DIAGNOSTIC TROUBLE CODE CHART

054JD–12

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 check mode, check the circuit for the codes listed in the table below. For details of each code, refer to "See page" under the respective "DTC No." in the DTC chart.

DTC No. (See Page)	Detection Item	Trouble Area	CHK ENG*1	Memory
P0010 (05–45)	Camshaft Position "A" Actuator Circuit (Bank 1)	• Open or short in oil control valve circuit • Oil control valve • ECM	○	○
P0011 (05–48)	Camshaft Position "A" –Timing Over–Advanced or System Performance (Bank 1)	• Valve timing • Oil control valve • Camshaft timing gear assembly • ECM	○	○
P0012 (05–48)	Camshaft Position "A" –Timing Over– Retarded (Bank 1)	• Same as DTC P0011	○	○
P0016 (05–52)	Crankshaft Position – Camshaft Position Correlation (Bank 1 Sensor A)	• Mechanical system (Timing chain has jumped a tooth, chain stretched) • ECM	○	○
P0031 (05–53)	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 • EFI M relay (Integration relay) • ECM	○	○
P0032 (05–53)	Oxygen (A/F) Sensor Heater Control Circuit High (Bank 1 Sensor 1)	• Short in heater circuit of A/F sensor • A/F sensor heater • EFI M relay (Integration relay) • ECM	○	○
P0037 (05–57)	Oxygen Sensor Heater Control Circuit Low (Bank 1 Sensor 2)	• Open or short in heater circuit of the heated oxygen sensor • Heated oxygen sensor heater • EFI M relay (integration relay) • ECM	○	○
P0038 (05–57)	Oxygen Sensor Heater Control Circuit High (Bank 1 Sensor 2)	• Short in heater circuit of the heated oxygen sensor • Heated oxygen sensor heater • EFI M relay (integration relay) • ECM	○	○
P0100 (05–61)	Mass or Volume Air Flow Circuit	• Open or short in mass air flow meter circuit • Mass air flow meter • ECM	○	○
P0102 (05–61)	Mass or Volume Air Flow Circuit Low Input	• Open in mass air flow meter circuit • Mass air flow meter • ECM	○	○
P0103 (05–61)	Mass or Volume Air Flow Circuit High Input	• Short in mass air flow meter circuit • Mass air flow meter • ECM	○	○
P0110 (05–67)	Intake Air Temperature Circuit	• Open or short in intake air temperature sensor circuit • Intake air temperature sensor (built in mass air flow meter) • ECM	○	○
P0112 (05–67)	Intake Air Temperature Circuit Low Input	• Short in intake air temperature sensor circuit • Intake air temperature sensor (built in mass air flow meter) • ECM	○	○
P0113 (05–67)	Intake Air Temperature Circuit High Input	• Open in intake air temperature sensor circuit • Intake air temperature sensor (built in mass air flow meter) • ECM	○	○
P0115 (05–71)	Engine Coolant Temperature Circuit	• Open or short in engine coolant temperature sensor circuit • Engine coolant temperature sensor • ECM	○	○

DTC No. (See Page)	Detection Item	Trouble Area	CHK ENG*1	Memory
P0116 (05–75)	Engine Coolant Temperature Circuit Range/Performance Problem	• Engine coolant temperature sensor	○	○
P0117 (05–71)	Engine Coolant Temperature Circuit Low Input	• Short in engine coolant temperature sensor circuit • Engine coolant temperature sensor • ECM	○	○
P0118 (05–71)	Engine Coolant Temperature Circuit High Input	• Open in engine coolant temperature sensor circuit • Engine coolant temperature sensor • ECM	○	○
P0120 (05–76)	Throttle/Pedal Position Sensor/ Switch "A" Circuit	• Open or short in throttle position sensor circuit • Throttle position sensor (built in throttle body) • ECM	○	○
P0121 (05–82)	Throttle/Pedal Position Sensor/ Switch "A" Circuit Range/Performance Problem	• Throttle position sensor (built in throttle body)	○	○
P0122 (05–76)	Throttle/Pedal Position Sensor/ Switch "A" Circuit Low Input	• Throttle position sensor • Open in VTA1 circuit • Open in VC circuit (when the VC circuit is open, DTCs P0222 and P2135 are also output simultaneously) • ECM	○	○
P0123 (05–76)	Throttle/Pedal Position Sensor/ Switch "A" Circuit High Input	• Throttle position sensor (built in throttle body) • Open in VTA circuit • Open in E2 circuit • VC and VTA circuits are short–circuited • ECM	○	○
P0136 (05–83)	Oxygen Sensor Circuit Malfunction (Bank 1 sensor 2)	• Heated oxygen sensor	○	○
P0137 (05–83)	Oxygen Sensor Circuit Low Voltage (Bank 1 Sensor 2)	• Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Heated oxygen sensor heater • EFI M relay (integration relay)	○	○
P0138 (05–83)	Oxygen Sensor Circuit High Voltage (Bank 1 Sensor 2)	• Short in heated oxygen sensor circuit • Heated oxygen sensor	○	○
P0171 (05–95)	System Too Lean (Bank 1)	• Air induction system • Injector has blockage • Mass air flow meter • Engine coolant temperature 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) • EFI M relay (integration relay) • PCV valve and hose • PCV hose connection • ECM	○	○
P0172 (05–95)	System Too Rich (Bank 1)	• Injector has leakage or 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 (bank 1 sensor 1) circuit • A/F sensor (bank 1 sensor 1) • A/F sensor heater (bank 1 sensor 1) • EFI M relay (integration relay) • ECM	○	○

DTC No. (See Page)	Detection Item	Trouble Area	CHK ENG*1	Memory
P0220 (05–76)	Throttle/Pedal Position Sensor/ Switch "B" Circuit	• Open or short in throttle position sensor circuit • Throttle position sensor • ECM	○	○
P0222 (05–76)	Throttle/Pedal Position Sensor/ Switch "B" Circuit Low Input	• Throttle position sensor • Open in VTA2 circuit open • Open in VC circuit (when the VC circuit is open, DTCs P0122 and P2135 are also output simultaneously)	○	○
P0223 (05–76)	Throttle/Pedal Position Sensor/ Switch "B" Circuit High Input	• Throttle position sensor	○	○
P0300 (05–107)	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 temperature sensor • Compression pressure • Valve clearance • Valve timing • PCV hose connection • PCV hose • ECM	○*2	○
P0301 (05–107)	Cylinder 1 Misfire Detected	• Same as DTC P0300	○*2	○
P0302 (05–107)	Cylinder 2 Misfire Detected	• Same as DTC P0300	○*2	○
P0303 (05–107)	Cylinder 3 Misfire Detected	• Same as DTC P0300	○*2	○
P0304 (05–107)	Cylinder 4 Misfire Detected	• Same as DTC P0300	○*2	○
P0325 (05–120)	Knock Sensor 1 Circuit (Bank 1 or Single Sensor)	• Open or short in knock sensor circuit • Knock sensor (looseness) • ECM	○	○
P0327 (05–120)	Knock Sensor 1 Circuit Low Input (Bank 1 or Single Sensor)	• Short in knock sensor circuit • Knock sensor • ECM	○	○
P0328 (05–120)	Knock Sensor 1 Circuit High Input (Bank 1 or Single Sensor)	• Open in knock sensor circuit • Knock sensor • ECM	○	○
P0335 (05–124)	Crankshaft Position Sensor "A" Circuit	• Open or short in crankshaft position sensor circuit • Crankshaft position sensor • Signal plate (crankshaft) • ECM	○	○
P0340 (05–128)	Camshaft Position Sensor "A" Circuit (Bank 1 or Single Sensor)	• Open or short in camshaft position sensor circuit • Camshaft position sensor • Camshaft timing pulley • Timing chain has jumped a tooth • ECM	○	○
P0341 (05–128)	Camshaft Position Sensor "A" Circuit Range/Performance (Bank 1 or Single Sensor)	• Same as DTC P0340	○	○
P0351 *3 (05–131)	Ignition Coil "A" Primary/Secondary Circuit	• Ignition system • Open or short in IGF or IGT1 circuit between ignition coil with igniter and ECM • Ignition coil No. 1 (#1) • ECM	○	○

DTC No. (See Page)	Detection Item	Trouble Area	CHK ENG*1	Memory
P0352 *3 (05–131)	Ignition Coil "B" Primary/Secondary Circuit	• Ignition system • Open or short in IGF or IGT2 circuit between ignition coil with igniter and ECM • Ignition coil No. 1 (#2) • ECM	○	○
P0353 *3 (05–131)	Ignition Coil "C" Primary/Secondary Circuit	• Ignition system • Open or short in IGF or IGT3 circuit between ignition coil with igniter and ECM • Ignition coil No. 1 (#3) • ECM	○	○
P0354 *3 (05–131)	Ignition Coil "D" Primary/Secondary Circuit	• Ignition system • Open or short in IGF or IGT4 circuit between ignition coil with igniter and ECM • Ignition coil No. 1 (#4) • ECM	○	○
P0420 (05–139)	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 (Exhaust manifold)	○	○
P0443 (05–144)	Evaporative Emission Control System Purge Control Valve circuit	• Open or short in VSV for EVAP circuit • VSV for EVAP • ECM	○	○
P0505 (05–148)	Idle Air Control System	• Open or short in idle speed control (ISC) valve circuit • Idle speed control (ISC) valve stuck closed • ECM • Air induction system • PCV valve and hose	○	○
P0560 (05–150)	System Voltage	• Open in back up power source circuit • ECM	○	○
P0604 (05–153)	Internal Control Module Random Access Memory (RAM) Error	• ECM	○	○
P0606 (05–153)	ECM/PCM Processor	• ECM	○	—
P0607 (05–153)	Control Module Performance	• ECM	○	○
P0657 (05–153)	Actuator Supply Voltage Circuit/Open	• ECM	○	○
P2102 (05–154)	Throttle Actuator Control Motor Circuit Low	• Open or short in throttle control motor circuit • Throttle control motor • ECM	○	○
P2103 (05–154)	Throttle Actuator Control Motor Circuit High	• Short in throttle control motor circuit • Throttle control motor • Throttle valve • Throttle body assembly • ECM	○	○
P2111 (05–157)	Throttle Actuator Control System Stuck Open	• Throttle control motor circuit • Throttle control motor • Throttle body • Throttle valve	○	○
P2112 (05–157)	Throttle Actuator Control System Stuck Closed	• Throttle control motor circuit • Throttle control motor • Throttle body • Throttle valve	○	○
P2118 (05–159)	Throttle Actuator Control Motor Current Range/Performance	• Open in ETCS power source circuit • ETCS fuse • ECM	○	○

DTC No. (See Page)	Detection Item	Trouble Area	CHK ENG*1	Memory
P2119 (05–163)	Throttle Actuator Control Throttle Body Range/Performance	• Electric throttle control system • ECM	○	○
P2135 (05–76)	Throttle/Pedal Position Sensor/ Switch "A"/"B" Voltage Correlation	• VTA and VTA2 circuits are short–circuited • Open in VC circuit • Throttle position sensor	○	○
P2195 (05–165)	Oxygen (A/F) Sensor Signal Stuck Lean (Bank 1 Sensor 1)	• Open or short in A/F sensor (bank 1 sensor 1) circuit • A/F sensor (bank 1 sensor 1) • A/F sensor heater • Integration relay • A/F sensor heater and relay circuit • Air induction system • Fuel pressure • Injector • PCV hose connection • ECM	○	○
P2196 (05–165)	Oxygen (A/F) Sensor Signal Stuck Rich (Bank 1 Sensor 1)	• Same as DTC P2195	○	○
P2238 (05–177)	Oxygen Sensor Pumping Current Circuit Low (for A/F sensor Bank 1 sensor 1)	• Open or short in A/F sensor (bank 1 sensor 1) • A/F sensor (bank 1 sensor 1) • A/F sensor heater • EFI M relay (integration relay) • A/F sensor heater and relay circuit • ECM	○	○
P2239 (05–177)	Oxygen Sensor Pumping Current Circuit High (for A/F sensor Bank 1 sensor 1)	• Same as DTC P2238	○	○
P2251 (05–177)	Oxygen Sensor Reference Ground Circuit/Open (for A/F sensor Bank 1 sensor1)	• Same as DTC P2238	○	○
P2252 (05–177)	Oxygen Sensor Reference Ground Circuit Low (for A/F sensor Bank 1 sensor1)	• Same as DTC P2238	○	○
P2253 (05–177)	Oxygen Sensor Reference Ground Circuit High (for A/F sensor Bank 1 sensor1)	• Same as DTC P2238	○	○
P2A00 (05–182)	A/F Sensor Circuit Slow Response (Bank 1 Sensor 1)	• Open or short in A/F sensor (bank 1 sensor 1) circuit • A/F sensor (bank 1 sensor 1) • A/F sensor heater • EFI M relay (integration relay) • A/F sensor heater and relay circuit • Air induction system • Fuel pressure • Injector • PCV hose connection • ECM	○	○
P3190 (05–191)	Poor Engine Power	• Air induction system • Throttle body • Fuel pressure • Engine • Air flow meter • Lack of fuel • Engine coolant temperature sensor • Crankshaft position sensor • Camshaft position sensor • ECM	○	○

DTC No. (See Page)	Detection Item	Trouble Area	CHK ENG*1	Memory
P3191 (05–191)	Engine Does Not Start	• Air induction system • Throttle body • Fuel pressure • Engine • Air flow meter • Lack of fuel • Coolant temperature sensor • Crankshaft position sensor • Camshaft position sensor • ECM	○	○
P3193 (05–191)	Fuel Run Out	• Lack of fuel • ECM	○	○
U0293 (05–196)	Lost Communication With HV ECU	• Wire harness • HV ECU • ECM	○	○

*1: ”○” ... CHK ENG illuminates, ”—” ... CHK ENG does not illuminate.
*2: CHK ENG illuminates or blinks
*3: This DTC indicates a malfunction related to the primary circuit.