

8. ENGINE ECU DIAGNOSTIC TROUBLE CODES (DTC)

8.1 DTC Table

(1) 2004, 2007 Model

DTC Code	Detection Item	DTC Description	Remarks
P0045	Variable Nozzle Turbo (VNT) Malfunction	Issued when the VNT actuator is malfunctioning.	
P0087	Rail Pressure Control Abnormality (Continuously Below the Standard Value)	Issued when actual rail pressure in relation to the command rail pressure is continuously low. Check the fuel filter for clogging, the supply of fuel to the pump, as well as for any foreign matter intrusion.	
P0088	Rail High-Pressure Control Abnormality (Pressure is Continuously Above the Standard Value or Pressure Momentarily Becomes Abnormally High)	Issued when rail fuel pressure is abnormally high, or when actual rail pressure in relation to the command rail pressure is continuously high. Possible causes include faulty contacts in the rail pressure sensor line, noise, lack of injection, and/or a supply pump malfunction.	
P0102	Mass Air Flow (MAF) Meter Malfunction (Lo)	Issued when the MAF meter is malfunctioning. Possible causes include a sensor malfunction, or an open/short circuit to ground in the wiring harness.	
P0103	MAF Meter Malfunction (Hi)	Issued when the MAF meter is malfunctioning. Possible causes include a sensor malfunction, and/or a short circuit to +B in the wiring harness.	
P0108	Boost Pressure Abnormality	Issued when boost pressure cannot be correctly detected. Possible causes include a sensor malfunction and/or a short circuit in the wiring harness.	
P0112	Intake Air Temperature Sensor Malfunction (Lo)	Issued when temperature cannot be correctly detected. Possible causes include a sensor malfunction, and/or a short circuit to ground in the wiring harness.	
P0113	Intake Air Temperature Sensor Malfunction (Hi)	Issued when temperature cannot be correctly detected. Possible causes include a sensor malfunction, or an open/short circuit to +B in the wiring harness.	
P0117	Coolant Temperature Sensor Malfunction (Lo)	Issued when temperature cannot be correctly detected. Possible causes include a sensor malfunction and/or a short circuit to ground in the wiring harness.	

DTC Code	Detection Item	DTC Description	Remarks
P0118	Coolant Temperature Sensor Malfunction (Hi)	Issued when temperature cannot be correctly detected. Possible causes include a sensor malfunction, or an open/short circuit to +B in the wiring harness.	
P0122	Electronic Control Throttle Position Sensor Malfunction (Lo)	Issued when the signal from the electronic control throttle position sensor cannot be correctly detected. Possible causes include an open circuit within the sensor or wiring harness, and/or a ground short.	
P0123	Electronic Control Throttle Malfunction (Hi)	Issued when the signal from the electronic control throttle position sensor cannot be correctly detected. Possible causes include a malfunction within the sensor and/or a Vcc short within the wiring harness.	
P0182	Fuel Temperature Sensor Malfunction (Lo)	Issued when temperature cannot be correctly detected. Possible causes include a sensor malfunction, and/or a short circuit to ground in the wiring harness.	
P0183	Fuel Temperature Sensor Malfunction (Hi)	Issued when temperature cannot be correctly detected. Possible causes include a sensor malfunction, or an open/short circuit to +B in the wiring harness.	
P0191	Rail Pressure Sensor Malfunction (Abnormal Sensor Characteristics)	Issued when rail pressure cannot be correctly detected. Possibility of a sensor malfunction.	
P0192	Rail Pressure Sensor Malfunction (Lo)	Issued when rail pressure cannot be correctly detected. Possible causes include a sensor malfunction and/or a short circuit to ground in the wiring harness.	
P0193	Rail Pressure Sensor Malfunction (Hi)	Issued when rail pressure cannot be correctly detected. Possible causes include a sensor malfunction, or an open/short circuit to +B in the wiring harness.	
P0200	Faulty Engine ECU Charge Circuit (Hi)	Issued when the injector activation voltage is too high. Replace the ECU.	
P0201	Injector 1 Open Circuit	Possible causes include an injector 1 malfunction and/or an open circuit in the wiring harness.	
P0202	Injector 2 Open Circuit	Possible causes include an injector 2 malfunction and/or an open circuit in the wiring harness.	
P0203	Injector 3 Open Circuit	Possible causes include an injector 3 malfunction and/or an open circuit in the wiring harness.	
P0204	Injector 4 Open Circuit	Possible causes include an injector 4 malfunction and/or an open circuit in the wiring harness.	

DTC Code	Detection Item	DTC Description	Remarks
P0205	Injector 5 Open Circuit	Possible causes include an injector 5 malfunction and/or an open circuit in the wiring harness.	
P0206	Injector 6 Open Circuit	Possible causes include an injector 6 malfunction and/or an open circuit in the wiring harness.	
P0217	Overheat	Issued when an over temperature condition is detected. Check the cooling system.	
P0219	Engine Overrun	Issued when the engine speed exceeds the rated value.	
P0234	Turbo Overboost	Issued when the boost pressure is higher than the specified value.	
P0237	Manifold Absolute Pressure (MAP) Sensor Malfunction (Lo)	Issued when the intake air pressure cannot be correctly detected. Possible causes include a sensor malfunction, or an open/short circuit in the wiring harness.	
P0263	Cylinder Comparative Correction Error #1 (Cylinder Injection Quantity, Rotational Fluctuation)	Issued when the rotational fluctuation in cylinder 1 is larger than the other cylinders. There is a possibility that the flow damper is operating.	
P0266	Cylinder Comparative Correction Error #2 (Cylinder Injection Quantity, Rotational Fluctuation)	Issued when the rotational fluctuation in cylinder 2 is larger than the other cylinders. There is a possibility that the flow damper is operating.	
P0269	Cylinder Comparative Correction Error #3 (Cylinder Injection Quantity, Rotational Fluctuation)	Issued when the rotational fluctuation in cylinder 3 is larger than the other cylinders. There is a possibility that the flow damper is operating.	
P0272	Cylinder Comparative Correction Error #4 (Cylinder Injection Quantity, Rotational Fluctuation)	Issued when the rotation fluctuation in cylinder 4 is larger than the other cylinders. There is a possibility that the flow damper is operating.	
P0275	Cylinder Comparative Correction Error #5 (Cylinder Injection Quantity, Rotational Fluctuation)	Issued when the rotational fluctuation in cylinder 5 is larger than the other cylinders. There is a possibility that the flow damper is operating.	
P0278	Cylinder Comparative Correction Error #6 (Cylinder Injection Quantity, Rotational Fluctuation)	Issued when the rotational fluctuation in cylinder 6 is larger than the other cylinders. There is a possibility that the flow damper is operating.	
P0335	Crankshaft Position Sensor and Camshaft Position Sensor Malfunction	Issued when the pulse from the crankshaft position sensor cannot be detected. Possible causes include sensor and/or harness malfunctions.	

DTC Code	Detection Item	DTC Description	Remarks
P0336	Crankshaft Position Sensor Pulse Number Abnormality	Possible causes include the use of an incorrect pulsar, and/or an abnormality in the wiring harness (intermittent open circuits, etc.)	
P0340	Camshaft Position Sensor Malfunction	Issued when the pulse from the engine speed sensor cannot be detected. Possible causes include sensor and/or harness malfunctions.	
P0341	Camshaft Position Sensor Pulse Number Abnormality	Possible causes include the use of an incorrect pulsar, and/or an abnormality in the wiring harness (open circuit, modifications, etc.)	
P0400	Excessive Exhaust Gas Recirculation (EGR) Rate	Issued when the EGR rate is excessive in relation to the intake quantity. Possible causes include a malfunction in the MAF meter, EGR valve, EGR actuation ECU, and/or an open or short circuit in the wiring harness.	
P0400	Insufficient EGR Rate	Issued when the EGR rate is insufficient in relation to the intake quantity. Possible causes include a malfunction in the MAF meter, EGR valve, EGR actuation ECU, and/or an open or short circuit in the wiring harness.	
P0500	Vehicle Speed Sensor Malfunction (Lo)	Issued when the pulse from the vehicle speed sensor cannot be detected. Possible causes include sensor and/or harness malfunctions.	
P0501	Vehicle Speed Sensor Malfunction (Hi)	Issued when the pulse from the vehicle speed sensor cannot be detected. Possible causes include sensor and/or harness malfunctions.	
P0504	Brake Switch Malfunction	Issued when the brake switch cannot be correctly detected. Monitor brake switch status, and verify ON/OFF judgments.	
P0510	Idle Switch (Stuck ON)	Issued when the idle switch is malfunctioning. Monitor switch status and check the ON/OFF judgment.	
P0524	Engine Oil Pressure Abnormality	Issued when engine oil pressure is too low.	
P0540	Preheat Device Malfunction (Ground Short, +B Short, Open)	Issued when the intake heater relay is malfunctioning. Possible causes include relay and/or wiring harness malfunctions.	
P0545	Exhaust Gas Temperature Sensor 1 Malfunction (Lo)	Issued when temperature cannot be correctly detected. Possible causes include a sensor malfunction and/or a short circuit to ground in the wiring harness.	Vehicles with DPF Installed

DTC Code	Detection Item	DTC Description	Remarks
P0546	Exhaust Gas Temperature Sensor 1 Malfunction (Hi)	Issued when temperature cannot be correctly detected. Possible causes include a sensor malfunction, or an open/short circuit to +B in the wiring harness.	Vehicles with DPF Installed
P0605	Flash ROM Malfunction	Issued when there is a malfunction internal to the engine ECU. Replace the engine ECU.	
P0606	Engine ECU Malfunction (Detected in the Hardware)	Issued when there is a malfunction internal to the engine ECU. Replace the engine ECU.	
P0607	Engine ECU Monitor IC Abnormality	Issued when there is a malfunction internal to the engine ECU. Replace the engine ECU.	
P0611	Faulty Engine ECU Charge Circuit (Lo)	Issued when injector activation voltage is too low. Replace the engine ECU.	
P0617	Starter Switch Malfunction	Issued when there is a short in the starter switch circuit. Monitor switch status and check the ON/OFF judgment.	
P0628	Suction Control Valve (SCV) GND Short	Possible causes include an open circuit in the wiring harness connecting the engine ECU and SCV, or a ground short.	
P0629	SCV +B Short	Possible causes include a +B short in the wiring harness connecting the engine ECU and SCV.	
P0686	Main Relay Malfunction	Issued when the main relay cannot be turned OFF. Check the relay.	
P0704	Clutch Switch Malfunction	Issued when the clutch switch cannot be correctly detected. Monitor switch status and check the ON/OFF judgment.	
P0850	Neutral Switch Malfunction	Issued when the neutral switch cannot be correctly detected. Monitor switch status and check the ON/OFF judgment.	
P1133	Vehicle-External Accelerator Position Sensor Malfunction (Hi)	Issued when the vehicle-external accelerator position sensor cannot be correctly detected. Check the sensor voltage. Possible short circuit to +B.	
P1143	Idle Volume (Hi)	Issued when the idle volume cannot be correctly detected. Check the sensor voltage. Possible short circuit to +B.	
P1211	Injector Common 1 GND Short	Possible short circuit to ground. Check the injector and wiring.	
P1212	Injector Common 1 +B Short	Possible open or short circuit to +B. Check the injector and wiring.	
P1212	Injector Common 1 Open	Possible open or short circuit to +B. Check the injector and wiring.	

DTC Code	Detection Item	DTC Description	Remarks
P1214	Injector Common 2 GND Short	Possible short circuit to ground. Check the injector and wiring.	
P1215	Injector Common 2 +B Short	Possible open or short circuit to +B. Check the injector and wiring.	
P1215	Injector Common 2 Open	Possible open or short circuit to +B. Check the injector and wiring.	
P1426	Differential Pressure Sensor Malfunction (Abnormal Sensor Characteristics)	Issued when the differential pressure sensor cannot be correctly detected. Possible causes include clogging in the pressure piping, leaks, a sensor malfunction, a wiring harness open/short circuit, and/or poor terminal contact in the connector.	Vehicles with DPF Installed
P1427	Differential Pressure Sensor Malfunction (Lo)	Issued when exhaust pressure cannot be correctly detected. Possible causes include a sensor malfunction, or an open/short circuit to ground in the wiring harness.	Vehicles with DPF Installed
P1428	Differential Pressure Sensor Malfunction (Hi)	Issued when exhaust pressure cannot be correctly detected. Possible causes include a sensor malfunction and/or a short circuit to +B in the wiring harness.	Vehicles with DPF Installed
P1458	EGR Actuator Malfunction 1	Issued when the EGR controller is malfunctioning.	
P1459	EGR Actuator Malfunction 2	Issued when the EGR controller is malfunctioning.	
P1530	Engine Stop Switch Closing Malfunction	Issued when the engine stop switch is malfunctioning or there is short circuit in the wiring. Monitor switch status and check the ON/OFF judgment.	
P1601	QR Code Malfunction (Unreadable)	Issued when there is an error in the QR code. Check the QR code.	
P1601	QR Code Malfunction (EEPROM Error)	Issued when there is an error in the QR code. Check the QR code.	
P1601	QR Code Malfunction (Out of Range)	Issued when there is an error in the QR code. Check the QR code.	
P1681	Exhaust Brake Solenoid Valve Malfunction (Open, Ground Short)	Issued when the exhaust brake solenoid valve is malfunctioning. Possible causes include a solenoid valve malfunction, and/or an open/short circuit to ground in the wiring harness.	Vehicles with DPF Installed
P1682	Exhaust Brake Solenoid Valve Malfunction (+B Short)	Issued when the exhaust brake solenoid valve is malfunctioning. Possible causes include a solenoid valve malfunction and/or a short to +B in the wiring harness.	Vehicles with DPF Installed
P2002	Diesel Particulate Filter (DPF) System Malfunction	Issued when the DPF system is malfunctioning. Possible causes include melt down and clogging. Perform the DPF system check.	Vehicles with DPF Installed

DTC Code	Detection Item	DTC Description	Remarks
P2032	Exhaust Gas Temperature Sensor 2 Malfunction (Lo)	Issued when temperature cannot be correctly detected. Possible causes include a sensor malfunction and/or a short circuit to ground in the wiring harness.	Vehicles with DPF Installed
P2033	Exhaust Gas Temperature Sensor 2 Malfunction (Hi)	Issued when temperature cannot be correctly detected. Possible causes include a sensor malfunction, or an open/short circuit to +B in the wiring harness.	Vehicles with DPF Installed
P2080	Exhaust Gas Temperature Sensor 1 Malfunction (Abnormal Sensor Characteristics)	Issued when the temperature from exhaust gas temperature sensor 1 cannot be correctly detected. Possible causes include a sensor malfunction, short/open circuit in the wiring harness and/or a faulty connector. DPF inlet temperature and coolant temperature sensor abnormalities may also cause this code to be issued. Check both of these items.	Vehicles with DPF Installed
P2084	Exhaust Gas Temperature Sensor 2 Malfunction (Abnormal Sensor Characteristics)	Issued when the temperature from exhaust gas temperature sensor 2 cannot be correctly detected. Possible causes include a sensor malfunction, short/open circuit in the wiring harness and/or a faulty connector. DPF inlet temperature and coolant temperature sensor abnormalities may also cause this code to be issued. Check both of these items.	Vehicles with DPF Installed
P2100	Electronic Control Throttle Ground Short (*Diagnosis Cannot be Performed on the Circuit)	A possible ground short in the wiring harness connecting the engine ECU and electronic control throttle.	
P2101	Electronic Control Throttle Seizure	Issued when seizure in the electronic control throttle is detected.	
P2103	Electronic Control Throttle Open Circuit	Possible causes include an open circuit in the wiring between the engine ECU and SCV, a ground short, and/or a malfunction in the electronic control throttle driver.	
P2120	Accelerator Position Sensor 1 and 2 Malfunction	Issued when both accelerator position sensors 1 and 2 are malfunctioning. Possible causes include sensor and/or harness malfunctions.	
P2122	Accelerator Position Sensor 1 Malfunction (Lo)	Issued when accelerator position sensor 1 cannot be correctly detected. Check the sensor voltage.	
P2123	Accelerator Position Sensor 1 Malfunction (Hi)	Issued when accelerator position sensor 1 cannot be correctly detected. Check the sensor voltage. Possible short circuit to +B.	
P2127	Accelerator Position Sensor 2 Malfunction (Lo)	Issued when accelerator position sensor 2 cannot be correctly detected. Check the sensor voltage.	

DTC Code	Detection Item	DTC Description	Remarks
P2128	Accelerator Position Sensor 2 Malfunction (Hi)	Issued when accelerator position sensor 2 cannot be correctly detected. Check the sensor voltage. Possible short circuit to +B.	
P2228	Atmospheric Pressure Sensor Malfunction (Lo)	Issued when the atmospheric pressure sensor (built into the engine ECU) is malfunctioning. If the malfunction occurs frequently, it is necessary to repair or replace the engine ECU.	
P2229	Atmospheric Pressure Sensor Malfunction (Hi)	Issued when the atmospheric pressure sensor (built into the engine ECU) is malfunctioning. If the malfunction occurs frequently, it is necessary to repair or replace the engine ECU.	
P2635	SCV Seizure	Possible causes include an open circuit in the wiring between the engine ECU and SCV, and/or an SCV internal malfunction (seizure.)	
P2635	Pump Replacement	Possible causes include an open circuit in the wiring between the engine ECU and SCV, and/or an SCV internal malfunction (seizure.)	
U0073	CAN 1 Abnormality (Engine)	Issued when there is a communication malfunction with the VNT.	
U0101	Communication Disruption (Automatic Transmission)	Issued when communication with the transmission ECU is lost.	
U0101	Communication Disruption (Transmission)	Issued when communication with the transmission ECU is lost	
U0104	Communication Disruption (Cruise)	Issued when communication with the cruise ECU is lost.	
U0121	Communication Disruption (ABS)	Issued when communication with the ABS ECU is lost.	
U0132	Communication Disruption (Air Suspension)	Issued when communication with the air suspension ECU is lost.	
U0155	Communication Disruption (Meter)	Issued when communication with the meter ECU is lost.	
U1001	CAN 2 Abnormality (Vehicle)	Issued when there is a communication malfunction with other computers equipped in the vehicle.	
U1122	Communication Disruption (EGR)	Detected when there is a communication abnormality with the EGR actuation ECU.	
U1123	Communication Disruption (VNT)	Possible causes include a malfunction in the VNT control unit, or a short/open circuit in the communication line between the control unit and engine ECU.	

(2) 2010 Model

DTC Code	Detection Item	Remarks
P0016	Crank/Cam Signal Synchronization Error	
P0045	DIAG Information 1 from Variable Nozzle Turbo (VNT) Controller	
	DIAG Information 2 from VNT Controller	
P007B	Intercooler Temperature Sensor Performance Invalid (Cranking)	
	Intercooler Temperature Sensor Performance Invalid Low (Driving)	
	Intercooler Temperature Sensor Performance Invalid High (Driving)	
P007C	Intercooler Temperature Sensor Signal Too Low	
P007D	Intercooler Temperature Sensor Signal Too High	
P0087	Rail Pressure Falls Below the Control Limit of the Target Pressure	
P0088	Rail Pressure Exceeds Upper Limit	
	Rail Pressure Exceeds High Upper Limit	
	Rail Pressure Exceeds the Control Limit of the Target Pressure	
P0096	Intake Air Temperature Sensor Performance Invalid (Cranking)	
	Intake Air Temperature Sensor Performance Invalid Low (Driving)	
	Intake Manifold Temperature Sensor Performance Invalid High (Driving)	
P0097	Intake Air Temperature Sensor Signal Too Low	
P0098	Intake Air Temperature Sensor Signal Too High	
P00AF	DIAG Information 1 (Controller) From VNT Controller	
	DIAG Information 2 (Controller) From VNT Controller	
P0101	Mass Air Flow (MAF) Meter Performance Invalid	
P0104	MAF Meter Signal Frequency Too Low	
	MAF Meter Signal Frequency Too High	
P0106	Manifold Absolute Pressure (MAP) Sensor Performance Invalid	
P0108	MAP Sensor Signal Too High	
P0112	Intake Air Temperature Sensor Signal Too Low	
P0113	Intake Air Temperature Sensor Signal Too High	

DTC Code	Detection Item	Remarks
P0116	Coolant Temperature Sensor Performance Invalid 1	
	Coolant Temperature Sensor Performance Invalid 2	
P0117	Coolant Temperature Sensor Signal Too Low	
P0118	Coolant Temperature Sensor Signal Too High	
P011C	Intake Air Temperature Sensor Performance Invalid	
P0122	Intake Throttle Position Sensor 1 Signal Too Low	
P0123	Intake Throttle Position Sensor 1 Signal Too High	
P0128	Thermostat Failure	
P0182	Fuel Temperature (Pump) Sensor Signal Too Low	
P0183	Fuel Temperature (Pump) Sensor Signal Too High	
P0192	Rail Pressure Sensor Signal Too Low	
P0193	Rail Pressure Sensor Signal Too High	
P0200	Capacitor Charge-up Circuit Malfunction (Excessive Charge)	
P0201	TWV1 Output Open Load, Injector Coil Open	
P0202	TWV3 Output Open Load, Injector Coil Open	
P0203	TWV5 Output Open Load, Injector Coil Open	
P0204	TWV2 Output Open Load, Injector Coil Open	
P0205	TWV6 Output Open Load, Injector Coil Open	
P0206	TWV4 Output Open Load, Injector Coil Open	
P0217	Coolant Temperature Exceeds Upper Limit	
P0219	Engine Overrun	
P0222	Intake Throttle Position Sensor 2 Signal Too Low	
P0223	Intake Throttle Position Sensor 2 Signal Too High	
P0234	Turbo Control System (Positive Deviation)	
	MAP Sensor Exceeds Upper Limit	
P0237	MAP Sensor Signal Too Low	
P0263	Flow Damper #1 Activated	
	Cylinder 1 Fuel System Failure	
P0266	Flow Damper #3 Activated	
	Cylinder 3 Fuel System Failure	
P0269	Flow Damper #5 Activated	
	Cylinder 5 Fuel System Failure	
P0272	Flow Damper #2 Activated	
	Cylinder 2 Fuel System Failure	

DTC Code	Detection Item	Remarks
P0275	Flow Damper #6 Activated	
	Cylinder 6 Fuel System Failure	
P0278	Flow Damper #4 Activated	
	Cylinder 4 Fuel System Failure	
P0299	Turbo Control System (Negative Deviation)	
P0300	Engine Speed Error	
P0301	#1 Misfire	
P0302	#3 Misfire	
P0303	#5 Misfire	
P0304	#2 Misfire	
P0305	#6 Misfire	
P0306	#4 Misfire	
P0335	Crankshaft Position Sensor No Pulse	
	Crankshaft Position Sensor Signal Invalid	
P0336	Crankshaft Position Sensor Signal Invalid	
P0340	Camshaft Position Sensor No Pulse	
P0341	Camshaft Position Sensor Signal Invalid	
P0381	SOUT4 (Glow Lamp) Output Short to GND	
	SOUT4 (Glow Lamp) Output Open Load/Short to Battery	
P0401	EGR Insufficient Flow (EGR Negative Deviation)	
P0402	EGR Excessive Flow (EGR Positive Deviation)	
	EGR Feedback Failure	
P041B	EGR Cooler Outlet Temp 2 Performance Invalid (Cranking)	
	EGR Cooler Outlet Temp 2 Performance Invalid (Driving)	
P041C	EGR Cooler Outlet Temp 2 Too Low	
P041D	EGR Cooler Outlet Temp 2 Too High	
P0420	Oxidation Catalyst Deterioration	
P0500	Vehicle Speed Sensor Input Open/Short	
P0501	Vehicle Speed Sensor Frequency Too High	
P0504	Brake Switch Stuck Open	
P0519	Idle Speed Control Error	
P0524	Engine Oil Pressure Too Low	
P0562	Vehicle System Voltage Too Low	
P0563	Vehicle System Voltage Too High	
P05F1	Closed Breather Failure	

DTC Code	Detection Item	Remarks
P0605	Check Sum Error - Flash Area	
P0606	CPU Fault; -Main CPU Fault	
P0607	CPU Fault; -Watchdog IC Fault	
P0610	Vehicle ECU Response Failure	
	EOLP Data Error	
	EOLP Data is Not Written	
P0611	Capacitor Charge-up Circuit Malfunction (Insufficient Charge)	
P0617	Starter Switch Short to Battery	
P0628	SCV (+) Output Open Load/Short to GND; SCV (-) Output Open Load/Short to GND; SCV Coil Open; SCV Coil Short	
P0629	SCV (+) Output Short to BATT; SCV (-) Output Short to BATT	
P0642	Battery 5 V Reference 1 Circuit Low	
P0643	Battery 5 V Reference 1 Circuit High	
P064C	Glow Control Unit Malfunction	
P0652	Battery 5 V Reference 2 Circuit Low	
P0653	Battery 5 V Reference 2 Circuit High	
P0671	Glow Plug 1 Open/Short Failure	
P0672	Glow Plug 2 Open/Short Failure	
P0675	Glow Plug 3 Open/Short Failure	
P0676	Glow Plug 4 Open/Short Failure	
P0683	Glow Control Unit Communication Error	
P0686	Main Relay Diagnostics; Main Relay Stuck Closed	
P06D3	MAF Sensor Power Supply Failure, Short to GND	
P06D4	MAF Sensor Power Supply Failure, Short to Battery	
P0704	Clutch Switch Circuit Malfunction (Manual Transmission Only)	
P073D	Transmission Malfunction (AT or AMT Transmission Only)	
P081A	Starter Block Relay Output Short to GND	
P081B	Starter Block Relay Output Open/Short to Battery	
P0850	Neutral Switch Circuit Malfunction (Manual Transmission Only)	
P1133	ASC (PTO) Accelerator Pedal Sensor Signal Too High	
P1197	Rail Pressure Sub Sensor Signal Too Low	
P1198	Rail Pressure Sub Sensor Signal Too High	

DTC Code	Detection Item	Remarks
P119F	Rail Pressure Sensor Signal Rationality Check	
P1211	COM1 Output Short to GND; TWV1, 3, or 5 Output Short to GND	
P1212	COM1 Output Short to Battery; TWV1, 3, or 5 Output Short to Battery	
	COM1 Output Open Load; TWV1, 3 and 5 Open Load	
P1214	COM2 Output Short to GND; TWV2, 4, or 6 Output Short to GND	
P1215	COM2 Output Short to Battery; TWV2, 4, or 6 Output Short to Battery	
	COM1 Output Open Load; TWV2, 4 and 6 Open Load	
P141F	Thermal Regenerator (BCU) Failure 1	
	Thermal Regenerator (BCU) Failure 2	
	Thermal Regenerator (BCU) Failure 3	
	Thermal Regenerator (BCU) Failure 4	
P1426	Exhaust Gas Pressure Sensor 1; Signal Performance Invalid 1	
P1427	Exhaust Gas Pressure Sensor 1; Signal Too Low	
P1428	Exhaust Gas Pressure Sensor 1; Signal Too High	
P1458	DIAG Information 1 from EGR Controller	
P1459	DIAG Information 2 from EGR Controller	
P1515	Inter Cooler Efficiency Low	
P1530	Engine Stop Switch Stuck Closed	
P1601	QR Data is Not Written	
	QR Data Error	
	QR Definition Error (Definition Concerning QR Correction is Incorrect)	
P1676	MEIIR Switch Open Load/Short to GND	
P1681	OUTE7 Output Open Short to GND	
P1682	OUTE7 Output Open/Short to Battery	
P200C	Diesel Particulate Filter (DPF) Meltdown 1	
P203F	Urea Level Low 1	
	Urea Level Low 2	

DTC Code	Detection Item	Remarks
P204F	Dosing System Failure 1	
	Dosing System Failure 2	
	Dosing System Failure 3	
	Dosing System Failure 4	
	Dosing System Failure 5	
	Dosing System Failure 6	
	Dosing System Failure 7	
	Dosing System Failure 8	
	Urea Dosing System Malfunction	
	Dosing System Failure 9	
	Dosing System Failure 10	
	Dosing System Failure 11	
	Dosing System Failure 12	
P207F	Urea Solution Deterioration 2	
P20EE	Urea Selective Catalytic Reduction (SCR) Catalyst Deterioration	
P2100	Diesel Throttle Control DC Motor Output 1 Open Load; Output 2 Open Load; Motor Open Load	
P2101	Diesel Throttle Open/Close Stuck	
P2103	Diesel Throttle Control DC Motor Out 1 Short to Battery/GND; Out 2 Short to Battery/GND; Motor Short	
P2120	Both Accelerator Pedal Sensor Signals Invalid	
P2122	Accelerator Pedal Sensor No.1 Signal Too Low	
P2123	Accelerator Pedal Sensor No.1 Signal Too High	
P2127	Accelerator Pedal Sensor No.2 Signal Too Low	
P2128	Accelerator Pedal Sensor No.2 Signal Too High	
P2135	Intake Throttle Position Sensor Performance	
P2138	Accelerator Pedal Sensor Performance Invalid	
P2214	NOx Sensor (SCR Catalyst Downstream) Performance Failure	
P2227	Barometric Pressure Sensor Invalid	
P2228	Atmospheric Pressure Sensor Signal Too Low	
P2229	Atmospheric Pressure Sensor Signal Too High	
P2269	Water in Fuel	
P226C	VNT Response Failure	
P240F	EGR Slow Response	

DTC Code	Detection Item	Remarks
P242B	Exhaust Gas Catalyst Temperature 0 Sensor Performance Malfunction (Cranking)	
	Exhaust Gas Catalyst Temperature 0 Sensor Performance Malfunction (Driving)	
P242C	Exhaust Gas Temperature Sensor 2; Signal Too Low	
P242D	Exhaust Gas Temperature Sensor 2; Signal Too High	
P244A	DPF Filtering Performance	
P244B	DPF Choked 2	
	DPF Regeneration Incomplete	
P2457	EGR Cooler Efficiency Low	
P2459	DPF Regeneration Frequency	
P2463	DPF Choked 1	
P246F	Exhaust Gas Catalyst Temperature 2 Sensor: Performance Malfunction (Cranking)	
	Exhaust Gas Catalyst Temperature 2 Sensor: Performance Malfunction (Driving)	
P2470	Exhaust Gas Catalyst Temperature 0 Sensor: Signal Too Low	
P2471	Exhaust Gas Catalyst Temperature 0 Sensor: Signal Too High	
P2635	Supply Pump Exchange	
U0073	CAN2 Node Error	
U010E	CAN Bus-Line Open From DCU	
U029D	CAN Bus-Line Open From After Treatment 1 Inlet NOx Sensor	
U029E	CAN Bus-Line Open From After Treatment 1 Outlet NOx Sensor	
U1001	CAN1 Node Error	
U110A	CAN Bus-Line Open From Vehicle	
	CAN Bus-Line Open TSC1 From Vehicle	
	CAN Bus-Line Open EEC2 From Vehicle	
U111E	CAN Bus-Line Open From BCU	
U1122	CAN Bus-Line Open From EGR	
U1123	CAN Bus-Line Open From VNT	