

DIAGNOSTIC TROUBLE CODE CHART

1. Engine Trouble Codes

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	CHECK ENG*1	Memory
P0100/31 (DI-26)	Air Flow Circuit Malfunction	<ul style="list-style-type: none"> • Open or short in air flow meter circuit • Air flow meter • Engine ECU 	○	○
P0110/24 (DI-32)	Intake Air Temp. Circuit Malfunction	<ul style="list-style-type: none"> • Open or short in intake air temp. sensor circuit • Intake air temp. sensor (inside air flow meter) • Engine ECU 	-	○
P0115/22 (DI-38)	Water Temp. Circuit Malfunction	<ul style="list-style-type: none"> • Open or short in water temp. sensor circuit • Water temp. sensor • Engine ECU 	○	○
P0120/41 (DI-44)	Throttle Position Sensor Circuit Malfunction	<ul style="list-style-type: none"> • Open or short in throttle position sensor circuit • Throttle position sensor • Engine ECU 	○	○
P0121/41 (DI-50)	Throttle Position Sensor Circuit Range/Performance Problem	<ul style="list-style-type: none"> • Throttle position sensor • Engine ECU 	○	○
P0130/21*2 (DI-51)	Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 1)	<ul style="list-style-type: none"> • Oxygen sensor • Fuel trim malfunction 	-	○
P0135/21*2 (DI-56)	Oxygen Sensor Heater Circuit Malfunction (Bank 1 Sensor 1)	<ul style="list-style-type: none"> • Open or short in heater circuit of oxygen sensor • Oxygen sensor heater • Engine ECU 	-	○
P0136/27*2 (DI-56)	Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 2)	<ul style="list-style-type: none"> • Oxygen sensor 	-	○
P0141/21*2 (DI-58)	Oxygen Sensor Heater Circuit Malfunction (Bank 1 Sensor 2)	<ul style="list-style-type: none"> • Same as DTC No. P0135/21 	-	○
P0150/28*2 (DI-58)	Oxygen Sensor Circuit Malfunction (Bank 2 Sensor 1)	<ul style="list-style-type: none"> • Same as DTC No. P0130/21 	-	○

*1: ○ ● ● ● CHECK ENG is indicated

- ● ● ● CHECK ENG is not indicated

2: Except GCC countries

DTC No. (See Page)	Detection Item	Trouble Area	CHECK ENG*1	Memory
P0155/28*2 (DI-56)	Oxygen Sensor Heater Circuit Malfunction (Bank 2 Sensor 1)	• Same as DTC No. P0135/21	-	○
P0156/29*2 (DI-56)	Oxygen Sensor Circuit Malfunction (Bank 2 Sensor 2)	• Same as DTC No. P0136/27	-	○
P0161/28*2 (DI-56)	Oxygen Sensor Heater Circuit Malfunction (Bank 2 Sensor 2)	• Same as DTC No. P0135/21	-	○
P0171/25*2 (DI-60)	Fuel Trim System too Lean (Air-Fuel Ratio Lean Malfunction, Bank 1)	• Air intake (hose loose) • Fuel line pressure • Injector blockage	-	○
P0174/25*2 (DI-60)	Fuel Trim System too Rich (Air-Fuel Ratio Lean Malfunction, Bank 2)	• Oxygen sensor (bank1,2sensor1) malfunction • Air flow meter • Water temp. sensor	-	○
P0325/52 (DI-65)	Knock Sensor 1 Circuit Malfunction	• Open or short in knock sensor 1 circuit • Knock sensor 1 (looseness) • Engine ECU	○	○
P0330/55 (DI-65)	Knock Sensor 2 Circuit Malfunction	• Open or short in knock sensor 2 circuit • Knock sensor 2 (looseness) • Engine ECU	○	○
P0335/12, 13 (DI-68)	Crankshaft Position Sensor Circuit Malfunction	• Open or short in crankshaft position sensor circuit • Crankshaft position sensor • Starter • Engine ECU	○	○
P0340/12 (DI-70)	Camshaft Position Sensor Circuit Malfunction	• Open or short in camshaft position sensor circuit • Camshaft position sensor • Starter • Engine ECU	○	○

*1: ○ ● ● ● CHECK ENG is indicated

- ● ● ● CHECK ENG is not indicated

2: Except GCC countries

DIAGNOSTICS - ENGINE

DTC No. (See Page)	Detection Item	Trouble Area	CHECK ENG*1	Memory
P0500/42 (DI-72)	Vehicle Speed Sensor Malfunction	<ul style="list-style-type: none"> • Open or short in vehicle speed sensor circuit • Vehicle speed sensor • Engine ECU 	-	○
P1120/19 (DI-78)	Accelerator Pedal Position Sensor Circuit Malfunction	<ul style="list-style-type: none"> • Open or short in accelerator pedal position sensor circuit • Accelerator pedal position sensor • Engine ECU 	○	○
P1121/19 (DI-84)	Accelerator Pedal Position Sensor Range/Performance Problem	<ul style="list-style-type: none"> • Accelerator pedal position sensor • Engine ECU 	○	○
P1125/89*2 (DI-85)	Throttle Control Motor Circuit Malfunction	<ul style="list-style-type: none"> • Open or short in throttle control motor circuit • Throttle control motor • Engine ECU 	○	○
P1126/89*2 (DI-88)	Magnetic Clutch Circuit Malfunction	<ul style="list-style-type: none"> • Open or short in magnetic clutch circuit • Magnetic clutch • Engine ECU 	○	○
P1127/89*2 (DI-91)	ETCS Actuator Power Source Circuit Malfunction	<ul style="list-style-type: none"> • Open in ETCS power source circuit • Engine ECU 	○	○
P1128/89*2 (DI-93)	Throttle Control Motor Lock Malfunction	<ul style="list-style-type: none"> • Throttle control motor • Throttle body • Engine ECU 	○	○
P1129/89*2 (DI-95)	Electric Throttle Control System Malfunction	<ul style="list-style-type: none"> • Electric throttle control system • Engine ECU 	○	○
P1200/78 (DI-96)	Fuel Pump Relay/Engine ECU Circuit Malfunction	<ul style="list-style-type: none"> • Open or short in fuel pump relay circuit. • Fuel pump relay • Engine ECU 	-	○
P1300/14 (DI-100)	Igniter Circuit Malfunction	<ul style="list-style-type: none"> • Open or short in IGF or IGT circuit from igniter to Engine ECU • Igniter • Engine ECU 	○	○
P1335/13 (DI-105)	Crankshaft Position Sensor Circuit Malfunction (during engine running)	<ul style="list-style-type: none"> • Open or short in crankshaft position sensor circuit • Crankshaft position sensor • Starter • Engine ECU 	-	○

*: ○ ● ● ● CHECK ENG is indicated.

- ● ● ● CHECK ENG is not indicated.

*2: If the DTC No.89 is indicated on the check engine warning light, read the DTC for ETCS, from ECT SNOW indicator (Except G.C.C.)/ ETCS indicator (only for G.C.C.) to get detail of the DTC No.89. If use the hand-held tester, the detail DTC for ETCS are displayed by the hand-held tester

DTC No. (See Page)	Detection Item	Trouble Area	CHECK ENG*1	Memory
P1349/59 (DI-106)	VVT System Malfunction	<ul style="list-style-type: none"> • Valve timing • Oil control valve • VVT controller assembly • Engine ECU 	-	○
P1565 (DI-546)	Cruise Control Main Switch Circuit Malfunction	<ul style="list-style-type: none"> • Open or short in cruise control switch circuit • Cruise control switch • ECU 	○ *2	○
P1633/89*2 (DI-113)	Engine ECU Malfunction (ETCS Circuit)	<ul style="list-style-type: none"> • Engine ECU 	○	○
P1645/82 (DI-114)	Body ECU Malfunction	<ul style="list-style-type: none"> • Body ECU • A/C ECU • Communication bus 	-	○
P1656/39 (DI-114)	OCV Circuit Malfunction (Bank1)	<ul style="list-style-type: none"> • Open or short in oil control valve circuit (bank 1) • Oil control valve (bank 1) • Engine ECU 	○	○

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- ● ● ● CHECK ENG is not indicated.

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2. ETCS Trouble Codes (When not use hand-held tester)

DTC No. (See Page)	Detection Item	Trouble Area	*1 *2	Memory
21 (DI-85)	Throttle Control Motor Circuit Malfunction	•Some as DTC No. P1125/89	○	○
22 (DI-88)	Magnetic Clutch Circuit Malfunction	•Some as DTC No. P1126/89	○	○
23 (DI-91)	ETCS Actuator Power Source Circuit Malfunction	•Some as DTC No. P1127/89	○	○
31 (DI-93)	Throttle Control Motor Lock Malfunction	•Some as DTC No. P1128/89	○	○
32 (DI-95)	Electric Throttle Control System Malfunction	•Some as DTC No. P1129/89	○	○
33 (DI-119)	Engine ECU Malfunction (ETCS)	•Some as DTC No. P1633/89	○	○

*1: ECTS SNOW indicator(Except G.C.C)

*2:ECTS indicator(Only for G.C.C)