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 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.

SAE CONTROLLED:

DTC No.	Detection Item	Trouble Area	MIL*1	Memory
P0100 (DI-22)	Mass Air Flow Circuit Malfunc- tion	 Open or short in mass air flow meter circuit Mass air flow meter ECM 	0	0
P0101 (DI-26)	Mass Air Flow Circuit Range/ Performance Problem	Mass air flow meter	0	0
P0110 (DI-27)	Intake Air Temp. Circuit Malfunc- tion	 Open or short in intake air temp. sensor circuit Intake air temp. sensor (built into mass air flow meter) ECM 	0	0
P0115 (DI-32)	Engine Coolant Temp. Circuit Malfunction	 Open or short in engine coolant temp. sensor circuit Engine coolant temp. sensor ECM 	0	0
P0116 (DI-36)	Engine Coolant Temp. Circuit Range/Performance Problem	Cooling system Engine coolant temp. sensor	0	0
P0120 (DI-37)	Throttle/Pedal Position Sensor/ Switch "A" Circuit Malfunction	Open or short in throttle position sensor circuitThrottle position sensorECM	0	0
P0121 (DI-42)	Throttle/Pedal Position Sensor/ Switch "A" Circuit Range/Perfor- mance Problem	Throttle position sensor ECM	0	0
P0125 (DI-43)	Insufficient Coolant Temp. for Closed Loop Fuel Control	 Open or short in heated oxygen sensor (bank 1 sensor 1) circuit Heated oxygen sensor (bank 1 sensor 1) Air induction system Fuel pressure Injector Gas leakage on exhaust system ECM PCV piping 	0	0
P0130 (DI-48)	Heated Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 1) (Except Calif.)	Open or short in heated oxygen sensor circuit Heated oxygen sensor Air induction system EGR system Fuel pressure Injector ECM	0	0
P0133 (DI-52)	Oxygen Sensor Circuit Slow Re- sponse (Bank 1 Sensor 1)	 Open or short in heated oxygen sensor circuit Heated oxygen sensor Air induction system EGR system Fuel pressure Injector ECM 	0	0

DI6UT-04

P0135 (DI-55)	Oxygen Sensor Heater Circuit Malfunction (Bank 1 Sensor 1)	 Open or short in heater circuit of heated oxygen sensor Heated oxygen sensor heater ECM 	0	0
P0136 (DI-57)	Oxygen Sensor Circuit Malfunc- tion (Bank 1 Sensor 2)	Open or short in heated oxygen sensor circuit Heated oxygen sensor	0	0
P0141 (<mark>DI-55</mark>)	Oxygen Sensor Heater Circuit Malfunction (Bank 1 Sensor 2)	• Same as DTC No. P0135	0	0
P0171 (DI-59)	System too Lean (Fuel Trim)	 Air induction system Injector blockage Mass air flow meter Engine coolant temp. sensor 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) PCV piping 	0	0
P0300 (DI-63)	Random/Multiple Cylinder Misfire Detected	 Open or short in engine wire Connector connection Vacuum hose connection Ignition system Injector Fuel pressure EGR system Manifold absolute pressure sensor Engine coolant temp. sensor Compression pressure Valve clearance Valve timing ECM PCV piping 	0	0
P0301 (DI-63)	Cylinder 1 Misfire Detected	Open or short in engine wire Connector connection Vacuum hose connection Ignition system		
P0302 (DI-63)	Cylinder 2 Misfire Detected	Injector Fuel pressure EGR system		
P0303 (DI-63)	Cylinder 3 Misfire Detected	Manifold absolute pressure sensor Engine coolant temp. sensor Compression pressure Valve clearance	0	0
P0304 (DI-63)	Cylinder 4 Misfire Detected	Valve timing ECM PCV piping		
P0325 (DI-69)	Knock Sensor 1 Circuit Malfunc- tion (Bank 1)	Open or short in knock sensor 1 circuit Knock sensor 1 (looseness) ECM	0	0
P0335 (DI-72)	Crankshaft Position Sensor "A" Circuit Malfunction	 Open or short in crankshaft position sensor circuit Crankshaft position sensor Signal plate (Timing belt guide) Crankshaft timing pulley ECM 	0	0

2002 ECHO (RM884U)

DIAGNOSTICS - ENGINE

P0340 (DI-75)	Camshaft Position Sensor Cir- cuit Malfunction	 Open or short in camshaft position sensor circuit Camshaft position sensor Camkshaft timing pulley ECM 	0	0
P0420 (DI-77)	Catalyst System Efficiency Be- low Threshold (Bank 1)	 Gas leakage on exhaust system Open or short in heated oxygen sensor circuit Heated oxygen sensor Three-way catalytic converter 	0	0
P0440 (DI-80)	Evaporative Emission Control System Malfunction	 Hose or tube cracked, hole, damaged or loose seal Fuel tank cap incorrectly installed Fuel tank cap cracked or damaged Vacuum hose cracked, hole, blocked,damaged or disconnected Fuel tank cracked, hole or damaged Charcoal canister cracked, hole or damaged Open or short in vapor pressure sensor circuit Vapor pressure sensor Fuel tank over fill check valve cracked or damaged ECM 	0	0
P0441 (DI-86)	Evaporative Emission Control System Incorrect Purge Flow	 Vacuum hose cracked, hole, blocked damaged or disconnected Open or short in vapor pressure sensor circuit Vapor pressure sensor Open or short in VSV circuit for EVAP VSV for EVAP 		
P0446 (DI-86)	Evaporative Emission Control System Vent Control Malfunction	 VSV for EVAP Open or short in VSV circuit for vapor pressure sensor VSV for vapor pressure sensor Charcoal canister cracked, hole or damaged Fuel tank over fill check valve cracked or damaged ECM 	0	0
P0450 (DI-101)	Evaporative Emission Control System Pressure Sensor Mal- function	 Open or short in vapor pressure sensor circuit Vapor pressure sensor ECM 	0	0
P0451 (DI-101)	Evaporative Emission Control System Pressure Sensor Range/ Performance			
P0500 (DI-103)	Vehicle Speed Sensor Malfunc- tion	 Combination meter Open or short in vehicle speed sensor circuit Vehicle speed sensor ECM 	0	0
P0505 (DI-106)	Idle Control System Malfunction	 Open or short in IAC valve circuit IAC valve is stuck or closed Open or short in A/C switch circuit Air induction system ECM PCV piping 	0	0
P0550 (DI-1 11)	Power Steering Pressure Sensor Circuit Malfunction	PS pressure sensor ECM	0	0

MANUFACTURER CONTROLLED:

DTC No. (See Page)	Detection Item	Trouble Area	MIL*1	Memory
P1300 (DI-113)	Igniter Circuit Malfunction (No.1)	 Ignition system Open or short in IGF1 and IGT1 circuit from No.1 ignition coil with igniter to ECM No.1 ignition coil with igniter ECM 	0	0
P1305 (DI-113)	Igniter Circuit Malfunction (No.2)	 Ignition system Open or short in IGF2 and IGT2 circuit from No.2 ignition coil with igniter to ECM No.2 ignition coil with igniter ECM 	0	0
P1310 (DI-113)	Igniter Circuit Malfunction (No.3)	 Ignition system Open or short in IGF2 and IGT3 circuit from No.3 ignition coil with igniter to ECM No.3 ignition coil with igniter ECM 	0	0
P1315 (DI-113)	Igniter Circuit Malfunction (No.4)	 Ignition system Open or short in IGF1 and IGT4 circuit from No.4 ignition coil with igniter to ECM No.4 ignition coil with igniter ECM 	0	0
P1345 (DI-119)	VVT Sensor/Camshaft Position Sensor Circuit Malfunction (Bank 1)	 Open or short in VVT sensor circuit VVT sensor ECM 	0	0
P1346 (DI-121)	VVT Sensor/Camshaft Position Sensor Circuit Range/Perfor- mance Problem (Bank 1)	 Mechanical system (Jumping teeth of timing belt, belt stretched) ECM 	0	0
P1349 (DI-122)	VVT System Malfunction (Bank 1)	 Valve timing OCV VVT controller assembly ECM 	0	0
P1520 (DI-129)	Stop Light Switch Signal Mal- function	 Short in stop light switch signal circuit Stop light switch ECM 	0	0
P1600 (DI-132)	ECM BATT Malfunction	Open in back up power source circuit ECM	0	0
P1656 (DI-134)	OCV Circuit Malfunction (for VVT-i)	Open or short in OCV circuit OCV for VVT-i ECM	0	0
P1780 ^{*2} (DI-137)	Park/Neutral Position Switch Malfunction	 Short in park/neutral position switch circuit Park/neutral position switch ECM 	0	0

*1: O ··· MIL lights up

*²: A/T only