

# DIAGNOSTIC TROUBLE CODE CHART

## 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 the check mode, check the circuit for the 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.

## ENGINE TROUBLE CODES

DTC No. (See page)	Detection Item	Trouble Area	*1 CHK(ENG (MIL)	Memory
P0105/31 (DI-27)	Vacuum Sensor Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in vacuum sensor circuit</li> <li>• Vacuum sensor</li> <li>• Engine ECU</li> </ul>	○	○
P0106/31 (DI-31)	Vacuum Sensor Circuit Range/Performance Problem (European spec.)	<ul style="list-style-type: none"> <li>• Vacuum Sensor</li> <li>• Vacuum Line</li> </ul>	○	○
P0110/24 (DI-32)	Intake Air Temp. Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in intake air temp. sensor circuit</li> <li>• Intake air temp. sensor</li> <li>• Engine ECU</li> </ul>	○*3	○
P0115/22 (DI-37)	Water Temp. Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in water temp. sensor circuit</li> <li>• Water temp. sensor</li> <li>• Engine ECU</li> </ul>	○	○
P0120/41 (DI-42)	Throttle Position Sensor Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in throttle position sensor circuit</li> <li>• Throttle position sensor</li> <li>• Engine ECU</li> </ul>	○	○
P0121/41 (DI-47)	Throttle Position Sensor Circuit Range/Performance Problem	<ul style="list-style-type: none"> <li>• Throttle position sensor</li> </ul>	○	○
P0125/91 (DI-48)	Insufficient Coolant Temp. for Closed Loop Fuel Control (European spec.)	<ul style="list-style-type: none"> <li>• Open or short in oxygen sensor (bank 1, 2 sensor 1) circuit</li> <li>• Oxygen Sensor (bank 1, 2 sensor 1)</li> <li>• Air induction system</li> <li>• Fuel pressure</li> <li>• Injector</li> <li>• Gas leakage on exhaust system</li> <li>• Engine ECU</li> </ul>	○	○
P0130/21 (DI-53)	Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 1)	<ul style="list-style-type: none"> <li>• Open or short in oxygen sensor circuit</li> <li>• Oxygen sensor</li> <li>• Air induction system</li> <li>• Fuel pressure</li> <li>• Injector</li> <li>• Engine ECU</li> </ul>	○*3	○
P0133/21 (DI-57)	Oxygen Sensor Circuit Slow Response (Bank 1 Sensor 1) (European spec.)	<ul style="list-style-type: none"> <li>• Open or short in oxygen sensor circuit</li> <li>• Oxygen sensor</li> <li>• Air induction system</li> <li>• Fuel pressure</li> <li>• Injector</li> <li>• Engine ECU</li> </ul>	○	○
P0135/21 (DI-61)	Oxygen Sensor Heater Circuit Malfunction (Bank 1 Sensor 1)	<ul style="list-style-type: none"> <li>• Open or short in heater circuit of oxygen sensor</li> <li>• Oxygen sensor heater</li> <li>• Engine ECU</li> </ul>	○*3	○
P0136/27 (DI-63)	Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 2)	<ul style="list-style-type: none"> <li>• Open or short in oxygen sensor circuit</li> <li>• Oxygen sensor</li> </ul>	○*3	○

P0141/21 (DI-53)	Oxygen Sensor Heater Circuit Malfunction (Bank 1 Sensor 2)	• Same as DTC No. P0135/21	○*3	○
P0150/28 (DI-53)	Oxygen Sensor Circuit Malfunction (Bank 2 Sensor 1)	• Same as DTC No. P0130/21	○*3	○
P0153/28 (DI-57)	Oxygen Sensor Circuit Slow Response (Bank 2 Sensor 1) (European spec.)	• Same as DTC No. P0130/21	○	○
P0155/28 (DI-61)	Oxygen Sensor Heater Circuit Malfunction (Bank 2 Sensor 1)	• Same as DTC No. P0135/21	○*3	○
P0171/25 (DI-66)	System too Lean (A/F Lean Malfunction, Bank 1)	<ul style="list-style-type: none"> <li>• Air induction system</li> <li>• Injector blockage</li> <li>• Vacuum Sensor</li> <li>• Water temp. sensor</li> <li>• Fuel pressure</li> <li>• Gas leakage on exhaust system</li> <li>• Open or short in oxygen sensor (bank1, 2 sensor1) circuit</li> <li>• Oxygen sensor (bank1, 2 sensor1)</li> <li>• Engine ECU</li> </ul>	○*3	○
P172/26 (DI-66)	System too Rich (A/F Rich Malfunction, Bank 1) (European spec.)	<ul style="list-style-type: none"> <li>• Injector leak, blockage</li> <li>• Vacuum sensor</li> <li>• Water temp. sensor</li> <li>• Ignition system</li> <li>• Fuel pressure</li> <li>• Gas leakage on exhaust system</li> <li>• Open or short in oxygen sensor (bank1, 2 sensor1) circuit</li> <li>• Oxygen sensor (bank1, 2 sensor1)</li> <li>• Engine ECU</li> </ul>	○	○
P0174/25 (DI-66)	System too Lean (A/F Lean Malfunction, Bank 2)	• Same as DTC No. P0171/25	○*3	○
P0175/26 (DI-66)	System too Rich (A/F Rich Malfunction, Bank 2) (European spec.)	• Same as DTC No. P0172/26	○	○
P0300/93 (DI-72)	Random/Multiple Cylinder Misfire Detected (European spec.)			
P0301/93 (DI-72)	Cylinder 1 Misfire Detected (European spec.)	<ul style="list-style-type: none"> <li>• Open or short engine wire</li> <li>• Connector connection</li> </ul>		
P0302/93 (DI-72)	Cylinder 2 Misfire Detected (European spec.)	<ul style="list-style-type: none"> <li>• Vacuum hose connection</li> <li>• Ignition system</li> <li>• Injector</li> </ul>		
P0303/93 (DI-72)	Cylinder 3 Misfire Detected (European spec.)	<ul style="list-style-type: none"> <li>• Fuel pressure</li> <li>• Vacuum sensor</li> </ul>	○	○
P0304/93 (DI-72)	Cylinder 4 Misfire Detected (European spec.)	<ul style="list-style-type: none"> <li>• Water temp. sensor</li> <li>• Compression pressure</li> </ul>		
P0305/93 (DI-72)	Cylinder 5 Misfire Detected (European spec.)	<ul style="list-style-type: none"> <li>• Valve clearance</li> <li>• Valve timing</li> <li>• Engine ECU</li> </ul>		
P0306/93 (DI-72)	Cylinder 6 Misfire Detected (European spec.)			
P0325/52 (DI-78)	Knock Sensor 1 Circuit Malfunction (Bank 1)	<ul style="list-style-type: none"> <li>• Open or short in knock sensor 1 circuit</li> <li>• Knock sensor 1 (looseness)</li> <li>• Engine ECU</li> </ul>	○	○
P0330/55 (DI-81)	Knock Sensor 2 Circuit Malfunction (Bank 2)	<ul style="list-style-type: none"> <li>• Open or short in knock sensor 2 circuit</li> <li>• Knock sensor 2 (looseness)</li> <li>• Engine ECU</li> </ul>	○	○

## DIAGNOSTICS – ENGINE

P0335/12, 13 (DI-81)	Crankshaft Position Sensor Circuit Malfunction (NE Signal)	<ul style="list-style-type: none"> <li>• Open or short in crankshaft position sensor circuit</li> <li>• Crankshaft position sensor</li> <li>• Crankshaft timing pulley</li> <li>• Engine ECU</li> </ul>	○	○
P0340/12 (DI-83)	Camshaft Position Sensor Circuit Malfunction (G Signal)	<ul style="list-style-type: none"> <li>• Open or short in camshaft position sensor circuit</li> <li>• Camshaft position sensor</li> <li>• Intake camshaft</li> <li>• Engine ECU</li> </ul>	○	○
P0420/94 (DI-85)	Catalyst System Efficiency Below Threshold (Bank 1) (European spec. (Except Taiwan))	<ul style="list-style-type: none"> <li>• Gas leakage on exhaust system</li> <li>• Oxygen sensor</li> <li>• Three-way catalytic converter</li> </ul>	○	○
P0443/94 (DI-88)	Evaporative Emission Control System Purge Control Vent Control Malfunction (European spec.)	<ul style="list-style-type: none"> <li>• Open or short in VSV circuit for EVAP</li> <li>• VSV for EVAP</li> <li>• Engine ECU</li> </ul>	○	○
P0500/42 (DI-91)	Vehicle Speed Sensor Malfunction	<ul style="list-style-type: none"> <li>• Open or short in vehicle speed sensor circuit</li> <li>• Transmission output speed sensor</li> <li>• Engine ECU</li> </ul>	○	○
P0505/33 (DI-96)	Idle Control System Malfunction (European spec.)	<ul style="list-style-type: none"> <li>• Air induction system</li> <li>• Electric throttle control system</li> </ul>	○	○
P1120/19 (DI-97)	Accelerator Pedal Position Sensor Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in accelerator pedal position sensor circuit</li> <li>• Accelerator pedal position sensor</li> <li>• Engine ECU</li> </ul>	○	○
P1121/19 (DI-102)	Accelerator Pedal Position Sensor Range/Performance Problem	<ul style="list-style-type: none"> <li>• Accelerator pedal position sensor</li> </ul>	○	○
P1125/89*2 (DI-103)	Throttle Control Motor Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in throttle control motor circuit</li> <li>• Throttle control motor</li> <li>• Engine ECU</li> </ul>	○	○
P1126/89*2 (DI-106)	Magnetic Clutch Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in magnetic clutch circuit</li> <li>• Magnetic clutch</li> <li>• Engine ECU</li> </ul>	○	○
P1127/89*2 (DI-109)	ETCS Actuator Power Source Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open in ETCS power source circuit</li> <li>• Engine ECU</li> </ul>	○	○
P1128/89*2 (DI-111)	Throttle Control Motor Lock Malfunction	<ul style="list-style-type: none"> <li>• Throttle control motor</li> <li>• Throttle body</li> </ul>	○	○
P1129/89*2 (DI-113)	Electric Throttle Control System Malfunction	<ul style="list-style-type: none"> <li>• Electric throttle control system</li> <li>• Engine ECU</li> </ul>	○	○
P1300/14 (DI-114)	Igniter Circuit Malfunction (No.1)	<ul style="list-style-type: none"> <li>• Ignition system</li> <li>• Open or short in IGF or IGT1 circuit from igniter to engine ECU</li> <li>• Igniter</li> <li>• Engine ECU</li> </ul>	○	○
P1305/15 (DI-114)	Igniter Circuit Malfunction (No.2)	<ul style="list-style-type: none"> <li>• Ignition system</li> <li>• Open or short in IGF or IGT2 circuit from igniter to engine ECU</li> <li>• Igniter</li> <li>• Engine ECU</li> </ul>	○	○
P1310/14 (DI-114)	Igniter Circuit Malfunction (No.3)	<ul style="list-style-type: none"> <li>• Ignition system</li> <li>• Open or short in IGF or IGT3 circuit from igniter to engine ECU</li> <li>• Igniter</li> <li>• Engine ECU</li> </ul>	○	○
P1315/14 (DI-114)	Igniter Circuit Malfunction (No.4)	<ul style="list-style-type: none"> <li>• Ignition system</li> <li>• Open or short in IGF or IGT4 circuit from igniter to engine ECU</li> <li>• Igniter</li> <li>• Engine ECU</li> </ul>	○	○

P1320/14 (DI-114)	Igniter Circuit Malfunction (No.5)	<ul style="list-style-type: none"> <li>Ignition System</li> <li>Open or short in IGF or GT5 circuit from igniter to engine ECU</li> <li>Igniter</li> <li>Engine ECU</li> </ul>	○	○
P1325/14 (DI-114)	Igniter Circuit Malfunction (No.6)	<ul style="list-style-type: none"> <li>Ignition System</li> <li>Open or short in IGF or GT6 circuit from igniter to engine ECU</li> <li>Igniter</li> <li>Engine ECU</li> </ul>	○	○
P1335/13 (DI-121)	Crankshaft Position Sensor Circuit Malfunction (During engine running)	<ul style="list-style-type: none"> <li>Open or short in crankshaft position sensor circuit</li> <li>Crankshaft position sensor</li> <li>Crankshaft timing pulley</li> <li>Engine ECU</li> </ul>	-	○
P1346/18 (DI-122)	VVT Sensor/Camshaft Position Sensor Circuit Range/Performance Problem (Bank 1)	<ul style="list-style-type: none"> <li>Mechanical system (Jumping teeth of timing belt, belt stretched)</li> <li>ECM</li> </ul>	○	○
P1349/59 (DI-123)	VVT System Malfunction (Bank 1)	<ul style="list-style-type: none"> <li>Valve timing</li> <li>OCV</li> <li>VVT controller assembly</li> <li>Engine ECU</li> </ul>	○*3	○
P1600/96 (DI-130)	Engine ECU BATT Malfunction (European spec.)	<ul style="list-style-type: none"> <li>Open in back up power source circuit</li> <li>Engine ECU</li> </ul>	○	○
P1633/89*2 (DI-132)	Engine ECU Malfunction (ETCS Circuit)	<ul style="list-style-type: none"> <li>Engine ECU</li> </ul>	○	○
P1645/82 (DI-133)	Body ECU Malfunction	<ul style="list-style-type: none"> <li>Body ECU</li> <li>A/C ECU</li> <li>Communication bus</li> </ul>	-	○
P1651/96 (DI-134)	VSV for ACIS Circuit Malfunction (European spec.)	<ul style="list-style-type: none"> <li>Open or short in VSV circuit for ACIS</li> <li>VSV for ACIS</li> <li>Engine ECU</li> </ul>	○	○
P1656/39 (DI-138)	OCV Circuit Malfunction (Bank 1)	<ul style="list-style-type: none"> <li>Open or short in OCV circuit</li> <li>OCV</li> <li>Engine ECU</li> </ul>	○	○
P1780/97*2 (DI-141)	Park/Neutral Position Switch Malfunction (A/T for European spec.)	<ul style="list-style-type: none"> <li>Short in neutral start switch circuit</li> <li>Neutral start switch</li> <li>Engine ECU</li> </ul>	○	○
B2795/99 (DI-513)	Unmatch Key Code	<ul style="list-style-type: none"> <li>Key</li> <li>Unregistered key inserted before?</li> </ul>	-	○

\*1 ○...CHK[ENG] is indicated. -...CHK[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\$NOW indicator to get the detail of the DTC No.89. If using the hand-held tester, the detail DTC for ETCS is displayed on the hand-held tester.

\*3 European spec.

### ETCS TROUBLE CODES (When not use hand-held tester)

DTC No. (See page)	Detection Item	Trouble Area	* CHK ENG (MIL)	Memory
21 (DI-103)	Throttle Control Motor Circuit Malfunction	<ul style="list-style-type: none"> <li>Same as DTC No. P1125/89</li> </ul>	○	○
22 (DI-106)	Magnetic Clutch Circuit Malfunction	<ul style="list-style-type: none"> <li>Same as DTC No. P1126/89</li> </ul>	○	○
23 (DI-109)	ETCS Actuator Power Source Circuit Malfunction	<ul style="list-style-type: none"> <li>Same as DTC No. P1127/89</li> </ul>	○	○

## DIAGNOSTICS - ENGINE

31 (DI-111)	Throttle Control Motor Lock Malfunction	• Same as DTC No. P1128/89	<input type="radio"/>	<input type="radio"/>
32 (DI-113)	Electric Throttle Control System Malfunction	• Same as DTC No. P1129/89	<input type="radio"/>	<input type="radio"/>
33 (DI-132)	ECU Malfunction (ETCS)	• Same as DTC No. P1633/89	<input type="radio"/>	<input type="radio"/>

\*:  ... CHK ENG is indicated.