

DIAGNOSTIC TROUBLE CODE CHART

SAE CONTROLLED

HINT:

Parameters listed in the chart may not be exactly the same as your reading 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 that code listed in the table below. For details of each code, turn to the page referred to under the "See page" for the respective "DTC No." in the DTC chart.

DTC No. (See Page)	Detection Item	Trouble Area	CHK ENG*1	Memory
P0100/31 (DI-26)	Mass Air Flow Circuit Malfunction	• Open or short in air flow meter circuit • Air flow meter • Engine ECU	○	○
P0101/31*2 (DI-32)	Mass Air Flow Circuit Range/Performance Problem	• Air flow meter	○	○
P0110/24 (DI-33)	Intake Air Temp. Circuit Malfunction	• Open or short in intake air temp. sensor circuit • Intake air temp. sensor (built into air flow meter) • Engine ECU	○	○
P0115/22 (DI-39)	Engine Coolant Temp. Circuit Malfunction	• Open or short in water temp. sensor circuit • Water temp. sensor • Engine ECU	○	○
P0120/41 (DI-46)	Throttle/Pedal Position Sensor/Switch "A" Circuit Malfunction	• Open or short in throttle position sensor circuit • Throttle position sensor • Engine ECU	○	○
P0121/41*2 (DI-52)	Throttle/Pedal Position Sensor/Switch "A" Circuit Range/Performance Problem	• Throttle position sensor	○	○
P0125/91*2 (DI-53)	Insufficient Coolant Temp. for Closed Loop Fuel Control	• Air induction system • Fuel pressure • Injector injection • Gas leakage on exhaust system • Open or short in heated oxygen sensor (bank 1 sensor 1) circuit • Oxygen sensor (bank 1 sensor 1)	○	○
P0130/21 (DI-53)	Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 1)	• Air induction system • Fuel pressure • Injector injection • Open or short in heated oxygen sensor circuit • Heated oxygen sensor	○	○
P0133/21*2 (DI-60)	Oxygen Sensor Circuit Slow Response (Bank 1 Sensor 1)	• Air induction system • Fuel pressure • Injector injection • Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Engine ECU	○	○
P0135/21 (DI-63)	Oxygen Sensor Heater Circuit Malfunction (Bank 1 Sensor 1)	• Open or short in heater circuit of oxygen sensor • Oxygen sensor heater • Engine ECU	○	○
P0136/27*2 (DI-65)	Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 2)	• Open or short in heater circuit of oxygen sensor • Oxygen sensor	○*2	○
P0141/21*2 (DI-63)	Oxygen Sensor Heater Circuit Malfunction (Bank 1 Sensor 2)	• Same as DTC No. P0135	○	○

DIAGNOSTICS – ENGINE

P0171/25 (DI-67)	Fuel Trim System too Lean (Air-Fuel Ratio Lean Malfunction, Bank 1)	• Air intake (hose loose) • Fuel line pressure • Injector blockage • Oxygen sensor malfunction • Air flow meter • Water temp. sensor	○*2	○
P0172/26 (DI-67)	System too Rich (Fuel Trim)	• Injector leak, blockage • Air flow meter • Engine coolant temp. sensor • Ignition system • Fuel pressure • Gas leakage on exhaust system • Open or short in heated oxygen sensor (bank 1 sensor 1) circuit • Heated oxygen sensor (bank 1 sensor 1)	○	○
P0300/93*2 (DI-73)	Random/Multiple Cylinder Misfire Detected	• Ignition system • Injector • Fuel pressure • Compression pressure	○	○
P0301/93*2 P0302/93*2 P0303/93*2 P0304/93*2 (DI-73)	Misfire Detected – Cylinder 1 – Cylinder 2 – Cylinder 3 – Cylinder 4	• Valve clearance • Valve timing • Air flow meter • Water temp. sensor • Open or short in engine wire • Connector connection • Engine ECU		
P0325/52 (DI-79)	Knock Sensor 1 Circuit Malfunction	• Open or short in knock sensor 1 circuit • Knock sensor 1 (looseness) • Engine ECU	○	○
P0335/12,13 (DI-82)	Crankshaft Position Sensor "A" Circuit Malfunction	• Open or short in crankshaft position sensor circuit • Crankshaft position sensor • Signal plate • Engine ECU	○	○
P0340/12 (DI-84)	Camshaft Position Sensor Circuit Malfunction	• Open or short in camshaft position sensor circuit • Camshaft position sensor • Engine ECU	○	○
P0420/94 (DI-86)	Catalyst System Efficiency Below Threshold (Bank 1)	• Gas leakage on exhaust system • Open or short in heated oxygen sensor circuit • Heated oxygen sensor • Three-way catalytic converter	○	○
P0500/42 (DI-89)	Vehicle Speed Sensor Malfunction	• Combination meter • Open or short in No.1 vehicle speed sensor circuit • Engine ECU • No.1 vehicle speed sensor	○	○
P0505/33 (DI-92)	Idle Control System Malfunction	• ISC valve is stuck or closed • Open or short in ISC valve circuit • Open or short A/C switch circuit • Air induction system • Engine ECU	○	○
P1300/14 (DI-97)	Igniter Circuit Malfunction (No.1)	• Open or short in IGF or IGT1 circuit from ignition coil with igniter to Engine ECU • No.1 ignition coil with igniter • Engine ECU	○	○

P1305/15 (DI-97)	Igniter Circuit Malfunction (No.2)	• Open or short in IGF or IGT2 circuit from No.2 ignition coil with igniter to engine ECU • No.2 ignition coil with igniter • Engine ECU	☐	☐
P1310/14 (DI-97)	Igniter Circuit Malfunction (No.3)	• Open or short in IGF or IGT3 circuit from No.3 ignition coil with igniter to Engine ECU • No.3 ignition coil with igniter • Engine ECU	☐	☐
P1315/15 (DI-97)	Igniter Circuit Malfunction (No.4)	• Open or short in IGF or IGT4 circuit from No.4 ignition coil with igniter to engine ECU • No.4 ignition coil with igniter • Engine ECU	☐	☐
P1335/13 (DI-104)	VVT Sensor Circuit Malfunction	• Open or short in VVT sensor circuit • VVT sensor • Engine ECU	☐	☐
P1346/18 (DI-105)	VVT Sensor Circuit Range/Performance Problem	• Mechanical system (Jumping teeth of timing belt, belt stretched) • Engine ECU	☐	☐
P1349/59*2 (DI-107)	VVT System Malfunction	• Valve timing • OCV • VVT controller assembly • Engine ECU	☐	☐
P1520/95*2 (DI-114)	Stop Light Switch Signal Malfunction	• Short in stop light switch signal circuit • Stop light switch • ECM	☐	☐
P1600/96*2 (DI-117)	Engine ECU BATT Malfunction	• Open in back up power source circuit • Engine ECU	☐	☐
P1645/82 (DI-119)	Body ECU Malfunction	• Body ECU • A/C ECU • Communication bus	☐	☐
P1656/39 (DI-120)	OCV Circuit Malfunction	• Open or short in OCV circuit (bank 1) • OCV • Engine ECU	☐	☐
P1690/39*3 (DI-123)	OCV Circuit Malfunction (for VVL)	• Open or short in OCV circuit • OCV for VVL • ECM	☐	☐
P1692/39*3 (DI-127)	OCV Open Malfunction (for VVL)	• Open or short in OCV circuit • OCV for VVL • ECM	☐	☐
P1693/39*3 (DI-127)	OCV Close Malfunction (for VVL)	• Open or short in OCV circuit • OCV for VVL • ECM	☐	☐

*1: – Check engine warning light does not light up.

○ Check engine warning light lights up.

*2: European spec. only

*3: 2ZZ-GE only