

## DIAGNOSTIC TROUBLE CODE CHART

### 1. 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	MIL*	Memory
P0100 (DI-183)	Mass Air Flow Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in mass air flow meter circuit</li> <li>• Mass air flow meter</li> <li>• ECM</li> </ul>	○	○
P0101 (DI-187)	Mass Air Flow Circuit Range/Performance Problem	<ul style="list-style-type: none"> <li>• Mass air flow meter</li> </ul>	○	○
P0110 (DI-188)	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 (inside mass air flow meter)</li> <li>• ECM</li> </ul>	○	○
P0115 (DI-193)	Engine Coolant Temp. Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in engine coolant temp. sensor circuit</li> <li>• Engine coolant temp. sensor</li> <li>• ECM</li> </ul>	○	○
P0116 (DI-197)	Engine Coolant Temp. Circuit Range/Performance Problem	<ul style="list-style-type: none"> <li>• Engine coolant temp. sensor</li> <li>• Cooling system</li> </ul>	○	○
P0120 (DI-198)	Throttle/Pedal Position Sensor/Switch "A" Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in throttle position sensor circuit</li> <li>• Throttle position sensor</li> <li>• ECM</li> </ul>	○	○
P0121 (DI-204)	Throttle/Pedal Position Sensor/Switch "A" Circuit Range/Performance Problem	<ul style="list-style-type: none"> <li>• Throttle position sensor</li> <li>• ECM</li> </ul>	○	○
P0125 (DI-205)	Insufficient Coolant Temp. for Closed Loop Fuel Control	<ul style="list-style-type: none"> <li>• Fuel system</li> <li>• Injection</li> <li>• Ignition system</li> <li>• Gas leakage on exhaust system</li> <li>• Open or short in heated oxygen sensor circuit</li> <li>• Heated oxygen sensor</li> </ul>	○	○
P0130 (DI-209)	Heated Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 1)	<ul style="list-style-type: none"> <li>• Heated oxygen sensor</li> <li>• Fuel trim malfunction</li> </ul>	○	○
P0133 (DI-212)	Heated Oxygen Sensor Circuit Slow Response (Bank 1 Sensor 1)	<ul style="list-style-type: none"> <li>• Heated oxygen sensor</li> </ul>	○	○
P0135 (DI-213)	Heated Oxygen Sensor Heater Circuit Malfunction (Bank 1 Sensor 1)	<ul style="list-style-type: none"> <li>• Open or short in heater circuit of heated oxygen sensor</li> <li>• Heated oxygen sensor heater</li> <li>• ECM</li> </ul>	○	○
P0136 (DI-215)	Heated Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 2)	<ul style="list-style-type: none"> <li>• Heated oxygen sensor</li> </ul>	○	○
P0141 (DI-213)	Heated Oxygen Sensor Heater Circuit Malfunction (Bank 1 Sensor 2)	<ul style="list-style-type: none"> <li>• Same as DTC No. P0135</li> </ul>	○	○

\*: MIL lights up

## DIAGNOSTICS – ENGINE (1UZ-FE)

DTC No. (See Page)	Detection Item	Trouble Area	MIL *1	Memory
P0150 (DI-209)	Heated Oxygen Sensor Circuit Malfunction (Bank 2 Sensor 1)	• Same as DTC No. P0130	○	○
P0153 (DI-212)	Heated Oxygen Sensor Circuit Slow Response (Bank 2 Sensor 1)	• Same as DTC No. P0133	○	○
P0155 (DI-213)	Heated Oxygen Sensor Heater Circuit Malfunction (Bank 2 Sensor 1)	• Same as DTC No. P0135	○	○
P0156 (DI-215)	Heated Oxygen Sensor Circuit Malfunction (Bank 2 Sensor 2)	• Same as DTC No. P0136	○	○
P0161 (DI-213)	Heated Oxygen Sensor Heater Circuit Malfunction (Bank 2 Sensor 2)	• Same as DTC No. P0135	○	○
P0171 (DI-217)	System too Lean (Fuel Trim)	<ul style="list-style-type: none"> <li>• Air intake (hose loose)</li> <li>• Fuel line pressure</li> <li>• Injector blockage</li> <li>• Heated oxygen sensor malfunction</li> <li>• Mass air flow meter</li> <li>• Engine coolant temp. sensor</li> <li>• Gas leakage on exhaust system</li> </ul>	○	○
P0172 (DI-217)	System too Rich (Fuel Trim)	<ul style="list-style-type: none"> <li>• Fuel line pressure</li> <li>• Injector leak, blockage</li> <li>• Heated oxygen sensor malfunction</li> <li>• Mass air flow meter</li> <li>• Engine coolant temp. sensor</li> <li>• Gas leakage on exhaust system</li> </ul>	○	○
P0300 (DI-221)	Random/Multiple Cylinder Misfire Detected	<ul style="list-style-type: none"> <li>• Ignition system</li> <li>• Injector</li> </ul>	○ *2	○
P0301	Misfire Detected	• Fuel line pressure		
P0302	– Cylinder 1	• Compression pressure		
P0303	– Cylinder 2	• Valve clearance not to specification		
P0304	– Cylinder 3	• Valve timing		
P0305	– Cylinder 4	• Mass air flow meter		
P0306	– Cylinder 5	• Engine coolant temp. sensor		
P0307	– Cylinder 6	• Open or short in engine wire		
P0308	– Cylinder 7	• Connector connection		
P0308 (DI-221)	– Cylinder 8	• ECM		
P0325 (DI-227)	Knock Sensor 1 Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in knock sensor 1 circuit</li> <li>• Knock sensor 1 (looseness)</li> <li>• ECM</li> </ul>	○	○
P0330 (DI-227)	Knock Sensor 2 Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in knock sensor 2 circuit</li> <li>• Knock sensor 2 (looseness)</li> <li>• ECM</li> </ul>	○	○
P0335 (DI-231)	Crankshaft Position Sensor "A" Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in crankshaft position sensor circuit</li> <li>• Crankshaft position sensor</li> <li>• Starter</li> <li>• ECM</li> </ul>	○	○

\*1: MIL lights up

\*2: MIL lights up or blinking

DTC No. (See Page)	Detection Item	Trouble Area	MIL *1	Memory
P0340 (DI-234)	Camshaft Position Sensor Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in camshaft position sensor circuit</li> <li>• Camshaft position sensor</li> <li>• Starter</li> <li>• ECM</li> </ul>	○	○
P0420 (DI-236)	Catalyst System Efficiency Below Threshold (Bank 1)	<ul style="list-style-type: none"> <li>• Gas leakage on exhaust system</li> <li>• Three way catalytic convertor</li> <li>• Open or short in heated oxygen sensor circuit</li> <li>• Heated oxygen sensor</li> </ul>	○ *2	○
P0430 (DI-236)	Catalyst System Efficiency Below Threshold (Bank 2)	• Same as DTC No. P0420	○ *2	○
P0440 (DI-239)	Evaporative Emission Control System Malfunction	<ul style="list-style-type: none"> <li>• Vapor pressure sensor</li> <li>• Fuel tank cap incorrectly installed</li> <li>• Fuel tank cap cracked or damaged</li> <li>• Vacuum hose cracked, hole, blocked, damaged or disconnected</li> <li>• Hose or tube cracked, hole, damaged or loose seal</li> <li>• Fuel tank cracked, hole or damaged</li> <li>• Charcoal canister cracked, hole or damaged</li> </ul>	○ *2	○
P0441 (DI-245)	Evaporative Emission Control System Incorrect Purge Flow	<ul style="list-style-type: none"> <li>• Open or short in VSV circuit for vapor pressure sensor</li> <li>• VSV for vapor pressure sensor</li> <li>• Open or short in vapor pressure sensor circuit</li> <li>• Vapor pressure sensor</li> </ul>	○ *2	○
P0446 (DI-245)	Evaporative Emission Control System Vent Control Malfunction	<ul style="list-style-type: none"> <li>• Open or short in VSV circuit for EVAP</li> <li>• VSV for EVAP</li> <li>• Vacuum hose cracked, hole, blocked damaged or disconnected</li> <li>• Charcoal canister cracked, hole or damaged</li> </ul>	○ *2	○
P0450 (DI-258)	Evaporative Emission Control System Pressure Sensor Malfunction	<ul style="list-style-type: none"> <li>• Open or short in vapor pressure sensor circuit</li> <li>• Vapor pressure sensor</li> </ul>	○ *2	○
P0451 (DI-258)	Evaporative Emission Control System Pressure Sensor Range/Performance	<ul style="list-style-type: none"> <li>• ECM</li> </ul>	○ *2	○
P0500 (DI-261)	Vehicle Speed Sensor Malfunction	<ul style="list-style-type: none"> <li>• Open or short in vehicle speed sensor circuit</li> <li>• Vehicle speed sensor</li> <li>• ECM</li> </ul>	○	○
P0505 (DI-265)	Idle Control System Malfunction	<ul style="list-style-type: none"> <li>• Electric throttle control system</li> <li>• Air intake (hose loose)</li> </ul>	○	○

\*1: MIL lights up

\*2: MIL lights up on U.S.A and Canadian specification vehicles

**2. Manufacturer Controlled**

DTC No. (See Page)	Detection Item	Trouble Area	MIL*	Memory
P1120 (DI-266)	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>• ECM</li> </ul>	○	○
P1121 (DI-271)	Accelerator Pedal Position Sensor Range/Performance Problem	<ul style="list-style-type: none"> <li>• Accelerator pedal position sensor</li> <li>• ECM</li> </ul>	○	○

\*: MIL lights up

## DIAGNOSTICS – ENGINE (1UZ-FE)

DTC No. (See Page)	Detection Item	Trouble Area	MIL*	Memory
P1125 (DI-272)	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>• ECM</li> </ul>	○	○
P1126 (DI-275)	Magnetic Clutch Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in magnetic clutch circuit</li> <li>• Magnetic clutch</li> <li>• ECM</li> </ul>	○	○
P1127 (DI-278)	ETCS Actuator Power Source Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open in ETCS power source circuit</li> <li>• ECM</li> </ul>	○	○
P1128 (DI-280)	Throttle Control Motor Lock Malfunction	<ul style="list-style-type: none"> <li>• Throttle control motor</li> <li>• Throttle body assembly</li> <li>• ECM</li> </ul>	○	○
P1129 (DI-282)	Electric Throttle Control System Malfunction	<ul style="list-style-type: none"> <li>• Electric throttle control system</li> <li>• ECM</li> </ul>	○	○
P1200 (DI-283)	Fuel Pump Relay/ECU Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in fuel pump relay</li> <li>• Fuel pump relay</li> <li>• ECM</li> </ul>	–	○
P1300 (DI-287)	Igniter Circuit Malfunction (No.1)	<ul style="list-style-type: none"> <li>• Open or short in IGF1 or IGT1 circuit from No.1 ignition coil with igniter to ECM</li> <li>• No.1 ignition coil with igniter</li> <li>• ECM</li> </ul>	○	○
P1305 (DI-287)	Igniter Circuit Malfunction (No.2)	<ul style="list-style-type: none"> <li>• Open or short in IGF2 or IGT2 circuit from No.2 ignition coil with igniter to ECM</li> <li>• No.2 ignition coil with igniter</li> <li>• ECM</li> </ul>	○	○
P1310 (DI-287)	Igniter Circuit Malfunction (No.3)	<ul style="list-style-type: none"> <li>• Open or short in IGF2 or IGT3 circuit from No.3 ignition coil with igniter to ECM</li> <li>• No.3 ignition coil with igniter</li> <li>• ECM</li> </ul>	○	○
P1315 (DI-287)	Igniter Circuit Malfunction (No.4)	<ul style="list-style-type: none"> <li>• Open or short in IGF1 or IGT4 circuit from No.4 ignition coil with igniter to ECM</li> <li>• No.4 ignition coil with igniter</li> <li>• ECM</li> </ul>	○	○
P1320 (DI-287)	Igniter Circuit Malfunction (No.5)	<ul style="list-style-type: none"> <li>• Open or short in IGF2 or IGT5 circuit from No.5 ignition coil with igniter to ECM</li> <li>• No.5 ignition coil with igniter</li> <li>• ECM</li> </ul>	○	○
P1325 (DI-287)	Igniter Circuit Malfunction (No.6)	<ul style="list-style-type: none"> <li>• Open or short in IGF1 or IGT6 circuit from No.6 ignition coil with igniter to ECM</li> <li>• No.6 ignition coil with igniter</li> <li>• ECM</li> </ul>	○	○
P1330 (DI-287)	Igniter Circuit Malfunction (No.7)	<ul style="list-style-type: none"> <li>• Open or short in IGF1 or IGT7 circuit from No.7 ignition coil with igniter to ECM</li> <li>• No.7 ignition coil with igniter</li> <li>• ECM</li> </ul>	○	○
P1335 (DI-294)	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>• Starter</li> <li>• ECM</li> </ul>	–	○

\*: – ••• MIL does not light up, ○ ••• MIL lights up

DTC No. (See Page)	Detection Item	Trouble Area	MIL*1	Memory
P1340 (DI-287)	Igniter Circuit Malfunction (No.8)	<ul style="list-style-type: none"> <li>• Open or short in IGF2 or IGT8 circuit from No.8 ignition coil with igniter to ECM</li> <li>• No.8 ignition coil with igniter</li> <li>• ECM</li> </ul>	○	○
P1345 (DI-295)	VVT Sensor Circuit Malfunction (Bank 1)	<ul style="list-style-type: none"> <li>• Open or short in VVT sensor circuit</li> <li>• VVT sensor</li> <li>• ECM</li> </ul>	○	○
P1346 (DI-297)	VVT Sensor Circuit Range/Performance Problem (Bank 1)	<ul style="list-style-type: none"> <li>• Mechanical system malfunction (Skipping teeth of timing belt, belt stretched)</li> <li>• ECM</li> </ul>	○	○
P1349 (DI-298)	VVT System Malfunction (Bank 1)	<ul style="list-style-type: none"> <li>• Valve timing</li> <li>• Oil control valve</li> <li>• VVT controller assembly</li> <li>• ECM</li> </ul>	○	○
P1350 (DI-295)	VVT Sensor Circuit Malfunction (Bank 2)	• Same as DTC No. P1345	○	○
P1351 (DI-297)	VVT Sensor Circuit Range/Performance Problem (Bank 2)	• Same as DTC No. P1346	○	○
P1354 (DI-298)	VVT System Malfunction (Bank 2)	• Same as DTC No. P1349	○	○
P1520 (DI-305)	Stop Light Switch Signal Malfunction	<ul style="list-style-type: none"> <li>• Short in stop light switch signal circuit</li> <li>• Stop light switch</li> <li>• ECM</li> </ul>	○	○
P1565 (DI-792)	Cruise Control Main Switch Circuit Malfunction	<ul style="list-style-type: none"> <li>• Open or short in cruise control switch circuit</li> <li>• Cruise control switch</li> <li>• ECM</li> </ul>	○ *2	○
P1600 (DI-308)	ECM BATT Malfunction	<ul style="list-style-type: none"> <li>• Open in back up power source circuit</li> <li>• ECM</li> </ul>	○	○
P1633 (DI-310)	ECM Malfunction (ETCS Circuit)	• ECM	○	○
P1656 (DI-311)	OCV Circuit Malfunction (Bank1)	<ul style="list-style-type: none"> <li>• Open or short in oil control valve circuit (bank 1)</li> <li>• Oil control valve (bank 1)</li> <li>• ECM</li> </ul>	○	○
P1663 (DI-311)	OCV Circuit Malfunction (Bank2)	<ul style="list-style-type: none"> <li>• Open or short in oil control valve circuit (bank 2)</li> <li>• Oil control valve (bank 2)</li> <li>• ECM</li> </ul>	○	○
P1780 (DI-314)	Park/Neutral Position Switch Malfunction	<ul style="list-style-type: none"> <li>• Short in park/neutral position switch circuit</li> <li>• Park/neutral position switch</li> <li>• ECM</li> </ul>	○	○

\*1: – ••• MIL does not light up, ○••• MIL lights up

\*2: PI lights up (See page DI-787)

## DIAGNOSTICS - ENGINE (1UZ-FE)

DTC No. (See Page)	Detection Item	Trouble Area	MIL*	Memory
B2785 (DI-814)	Ignition Switch ON Malfunction	<ul style="list-style-type: none"> <li>• Ignition switch</li> <li>• Mainrelay</li> <li>• Wireharness</li> </ul>	-	-
B2786 (DI-814)	Ignition Switch OFF Malfunction		-	-
B2791 (DI-818)	Key Unlock Warning Switch OFF Malfunction	<ul style="list-style-type: none"> <li>• Key unlock warning switch</li> <li>• Mainrelay</li> <li>• Wireharness</li> </ul>	-	-
B2795 (DI-820)	Unmatch Key Code	<ul style="list-style-type: none"> <li>• Key</li> <li>• Unregistered key inserted before?</li> </ul>	-	○
B2796 (DI-821)	No Communication in Immobilizer System	<ul style="list-style-type: none"> <li>• Key</li> <li>• Transponder key coil</li> <li>• Amplifier</li> <li>• Wireharness</li> <li>• ECM</li> </ul>	-	○
B2797 (DI-823)	Communication Malfunction No.1	<ul style="list-style-type: none"> <li>• Communication contests</li> <li>• Unregistered key inserted before?</li> </ul>	-	○
B2798 (DI-825)	Communication Malfunction No.2	<ul style="list-style-type: none"> <li>• Key</li> <li>• Transponder key coil</li> <li>• Amplifier</li> <li>• Wireharness</li> <li>• ECM</li> </ul>	-	○

\*: - • • • MIL does not light up