Fuel and Emissions Systems DTC Troubleshooting Index

DTC Troubleshooting Index

DTC	Two Drive Cycle Detection	Detection Item	MIL
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P00CF	———	Turbocharger Boost Sensor/Barometric Pressure (BARO) Sensor Incorrect Correlation	ON
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P0106	———	Manifold Absolute Pressure (MAP) Sensor Range/Performance Problem	ON
P0107	———	Manifold Absolute Pressure (MAP) Sensor Circuit Low Voltage	ON
P0108	———	Manifold Absolute Pressure (MAP) Sensor Circuit High Voltage	ON
P0110	○	Intake Air Temperature (IAT) Sensor 1 Out of Range	ON
P0111	○	Intake Air Temperature (IAT) Sensor 1 Circuit Range/Performance Problem	ON
P0112	○	Intake Air Temperature (IAT) Sensor 1 Circuit Low Voltage	ON
P0113	○	Intake Air Temperature (IAT) Sensor 1 Circuit High Voltage	ON
P0114	○	Intake Air Temperature (IAT) Sensor 1 Intermittent Interruption	ON
P0115	○	Engine Coolant Temperature (ECT) Sensor 1 Out of Range	ON

NOTE: The above DTCs are indicated when the PGM-FI system is selected with the HDS.

DTC	Two Drive Cycle Detection	Detection Item	MIL
P0116	○	Engine Coolant Temperature (ECT) Sensor 1 Circuit Range/Performance Problem	ON
P0117	———	Engine Coolant Temperature (ECT) Sensor 1 Circuit Low Voltage	ON
P0118	———	Engine Coolant Temperature (ECT) Sensor 1 Circuit High Voltage	ON
P0119	○	Engine Coolant Temperature (ECT) Sensor 1 Circuit Out of Range	ON
P011A	○	Engine Coolant Temperature (ECT) Sensor 1 Circuit Range/Performance Problem	ON
P011B	○	Intake Air Temperature (IAT) Sensor 1 Circuit Range/Performance Problem	ON
P0121	○	Throttle Position (TP) Sensor A Range/Performance Problem	ON
P0122	———	Throttle Position (TP) Sensor A Circuit Low Voltage	ON
P0123	———	Throttle Position (TP) Sensor A Circuit High Voltage	ON
P0127	○	Intake Air Temperature (IAT) Sensor Too High	ON
P0128	○	Cooling System Malfunction	ON
P0131	○	Air Fuel Ratio (A/F) Sensor (Sensor 1) Circuit Low Voltage	ON
P0132	○	Air Fuel Ratio (A/F) Sensor (Sensor 1) Circuit High Voltage	ON
P0133	○	Air Fuel Ratio (A/F) Sensor (Sensor 1) Malfunction/Slow Response	ON
P0134	○	Air Fuel Ratio (A/F) Sensor (Sensor 1) Heater System Malfunction	ON
P0135	○	Air Fuel Ratio (A/F) Sensor (Sensor 1) Heater Circuit Malfunction	ON
P0136	○	Secondary Heated Oxygen Sensor (Secondary HO2S (Sensor 2)) Circuit Malfunction	ON
P0137	○	Secondary Heated Oxygen Sensor (Secondary HO2S (Sensor 2)) Circuit Low Voltage	ON
P0138	○	Secondary Heated Oxygen Sensor (Secondary HO2S (Sensor 2)) Circuit High Voltage	ON
P0139	○	Secondary Heated Oxygen Sensor (Secondary HO2S (Sensor 2)) Slow Response	ON
P0140	○	Secondary Heated Oxygen Sensor (Secondary HO2S (Sensor 2)) Circuit No Activity	ON
P0141	○	Secondary Heated Oxygen Sensor (Secondary HO2S (Sensor 2)) Heater Circuit Malfunction	ON
P0171	○	Fuel System Too Lean	ON
P0172	○	Fuel System Too Rich	ON
P0190	———	Fuel Rail Pressure Sensor Circuit Out of Range	ON
P0191	———	Fuel Rail Pressure Sensor Circuit Range/Performance Problem	ON
P0192	———	Fuel Rail Pressure Sensor Circuit Low Voltage	ON
P0193	———	Fuel Rail Pressure Sensor Circuit High Voltage	ON
P0201	———	No. 1 Cylinder Injector Circuit Malfunction	ON
P0202	———	No. 2 Cylinder Injector Circuit Malfunction	ON
P0203	———	No. 3 Cylinder Injector Circuit Malfunction	ON
P0204	———	No. 4 Cylinder Injector Circuit Malfunction	ON
P0221	○	Throttle Position (TP) Sensor B Range/Performance Problem	ON
P0222	———	Throttle Position (TP) Sensor B Circuit Low Voltage	ON
P0223	———	Throttle Position (TP) Sensor B Circuit High Voltage	ON

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DTC	Two Drive Cycle Detection	Detection Item	MIL
P0230	○	Fuel Pump Primary Circuit	OFF
P0234	———	Turbocharger Overboost Problem	ON
P0236	———	Turbocharger Boost Sensor Circuit Range/Performance Problem	ON
P0237	———	Turbocharger Boost Sensor Circuit Low Voltage	ON
P0238	———	Turbocharger Boost Sensor Circuit High Voltage	ON
P026B	○	Injector Performance Problem	OFF
P0299	———	Turbocharger Underboost Problem	ON
P02CC	○	No. 1 Cylinder Injector Offset Learning Exceeds Minimum Limit	ON
P02CD	○	No. 1 Cylinder Injector Offset Learning Exceeds Maximum Limit	ON
P02CE	○	No. 2 Cylinder Injector Offset Learning Exceeds Minimum Limit	ON
P02CF	○	No. 2 Cylinder Injector Offset Learning Exceeds Maximum Limit	ON
P02D0	○	No. 3 Cylinder Injector Offset Learning Exceeds Minimum Limit	ON
P02D1	○	No. 3 Cylinder Injector Offset Learning Exceeds Maximum Limit	ON
P02D2	○	No. 4 Cylinder Injector Offset Learning Exceeds Minimum Limit	ON
P02D3	○	No. 4 Cylinder Injector Offset Learning Exceeds Maximum Limit	ON
P0300	○	Random Misfire Detected	ON
P0301	○	No. 1 Cylinder Misfire Detected	ON
P0302	○	No. 2 Cylinder Misfire Detected	ON
P0303	○	No. 3 Cylinder Misfire Detected	ON
P0304	○	No. 4 Cylinder Misfire Detected	ON
P0326	○	Knock Sensor Malfunction	ON
P0327	○	Knock Sensor Circuit Low Voltage	ON
P0328	○	Knock Sensor Circuit High Voltage	ON
P0335	———	Crankshaft Position (CKP) Sensor No Signal	ON
P0339	———	Crankshaft Position (CKP) Sensor Circuit Intermittent Interruption	ON
P0340	———	Camshaft Position (CMP) Sensor A No Signal	ON
P0344	———	Camshaft Position (CMP) Sensor A Circuit Intermittent Interruption	ON
P0351	———	No. 1 Cylinder Ignition Coil Circuit Malfunction	ON
P0352	———	No. 2 Cylinder Ignition Coil Circuit Malfunction	ON
P0353	———	No. 3 Cylinder Ignition Coil Circuit Malfunction	ON
P0354	———	No. 4 Cylinder Ignition Coil Circuit Malfunction	ON
P0365	———	Camshaft Position (CMP) Sensor B Circuit Intermittent High Voltage	ON
P0369	———	Camshaft Position (CMP) Sensor B Circuit Intermittent Interruption	ON
P0420	○	Catalyst System Efficiency Below Threshold	ON
P0442	○	Evaporative Emission (EVAP) System Very Small Leak Detected	ON
P0443	○	Evaporative Emission (EVAP) Canister Purge Valve Circuit Malfunction	ON

NOTE: The above DTCs are indicated when the PGM-FI system is selected with the HDS.

DTC	Two Drive Cycle Detection	Detection Item	MIL
P0449	○	Evaporative Emission (EVAP) Canister Vent Shut Valve Circuit Open	ON
P0451	○	Fuel Tank Pressure (FTP) Sensor Circuit Range/Performance Problem	ON
P0452	○	Fuel Tank Pressure (FTP) Sensor Circuit Low Voltage	ON
P0453	○	Fuel Tank Pressure (FTP) Sensor Circuit High Voltage	ON
P0455	○	Evaporative Emission (EVAP) System Large Leak Detected	ON
P0456	———	Evaporative Emission (EVAP) System Very Small Leak Detected	ON
P0461	○	Fuel Level Sensor (Fuel Gauge Sending Unit) Circuit Range/Performance Problem	OFF
P0462	○	Fuel Level Sensor (Fuel Gauge Sending Unit) Circuit Low Voltage	OFF
P0463	○	Fuel Level Sensor (Fuel Gauge Sending Unit) Circuit High Voltage	OFF
P0496	○	Evaporative Emission (EVAP) System High Purge Flow Detected	ON
P0497	○	Evaporative Emission (EVAP) System Low Purge Flow Detected	ON
P0498	○	Evaporative Emission (EVAP) Canister Vent Shut Valve Circuit Low Voltage	ON
P0499	○	Evaporative Emission (EVAP) Canister Vent Shut Valve Circuit High Voltage	ON
P04F0	○	Evaporative Emission (EVAP) System Incorrect Purge Flow Detected	ON
P0501	○	Output Shaft Speed Sensor Circuit Out of Range High	ON
P0506	○	Idle Control System RPM Lower Than Expected	ON
P0507	○	Idle Control System RPM Higher Than Expected	ON
P050A	○	Cold Start Idle Air Control System Performance Problem	ON
P050B	○	Cold Start Ignition Timing Control System Performance Problem	ON
P0522	○	Rocker Arm Oil Pressure Sensor Circuit Low Voltage	OFF
P0523	○	Rocker Arm Oil Pressure Sensor Circuit High Voltage	OFF
P0532	○	A/C Pressure Sensor Circuit Low Voltage	OFF
P0533	○	A/C Pressure Sensor Circuit High Voltage	OFF
P053F	○	Fuel Rail Pressure Performance	ON
P0560	○	Powertrain Control Module (PCM) Power Source Circuit Unexpected Voltage	ON
P0562	○	Charging System Low Voltage	OFF
P0571	○	Brake Pedal Position Switch Circuit Malfunction	OFF
P0606	○	Powertrain Control Module (PCM) Processor Malfunction	ON
P0607	———	Powertrain Control Module (PCM) Internal Circuit Malfunction	ON
P060C	———	Powertrain Control Module (PCM) Internal Control Module Malfunction	ON
P060D	———	Powertrain Control Module (PCM) Internal Control Module Malfunction	ON
P0615	○	Starter Cut Relay Diagnosis Circuit Malfunction	OFF
P0616	○	Starter Cut Relay Diagnosis Circuit Low Voltage	OFF
P0617	○	Starter Cut Relay Diagnosis Circuit High Voltage	OFF
P0630	———	VIN Not Programmed or Mismatch	ON
P0641	———	Sensor Reference Voltage A Malfunction	ON

NOTE: The above DTCs are indicated when the PGM-FI system is selected with the HDS.

DTC	Two Drive Cycle Detection	Detection Item	MIL
P065A	○	ACG No Charging Malfunction	OFF
P0685	○	A/F Sensor (Sensor 1) Heater Power Source Circuit Open	ON
P0686	○	A/F Sensor (Sensor 1) Heater Power Source Circuit Short to Ground	ON
P0687	○	A/F Sensor (Sensor 1) Heater Power Source Circuit Short to Power	ON
P068A	○	Powertrain Control Module (PCM) Power Source Circuit Unexpected Voltage	ON
P068B	○	Powertrain Control Module (PCM) Power Source Circuit Unexpected Voltage	OFF
P0703	○	Brake Pedal Position Switch (NC) Malfunction	OFF
P0715	○	Input Shaft (Mainshaft) Speed Sensor Circuit Malfunction	OFF
P0720	○	Output Shaft (Countershaft) Speed Sensor Circuit Malfunction	ON
P0831	○	Clutch Pedal Position Switch A Circuit High Voltage	OFF
P0850	○	Neutral Position Sensor A/B Incorrect Voltage Correlation	OFF
P0851	○	Neutral Position Sensor A Circuit Low Voltage	OFF
P0852	○	Neutral Position Sensor A Circuit High Voltage	OFF
P134B	○	Crankshaft Signal Diagnose	OFF
P1549	○	Charging System High Voltage	OFF
P154A	○	Battery Sensor Internal Failure	OFF
P1683	———	Throttle Valve Default Position Spring Performance Problem	ON
P1684	———	Throttle Valve Return Spring Performance Problem	ON
P16BB	○	Alternator B Terminal Circuit Low Voltage	OFF
P16E2	○	PGM-FI-ACG LIN Communication Error	OFF
P16E3	○	PGM-FI-Battery Sensor LIN Communication Error	OFF
P16E4	○	ACG High-temperature	OFF
P16F3	○	Starter Cut Relay 1 Control Circuit Low Voltage	OFF
P16F4	○	Starter Cut Relay 2 Control Circuit Low Voltage	OFF
P16F5	○	Starter Cut Relay 1 Control Circuit High Voltage	OFF
P16F6	○	Starter Cut Relay 2 Control Circuit High Voltage	OFF
P1701	○	Back-Up Light Switch Malfunction	OFF
P1707	○	Neutral Position Sensor B Circuit Low Voltage	OFF
P1708	○	Neutral Position Sensor B Circuit High Voltage	OFF
P2096	○	Post Catalyst Fuel Trim System Too Lean	ON
P2097	○	Post Catalyst Fuel Trim System Too Rich	ON
P2101	———	Electronic Throttle Control System (ETCS) Malfunction	ON
P2118	———	Throttle Actuator Current Range/Performance Problem	ON
P2119	———	Throttle Actuator Range	ON
P2121	○	Accelerator Pedal Position (APP) Sensor A (Throttle Position (TP) Sensor D) Out of Range	ON
P2122	———	Accelerator Pedal Position (APP) Sensor A (Throttle Position (TP) Sensor D) Circuit Low Voltage	ON
P2123	———	Accelerator Pedal Position (APP) Sensor A (Throttle Position (TP) Sensor D) Circuit High Voltage	ON
P2126	○	Accelerator Pedal Position (APP) Sensor B (Throttle Position (TP) Sensor E) Out of Range	ON
P2127	———	Accelerator Pedal Position (APP) Sensor B (Throttle Position (TP) Sensor E) Circuit Low Voltage	ON
P2128	———	Accelerator Pedal Position (APP) Sensor B (Throttle Position (TP) Sensor E) Circuit High Voltage	ON

NOTE: The above DTCs are indicated when the PGM-FI system is selected with the HDS.

DTC	Two Drive Cycle Detection	Detection Item	MIL
P2135	———	Throttle Position (TP) Sensor A/B Incorrect Voltage Correlation	ON
P2138	———	Accelerator Pedal Position (APP) Sensor A/B (Throttle Position (TP) Sensor D/E) Incorrect Voltage Correlation	ON
P2176	———	Throttle Actuator Control System Idle Position Not Learned	ON
P2182	○	Engine Coolant Temperature (ECT) Sensor 2 Out of Range	ON
P2183	○	Engine Coolant Temperature (ECT) Sensor 2 Circuit Range/Performance Problem	ON
P2184	○	Engine Coolant Temperature (ECT) Sensor 2 Circuit Low Voltage	ON
P2185	○	Engine Coolant Temperature (ECT) Sensor 2 Circuit High Voltage	ON
P2195	○	Air Fuel Ratio (A/F) Sensor (Sensor 1) Signal Stuck Lean	ON
P2196	○	O_2 Sensor Signal Biased/Stuck Rich	ON
P2199	○	Intake Air Temperature (IAT) Sensor 1-2 Incorrect Correlation	ON
P219C	○	No. 1 Cylinder Air-Fuel Ratio Variation	ON
P219D	○	No. 2 Cylinder Air-Fuel Ratio Variation	ON
P219E	○	No. 3 Cylinder Air-Fuel Ratio Variation	ON
P219F	○	No. 4 Cylinder Air-Fuel Ratio Variation	ON
P2227	———	Barometric Pressure (BARO) Sensor Circuit Out of Range High	ON
P2228	———	Barometric Pressure (BARO) Sensor Circuit Low Voltage	ON
P2229	———	Barometric Pressure (BARO) Sensor Circuit High Voltage	ON
P2232	○	Secondary Heated Oxygen Sensor (Secondary HO2S (Sensor 2)) Circuit Out of Range High	ON
P2237	○	Air Fuel Ratio (A/F) Sensor (Sensor 1) Malfunction	ON
P2238	○	Air Fuel Ratio (A/F) Sensor (Sensor 1) Malfunction	ON
P2243	○	Air Fuel Ratio (A/F) Sensor (Sensor 1) VCENT Circuit High Voltage	ON
P2251	○	Air Fuel Ratio (A/F) Sensor (Sensor 1) VS Circuit High Voltage	ON
P2261	○	Turbocharger Bypass Control Valve Stuck Closed	ON
P2270	○	Secondary Heated Oxygen Sensor (Secondary HO2S (Sensor 2)) Circuit Signal Stuck Lean	ON
P2271	○	Secondary Heated Oxygen Sensor (Secondary HO2S (Sensor 2)) Circuit Signal Stuck Rich	ON
P2279	○	Intake Air System Leak	ON
P2422	○	Evaporative Emission (EVAP) Canister Vent Shut Valve Stuck Closed Malfunction	ON
P2563	○	Turbocharger Wastegate Control Actuator Position Sensor Out of Range	ON
P2564	———	Turbocharger Wastegate Control Actuator Position Sensor Circuit Low Voltage	ON
P2565	———	Turbocharger Wastegate Control Actuator Position Sensor Circuit High Voltage	ON
P2610	○	Powertrain Control Module (PCM) Ignition Off Internal Timer Malfunction	ON
P2623	———	High Pressure Fuel Pump Spill Valve Malfunction	ON
P2626	○	Air Fuel Ratio (A/F) Sensor (Sensor 1) Circuit (LAF-CA, LAF-CP) Open Malfunction	ON
P2650	———	Rocker Arm Oil Control Solenoid Circuit Malfunction	ON
P2651	———	Rocker Arm Oil Pressure Switch Performance/Stuck off	ON
P2652	———	Rocker Arm Oil Pressure Switch Stuck on	ON

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DTC	Two Drive Cycle Detection	Detection Item	MIL
P2653	———	Rocker Arm Oil Control Solenoid Circuit Low Voltage	ON
P2654	———	Rocker Arm Oil Control Solenoid Circuit High Voltage	ON
U0029	———	F-CAN Malfunction (BUS-OFF (Powertrain Control Module (PCM)))	ON
U0122	○	F-CAN Malfunction (Powertrain Control Module (PCM)-VSA Modulator-Control Unit)	OFF
U0128	○	F-CAN Malfunction (Powertrain Control Module (PCM)-Electric Parking Brake Control Unit)	OFF
U0131	○	F-CAN Malfunction (Powertrain Control Module (PCM)-EPS Control Unit)	OFF
U0151	○	F-CAN Malfunction (Powertrain Control Module (PCM)-SRS Unit)	OFF
U0155	———	F-CAN Malfunction (Powertrain Control Module (PCM)-Gauge Control Module)	ON
U129E	○	F-CAN Malfunction (Powertrain Control Module (PCM)-Power Control Unit (PCU))	OFF

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