
P0332/52 (05–117)	Knock Sensor 2 Circuit Low Input (Bank 2)	• Short in knock sensor 2 circuit • Knock sensor 2 • ECM	○	○
P0333/52 (05–117)	Knock Sensor 2 Circuit High Input (Bank 2)	• Open in knock sensor 2 circuit • Knock sensor 2 • ECM	○	○
P0335/12, 13 (05–122)	Crankshaft Position Sensor "A" Circuit	• Open or short in crankshaft position sensor circuit • Crankshaft position sensor • Signal plate (crankshaft) • ECM	○	○
P0339/13 (05–122)	Crankshaft Position Sensor "A" Circuit Intermittent		—	○
P0340/12 (05–126)	Camshaft Position Sensor "A" Circuit (Bank 1 or Single Sensor)	• Open or short in VVT sensor circuit • VVT sensor • Camshaft timing pulley • Jumping teeth of timing chain • ECM	○	○
P0341/12 (05–126)	Camshaft Position Sensor "A" Circuit Range/Performance (Bank 1 or Single Sensor)		○	○
P0345/18 (05–126)	Camshaft Position Sensor "A" Circuit (Bank 2)		○	○
P0346/18 (05–126)	Camshaft Position Sensor "A" Circuit Range/Performance (Bank 2)		○	○
P0351/14 *3 (05–129)	Ignition Coil "A" Primary/Secondary Circuit	• Ignition system • Open or short in IGF or IGT1 to 6 circuit from ignition coil with igniter to ECM • No. 1 to No. 6 ignition coil with igniter • ECM	○	○
P0352/15 *3 (05–129)	Ignition Coil "B" Primary/Secondary Circuit		○	○
P0353/15 *3 (05–129)	Ignition Coil "C" Primary/Secondary Circuit		○	○
P0354/14 *3 (05–129)	Ignition Coil "D" Primary/Secondary Circuit		○	○
P0355/14 *3 (05–129)	Ignition Coil "E" Primary/Secondary Circuit		○	○
P0356/15 *3 (05–129)	Ignition Coil "F" Primary/Secondary Circuit		○	○

P0420 *4 (05–136)	Catalyst System Efficiency Below Threshold (Bank 1)	• Gas leakage in exhaust system • A/F sensor (bank 1 sensor 1) • Heated oxygen sensor (bank 1 sensor 2) • Three–way catalytic converter (inside exhaust manifold)	○	○
P0430 *4 (05–136)	Catalyst System Efficiency Below Threshold (Bank 2)	• Gas leakage in exhaust system • A/F sensor (bank 2 sensor 1) • Heated oxygen sensor (bank 2 sensor 2) • Three–way catalytic converter (inside exhaust manifold)	○	○
P0443 (05–139)	Evaporative Emission Control System Purge Control Valve Circuit	• Open or short in VSV circuit for EVAP • VSV for EVAP • ECM	○	○
P0500/42 (05–142)	Vehicle Speed Sensor ”A”	• Open or short in speed sensor circuit • Speed sensor • Combination meter • ECM • Skid control ECU	○	○
P0503/23 (05–142)	Vehicle Speed Sensor ”A” Intermittent/Erratic/High	• Open or short in speed sensor circuit • Speed sensor • Combination meter • ECM • Skid control ECU	—	○
P0504 *4, *5 (05–145)	Brake Switch Correlation	• Short in stop lamp switch signal circuit • Stop lamp switch • ECM	—	○
P0505 *4 (05–145)	Idle Air Control System	• Electric throttle control system • Air induction system • PCV hose connection	○	○
P0560 *4, *5 (05–145)	System Voltage	• Open in back up power source circuit • ECM	○	○
P0571/52 (05–418)	Brake Switch ”A” Circuit	• Cruise control system	—	○
P0604/89 (05–154)	Internal Control Module Random Access Memory (RAM) Error	• ECM	○	○
P0606/89 (05–154)	ECM/PCM Processor		○	○
P0607/89 (05–154)	Control Module Performance		○	○
P0617 *4, *5 (05–155)	Starter Relay Circuit High	• Short in Park/Neutral position switch circuit • Park/Neutral position switch • Cranking holding function circuit • ECM	○	○
P0657/89 (05–154)	Actuator Supply Voltage Circuit / Open	• ECM	○	○
P0660 *4, *5 (05–157)	Intake Manifold Turning Valve Control Circuit/ Open (Bank1)	• Open or short in VSV circuit for ACIS • VSV for ACIS • ECM	○	○
P0705 *4, *5 (05–161)	Transmission Range Sensor Circuit Malfunction (PRNDL Input)	• Short in Park/Neutral position switch circuit • Park/Neutral position switch • ECM	○	○
P0710/38 (05–308)	Transmission Fluid Temperature Sensor ”A” Circuit	• Electronic controlled automatic transmission (ECT)	○	○
P0712/38 (05–308)	Transmission Fluid Temperature Sensor ”A” Circuit Low Input		○	○
P0713/38 (05–308)	Transmission Fluid Temperature Sensor ”A” Circuit High Input		○	○
P0717/67 (05–310)	Input/Turbine Speed Sensor ”A” Circuit No Signal		○	○

P0722/61 (05–312)	Output Speed Sensor Circuit No Signal	• Electronic controlled automatic transmission (ECT)	○	○
P0724 *4, *5 (05–314)	Brake Switch "B" Circuit High		○	○
P0741 *4, *5 (05–315)	Torque Converter Clutch Solenoid Performance (Shift Solenoid Valve SL)		○	○
P0743/64 (05–316)	Torque Converter Clutch Circuit Electrical		—	○
P0751 *4, *5 (05–318)	Shift Solenoid "A" Performance (Shift Solenoid Valve S1)		○	○
P0756 *4, *5 (05–318)	Shift Solenoid "B" Performance (Shift Solenoid Valve S2)		○	○
P0850 *4, *5 (05–161)	Park/Neutral Switch Input Circuit	• Short in Park/Neutral position switch circuit • Park/Neutral position switch • ECM	○	○
P0973/62 (05–319)	Shift Solenoid "A" Control Circuit Low	• Electronic controlled automatic transmission (ECT)	○	○
P0974/62 (05–319)	Shift Solenoid "A" Control Circuit High		○	○
P0976/63 (05–319)	Shift Solenoid "B" Control Circuit Low		○	○
P0977/63 (05–319)	Shift Solenoid "B" Control Circuit High		○	○
P1782 *4, *5 (05–322)	T/F L4 Range Position Switch Performance		○	○
P2102/41 (05–162)	Throttle Actuator Control Motor Circuit Low	• Open in throttle control motor circuit • Throttle control motor • ECM	○	○
P2103/41 (05–162)	Throttle Actuator Control Motor Circuit High	• Short in throttle control motor circuit • Throttle control motor • ECM	○	○
P2111/41 (05–164)	Throttle Actuator Control System – Stuck Open	• Throttle control motor circuit • Throttle control motor • Throttle w/ motor body • Throttle valve	○	○
P2112/41 (05–164)	Throttle Actuator Control System – Stuck Closed		○	○
P2118/89 (05–166)	Actuator Control Motor Current Range/Performance	• Open in ETCS power source circuit • ECM	○	○
P2119/89 (05–166)	Throttle Actuator Control Throttle Body Range/Performance	• Electric throttle control system • ECM	○	○
P2120/19 (05–171)	Throttle/Pedal Position Sensor/Switch "D" Circuit	• Accelerator pedal position sensor • ECM	○	○
P2121/19 (05–179)	Throttle/Pedal Position Sensor/Switch "D" Circuit Range/Performance	• Accelerator pedal position sensor circuit • Accelerator pedal position sensor • ECM	○	○
P2122/19 (05–171)	Throttle/Pedal Position Sensor/Switch "D" Circuit Low Input	• Accelerator pedal position sensor • VCP1 circuit open • VPA1 circuit open or ground short • ECM	○	○
P2123/19 (05–171)	Throttle/Pedal Position Sensor/Switch "D" Circuit High Input	• Accelerator pedal position sensor • EPA1 circuit open • ECM	○	○
P2125/19 (05–171)	Throttle/Pedal Position Sensor/Switch "E" Circuit	• Accelerator pedal position sensor • ECM	○	○

P2127/19 (05–171)	Throttle/Pedal Position Sensor/ Switch "E" Circuit Low Input	• Accelerator pedal position sensor • VCP2 circuit open • VPA2 circuit open or ground short • ECM	○	○
P2128/19 (05–171)	Throttle/Pedal Position Sensor/ Switch "E" Circuit High Input	• Accelerator pedal position sensor • EPA2 circuit open • ECM	○	○
P2135/41 (05–73)	Throttle Pedal Position Sensor/ Switch "A"/"B" Voltage Correlation	• VTA1 and VTA2 circuit are short–circuited • Throttle position sensor (built in throttle body) • ECM	○	○
P2138/19 (05–171)	Throttle Pedal Position Sensor/ Switch "D"/"E" Voltage Correlation	• VPA1 and VPA2 circuit are short circuited • Accelerator pedal position sensor • ECM	○	○
P2195 *2, *4, *5 (05–182)	Oxygen (A/F) Sensor Signal Stuck Lean (Bank 1 Sensor 1)	• Open or short in A/F sensor (bank 1, 2 sensor 1) circuit • A/F sensor (bank 1, 2 sensor 1) • A/F sensor (bank 1, 2 sensor 1) heater • A/F sensor heater relay • A/F sensor heater and relay circuit • Air induction system • Fuel pressure • Injector • ECM	○	○
P2196 *2, *4, *5 (05–182)	Oxygen (A/F) Sensor Signal Stuck Rich (Bank 1 Sensor 1)		○	○
P2197 *2, *4, *5 (05–182)	Oxygen (A/F) Sensor Signal Stuck Lean (Bank 2 Sensor 1)		○	○
P2198 *2, *4, *5 (05–182)	Oxygen (A/F) Sensor Signal Stuck Rich (Bank 2 Sensor 1)		○	○
P2237/28 *2 (05–194)	Oxygen Sensor Pumping Current Circuit/ Open (for A/F sensor) (Bank 1 Sensor 1)	• Open or short in A/F sensor (bank 1, 2 sensor 1) circuit • A/F sensor (bank1, 2 sensor 1) • A/F sensor heater • A/F sensor heater relay • A/F sensor heater and relay circuit • ECM	○ *4, *5 — *6	○
P2238/28 *2 (05–194)	Oxygen Sensor Pumping Current Circuit Low (for A/F sensor) (Bank 1 Sensor 1)		○ *4, *5 — *6	○
P2239/28 *2 (05–194)	Oxygen Sensor Pumping Current Circuit High (for A/F sensor) (Bank 1 Sensor 1)		○ *4, *5 — *6	○
P2240/21 *2 (05–194)	Oxygen Sensor Pumping Current Circuit/ Open (for A/F sensor) (Bank 2 Sensor 1)		○ *4, *5 — *6	○
P2241/21 *2 (05–194)	Oxygen Sensor Pumping Current Circuit Low (for A/F sensor) (Bank 2 Sensor 1)		○ *4, *5 — *6	○
P2242/21 *2 (05–194)	Oxygen Sensor Pumping Current Circuit High (for A/F sensor) (Bank 2 Sensor 1)		○ *4, *5 — *6	○
P2251/28 *2 (05–194)	Oxygen Sensor Reference Ground Circuit/ Open (for A/F senor) (Bank 1 Sensor 1)		○ *4, *5 — *6	○
P2252/28 *2 (05–194)	Oxygen Sensor Reference Ground Circuit Low (for A/F senor) (Bank 1 Sensor 1)		○ *4, *5 — *6	○
P2253/28 *2 (05–194)	Oxygen Sensor Reference Ground Circuit High (for A/F senor) (Bank 1 Sensor 1)		○ *4, *5 — *6	○
P2254/21 *2 (05–194)	Oxygen Sensor Reference Ground Circuit/ Open (for A/F senor) (Bank 2 Sensor 1)		○ *4, *5 — *6	○

P2255/21 *2 (05–194)	Oxygen Sensor Reference Ground Circuit Low (for A/F sensor) (Bank 2 Sensor 1)	• Open or short in A/F sensor (bank 1, 2 sensor 1) circuit • A/F sensor (bank1, 2 sensor 1) • A/F sensor heater • A/F sensor heater relay • A/F sensor heater and relay circuit • ECM	○ *4, *5 — *6	○
P2256/21 *2 (05–194)	Oxygen Sensor Reference Ground Circuit High (for A/F sensor) (Bank 2 Sensor 1)		○ *4, *5 — *6	○
P2A00 *4, *5 (05–200)	A/F Sensor Circuit Slow Response (Bank 1 Sensor 1)	• Open or short in A/F sensor (bank 1, 2 sensor 1) circuit • A/F sensor (bank1, 2 sensor 1) • A/F sensor heater • A/F sensor heater relay • A/F sensor heater and relay circuit • Air induction system • Fuel pressure • Injector • ECM	○	○
P2A03 *4, *5 (05–200)	A/F Sensor Circuit Slow Response (Bank 2 Sensor 1)		○	○
P2716/77 (05–324)	Pressure Control Solenoid "D" Electrical	• Electronic controlled automatic transmission (ECT)	○ *4, *5 — *6	○
B2799/99 (05–403)	Engine Immobilizer System Malfunction	• Immobilizer system	—	○

*1: Check engine warning (CHK ENG) light illuminates.
*2: This DTC is related to A/F sensor, although the caption is the oxygen sensor.
*3: This DTC indicate a malfunction related to primary circuit.
*4: European spec.
*5: European spec. (Except for western Europe)
*6: Non–European spec.