

**11.1 INSTRUMENTS DIAGNOSIS AND CONNECTION SOCKET**

To perform diagnostic tests on the vehicle, it is necessary to access the diagnostic socket and connect a recognized diagnostic tester.

The diagnostic socket A is located under the seat, in the space between the battery and the fuse box: to remove the seat, refer to “12.1 Seat removal” on page 117.

To connect the diagnostic tool, pull the OBD plug slightly out of the space in the battery compartment and open the protective cover B.

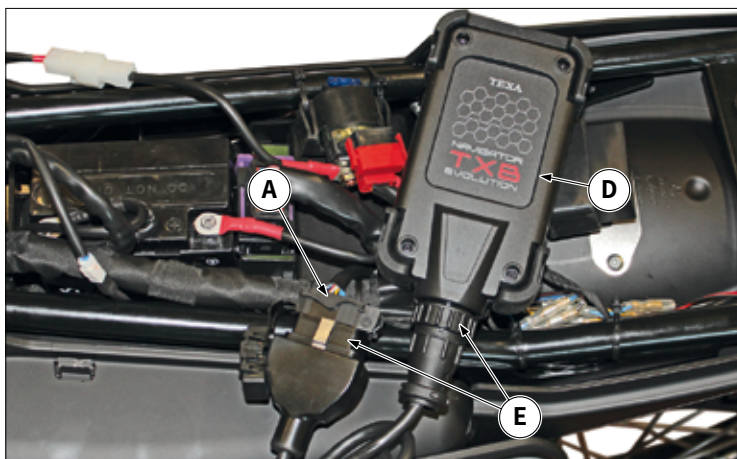


**Option with TEXA wireless handheld computer**

Connect the wireless device “C” to the diagnostic socket A.

Turn on the wireless device and turn the key to “ON”.

Proceed with the diagnosis through the handheld computer.



**Option with TEXA wired device**

Connect the device “D” with the data communication wiring “E” to the diagnostic socket “A”.

Turn the vehicle key to “ON”.

Proceed with the diagnosis using the personal computer set up.

## 11.2 ERROR CODES

### 11.2.1 Ignition module Error codes table

**i** The following list contains all the codes programmed in the ignition module, in addition to those available for this model of motorcycle.

ERROR CODE	ERROR
P0001	Fuel volume regulator control - circuit open
P0002	Fuel volume regulator control - circuit range/performance
P0003	Fuel volume regulator control - circuit low
P0004	Fuel volume regulator control - circuit high
P0005	Control circuit of the fuel shut-off valve interrupted
P0006	Low voltage of the fuel shut-off valve control circuit
P0007	High voltage of the fuel shut-off valve control circuit
P0008	Engine position system performance (bank 1)
P0009	Engine position system performance (bank 2)
P000A	Camshaft A position, slow response (bank 1)
P000B	Camshaft B position, slow response (bank 1)
P000C	Camshaft A position, slow response (bank 2)
P000D	Camshaft B position, slow response (bank 2)
P000E	Fuel flow regulator control, learning limit exceeded
P000F	Pressure relief valve of the supply system activated
P0016	Crankshaft position - camshaft position correlation (bank 1 sensor A)
P0017	Crankshaft position - camshaft position correlation (bank 1 sensor B)
P0018	Crankshaft position - camshaft position correlation (bank 2 sensor A)
P0019	Crankshaft position - camshaft position correlation (bank 2 sensor B)
P001A	A Camshaft profile control circuit, open (bank 1)
P001B	A Camshaft profile control circuit, low (bank 1)
P001C	A Camshaft profile control circuit, high (bank 1)
P001D	A Camshaft profile control circuit, open (bank 2)
P001E	A Camshaft profile control circuit, low (bank 2)
P001F	A Camshaft profile control circuit, high (bank 2)
P0026	Intake valve control solenoid - circuit range/performance (bank 1)
P0027	Exhaust valve control solenoid - circuit range/performance (bank 1)
P0028	Intake valve control solenoid - circuit range/performance (bank 2).
P0029	Exhaust valve control solenoid - circuit range/performance (bank 2)
P002A	B Camshaft profile control circuit, open (bank 1)
P002B	B Camshaft profile control circuit, low (bank 1)
P002C	B Camshaft profile control circuit, high (bank 1)
P002D	B Camshaft profile control circuit, open (bank 2)
P002E	B Camshaft profile control circuit, low (bank 2)
P002F	B Camshaft profile control circuit, high (bank 2)
P0030	Oxygen sensor heater circuit
P0031	Oxygen sensor heater circuit
P0032	Oxygen sensor heater circuit
P0036	Heated oxygen sensor heater for bank 1 sensor 2
P0037	Heated oxygen sensor heater control circuit (bank 1 sensor 2) low
P0038	Heated oxygen sensor heater control circuit (bank 1 sensor 2) high
P003C	Camshaft Profile Control Performance/Stuck Off - Bank 1
P003D	A Camshaft Profile Control Circuit Performance/Stuck Off - Bank 1
P003E	Camshaft Profile Control Performance/Stuck Off - Bank 2

ERROR CODE	ERROR
P003F	A Camshaft Profile Control Circuit Performance/Stuck Off - Bank 2
P0040	Oxygen sensor signals swapped - bank 1 sensor 1/bank 2 sensor 1
P0041	Oxygen sensor signals swapped - bank 1 sensor 2/bank 2 sensor 2.
P0042	Oxygen Heater Control Circuit (HO2S) Bank 1 Sensor 3
P0043	Oxygen Heater Control Circuit Low (bank 1 sensor 3)
P0044	Oxygen heater control circuit high (bank 1 sensor 3)
P0050	Oxygen Heater Control Circuit (HO2S) Bank 2 Sensor 1
P0051	Heated oxygen sensor heater control circuit (bank 2 sensor 1) low
P0052	Heated oxygen sensor heater control circuit (bank 2 sensor 1) high
P0053	Oxygen sensor heater resistance (bank 1 sensor 1)
P0054	Oxygen sensor heater resistance (bank 1 sensor 2)
P0055	Oxygen sensor heater resistance (bank 1 sensor 3)
P0056	Oxygen Sensor heater circuit (bank 2 sensor 2)
P0057	Heated oxygen sensor heater control circuit (bank 2 sensor 2) low
P0058	Heated oxygen sensor heater control circuit (bank 2 sensor 2) high
P0059	Oxygen sensor heater resistance (bank 2 sensor 1)
P005A	B Camshaft Profile Control Performance/Stuck Off - Bank 1
P005B	B Camshaft Profile Control Stuck On - Bank 1
P005C	B Camshaft Profile Control Performance/Stuck Off - Bank 2
P005D	B Camshaft Profile Control Stuck On - Bank 2
P0060	Oxygen sensor heater resistance (bank 2 sensor 2)
P0061	Oxygen sensor heater resistance (bank 1 sensor 3)
P0062	Oxygen Sensor heater circuit (bank 2 sensor 3)
P0063	Oxygen Heater Control Circuit Low (bank 2 sensor 3)
P0064	Oxygen heater control circuit high (bank 2 sensor 3)
P0068	MAP/MAF - throttle position correlation
P0069	Manifold absolute pressure - barometric pressure correlation.
P006A	Manifold absolute pressure - mass or volume air flow correlation
P006B	Manifold absolute pressure-exhaust pressure correlation
P0070	Ambient air temperature sensor circuit
P0071	Ambient air temperature
P0072	Ambient air temperature sensor (low signal)
P0073	Ambient air temperature sensor (high signal)
P0074	Ambient air temperature sensor circuit
P0075	Suction valve control solenoid valve (bank 1)
P0076	Low voltage of the suction valve control solenoid valve circuit (bank 1)
P0077	High voltage of the suction valve control solenoid valve circuit (bank 1)
P0078	Exhaust valve control solenoid valve (bank 1)
P0079	Exhaust Valve Control Solenoid Circuit Low (bank 1)
P007A	Charge Air Cooler Temperature Sensor Circuit
P007B	Charge Air Cooler Temperature Sensor Circuit Range/Performance
P007C	Charge Air Cooler Temperature Sensor Circuit Low
P007D	Charge Air Cooler Temperature Sensor Circuit High
P007E	Charge Air Cooler Temperature Sensor Circuit Intermittent/Erratic
P007F	Charge Air Cooler Temperature Sensor Bank1/Bank2 Correlation
P0080	Exhaust valve control solenoid - circuit high (Bank 1)
P0081	Suction valve control solenoid valve (bank 2)
P0082	Low voltage of the suction valve control solenoid valve circuit (bank 2)
P0083	High voltage of the suction valve control solenoid valve circuit (bank 2)

ERROR CODE	ERROR
P0084	Exhaust valve control solenoid valve (bank 2)
P0085	Exhaust valve control solenoid - circuit low (bank 2)
P0086	Exhaust valve control solenoid - circuit high (Bank 2)
P0089	Fuel pressure regulator efficiency
P008A	Low pressure fuel system pressure - Too low
P008B	Low pressure fuel system pressure - Too high
P008C	Fuel cooler pump control circuit - open
P008D	Fuel cooler pump control, circuit low
P008E	Fuel cooler pump control, circuit high
P008F	Engine Coolant Temperature/Fuel Temperature Correlation
P0090	Fuel metering solenoid valve [circuit open]
P0091	Fuel metering solenoid valve [short-circuit to ground]
P0092	Fuel metering solenoid valve [positive short-circuit]
P0093	Fuel System Leak Detected - Large Leak
P0094	Fuel System Leak Detected - Small Leak
P0095	Intake air temperature sensor 2
P0096	INTAKE AIR TEMPERATURE SENSOR 2 CIRCUIT RANGE/PERFORMANCE
P0097	Intake air temperature sensor 2 low input
P0098	Intake air temperature sensor 2 high input
P0099	Intake air temperature sensor 2 - circuit intermittent/irregular
P009A	Intake Air Temperature/Ambient Air Temperature Correlation
P009B	Fuel Pressure Relief Control Circuit/Open
P009C	Fuel Pressure Relief Control Circuit Low
P009D	Fuel Pressure Relief Control Circuit High
P009E	Fuel Pressure Relief Control Performance/Stuck Off
P009F	Fuel Pressure Relief Control Stuck On
P00A0	Charge Air Cooler Temperature Sensor Circuit
P00A1	Charge Air Cooler Temperature Sensor Circuit Range/Performance
P00A2	Charge Air Cooler Temperature Sensor Circuit Low
P00A3	Charge Air Cooler Temperature Sensor Circuit High
P00A4	Charge Air Cooler Temperature Sensor Circuit Intermittent/Erratic
P00A5	Intake air temperature sensor 2 circuit
P00A6	INTAKE AIR TEMPERATURE SENSOR 2 CIRCUIT RANGE/PERFORMANCE
P00A7	INTAKE AIR TEMPERATURE SENSOR 2 CIRCUIT LOW
P00A8	Intake air temperature sensor 2 - circuit high
P00A9	Intake air temperature sensor 2 - circuit intermittent/irregular
P00AA	Intake air temperature sensor 1 circuit
P00AB	Intake air temperature sensor 1 - Circuit range/performance
P00AC	Intake air temperature sensor 1 - circuit low
P00AD	Intake air temperature sensor 1 - circuit high
P00AE	Intake air temperature sensor 1 - circuit intermittent
P00B1	Radiator coolant temperature sensor circuit
P00B2	Radiator coolant temperature sensor circuit out of range
P00B3	Radiator Coolant Temperature Sensor Circuit Low
P00B4	Radiator Coolant Temperature Sensor Circuit High
P00B5	Radiator Coolant Temperature Sensor Circuit Intermittent/Erratic
P00B6	Radiator Coolant Temperature/Engine Coolant Temperature Correlation
P00B7	Engine Coolant Flow Low/Performance
P00B8	Manifold absolute pressure - mass or volume air flow correlation

ERROR CODE	ERROR
P00B9	Low pressure fuel system pressure - Too low
P00BA	Low Fuel Pressure - Forced Limited Power
P00BB	Fuel Injector Insufficient Flow - Forced Limited Power - high current.
P00BC	Mass or Volume Air Flow A Circuit out of nominal range - Air flow too low
P00BD	Mass or Volume Air Flow A Circuit out of nominal range - Air flow too high
P00BE	Mass or Volume Air Flow B Circuit out of nominal range - Air flow too low
P00BF	Mass or Volume Air Flow B Circuit out of normal range - Air flow too high
P0100	Mass or Volume Air Flow Circuit
P0101	Mass or Volume Air Flow Circuit Range/Performance
P0102	Air mass metering, circuit low
P0103	Air mass or volume air metering - signal high
P0104	Mass or volume air flow, intermittent circuit
P0105	Manifold absolute pressure / Barometric pressure
P0106	Manifold absolute pressure (MAP) / Barometric pressure - range/performance problem
P0107	Manifold absolute pressure
P0108	Manifold absolute pressure
P0109	Manifold absolute pressure (MAP) / Barometric pressure intermittent circuit
P010A	Mass or Volume Air Flow B Circuit
P010B	Mass or Volume Air Flow B Circuit Range/Performance
P010C	Mass or Volume Air Flow B - circuit low.
P010D	Mass or Volume Air Flow B - circuit high.
P010E	Mass or Volume Air Flow B Circuit Intermittent/Erratic.
P010F	Mass or Volume Air Flow Sensor "A"/"B" Correlation
P0110	Intake air temperature sensor
P0111	Intake air temperature sensor 1 - Circuit range/performance
P0112	Air temperature sensor
P0113	Air temperature sensor
P0114	Intake air temperature sensor 1 - circuit intermittent
P0115	Engine coolant temperature
P0116	Engine Coolant Temperature Sensor Circuit Range/Performance problem
P0117	Engine coolant temperature
P0118	Engine coolant temperature
P0119	ECT Sensor Circuit signal Intermittent
P011A	Engine Coolant Temperature Sensor 1/2 Correlation
P011B	Engine Coolant Temperature/Intake Air Temperature Correlation
P011C	Charge Air Temperature/Intake Air Temperature Correlation - Bank 1
P011D	Charge Air Temperature/Intake Air Temperature Correlation - Bank 2
P0120	Throttle position sensor
P0121	Throttle position sensor range/performance (main/secondary)
P0122	Throttle position sensor
P0123	Throttle position sensor
P0124	Throttle position sensor circuit - intermittent signal
P0125	Insufficient coolant temperature for closed loop fuel control
P0126	Insufficient coolant temperature for stable operation
P0127	Intake air temperature too high
P0128	Coolant thermostat (coolant temperature below thermostat regulating temperature).
P0129	Barometric pressure too low
P0130	Oxygen sensor heating circuit (bank 1, sensor 1)

ERROR CODE	ERROR
P0131	Oxygen sensor
P0132	Oxygen sensor
P0133	Oxygen sensor control circuit slow response (Bank 1 Sensor 1)
P0134	Oxygen sensor
P0135	Oxygen sensor heating circuit (bank 1, sensor 1)
P0136	Oxygen sensor heating circuit (bank 1, sensor 2)
P0137	Heated oxygen sensor heater control circuit (bank 1 sensor 2) low
P0138	Heated oxygen sensor heater control circuit (bank 1 sensor 2) high
P0139	Oxygen sensor control circuit slow response (Bank 1 Sensor 2)
P013A	Oxygen sensor 2 slow response - rich to lean
P013B	Oxygen sensor 2 slow response - lean to rich
P013C	Oxygen sensor 2 slow response - rich to lean
P013D	Oxygen sensor 2 slow response - lean to rich
P013E	Oxygen sensor delayed response - rich to lean
P013F	Oxygen sensor delayed response - lean to rich
P0140	Oxygen sensor heater circuit no activity detected (bank 1 sensor 2)
P0141	Oxygen sensor heating circuit (bank 1, sensor 2)
P0142	Oxygen sensor heating circuit (bank 1, sensor 3)
P0143	Oxygen Heater Control Circuit Low (bank 1 sensor 3)
P0144	Oxygen heater control circuit high (bank 1 sensor 3)
P0145	Oxygen sensor control circuit slow response (Bank 1 Sensor 3)
P0146	Oxygen sensor heater circuit no activity detected (bank 1 sensor 3)
P0147	Oxygen sensor heating circuit (bank 1, sensor 3)
P0148	Fuel delivery error
P0149	Fuel timing error
P014A	Oxygen sensor delayed response - rich to lean
P014B	Oxygen sensor delayed response - lean to rich
P014C	Oxygen sensor 2 slow response - rich to lean
P014D	Oxygen sensor 2 slow response - lean to rich
P014E	Oxygen sensor 2 slow response - rich to lean
P014F	Oxygen sensor 2 slow response - lean to rich
P0150	Oxygen Heater Control Circuit (HO2S) Bank 2 Sensor 1
P0151	Heated oxygen sensor heater control circuit (bank 2 sensor 1) low
P0152	Heated oxygen sensor heater control circuit (bank 2 sensor 1) high
P0153	Oxygen sensor circuit slow response (bank 2 sensor 1)
P0154	Oxygen sensor heater circuit no activity detected (bank 1 sensor 2)
P0155	Oxygen sensor heating circuit (bank 2, sensor 1)
P0156	Oxygen sensor heating circuit (bank 2, sensor 2)
P0157	Heated oxygen sensor heater control circuit (bank 2 sensor 2) low
P0158	Heated oxygen sensor heater control circuit (bank 2 sensor 2) high
P0159	Oxygen sensor control circuit slow response (Bank 2 Sensor 2)
P015A	Oxygen sensor delayed response - rich to lean
P015B	Oxygen sensor delayed response - lean to rich
P015C	Oxygen sensor delayed response - rich to lean
P015D	Oxygen sensor delayed response - lean to rich
P0160	Oxygen sensor heater circuit no activity detected (bank 2 sensor 2)
P0161	Heated oxygen sensor heater control circuit (bank 2 sensor 2) high
P0162	Oxygen sensor heating circuit (bank 1, sensor 3)
P0163	Oxygen Heater Control Circuit Low (bank 2 sensor 3)

ERROR CODE	ERROR
P0164	Oxygen heater control circuit high (bank 2 sensor 3)
P0165	Oxygen sensor circuit slow response (bank 2 sensor 3)
P0166	Oxygen sensor heater circuit no activity detected (bank 2 sensor 3)
P0167	Oxygen sensor heating circuit (bank 2, sensor 3)
P0168	Fuel temperature too high
P0169	Incorrect fuel composition
P0170	Fuel trim malfunction (bank 1).
P0171	System too lean - bank 1
P0172	System too rich, Bank 1
P0173	Fuel trim malfunction (bank 2).
P0174	System Too Lean, Bank 2
P0175	System too rich, Bank 1
P0176	Fuel composition sensor
P0177	Fuel composition sensor circuit range/performance
P0178	Fuel composition sensor circuit low
P0179	Fuel composition sensor circuit high
P0180	Fuel temperature sensor A circuit
P0181	Fuel temperature sensor A circuit range/performance
P0182	Fuel temperature sensor A circuit - signal low
P0183	Fuel temperature sensor A circuit - signal high
P0184	Fuel temperature sensor A circuit intermittent
P0185	Fuel temperature sensor B circuit
P0186	Fuel temperature sensor B circuit range/performance
P0187	Fuel temperature sensor B circuit - signal low
P0188	Fuel temperature sensor B circuit - signal high
P0189	Fuel temperature sensor B circuit signal intermittent
P018A	Fuel pressure sensor "B" circuit
P018B	Fuel Pressure Sensor B Circuit, Range/Performance
P018C	Fuel Pressure Sensor B Circuit, Low
P018D	Fuel Pressure Sensor B Circuit, High
P018E	Fuel Pressure Sensor B - Circuit Intermittent/Erratic
P018F	Fuel system over pressure relief valve frequent activation
P0195	Engine oil temperature sensor circuit
P0196	Engine oil temperature sensor
P0197	Engine Oil Temperature Sensor Circuit - Low signal
P0198	Engine Oil Temperature Sensor Circuit, High Input
P0199	Engine oil temperature sensor circuit, intermittent
P0200	Injector circuit
P0201	Injectors
P0202	Injector circuit 2
P0203	Injector circuit 3
P0204	Injector circuit 4
P0205	Injector circuit 5
P0206	Injector circuit 6
P0207	Injector circuit 7
P0208	Injector circuit 8
P0209	Injector 9
P020A	Injection timing - Cylinder 1
P020B	Injection timing - Cylinder 2



<b>ERROR CODE</b>	<b>ERROR</b>
P020C	Injection timing - Cylinder 3
P020D	Injection timing - Cylinder 4
P020E	Injection timing - Cylinder 5
P020F	Injection timing - Cylinder 6
P0210	Injector 10
P0211	Injector 11
P0212	Injector 12
P0213	Cold Start Injector 1
P0214	Cold Start Injector 2
P0215	Engine Shutoff Solenoid circuit
P0216	Fuel injection timing
P0217	Engine over temperature
P0218	Transmission Over temperature
P0219	Engine overspeed condition
P0220	Throttle position sensor B
P0221	Throttle position sensor B, range/performance problem
P0222	Throttle position sensor B circuit, input low
P0223	Throttle position sensor B circuit, input high
P0224	Throttle position sensor B, circuit intermittent
P0225	Throttle position sensor C
P0226	Throttle position sensor C, range/performance problem
P0227	Throttle position sensor C circuit, input low
P0228	Throttle position sensor C circuit, input high
P0229	Throttle position sensor C circuit, intermittent
P022A	Charge Air Cooler Bypass Control A - circuit open
P022B	Charge Air Cooler Bypass Control A Circuit - low.
P022C	Charge Air Cooler Bypass Control A Circuit - high.
P022D	Charge Air Cooler Bypass Control B - circuit open.
P022E	Charge Air Cooler Bypass Control B - circuit low.
P022F	Charge Air Cooler Bypass Control B - circuit high.
P0230	Fuel pump relay circuit
P0231	Fuel pump relay control circuit - low voltage
P0232	Fuel pump relay control circuit - high voltage
P0233	Fuel pump relay - circuit intermittent
P0234	Engine supercharger condition - limit exceeded
P023A	Charge air cooler coolant pump control - circuit open
P023B	Charge air cooler coolant pump control - circuit low
P023C	Charge air cooler coolant pump control - circuit high
P023F	Fuel Pump Secondary Circuit, Open
P024A	Charge air cooler bypass control A - range/performance.
P024B	Charge air cooler bypass control A stuck
P024C	Fault in the charge air cooler bypass position sensor A circuit
P024D	Charge air cooler bypass position sensor A - circuit range/performance.
P024E	Charge air cooler bypass position sensor A - circuit low.
P024F	Charge air cooler bypass position sensor A - circuit high.
P025A	Fuel pump module control - circuit open
P025B	Fuel pump module control - circuit range/performance
P025C	Fuel pump module control - circuit low
P025D	Fuel pump module control - circuit high

<b>ERROR CODE</b>	<b>ERROR</b>
P0261	Injector control circuit 1 - low voltage
P0262	Injector 1 control circuit - high voltage
P0263	Cylinder 1 injection / balance
P0264	Injector control circuit 2 - low voltage
P0265	Injector 2 control circuit - high voltage
P0266	Cylinder 2 injection / balance
P0267	Injector control circuit 3 - low voltage
P0268	Injector 3 control circuit - high voltage
P0269	Cylinder 3 injection / balance
P0270	Injector control circuit 4 - low voltage
P0271	Injector 4 control circuit - high voltage
P0272	Cylinder 4 injection / balance
P0273	Injector control circuit 5 - low voltage
P0274	Injector 5 control circuit - high voltage
P0275	Cylinder 5 injection/balance
P0276	Injector control circuit 6 - low voltage
P0277	Injector 6 control circuit - high voltage
P0278	Cylinder 6 injection/balance
P0279	Injector control circuit 7 - low voltage
P0280	Injector 7 control circuit - high voltage
P0282	Injector control circuit 8 - low voltage
P0283	Injector 8 control circuit - high voltage
P0285	Injector control circuit 9 - low voltage
P0286	Injector 9 control circuit - high voltage
P0288	Injector control circuit 10 - low voltage
P0289	Injector 10 control circuit - high voltage
P0291	Injector control circuit 11 - low voltage
P0292	Injector 11 control circuit - high voltage
P0294	Injector control circuit 12 - low voltage
P0295	Injector 12 control circuit - high voltage
P0297	Vehicle Overspeed Condition
P0298	Engine Oil Over Temperature
P029A	Cylinder 1 balancing - Fuel trim at max limit
P029B	Cylinder 1 balancing - Fuel trim at min limit
P029C	Cylinder 1 balancing - Injector restricted
P029D	Cylinder 1 balancing - Injector leaking
P029E	Cylinder 2 balancing - Fuel trim at max limit
P029F	Cylinder 2 balancing - Fuel trim at min limit
P02A0	Cylinder 2 balancing - Injector restricted
P02A1	Cylinder 2 balancing - Injector leaking
P02A2	Cylinder 3 balancing - Fuel trim at max limit
P02A3	Cylinder 3 balancing - Fuel trim at min limit
P02A4	Cylinder 3 balancing - Injector restricted
P02A5	Cylinder 3 balancing - Injector leaking
P02A6	Cylinder 4 balancing - Fuel trim at max limit
P02A7	Cylinder 4 balancing - Fuel trim at min limit
P02A8	Cylinder 4 balancing - Injector restricted
P02A9	Cylinder 4 balancing - Injector leaking
P02AA	Cylinder 5 balancing - Fuel trim at max limit

<b>ERROR CODE</b>	<b>ERROR</b>
P02AB	Cylinder 5 balancing - Fuel trim at min limit
P02AC	Cylinder 5 balancing - Injector restricted
P02AD	Cylinder 5 balancing - Injector leaking
P02AE	Cylinder 6 balancing - Fuel trim at max limit
P02AF	Cylinder 6 balancing - Fuel trim at min limit
P02B0	Cylinder 6 balancing - Injector restricted
P02B1	Cylinder 6 balancing - Injector leaking
P02CC	Cylinder 1 fuel injector offset learning at min limit
P02CD	Cylinder 1 fuel injector offset learning at max limit
P02CE	Cylinder 2 fuel injector offset learning at min limit
P02CF	Cylinder 2 fuel injector offset learning at max limit
P02D0	Cylinder 3 fuel injector offset learning at min limit
P02D1	Cylinder 3 fuel injector offset learning at max limit
P02D2	Cylinder 4 fuel injector offset learning at min limit
P02D3	Cylinder 4 fuel injector offset learning at max limit
P02D4	Cylinder 5 fuel injector offset learning at min limit
P02D5	Cylinder 5 fuel injector offset learning at max limit
P02D6	Cylinder 6 fuel injector offset learning at min limit
P02D7	Cylinder 6 fuel injector offset learning at max limit
P02EE	Cylinder 1 injector circuit range/performance
P02EF	Cylinder 2 injector circuit range/performance
P02F0	Cylinder 3 injector circuit range/performance
P02F1	Cylinder 4 injector circuit range/performance
P02F2	Cylinder 5 injector circuit range/performance
P02F3	Cylinder 6 injector circuit range/performance
P0300	Random/multiple cylinder misfire detected
P0301	Cylinder 1 misfire detected
P0302	Cylinder 2 misfire detected
P0303	Cylinder 3 misfire detected
P0304	Cylinder 4 misfire detected
P0305	Cylinder 5 misfire detected
P0306	Cylinder 6 misfire detected
P0313	Misfire detected with low fuel
P0314	Single Cylinder Misfire (Cylinder not Specified)
P0315	Crankshaft position system - variation not learned
P0316	Engine misfire detected on startup
P0317	Rough Road Hardware Not Present
P0318	Rough road sensor A
P0319	Rough road sensor B
P0320	Crankshaft position sensor (CKP)
P0321	Crankshaft position sensor circuit range/performance
P0322	Ignition/Distributor Engine Speed Input Circuit - No Signal
P0323	Ignition/Distributor Engine Speed Input Circuit Intermittent
P0324	Knock control system error
P0325	Knock sensor bank 1
P0326	Knock Sensor 1 Circuit Range/Performance - (bank 1).
P0327	Knock Sensor Circuit bank 1 - low signal
P0328	Knock sensor 1 circuit - high input (bank 1).
P0329	Knock sensor 1 - circuit intermittent (bank 1).

<b>ERROR CODE</b>	<b>ERROR</b>
P032A	Knock sensor 3 - circuit
P032B	Knock sensor 3 circuit, range/performance
P032C	Knock sensor 3 circuit, low
P032D	Knock sensor 3 circuit, high
P032E	Knock sensor 3 circuit, intermittent
P0330	Knock sensor 2 circuit (bank 2)
P0331	Knock sensor - circuit range/performance (bank 2)
P0332	Knock sensor 2 - circuit low (Bank 2)
P0333	Knock sensor 2 - circuit high (Bank 2)
P0334	Knock sensor 2 - intermittent circuit (Bank 2)
P0335	Crankshaft position sensor
P0336	Crankshaft position sensor circuit range/performance
P0337	Crankshaft position sensor - signal too weak
P0338	Crankshaft position sensor - signal too strong
P0339	Ignition/Distributor Engine Speed Input Circuit Intermittent
P033A	Knock sensor 4 - circuit (bank 2)
P033B	Knock sensor 4 - circuit range/performance (bank 2).
P033C	Knock sensor 4 - circuit low (bank 2).
P033D	Knock sensor 4 - circuit high (bank 2).
P033E	Knock sensor 4 - circuit intermittent (bank 2).
P0340	Camshaft position sensor A signal (bank 1)
P0341	Camshaft Position Sensor A Circuit Range/Performance (Bank 1)
P0342	Camshaft Position Sensor A Circuit - low input (bank 1 or single sensor).
P0343	Camshaft position sensor A - circuit high (bank 1 or single sensor).
P0344	Camshaft position sensor A - circuit intermittente (bank 1 or single sensor).
P0345	Camshaft position sensor A signal (bank 2)
P0346	Camshaft position sensor circuit (bank 2) - range/performance
P0347	Camshaft Position Sensor A Circuit, Low Input (Bank 2)
P0348	Camshaft Position Sensor A Circuit, High Input (Bank 2)
P0349	Camshaft position sensor A - circuit intermittent (bank 2).
P0350	Ignition coil - primary/secondary circuit
P0351	Ignition coil A primary/secondary circuit malfunction
P0352	Ignition coil B primary/secondary circuit malfunction
P0353	Ignition coil C primary/secondary circuit malfunction
P0354	Ignition coil D primary/secondary circuit malfunction
P0355	Ignition coil E primary/secondary circuit malfunction
P0356	Ignition coil F primary/secondary circuit malfunction
P0357	Ignition coil G primary/secondary circuit malfunction
P0358	Ignition coil H of the primary/secondary circuit malfunction
P0359	Ignition coil I of the primary/secondary circuit
P0360	Ignition coil J of the primary/secondary circuit
P0361	Ignition coil K of the primary/secondary circuit
P0362	Ignition coil L of the primary/secondary circuit
P0363	Misfire detected - fueling disabled
P0365	Camshaft position sensor B circuit (bank 1)
P0366	Camshaft Position Sensor B Circuit Range/Performance (bank 1).
P0367	Camshaft Position Sensor B Circuit, Low Input (Bank 1)
P0368	Camshaft Position Sensor B Circuit, High Input (Bank 1)
P0369	CMP B sensor circuit signal intermittent (bank 1)

ERROR CODE	ERROR
P0370	Timing Reference High Resolution Signal A
P0371	Timing Reference High Resolution Signal A Too Many Pulses
P0372	Timing Reference High Resolution Signal A Too Few Pulses
P0373	Timing Reference High Resolution Signal A Intermittent/Erratic Pulses
P0374	Timing Reference High Resolution Signal A No Pulses
P0375	Timing Reference High Resolution Signal B
P0376	Timing Reference High Resolution Signal B Too Many Pulses
P0377	Timing Reference High Resolution Signal B Too Few Pulses
P0378	Timing Reference High Resolution Signal B Intermittent/Erratic Pulses
P0379	Timing Reference High Resolution Signal B No Pulses
P037D	Glow Plug Sense Circuit
P037E	Glow Plug Sense Circuit Low
P037F	Glow Plug Sense Circuit High
P0380	Glow plug/heater, circuit A
P0381	Glow plug/heater indicator circuit
P0382	Glow Plug/Heater, circuit B
P0383	Glow Plug Control Module Control - circuit low
P0384	Glow Plug Control Module Control - circuit high
P0385	Crankshaft Position Sensor B Circuit
P0386	Crankshaft Position Sensor B Circuit Range/Performance
P0387	Crankshaft Position Sensor B - signal too week
P0388	Crankshaft Position Sensor B Circuit Low - signal too strong
P0389	Crankshaft Position Sensor B Circuit Intermittent
P0390	Crankshaft position (bank 2, sensor B)
P0391	Camshaft position sensor B circuit range/performance (bank 2)
P0392	Camshaft Position Sensor B Circuit Low (bank 2)
P0393	Camshaft Position Sensor B Circuit High (bank 2)
P0394	Camshaft Position Sensor B Circuit Intermittent (bank 2)
P0410	Secondary air injection system
P0411	Secondary air injection system - incorrect flow detected
P0412	Secondary Air Injection System Switching Valve A Circuit
P0413	Secondary Air Injection System Switching Valve A Circuit Open
P0414	Secondary Air Injection System Switching Valve A Circuit Shorted
P0415	Secondary Air Injection System Switching Valve B Circuit
P0416	Secondary Air Injection System Switching Valve B Circuit Open
P0417	Secondary Air Injection System Switching Valve B Circuit Shorted
P0418	Secondary Air Injection System Control A Circuit
P0419	Secondary Air Injection System Control B Circuit
P041F	Secondary Air Injection System Switching Valve A Circuit - Low
P0420	Catalyst System Efficiency Below Threshold (bank 1)
P0421	Warm Up Catalyst Efficiency Below Threshold (bank 1)
P0422	Catalyst System Efficiency Below Threshold (bank 1)
P0423	Warm Up Catalyst Efficiency Below Threshold (bank 1)
P0424	Heated Catalyst Temperature Below Threshold (bank 1)
P0425	Catalyst Temperature Sensor (bank 1)
P0426	Catalyst Temperature Sensor Range/Performance (bank 1)
P0427	Catalyst temperature sensor (bank 1) - signal too weak
P0428	Catalyst temperature sensor (bank 1) - signal too strong
P0429	Catalyst heater control circuit (bank 1)

ERROR CODE	ERROR
P042A	Catalyst temperature sensor circuit
P042B	Catalyst temperature sensor circuit, range/performance (sensor 1)
P042C	Catalyst temperature sensor circuit, low (sensor 1)
P042D	Catalyst temperature sensor circuit, high (sensor 1)
P0430	Catalyst System Efficiency Below Threshold (bank 2)
P0431	Warm Up Catalyst Efficiency Below Threshold (bank 2)
P0432	Catalyst System Efficiency Below Threshold (bank 2)
P0433	Warm Up Catalyst Efficiency Below Threshold (bank 2)
P0434	Heated Catalyst Temperature Below Threshold (bank 2)
P0435	Catalyst Temperature Sensor (bank 2)
P0436	Catalyst Temperature Sensor Range/Performance (bank 2)
P0437	Catalyst temperature sensor (bank 2) - signal too weak
P0438	Catalyst temperature sensor (bank 2) - signal too strong
P0439	Catalyst heater control circuit (bank 2)
P043A	Catalyst temperature sensor circuit
P043B	Catalyst temperature sensor circuit, range/performance (sensor 1)
P043C	Catalyst temperature sensor (low)
P043D	Catalyst temperature sensor (high)
P043E	Evaporative Emission System Leak Detection Reference Orifice - Low Flow
P043F	Evaporative Emission System Leak Detection Reference Orifice - High Flow
P0440	Evaporative emission system
P0441	Evaporative Emission System - Incorrect Purge Flow
P0442	Evaporative Emission System - Leak Detected (small leak)
P0443	EVAP system purge fault
P0444	Evaporative emissions purge valve
P0445	Evaporative emissions purge valve [short circuit]
P0446	Evaporative emissions purge valve
P0447	Evaporative emissions purge valve [circuit open]
P0448	Evaporative emissions purge valve [short circuit]
P0449	Evaporative emissions purge valve
P044F	Switching valve circuit A secondary air injection, High
P0450	Evaporative emission pressure sensor
P0451	Evaporative emissions system - pressure sensor range/performance
P0452	Evaporative Emission System Pressure Sensor - Switch Low
P0453	Evaporative Emission System Pressure Sensor - Switch High
P0454	Evaporative Emission System Pressure Sensor/Switch - Intermittent
P0455	Evaporative Emission System Leak Detected - large leak
P0456	Evaporative Emission System - Leak Detected - very small leak
P0457	Evaporative Emission System - Leak Detected (fuel cap loose/off)
P0458	Evaporative Emission System Purge Control Valve
P0459	Evaporative Emission System Purge Control Valve
P0460	Fuel level sensor
P0461	Fuel level sensor - range/performance
P0462	Fuel Level Sensor Circuit Low Input
P0463	Fuel Level Sensor Circuit High Input
P0464	Fuel Level Sensor Circuit - Intermittent
P0465	EVAP filter purge valve malfunction
P0466	Evaporative emissions purge valve - range/performance
P0467	Evaporative emissions purge valve - signal too low

<b>ERROR CODE</b>	<b>ERROR</b>
P0468	Evaporative emissions purge valve - signal too high
P0469	Evaporative emissions purge valve - intermittent
P046A	Catalyst temperature sensor 1/2 correlation
P046B	Catalyst temperature sensor 1/2 correlation
P0470	Exhaust gas pressure sensor circuit
P0471	Exhaust gas pressure sensor - range/performance problem
P0472	Exhaust gas pressure sensor - signal too weak
P0473	Exhaust gas pressure sensor - signal too strong
P0474	Intermittent signal for exhaust gas pressure sensor
P0475	Exhaust pressure control valve
P0476	Exhaust pressure control valve - out of nominal range
P0477	Exhaust pressure control valve - signal too weak
P0478	Exhaust pressure control valve - signal too strong
P0479	Exhaust pressure control valve - erratic error
P047A	Exhaust pressure sensor B circuit
P047B	Exhaust Pressure Sensor B - Circuit Range/Performance.
P047C	Exhaust Pressure Sensor B - Circuit Low.
P047D	Exhaust Pressure Sensor B - Circuit High.
P047E	Exhaust Pressure Sensor B - Circuit Intermittent/Erratic.
P047F	Exhaust Pressure Control Valve Stuck Open
P0480	Cooling Fan 1 Control Circuit
P0481	Cooling Fan 2 Control Circuit
P0482	Cooling Fan 3 Control Circuit
P0483	Cooling fan rationality check malfunction
P0484	Cooling Fan Circuit Over Current
P0485	Fan Power/Ground Circuit
P048A	Exhaust Pressure Control Valve A Stuck Closed
P048B	Exhaust Pressure Control Valve Position Sensor/Switch Circuit
P048C	Exhaust Pressure Control Valve Position Sensor/Switch CircuitRange/ Performance
P048D	Exhaust Pressure Control Valve Position Sensor/Switch Circuit, Low
P048E	Exhaust Pressure Control Valve Position Sensor/Switch Circuit, High
P048F	Exhaust Pressure Control Valve Position Sensor/Switch CircuitIntermittent/Erratic
P0491	Secondary air injection system (bank 1)
P0492	Secondary air injection system (bank 2)
P0493	Engine coolant fan motor - fan overspeed (clutch locked)
P0494	Engine coolant fan motor - fan speed low
P0495	Engine coolant fan motor - fan speed high
P0496	Evaporative Emission System High Purge Flow
P0497	Evaporative Emission System Low Purge Flow
P0498	Evaporative Emission System Vent Valve Control Circuit Low
P0499	Evaporative Emission System Vent Valve Control Circuit High
P049F	Exhaust Gas Recirculation B Flow
P04AA	Exhaust Pressure Control Valve B Position Sensor/Switch Circuit Intermittent/Erratic
P0500	Vehicle speed sensor circuit (VSS)
P0501	Vehicle Speed Sensor Range/Performance
P0502	Vehicle speed sensor - low input
P0503	Vehicle speed sensor - intermittent/erratic/high
P0504	Brake Switch A/B correlation

<b>ERROR CODE</b>	<b>ERROR</b>
P0505	Idle air stepper motor
P0506	Idle Air Control System RPM Lower Than Expected
P0507	Idle Air Control System RPM Higher Than Expected
P0508	Idle Air Control System Circuit Low
P0509	Idle air stepper motor
P050A	Cold Start Idle Air Control System - Performance
P050B	Cold Start Ignition Timing - Performance
P050C	Cold Start Engine Coolant Temperature - Performance
P050D	Cold Start Rough Idle
P050E	Cold Start Engine Exhaust Temperature Too Low
P050F	Brake Assist Vacuum Too Low
P0510	Closed Throttle Position Switch
P0511	Idle Air Control Circuit
P0512	Starter Request Circuit
P0513	Incorrect Immobilizer Key
P0514	Battery Temperature Sensor Circuit Range/Performance
P0515	Battery temperature sensor circuit
P0516	Battery temperature sensor - circuit low
P0517	Battery temperature sensor - circuit high
P0518	Idle Air Control Circuit, Intermittent
P0519	Idle Air Control System Performance
P051A	Crankcase Pressure Sensor Circuit
P051B	Crankcase Pressure Sensor Circuit Range/Performance
P051C	Crankcase Pressure Sensor Circuit Low
P051D	Crankcase Pressure Sensor Circuit High
P051E	Crankcase Pressure Sensor Circuit - Intermittent
P051F	Positive Crankcase Ventilation Filter Restriction
P0520	Engine oil pressure switch/sensor - circuit
P0521	Engine Oil Pressure Sensor/Switch Range/Performance
P0522	Engine Oil Pressure Sensor/Switch Low
P0523	Engine Oil Pressure Sensor/Switch High
P0524	Engine oil pressure too low
P0525	Cruise Control Servo Control Circuit Range/Performance
P0526	Fan Speed Sensor Circuit
P0527	Fan Speed Sensor Circuit - Range/Performance
P0528	Fan Speed Sensor Circuit No Signal
P0529	Fan Speed Sensor Circuit Intermittent
P052A	Cold Start A Camshaft Position Timing Over-Advanced - bank 1
P052B	Cold Start A Camshaft Position Timing Over-Advanced - bank 2
P052C	Cold Start A Camshaft Position Timing Over-Advanced - bank 1
P052D	Cold Start A Camshaft Position Timing Over-Advanced - bank 2
P052E	Positive Crankcase Ventilation Regulator Valve Performance
P053A	Positive Crankcase Ventilation Heater Control - Circuit Open
P053B	Positive Crankcase Ventilation Heater Control - Circuit Low
P053C	Positive Crankcase Ventilation Heater Control - Circuit High
P0540	Intake Air Heater A Circuit
P0541	Intake Air Heater A Circuit - Low.
P0542	Intake Air Heater A Circuit - high.
P0543	Intake Air Heater A Circuit Open



ERROR CODE	ERROR
P0547	Exhaust Gas Temperature Sensor Circuit (bank 2 sensor 1)
P0548	Exhaust Gas Temperature Sensor Circuit Low (bank 2 sensor 1)
P0549	Exhaust Gas Temperature Sensor Circuit High (bank 2 sensor 1)
P054A	Cold Start B Camshaft Position Timing Over-Advanced - bank 1
P054B	Cold Start B Camshaft Position Timing Over-Advanced - bank 2
P054C	Cold Start B Camshaft Position Timing Over-Advanced - bank 1
P054D	Cold Start B Camshaft Position Timing Over-Advanced - bank 1
P0550	Power steering pressure/switch circuit
P0551	Power steering pressure sensor/switch circuit range/performance
P0552	Power steering pressure sensor/switch circuit low
P0553	Power Steering Pressure Sensor/Switch Circuit High
P0554	Power Steering Pressure Sensor/Switch Circuit Intermittent
P0555	Brake Booster Pressure Sensor Circuit
P0556	Brake Booster Pressure Sensor Circuit Range/Performance
P0557	Brake Booster Pressure Sensor Circuit Low
P0558	Brake Booster Pressure Sensor Circuit High
P0559	Brake Booster Pressure Sensor Circuit Intermittent
P0560	System voltage malfunction
P0561	System voltage unstable
P0562	System Voltage Low
P0563	System Voltage High
P0564	Cruise Control Multi-Function Input A Circuit
P0565	Cruise Control "On" Signal
P0566	Cruise Control "Off" Signal
P0567	Cruise Control "Resume" Signal
P0568	Cruise Control "Set" Signal
P0569	Cruise Control "Coast" Signal
P056A	Cruise Control "Increase Distance" Signal
P056B	Cruise Control "Decrease Distance" Signal
P0570	Cruise Control "Accelerate" Signal
P0571	Brake Switch A Circuit
P0572	Brake Switch A Circuit Low
P0573	Brake Switch A Circuit High
P0574	Cruise Control System - Vehicle Speed Too High
P0575	Cruise Control Input Circuit
P0576	Cruise Control Input Circuit Low
P0577	Cruise Control Input Circuit High
P0578	Cruise Control Multi-Function Input Circuit Stuck
P0579	Cruise Control Multi-Function Input A Circuit Range/Performance
P0580	Cruise Control Multi-Function Input A Circuit Low
P0581	Cruise Control Multi-Function Input A Circuit High
P0582	Cruise Control Vacuum Control Circuit/Open
P0583	Cruise Control Vacuum Control Circuit Low
P0584	Cruise Control Vacuum Control Circuit High
P0585	Cruise Control Multi-Function Input A/B Correlation
P0586	Cruise Control Vent Control Circuit/Open
P0587	Cruise Control Vent Control Circuit Low
P0588	Cruise Control Vent Control Circuit High
P0589	Cruise Control Multi-Function Input B Circuit

ERROR CODE	ERROR
P0590	Cruise Control Multi-Function Input Circuit Stuck
P0591	Cruise Control Multi-Function Input B Circuit Range/Performance
P0592	Cruise Control Multi-Function Input B Circuit Low
P0593	Cruise Control Multi-Function Input B Circuit High
P0594	Cruise Control Servo Control Circuit/Open
P0595	Cruise Control Servo Control Circuit Low
P0596	Cruise Control Servo Control Circuit High
P0597	Thermostat Heater Control Circuit/Open
P0598	Thermostat Heater Control Circuit Low
P0599	Thermostat Heater Control Circuit High
P0600	Serial Communication Link
P0601	Internal Control Module Memory Check Sum Error
P0602	Control Module Programming Error
P0603	Internal Control Module Keep Alive Memory (KAM) Error
P0604	Internal Control Module Random Access Memory (RAM) Error
P0605	Internal Control Module Read Only Memory (ROM) Error
P0606	Control Module Processor
P0607	Control Module Performance
P0608	Control Module VSS Output A
P0609	Control Module VSS Output B
P060A	Internal Control Module Monitoring Processor Performance
P060B	Internal Control Module A/D Processing Performance
P060C	Internal control unit - main processor performance
P060E	Internal Control Module Throttle Position Performance
P060F	Internal Control Module Coolant Temperature Performance
P0610	Control Module Vehicle Options Error
P0611	Fuel Injector Control Module Performance
P0612	Fuel Injector Control Module Relay Control
P0613	TCM Processor
P0614	ECM/TCM Incompatible
P0615	PStarter Relay Circuit
P0616	Starter Relay Circuit Low
P0617	Starter Relay Circuit High
P0618	Alternative Fuel Control Module KAM Error
P0619	Alternative Fuel Control Module RAM/ROM Error
P061A	Internal Control Module Torque Performance
P061B	Internal Control Module Torque Calculation Performance
P061C	Internal Control Module Engine RPM Performance
P061D	Internal Control Module Engine Air Mass Performance
P061E	Internal Control Module Brake Signal Performance
P061F	Internal Control Module Throttle Actuator Controller Performance
P0620	Generator Control Circuit
P0621	Generator Lamp/L Terminal Circuit
P0622	Generator Field/F Terminal Circuit
P0623	Generator Lamp Control Circuit
P0624	Fuel Cap Lamp Control Circuit
P0625	Generator Field/F Terminal Circuit Low
P0626	Generator Field/F Terminal Circuit High
P0627	Fuel Pump A Control Circuit/Open

<b>ERROR CODE</b>	<b>ERROR</b>
P0628	Fuel Pump A Control Circuit Low
P0629	Fuel Pump A Control Circuit/Open
P062A	Fuel Pump A Control Circuit Range/Performance
P062B	Internal Control Module Fuel Injector Control Performance
P062C	Internal Control Module Vehicle Speed Performance
P062D	Fuel Injector Driver Circuit Performance Bank 1
P062E	Fuel Injector Driver Circuit Performance Bank 2
P062F	Internal Control Module EEPROM Error
P0630	VIN Not Programmed or Incompatible - ECM/PCM
P0631	VIN Not Programmed or Incompatible - TCM
P0632	Odometer Not Programmed or Incompatible - ECM/PCM
P0633	Immobilizer Key Not Programmed - ECM/PCM
P0635	Power Steering Control Circuit
P0636	Power Steering Control Circuit Low
P0637	Power Steering Control Circuit High
P0638	Throttle Actuator Control Range/Performance (Bank 1)
P0639	Throttle Actuator Control Range/Performance (Bank 2)
P063A	Generator Voltage Sense Circuit
P063B	Generator Voltage Sense Circuit Range/Performance
P063C	Generator Voltage Sense Circuit Low
P063D	Generator Voltage Sense Circuit High
P0640	Intake Air Heater Control Circuit
P0641	Sensor Reference Voltage A Circuit/Open
P0642	Sensor Reference Voltage A Circuit Low
P0643	Sensor Reference Voltage A Circuit High
P0648	Immobilizer Lamp Control Circuit
P0649	Speed Control Lamp Control Circuit
P064A	Fuel Pump Control Module
P064C	Glow Plug Control Module
P064D	Internal Control Module Oxygen Sensor Processor Performance Bank 1
P064E	Internal Control Module Oxygen Sensor Processor Performance Bank 2
P064F	Unauthorized Software/Calibration Detected
P0650	Malfunction Indicator Lamp (MIL) Control Circuit
P0651	Sensor Reference Voltage B Circuit/Open
P0652	Sensor Reference Voltage B Circuit Low
P0653	Sensor Reference Voltage B Circuit High
P0654	Engine RPM Output Circuit
P0655	Engine Hot Lamp Output Control Circuit
P0656	Fuel Level Output Circuit
P0657	Actuator Supply Voltage A Circuit/Open
P0658	Actuator Supply Voltage A Circuit Low
P0659	Actuator Supply Voltage A Circuit High
P065A	Generator System Performance
P065B	Generator Control Circuit Range/Performance
P065C	Generator Mechanical Performance
P065D	Reductant System Malfunction Lamp Control Circuit
P065E	Intake Manifold Tuning Valve Performance
P065F	Intake Manifold Tuning Valve Performance
P0660	Intake Manifold Tuning Valve Control Circuit/Open (Bank 1)

<b>ERROR CODE</b>	<b>ERROR</b>
P0661	Intake Manifold Tuning Valve Control Circuit Low (Bank 1)
P0662	Intake Manifold Tuning Valve Control Circuit High (Bank 1)
P0663	Intake Manifold Tuning Valve Control Circuit/Open (Bank 2)
P0664	Intake Manifold Tuning Valve Control Circuit Low (Bank 2)
P0665	Intake Manifold Tuning Valve Control Circuit High (Bank 2)
P066A	Cylinder 1 Glow Plug Control Circuit Low
P066B	Cylinder 1 Glow Plug Control Circuit High
P066C	Cylinder 2 Glow Plug Control Circuit Low
P066D	Cylinder 2 Glow Plug Control Circuit High
P066E	Cylinder 3 Glow Plug Control Circuit Low
P066F	Cylinder 3 Glow Plug Control Circuit High
P0670	Glow plug control module circuit
P0671	Cylinder 1 Glow Plug Circuit/Open
P0672	Cylinder 2 Glow Plug Circuit/Open
P0673	Cylinder 3 Glow Plug Circuit/Open
P0674	Cylinder 4 Glow Plug Circuit/Open
P0675	Cylinder 5 Glow Plug Circuit/Open
P0676	Cylinder 6 Glow Plug Circuit/Open
P067A	Cylinder 4 Glow Plug Control Circuit Low
P067B	Cylinder 4 Glow Plug Control Circuit High
P067C	Cylinder 5 Glow Plug Control Circuit Low
P067D	Cylinder 5 Glow Plug Control Circuit High
P067E	Cylinder 6 Glow Plug Control Circuit Low
P067F	Cylinder 6 Glow Plug Control Circuit High
P0683	Glow Plug Control Module to PCM Communication Circuit
P0684	Glow Plug Control Module to PCM Communication Circuit Range/Performance
P0685	ECM/PCM power relay control circuit open
P0686	ECM/PCM Power Relay Sense Circuit Low
P0687	ECM/PCM Power Relay Control Circuit High
P0688	ECM/PCM Power Relay Sense Circuit/Open
P0689	ECM/PCM Power Relay - Circuit Low
P068A	ECM/PCM Power Relay De-Energized Performance - Too Early
P068B	ECM/PCM Power Relay De-Energized Performance - Too Late
P0690	ECM/PCM Power Relay Sense Circuit High
P0691	Fan 1 Control Circuit Low
P0692	Fan 1 Control Circuit High
P0693	Fan 2 Control Circuit Low
P0694	Fan 2 Control Circuit High
P0695	Fan 3 Control Circuit Low
P0696	Fan 3 Control Circuit High
P0697	Sensor Reference Voltage C Circuit/Open
P0698	Sensor Reference Voltage C Circuit Low
P0699	Sensor Reference Voltage C Circuit High
P069E	Fuel Pump Control Module Requested MIL Illumination
P069F	Throttle Actuator Control Lamp Control Circuit
P06A3	Sensor Reference Voltage D Circuit/Open
P06A4	Sensor Reference Voltage D Circuit Low
P06A5	Sensor Reference Voltage D Circuit High
P06A6	Sensor Reference Voltage A Circuit Range/Performance

<b>ERROR CODE</b>	<b>ERROR</b>
P06A7	Sensor Reference Voltage B Circuit Range/Performance
P06A8	Sensor Reference Voltage C Circuit Range/Performance
P06A9	Sensor Reference Voltage D Circuit Range/Performance
P06AF	Torque Management System - Forced Engine Shutdown
P06B0	Sensor Power Supply A Circuit/Open
P06B1	Sensor Power Supply A Circuit Low
P06B2	Sensor Power Supply A Circuit High
P06B3	Sensor Power Supply B Circuit/Open
P06B4	Sensor Power Supply B Circuit Low
P06B5	Sensor Power Supply B Circuit High
P06B6	Internal Control Module Knock Sensor Processor 1 Performance
P06B7	Internal Control Module Knock Sensor Processor 2 Performance
P06B8	Internal Control Module Non-Volatile Random Access Memory (NVRAM) Error
P06B9	Cylinder 1 Glow Plug Circuit Range/Performance
P06BA	Cylinder 2 Glow Plug Circuit Range/Performance
P06BB	Cylinder 3 Glow Plug Circuit Range/Performance
P06BC	Cylinder 4 Glow Plug Circuit Range/Performance
P06BD	Cylinder 5 Glow Plug Circuit Range/Performance
P06BE	Cylinder 6 Glow Plug Circuit Range/Performance
P06C5	Cylinder 1 Glow Plug Incorrect
P06C6	Cylinder 2 Glow Plug Incorrect
P06C7	Cylinder 3 Glow Plug Incorrect
P06C8	Cylinder 4 Glow Plug Incorrect
P06C9	Cylinder 5 Glow Plug Incorrect
P06CA	Cylinder 6 Glow Plug Incorrect
P06D1	Internal Control Module Ignition Coil Control Performance
P0700	Transmission Control System (MIL Request)
P0701	Transmission Control System Range/Performance
P0702	Transmission Control System Electrical
P0703	Brake Switch B Circuit
P0705	Transmission Range Sensor A Circuit (PRNDL Input)
P0706	Transmission Range Sensor A Circuit Range/Performance
P0707	Transmission Range Sensor A Circuit Low
P0708	Transmission Range Sensor A Circuit High
P0709	Transmission Range Sensor A Circuit Intermittent
P0715	Input/Turbine Speed Sensor A Circuit
P0716	Input/Turbine Speed Sensor A Circuit Range/Performance
P0717	Input/Turbine Speed Sensor A Circuit No Signal
P0718	Input/Turbine Speed Sensor A Circuit Intermittent
P0719	Brake Switch B Circuit Low
P071A	Transmission Mode Switch A Circuit
P071B	Transmission Mode Switch A Circuit Low
P071C	Transmission Mode Switch A Circuit High
P071D	Transmission Mode Switch B Circuit
P071E	Transmission Mode Switch B Circuit Low
P071F	Transmission Mode Switch B Circuit High
P0720	Output Speed Sensor Circuit
P0721	Output Speed Sensor Circuit Range/Performance
P0722	Output Speed Sensor Circuit No Signal

<b>ERROR CODE</b>	<b>ERROR</b>
P0723	Output Speed Sensor Circuit Intermittent
P0724	Brake Switch B Circuit High
P0725	Engine Speed Input Circuit
P0726	Engine Speed Input Circuit Range/Performance
P0727	Engine Speed Input Circuit No Signal
P0728	Engine Speed Input Circuit Intermittent
P072A	Stuck in Neutral
P072B	Stuck In Reverse
P0730	Incorrect Gear Ratio
P0736	Reverse Incorrect Ratio
P0737	TCM Engine Speed Output Circuit
P0738	TCM Engine Speed Output Circuit Low
P0739	TCM Engine Speed Output Circuit High
P073D	Unable to Engage Neutral
P073E	Unable to Engage Reverse
P073F	Unable To Engage Gear 1
P0740	Torque Converter Clutch Circuit/Open
P0741	Torque Converter Clutch Circuit Performance/Stuck Off
P0742	Torque Converter Clutch Circuit Stuck On
P0743	TCM Engine Speed Output Circuit
P0744	Torque Converter Clutch Circuit Intermittent
P074A	Unable To Engage Gear 1
P074B	Unable To Engage Gear 3
P074C	Unable To Engage Gear 4
P074D	Unable To Engage Gear 5
P074E	Unable To Engage Gear 6
P074F	Unable To Engage Gear 7
P077A	Output Speed Sensor Circuit - Loss of Direction Signal
P077B	Output Speed Sensor Circuit - Direction Error
P0780	Shift Error
P0781	Gear shift 1-2
P0782	Gear shift 2-3
P0783	Gear shift 3-4
P0784	Gear shift 4-5
P0785	Shift Timing Solenoid A
P0786	Shift Timing Solenoid A Range/Performance
P0787	Shift Timing Solenoid A Low
P0788	Shift Timing Solenoid A High
P0789	Shift Timing Solenoid A Intermittent
P078A	Shift Timing Solenoid B
P078B	Shift Timing Solenoid B Range/Performance
P078C	Shift Timing Solenoid B Low
P078D	Shift Timing Solenoid B High
P078E	Shift Timing Solenoid B Intermittent
P0790	Normal/Performance Switch Circuit
P0791	Intermediate Shaft Speed Sensor A Circuit
P0792	Intermediate Shaft Speed Sensor A Circuit Range/Performance
P0793	Intermediate Shaft Speed Sensor A Circuit No Signal
P0794	Intermediate Shaft Speed Sensor A Circuit Intermittent

ERROR CODE	ERROR
P0800	Transfer Case Control System (MIL Request)
P0801	Reverse Inhibit Control Circuit
P0802	Transmission Control System MIL Request Circuit/Open
P0805	Clutch Position Sensor Circuit
P0806	Clutch Position Sensor Circuit Range/Performance
P0807	Clutch Position Sensor Circuit Low
P0808	Clutch Position Sensor Circuit High
P0809	Clutch Position Sensor Circuit Intermittent
P080A	Clutch Position Not Learned
P080B	Upshift/Skip Shift Solenoid Control Circuit Range/Performance
P080C	Upshift/Skip Shift Solenoid Control Circuit Low
P080D	Upshift/Skip Shift Solenoid Control Circuit High
P0810	Clutch Position Control Error
P0811	Excessive Clutch A Slippage
P0812	Reverse Input Circuit
P0813	Reverse Output Circuit
P0814	Transmission Range Display Circuit
P0815	Upshift Switch Circuit
P0816	Downshift Switch Circuit
P0817	Starter Disable Circuit/Open
P0819	Up and Down Shift Switch to Transmission Range Correlation
P081A	Starter Disable Circuit Low
P081B	Starter Disable Circuit High
P081C	Park Input Circuit
P081D	Neutral Input Circuit
P081E	Excessive Clutch B Slippage
P0826	Up and Down Shift Switch Circuit
P0827	Up and Down Shift Switch Circuit Low
P0828	Up and Down Shift Switch Circuit High
P084F	Park/Neutral Switch Output Circuit
P0850	Park/Neutral Switch Input Circuit
P0851	Park/Neutral Switch Input Circuit Low
P0852	Park/Neutral Switch Input Circuit High
P0856	Traction Control Input Signal
P0857	Traction Control Input Signal Range/Performance
P0858	Traction Control Input Signal Low
P0859	Traction Control Input Signal High
P085A	Gear Shift Control Module B Communication Circuit
P085B	Gear Shift Control Module B Communication Circuit Low
P085C	Gear Shift Control Module B Communication Circuit High
P085D	Gear Shift Control Module A Performance
P085E	Gear Shift Control Module B Performance
P0860	Gear Shift Control Module A Communication Circuit
P0861	Gear Shift Control Module A Communication Circuit Low
P0862	Gear Shift Control Module A Communication Circuit High
P0863	TCM Communication Circuit
P0864	TCM Communication Circuit Range/Performance
P0865	Transmission control module (TCM) communication circuit - low
P0866	Transmission control module (TCM) communication circuit - high

ERROR CODE	ERROR
P0880	Transmission control module power input signal
P0881	Transmission control module (TCM) power input signal - range/performance
P0882	Transmission control module (TCM) power input signal - low
P0883	Transmission control module (TCM) power input signal - high
P0884	Transmission control module (TCM) power input signal - intermittent
P0885	TCM Power Relay Control Circuit/Open
P0886	TCM Power Relay Control Circuit Low
P0887	TCM Power Relay Control Circuit High
P0888	TCM Power Relay Sense Circuit
P0889	TCM Power Relay Sense Circuit Range/Performance
P0890	TCM Power Relay Sense Circuit Low
P0891	TCM Power Relay Sense Circuit High
P0892	TCM Power Relay Sense Circuit Intermittent
P0893	Multiple Gears Engaged
P0894	Transmission Component Slipping
P0895	Shift Time Too Short
P0896	Shift Time Too Long
P0898	Transmission Control System MIL Request Circuit Low
P0899	Transmission Control System MIL Request Circuit High
P0900	Clutch Actuator Circuit/Open
P0901	Clutch Actuator Circuit Range/Performance
P0902	Clutch Actuator Circuit Low
P0903	Clutch Actuator Circuit High
P0914	Gear Shift Position Circuit
P0915	Gear Shift Position Circuit Range/Performance
P0916	Gear Shift Position Circuit Low
P0917	Gear Shift Position Circuit High
P0918	Gear Shift Position Circuit Intermittent
P0919	Gear Shift Position Control Error
P0920	Gear Shift Forward Actuator Circuit/Open
P0921	Gear Shift Forward Actuator Circuit Range/Performance
P0922	Gear shift forward actuator - circuit low
P0923	Gear shift forward actuator - circuit high
P0924	Gear Shift Reverse Actuator Circuit/Open
P0925	Gear shift reverse actuator - circuit range/performance
P0926	Gear shift reverse actuator - circuit low
P0927	Gear shift reverse actuator - circuit high
P0928	Gear shift lock solenoid/actuator control circuit, Open
P0929	Gear Shift Lock Solenoid Circuit, Range/Performance
P092A	Gear shift lock solenoid/actuator control circuit B, Open
P092B	Gear shift lock solenoid circuit B Range/Performance
P092C	Gear shift lock solenoid/actuator control circuit B, low
P092D	Gear shift lock solenoid circuit B, High
P0930	Gear Shift Lock Solenoid Circuit, Low
P0931	Gear Shift Lock Solenoid Circuit, High
P0932	Hydraulic pressure sensor circuit
P0933	Hydraulic pressure sensor, range/performance
P0934	Hydraulic pressure sensor circuit, low input
P0935	Hydraulic pressure sensor circuit, high input



ERROR CODE	ERROR
P0936	Hydraulic pressure sensor - circuit intermittent
P0937	Hydraulic oil temperature sensor circuit
P0938	Hydraulic oil temperature sensor - range/performance
P0939	Hydraulic Oil Temperature Sensor Circuit, Low Input
P0940	Hydraulic Oil Temperature Sensor Circuit, High Input
P0941	Hydraulic oil temperature sensor - circuit intermittent
P0942	Hydraulic pressure unit
P0943	Hydraulic pressure unit cycling period too short
P0944	Hydraulic pressure unit - loss of pressure
P0945	Hydraulic pump relay - circuit open
P0946	Hydraulic pump relay - range/performance
P0947	Hydraulic pump relay - circuit low
P0948	Hydraulic pump relay - circuit high
P0A00	Motor electronics coolant temperature sensor circuit
P0A01	Motor electronics coolant temperature sensor - circuit range/performance
P0A02	Motor electronics coolant temperature sensor - circuit low
P0A03	Motor electronics coolant temperature sensor - circuit high
P0A04	Motor electronics coolant temperature sensor - circuit intermittent
P0A05	Motor electronics coolant pump control circuit, open
P0A06	Motor electronics coolant pump control - circuit low
P0A07	Motor electronics coolant pump control - circuit high
P0A0A	High voltage system interlock circuit
P0A0B	High-voltage system interlock - circuit performance.
P0A0C	High-voltage system interlock - circuit low.
P0A0D	High-voltage system interlock - circuit high.
P0A0E	High-voltage system interlock - circuit intermittent.
P0A0F	Engine failed to start
P0A14	Engine mount A control circuit, open
P0A15	Engine mount control circuit - low
P0A16	Engine mount control circuit - high
P0A17	Motor torque sensor circuit
P0A18	Motor torque sensor - circuit range/performance
P0A19	Motor Torque Sensor Circuit Low
P0A1A	Generator Control Module
P0A1D	Hybrid Powertrain Control Module
P0A1E	Starter/Generator Control Module
P0A1F	Battery Energy Control Module
P0A20	Motor Torque Sensor Circuit High
P0A21	Motor Torque Sensor Circuit Intermittent
P0A22	Generator Torque Sensor Circuit
P0A23	Generator Torque Sensor Circuit Range/Performance
P0A24	Generator Torque Sensor Circuit Low
P0A25	Generator Torque Sensor Circuit High
P0A26	Generator Torque Sensor Circuit Intermittent
P0A36	Generator Temperature Sensor Circuit
P0A37	Generator Temperature Sensor Circuit Range/Performance
P0A38	Generator Temperature Sensor Circuit Low
P0A39	Generator Temperature Sensor Circuit High
P0A3A	Generator Temperature Sensor Circuit Intermittent

ERROR CODE	ERROR
P0A3B	Alternator over-temperature
P0A3E	Generator Inverter Over Temperature
P0A4B	Generator Position Sensor Circuit
P0A4C	Generator Position Sensor Circuit Range/Performance
P0A4D	Generator Position Sensor Circuit Low
P0A4E	Generator Position Sensor Circuit High
P0A4F	Generator Position Sensor Circuit Intermittent
P0A50	Generator Position Sensor Circuit Overspeed
P0A59	Generator Current Sensor Circuit
P0A5A	Generator Current Sensor Circuit Range/Performance
P0A5B	Generator Current Sensor Circuit Low
P0A5C	Generator Current Sensor Circuit High
P0A6F	Generator Phase U Current
P0A70	Generator Phase U Current Low
P0A71	Generator Phase U Current High
P0A72	Generator Phase V Current
P0A73	Generator Phase V Current Low
P0A74	Generator Phase V Current High
P0A75	Alternator - Phase W - Current
P0A76	Alternator - Phase W - Low current
P0A77	Alternator - Phase W - High current
P0A7A	Alternator inverter performance
P0A7B	Battery Energy Control Module Requested MIL Illumination
P0A7C	Motor Electronics Over Temperature
P0A80	Replace Hybrid Battery Pack
P0A92	Hybrid Generator Performance
P0A93	Inverter A Cooling System Performance
P0A95	High Voltage Fuse
P0AB6	Engine Mount B Control Circuit/Open
P0AB7	Engine Mount B Control Circuit Low
P0AB8	Engine Mount B Control Circuit High
P0AB9	Hybrid System Performance
P0AC4	Hybrid Powertrain Control Module Requested MIL Illumination
P0AFF	System Voltage Too Low for Voltage Step Down Conversion
P0B33	High Voltage Service Disconnect Circuit
P0B34	High Voltage Service Disconnect Circuit Performance
P0B35	High Voltage Service Disconnect Circuit Low
P0B36	High Voltage Service Disconnect Circuit High
P0B37	High Voltage Service Disconnect Open
P0B38	Motor Electronics Coolant Pump B Control Circuit/Open
P0B39	Motor Electronics Coolant Pump B Control Circuit Low
P0B3A	Motor Electronics Coolant Pump B Control Circuit High
P0BCC	Generator Inverter Temperature Sensor Circuit
P0BCD	Generator Inverter Temperature Sensor Circuit Range/Performance
P0BCE	Generator Inverter Temperature Sensor Circuit Low
P0BCF	Generator Inverter Temperature Sensor Circuit High
P0BD0	Generator Inverter Temperature Sensor Circuit Intermittent/Erratic
P0C2F	Internal Control Module Drive Motor/Generator - Engine Speed Sensor Performance
P0C31	Inverter B Cooling System Performance

ERROR CODE	ERROR
P0C64	Generator Position Sensor Circuit A
P0C65	Generator Position Sensor Circuit A Range/Performance
P0C66	Generator Position Sensor Circuit A Low
P0C67	Generator Position Sensor Circuit A High
P0C68	Generator Position Sensor Circuit A Intermittent/Erratic
P0C69	Generator Position Sensor Circuit B
P0C6A	Generator Position Sensor Circuit B Range/Performance
P0C6B	Generator Position Sensor Circuit B Low
P0C6C	Generator Position Sensor Circuit B High
P0C6D	Generator Position Sensor Circuit B Intermittent/Erratic
P0C73	Motor Electronics Coolant Pump A Control Performance
P0C74	Motor Electronics Coolant Pump B Control Performance
P0C7B	Generator Inverter Voltage Too High
P2002	Diesel Particulate Filter Efficiency Below Threshold Bank 1
P2003	Diesel Particulate Filter Efficiency Below Threshold Bank 2
P2004	Intake Manifold Runner Control Stuck Open (Bank 1)
P2005	Intake Manifold Runner Control Stuck Open (Bank 2)
P2006	Intake Manifold Runner Control Stuck Closed (Bank 1)
P2007	Intake Manifold Runner Control Stuck Closed (Bank 2)
P2008	Intake Manifold Runner Control Circuit/Open (Bank 1)
P2009	Intake Manifold Runner Control Circuit Low (Bank 1)
P200A	Intake Manifold Runner Performance, Bank 1
P200B	Intake Manifold Runner Performance, Bank 2
P200E	Catalyst temperature sensor (bank 1) - signal too strong
P200F	Catalyst temperature sensor (bank 2) - signal too strong
P2010	Intake Manifold Runner Control Circuit High (Bank 1)
P2011	Intake Manifold Runner Control Circuit/Open (Bank 2)
P2012	Intake Manifold Runner Control Circuit Low (Bank 2)
P2013	Intake Manifold Runner Control Circuit High (Bank 2)
P2014	Intake Manifold Runner Performance, Bank 1
P2015	Intake Manifold Runner Position Sensor/Switch Circuit Range/Performance (Bank 1)
P2016	Intake Manifold Runner Control Circuit Low (Bank 1)
P2017	Intake Manifold Runner Control Circuit High (Bank 1)
P2018	Intake Manifold Runner Position Sensor/Switch Circuit Intermittent (Bank 1)
P2019	Intake Manifold Runner Performance, Bank 2
P201A	Reductant Injection Valve Circuit Range/Performance (Bank 2 Unit 1)
P2020	Intake Manifold Runner Position Sensor/Switch Circuit Range/Performance (Bank 2)
P2021	Intake Manifold Runner Control Circuit Low (Bank 2)
P2022	Intake Manifold Runner Control Circuit High (Bank 2)
P2023	Intake Manifold Runner Position Sensor/Switch Circuit Intermittent (Bank 2)
P2024	Evaporative Emissions (EVAP) Fuel Vapor Temperature Sensor Circuit
P2025	Evaporative Emissions (EVAP) Fuel Vapor Temperature Sensor Performance
P2026	Evaporative Emissions (EVAP) Fuel Vapor Temperature Sensor Circuit Low Voltage
P2027	Evaporative Emissions (EVAP) Fuel Vapor Temperature Sensor Circuit High Voltage
P2028	Evaporative Emissions (EVAP) Fuel Vapor Temperature Sensor Circuit Intermittent
P2029	Fuel Fired Heater Disabled

ERROR CODE	ERROR
P202A	Reductant Tank Heater Control Circuit/Open
P202B	Reductant Tank Heater Control Circuit Low
P202C	Reductant Tank Heater Control Circuit High
P202D	Reductant Leakage
P202E	Reductant Injection Valve Circuit Range/Performance
P202F	Reductant/Regeneration Supply Control Circuit Range/Performance
P2030	Fuel Fired Heater Performance
P2031	Exhaust gas temperature sensor circuit, bank 1, sensor 2,
P2032	Exhaust Gas Temperature Sensor Circuit Low Bank 1 Sensor 2
P2033	Exhaust Gas Temperature Sensor Circuit High Bank 1 Sensor 2
P2034	Exhaust gas temperature sensor circuit, bank 2, sensor 2,
P2035	Exhaust Gas Temperature Sensor Circuit Low Bank 2 Sensor 2
P2036	Exhaust Gas Temperature Sensor Circuit High Bank 2 Sensor 2
P2037	Reductant Injection Air Pressure Sensor A Circuit
P2038	Reductant Injection Air Pressure Sensor A Circuit Range/Performance
P2039	Reductant Injection Air Pressure Sensor A Circuit Low
P203A	Reductant Level Sensor Circuit
P203B	Reductant Level Sensor Circuit Range/Performance
P203C	Reductant Level Sensor Circuit Low
P203D	Reductant Level Sensor Circuit High
P203E	Reductant Level Sensor Circuit Intermittent/Erratic
P203F	Reductant Level Too Low
P2040	Reductant Injection Air Pressure Sensor A Circuit High
P2041	Reductant Injection Air Pressure Sensor A Circuit Intermittent
P2042	Reductant Tank Temperature Sensor Circuit
P2043	Reductant Temperature Sensor Circuit Range/Performance
P2044	Reductant Temperature Sensor Circuit Low
P2045	Reductant Temperature Sensor Circuit High
P2046	Reductant Temperature Sensor Circuit Intermittent
P2047	Reductant Injection Valve Circuit/Open Bank 1 Unit 1
P2048	Reductant Injection Valve Circuit Low Bank 1 Unit 1
P2049	Reductant Injection Valve Circuit High Bank 1 Unit 1
P204A	Reductant Pressure Sensor Circuit
P204B	Reductant Pressure Sensor Circuit Range/Performance
P204C	Reductant Pressure Sensor Circuit Low
P204D	Reductant Pressure Sensor Circuit High
P204E	Reductant Pressure Sensor Circuit Intermittent/Erratic
P204F	Reductant System Performance Bank 1
P2050	Reductant Injection Valve Circuit/Open (Bank 2 Unit 1)
P2051	Reductant Injection Valve Circuit Low (Bank 2 Unit 1)
P2052	Reductant Injection Valve Circuit High (Bank 2 Unit 1)
P2053	Reductant Injection Valve Circuit/Open (Bank 1 Unit 2)
P2054	Reductant Injection Valve Circuit Low (Bank 1 Unit 2)
P2055	Reductant Injection Valve Circuit High (Bank 1 Unit 2)
P2056	Reductant Injection Valve Circuit/Open (Bank 2 Unit 2)
P2057	Reductant Injection Valve Circuit Low (Bank 2 Unit 2)
P2058	Reductant Injection Valve Circuit High (Bank 2 Unit 2)
P2059	Reductant Injection Air Pump Control Circuit/Open
P205A	Reductant Tank Temperature Sensor Circuit

ERROR CODE	ERROR
P205B	Reductant Temperature Sensor Circuit Range/Performance
P205C	Reductant Tank Temperature Sensor Circuit Low
P205D	Reductant Tank Temperature Sensor Circuit High
P205E	Reductant Temperature Sensor Circuit Intermittent
P205F	Reductant System Performance Bank 2
P2060	Reductant Injection Air Pump Control Circuit Low
P2061	Reductant Injection Air Pump Control Circuit High
P2062	Reductant/Regeneration Supply Control Circuit/Open
P2063	Reductant/Regeneration Supply Control Circuit Low
P2064	Reductant/Regeneration Supply Control Circuit High
P2065	Fuel Level Sensor B Circuit
P2066	Fuel Level Sensor B Performance
P2067	Fuel Level Sensor B Circuit Low
P2068	Fuel Level Sensor B Circuit High
P2069	Fuel Level Sensor B Circuit Intermittent
P206A	Reductant Quality Sensor Circuit
P206B	Reductant Quality Sensor Circuit Range/Performance
P206C	Reductant Quality Sensor Circuit Low
P206D	Reductant Quality Sensor Circuit High
P206E	Intake Manifold Runner Control Stuck Open (Bank 2)
P206F	Intake Manifold Runner Control Stuck Closed (Bank 2)
P2070	Intake Manifold Tuning (IMT) Valve Stuck Open
P2071	Intake Manifold Tuning (IMT) Valve Stuck Closed
P2074	Manifold Absolute Pressure/Mass Air Flow - Throttle Position Correlation at Higher Load
P2075	Intake Manifold Tuning (IMT) Valve Position Sensor/Switch Circuit
P2076	Intake Manifold Tuning (IMT) Valve Position Sensor/Switch Circuit - Range/Performance
P2077	Intake Manifold Tuning (IMT) Valve Position Sensor/Switch Circuit low
P2078	Intake Manifold Tuning (IMT) Valve Position Sensor/Switch Circuit High
P2079	Intake Manifold Tuning (IMT) Valve Position Sensor/Switch Circuit Intermittent
P207A	Intake Manifold Runner Performance, Bank 2
P207B	Intake Manifold Runner Position Sensor/Switch Circuit Range/Performance (Bank 2)
P207C	Intake Manifold Runner Control Circuit Low (Bank 2)
P207D	Intake Manifold Runner Control Circuit High (Bank 2)
P207E	Intake Manifold Runner Position Sensor/Switch Circuit Intermittent (Bank 2)
P207F	Reductant Quality Performance
P2080	Exhaust Gas Temperature Sensor Circuit Range/Performance(bank 1 sensor 1)
P2081	Exhaust Gas Temperature Sensor Circuit Intermittent(bank 1 sensor 1)
P2082	Exhaust Gas Temperature Sensor Circuit Range/Performance (Bank 2 Sensor 1)
P2083	Exhaust Gas Temperature Sensor Circuit Intermittent (Bank 2 Sensor 1)
P2084	Exhaust Gas Temperature Sensor Circuit Range/Performance Bank 1 Sensor 2
P2085	Exhaust Gas Temperature Sensor Circuit Intermittent Bank 1 Sensor 2
P2086	Exhaust Gas Temperature Sensor Circuit Range/Performance Bank 2 Sensor 2
P2087	Exhaust Gas Temperature Sensor Circuit Intermittent Bank 2 Sensor 2
P2088	A Camshaft Position Actuator Control Circuit Low Bank 1
P2089	A Camshaft Position Actuator Control Circuit High Bank 1
P208A	Reductant Pump Control Circuit/Open

ERROR CODE	ERROR
P208B	Reductant Pump Control Range/Performance
P208C	Reductant Pump Control Circuit Low
P208D	Reductant Pump Control Circuit High
P208E	Reductant Injection Valve Stuck Closed Bank 1 Unit 1
P208F	Reductant Injection Valve Stuck Closed Bank 2 Unit 1
P2090	B Camshaft Position Actuator Control Circuit Low (Bank 1)
P2091	B Camshaft Position Actuator Control Circuit High (Bank 1)
P2092	A Camshaft Position Actuator Control Circuit Low (Bank 2)
P2093	A Camshaft Position Actuator Control Circuit High (Bank 2)
P2094	B Camshaft Position Actuator Control Circuit Low (Bank 2)
P2095	B Camshaft Position Actuator Control Circuit High (Bank 2)
P2096	Post Catalyst Fuel Trim System Too Lean Bank 1
P2097	Post Catalyst Fuel Trim System Too Rich Bank 1
P2098	Post Catalyst Fuel Trim System Too Lean Bank 2
P2099	Post Catalyst Fuel Trim System Too Rich Bank 2
P209A	Reductant Injection Air Pressure Sensor B Circuit
P209B	Reductant Injection Air Pressure Sensor B Circuit Range/Performance
P209C	Reductant Injection Air Pressure Sensor B Circuit Low
P209D	Reductant Injection Air Pressure Sensor B Circuit High
P209E	Reductant Injection Air Pressure Sensor A/B Correlation
P209F	Reductant Tank Heater Control Circuit Performance
P20A0	Reductant Purge Control Valve Circuit /Open
P20A1	Reductant Purge Control Valve Performance
P20A2	Reductant Purge Control Valve Circuit Low
P20A3	Reductant Purge Control Valve Circuit High
P20A4	Reductant Purge Control Valve Stuck Open
P20A5	Reductant Purge Control Valve Stuck Closed
P20A6	Reductant Injection Air Pressure Control Valve Circuit/Open
P20A7	Reductant Injection Air Pressure Control Valve Performance
P20A8	Reductant Injection Air Pressure Control Valve Circuit Low
P20A9	Reductant Injection Air Pressure Control Valve Circuit High
P20AA	Reductant Injection Air Pressure Control Valve Stuck Open
P20AB	Reductant Injection Air Pressure Control Valve Stuck Closed
P20AC	Reductant Metering Unit Temperature Sensor Circuit
P20AD	Reductant Metering Unit Temperature Sensor Circuit Range/Performance
P20AE	Reductant Metering Unit Temperature Sensor Circuit Low
P20AF	Reductant Metering Unit Temperature Sensor Circuit High
P20B0	Reductant Metering Unit Temperature Sensor Circuit Intermittent/Erratic
P20B1	Reductant Heater Coolant Control Valve Circuit/Open
P20B2	Reductant Heater Coolant Control Valve Performance
P20B3	Reductant Heater Coolant Control Valve Circuit Low
P20B4	Reductant Heater Coolant Control Valve Circuit High
P20B5	Reductant Metering Unit Heater Control Circuit/Open
P20B6	Reductant Metering Unit Heater Control Circuit Performance
P20B7	Reductant Metering Unit Heater Control Circuit Low
P20B8	Reductant Metering Unit Heater Control Circuit High
P20B9	Reductant Heater A Control Circuit/Open
P20BA	Reductant Heater A Control Circuit Performance
P20BB	Reductant Heater A Control Circuit Low

<b>ERROR CODE</b>	<b>ERROR</b>
P20BC	Reductant Heater A Control Circuit High
P20BD	Reductant Heater B Control Circuit/Open
P20BE	Reductant Heater B Control Circuit Performance
P20BF	Reductant Heater B Control Circuit Low
P20C0	Reductant Heater B Control Circuit High
P20C1	Reductant Heater C Control Circuit/Open
P20C2	Reductant Heater C Control Circuit Performance
P20C3	Reductant Heater C Control Circuit Low
P20C4	Reductant Heater C Control Circuit High
P20C5	Reductant Heater D Control Circuit/Open
P20C6	Reductant Heater D Control Circuit Performance
P20C7	Reductant Heater D Control Circuit Low
P20C8	Reductant Heater D Control Circuit High
P20C9	Reductant Control Module Requested MIL Illumination
P20CA	Reductant Injection Air Pressure Leakage
P20CB	Exhaust Aftertreatment Fuel Injector A Control Circuit/Open
P20CC	Exhaust Aftertreatment Fuel Injector A Control Performance
P20CD	Exhaust Aftertreatment Fuel Injector A Control Circuit Low
P20CE	Exhaust Aftertreatment Fuel Injector A Control Circuit High
P20CF	Exhaust Aftertreatment Fuel Injector A Stuck Open
P20D0	Exhaust Aftertreatment Fuel Injector A Stuck Closed
P20D1	Exhaust Aftertreatment Fuel Injector B Control Circuit/Open
P20D3	Exhaust Aftertreatment Fuel Injector B Control Circuit Low
P20D4	Exhaust Aftertreatment Fuel Injector B Control Circuit High
P20D6	Exhaust Aftertreatment Fuel Injector B Stuck Closed
P20D7	Exhaust Aftertreatment Fuel Supply Control Circuit/Open
P20D8	Exhaust Aftertreatment Fuel Supply Control Performance
P20D9	Exhaust Aftertreatment Fuel Supply Control Circuit Low
P20DA	Exhaust Aftertreatment Fuel Supply Control Circuit High
P20DB	Exhaust Aftertreatment Fuel Supply Control Stuck Open
P20DC	Exhaust Aftertreatment Fuel Supply Control Stuck Closed
P20DD	Exhaust Aftertreatment Fuel Pressure Sensor Circuit
P20DE	Exhaust Aftertreatment Fuel Pressure Sensor Circuit Range/Performance
P20DF	Exhaust Aftertreatment Fuel Pressure Sensor Circuit Low
P20E0	Exhaust Aftertreatment Fuel Pressure Sensor Circuit High
P20E1	Exhaust Aftertreatment Fuel Pressure Sensor Circuit Intermittent/Erratic
P20E2	Exhaust Gas Temperature Sensor 1/2 Correlation Bank 1
P20E3	Exhaust Gas Temperature Sensor 1/3 Correlation Bank 1
P20E4	Exhaust Gas Temperature Sensor 2/3 Correlation Bank 1
P20E5	Reductant Injection Air Pressure Too Low
P20E6	Reductant Injection Air Pressure Too Low
P20E7	Reductant Injection Air Pressure Too High
P20E8	Reductant Pressure Too Low
P20E9	Reductant Pressure Too High
P20EA	Reductant Control Module Power Relay De-Energized Performance - Too Early
P20EB	Reductant Control Module Power Relay De-Energized Performance - Too Late
P20F4	Reductant Consumption Too Low
P20F5	Reductant Consumption Too High

<b>ERROR CODE</b>	<b>ERROR</b>
P20F6	Reductant Injection Valve Stuck Open (Bank 1 Unit 1)
P20F7	Reductant Injection Valve Stuck Open (Bank 2 Unit 1)
P2100	Throttle Actuator A Control Motor Circuit/Open
P2101	Throttle Actuator A Control Motor Circuit Range/Performance
P2102	Throttle Actuator A Control Motor Circuit Low
P2103	Throttle Actuator A Control Motor Circuit High
P2104	Throttle Actuator Control System - Forced Idle
P2105	Throttle Actuator Control System - Forced Engine Shutdown
P2106	Throttle Actuator Control System - Forced Limited Power
P2107	Throttle Actuator Control Module Processor
P2108	Throttle Actuator Control Module Performance
P2109	Throttle/Pedal Position Sensor A Minimum Stop Performance
P210A	Throttle Actuator B Control Motor Circuit
P210B	Throttle Actuator B Control Motor Circuit Range/Performance
P210C	Throttle Actuator B Control Motor Circuit Low
P210D	Throttle Actuator B Control Motor Circuit High
P210E	Throttle/Pedal Position Sensor/Switch C/F Voltage Correlation
P210F	Oxygen Sensor Signal Biased/Stuck Rich(bank 1 sensor 1)
P2110	Throttle Actuator Control System - Forced Limited RPM
P2111	Throttle Actuator Control System - Stuck Open
P2112	Throttle Actuator Control System - Stuck Closed
P2113	Throttle/Pedal Position Sensor B Minimum Stop Performance
P2114	Throttle/Pedal Position Sensor C Minimum Stop Performance
P2115	Throttle/Pedal Position Sensor D Minimum Stop Performance
P2116	Throttle/Pedal Position Sensor E Minimum Stop Performance
P2117	Throttle/Pedal Position Sensor F Minimum Stop Performance
P2118	Throttle Actuator Control Motor Current Range/Performance
P2119	Throttle Actuator A Control Motor Circuit Range/Performance
P2120	Throttle/Pedal Position Sensor/Switch D Circuit
P2121	Throttle/Pedal Position Sensor/Switch D Circuit Range/Performance
P2122	Throttle/Pedal Position Sensor/Switch D Circuit Low
P2123	Throttle/Pedal Position Sensor/Switch D Circuit High
P2124	Throttle/Pedal Position Sensor/Switch D Circuit Intermittent
P2125	Throttle/Pedal Position Sensor/Switch E Circuit
P2126	Throttle/Pedal Position Sensor/Switch E Circuit Range/Performance
P2127	Throttle/Pedal Position Sensor/Switch E Circuit Low
P2128	Throttle/Pedal Position Sensor/Switch E Circuit High
P2129	Throttle/Pedal Position Sensor/Switch E Circuit Intermittent
P212A	Throttle Position Sensor/Switch G Circuit
P212B	Throttle Position Sensor/Switch G Circuit Range/Performance
P212C	Throttle Position Sensor/Switch G Circuit Low
P212D	Throttle Position Sensor/Switch G Circuit High
P212E	Throttle Position Sensor/Switch G Circuit Intermittent
P2130	Throttle/Pedal Position Sensor/Switch F Circuit
P2132	Throttle/Pedal Position Sensor/Switch F Circuit Low
P2133	Throttle/Pedal Position Sensor/Switch F Circuit Intermittent
P2134	Throttle/Pedal Position Sensor/Switch A/B Voltage Correlation
P2135	Throttle/Pedal Position Sensor/Switch A/C Voltage Correlation
P2137	Throttle/Pedal Position Sensor/Switch D/E Voltage Correlation



ERROR CODE	ERROR
P2138	Throttle/Pedal Position Sensor/Switch D/E Voltage Correlation
P2139	Throttle/Pedal Position Sensor/Switch D/F Voltage Correlation
P213E	Fuel Injection System Fault - Forced Engine Shutdown
P213F	Fuel Pump System Fault - Forced Engine Shutdown
P2140	Throttle/Pedal Position Sensor/Switch E/F Voltage Correlation
P2146	Fuel Injector Group A Supply Voltage Circuit/Open
P2147	Fuel Injector Group A Supply Voltage Circuit Low
P2148	Fuel Injector Group A Supply Voltage Circuit High
P2149	Fuel Injector Group B Supply Voltage - Circuit Open
P214C	Long-term adaptation fuel mixing - bank 1
P214D	Long-term adaptation fuel mixing - bank 1
P2150	Fuel Injector Group B Supply Voltage Circuit Low
P2151	Fuel Injector Group B Supply Voltage Circuit High
P2152	Fuel Injector Group C Supply Voltage Circuit/Open
P2153	Fuel Injector Group C Supply Voltage Circuit Low
P2154	Fuel Injector Group C Supply Voltage Circuit High
P2155	Fuel Injector Group D Supply Voltage Circuit/Open
P2156	Fuel Injector Group D Supply Voltage Circuit Low
P2157	Fuel Injector Group D Supply Voltage Circuit High
P2158	Vehicle Speed Sensor B
P2159	Vehicle Speed Sensor B Range/Performance
P215A	Vehicle Speed - Wheel Speed Correlation
P215B	Vehicle Speed - Output Shaft Speed Correlation
P215C	Output Shaft Speed - Wheel Speed Correlation
P2160	Vehicle Speed Sensor B Circuit Low
P2161	Vehicle Speed Sensor B Intermittent/Erratic/High
P2162	Vehicle Speed Sensor A/B Correlation
P2163	Throttle/Pedal Position Sensor A Maximum Stop Performance
P2164	Throttle/Pedal Position Sensor B Maximum Stop Performance
P2165	Throttle/Pedal Position Sensor C Maximum Stop Performance
P2166	Throttle/Pedal Position Sensor D Maximum Stop Performance
P2167	Throttle/Pedal Position Sensor E Maximum Stop Performance
P2168	Throttle/Pedal Position Sensor F Maximum Stop Performance
P2169	Exhaust Pressure Regulator Vent Solenoid Control Circuit/Open
P216A	Fuel Injector Group E Supply Voltage Circuit/Open
P216B	Fuel Injector Group E Supply Voltage Circuit Low
P216C	Fuel Injector Group E Supply Voltage Circuit High
P216D	Fuel Injector Group F Supply Voltage Circuit/Open
P216E	Fuel Injector Group F Supply Voltage Circuit Low
P216F	Fuel Injector Group F Supply Voltage Circuit High
P2170	Exhaust Pressure Regulator Vent Solenoid Control Circuit Low
P2171	Exhaust Pressure Regulator Vent Solenoid Control Circuit High
P2172	Throttle Actuator Control System - Sudden High Air Flow Detected
P2173	Throttle Actuator Control System - High Air Flow Detected
P2174	Throttle Actuator Control System - Sudden Low Air Flow Detected
P2175	Throttle Actuator Control System - Low Air Flow Detected
P2176	Throttle Actuator Control System - Idle Position Not Learned
P2177	System Too Lean Off Idle Bank 1
P2178	System Too Rich Off Idle Bank 1

ERROR CODE	ERROR
P2179	System Too Lean Off Idle Bank 2
P217A	Fuel Injector Group G Supply Voltage Circuit/Open
P217B	Fuel Injector Group G Supply Voltage Circuit Low
P217C	Fuel Injector Group G Supply Voltage Circuit High
P217D	Fuel Injector Group H Supply Voltage Circuit/Open
P217E	Fuel Injector Group H Supply Voltage Circuit Low
P217F	Fuel Injector Group H Supply Voltage Circuit High
P2180	System Too Rich Off Idle Bank 2
P2181	Cooling System Performance
P2182	Engine Coolant Temperature Sensor 2 Circuit
P2183	Engine Coolant Temperature Sensor 2 Circuit Range/Performance
P2184	Engine Coolant Temperature Sensor 2 Circuit Low
P2185	Engine Coolant Temperature Sensor 2 Circuit High
P2186	Engine Coolant Temperature Sensor 2 Circuit Intermittent/Erratic
P2187	System Too Lean at Idle (Bank 1)
P2188	System Too Rich at Idle Bank 1
P2189	System Too Lean at Idle (Bank 2)
P2190	System Too Rich at Idle Bank 2
P2191	System Too Lean at Higher Load Bank 1
P2192	System Too Rich at Higher Load Bank 1
P2193	System Too Lean at Higher Load Bank 2
P2194	System Too Rich at Higher Load Bank 2
P2195	Oxygen Sensor Signal Biased/Stuck Lean (Bank 1 Sensor 1)
P2196	Oxygen Sensor Signal Biased/Stuck Rich (Bank 1 Sensor 1)
P2197	Oxygen Sensor Signal Biased/Stuck Lean (Bank 2 Sensor 1)
P2198	Oxygen Sensor Signal Biased/Stuck Rich (Bank 2 Sensor 1)
P2199	Intake Air Temperature Sensor 1/2 Correlation
P21AC	Long-term fuel correction under too high load (Bank 1)
P21AD	Long-term fuel correction under too lean load (Bank 1)
P21CC	Long-term fuel correction at minimum too rich (Bank 1)
P21CD	Long-term fuel correction at idle too low (Bank 1)
P21E0	Long-term fuel correction - not plausible signal (Bank 1)
P21EB	Long-term fuel correction - no signal (Bank 1)
P21EC	Long-term fuel correction - high signal (Bank 1)
P21ED	Long-term fuel correction - low signal (Bank 1)
P2226	Barometric pressure sensor circuit
P2227	Barometric pressure sensor circuit, range/performance
P2228	Barometric pressure sensor circuit, low
P2229	Barometric pressure sensor circuit, high
P222A	Barometric pressure sensor B circuit out of nominal range
P222B	Barometric pressure sensor B circuit low
P222C	Barometric pressure sensor B circuit high
P222D	Barometric pressure sensor B circuit intermittent/erratic
P222E	Barometric pressure sensor A/B correlation
P2230	Barometric pressure sensor - circuit intermittent
P2231	Heated oxygen sensor heater (HO2S) Bank 1 Sensor 1
P2232	Heated oxygen sensor heater (HO2S) Bank 1 Sensor 2
P2233	Heated oxygen sensor heater (HO2S) Bank 1 Sensor 3
P2234	Heated oxygen sensor heater (HO2S) Bank 2 Sensor 1

ERROR CODE	ERROR
P2235	Heated oxygen sensor heater (HO2S) Bank 2 Sensor 2
P2236	Heated oxygen sensor heater (HO2S) Bank 2 Sensor 3
P2237	Heated oxygen sensor current (bank 1 sensor 1)
P2238	Heated oxygen sensor current (bank 1 sensor 1)
P2239	Heated oxygen sensor current (bank 1 sensor 1)
P2240	Heated oxygen sensor current (bank 2 sensor 1)
P2241	Heated oxygen sensor current (bank 2 sensor 1)
P2242	Heated oxygen sensor current (bank 2 sensor 1)
P2243	Oxygen sensor reference voltage circuit (Bank 1 sensor 1)
P2244	Oxygen sensor reference voltage, Performance - Bank 1, Sensor 1
P2245	Oxygen sensor reference voltage circuit low - Bank 1, Sensor 1
P2246	Oxygen sensor reference voltage circuit, high - Bank 1 Sensor 1
P2247	Oxygen sensor reference voltage circuit, open - Bank 2, Sensor 1
P2248	Oxygen sensor reference voltage, Performance - Bank 2, Sensor 1
P2249	Oxygen sensor reference voltage circuit, low- Bank 2 Sensor 1
P224F	Barometric pressure sensor "B" circuit
P2250	Oxygen sensor reference voltage circuit, high - Bank 2 Sensor 1
P2251	Heated oxygen sensor current (bank 1 sensor 1)
P2252	Heated oxygen sensor current (bank 1 sensor 1)
P2253	Heated oxygen sensor current (bank 1 sensor 1)
P2254	Heated oxygen sensor current (bank 2 sensor 1)
P2255	Heated oxygen sensor current (bank 2 sensor 1)
P2256	Heated oxygen sensor current (bank 2 sensor 1)
P2257	Secondary Air Injection System Control A Circuit Low
P2258	Secondary Air Injection System Control A Circuit High
P2259	Secondary Air Injection System Control B Circuit Low
P2260	Secondary Air Injection System Control B Circuit High
P2264	Water in Fuel Sensor Circuit
P2265	Water in Fuel Sensor Circuit Range/Performance
P2266	Water in Fuel Sensor Circuit Low
P2267	Water in Fuel Sensor Circuit High
P2268	Water in Fuel Sensor Circuit Intermittent
P2269	Water in Fuel Condition
P226A	Water in Fuel Lamp Control Circuit
P2270	Oxygen Sensor Signal Biased/Stuck Lean (Bank 1 Sensor 2)
P2271	Oxygen Sensor Signal Biased/Stuck Rich (Bank 1 Sensor 2)
P2272	Oxygen Sensor Signal Biased/Stuck Lean (Bank 2 Sensor 2)
P2273	Oxygen Sensor Signal Biased/Stuck Rich (Bank 2 Sensor 2)
P2274	Oxygen Sensor Signal Biased/Stuck Lean (Bank 1 Sensor 3)
P2275	Oxygen Sensor Signal Biased/Stuck Rich (Bank 1 Sensor 3)
P2276	Oxygen Sensor Signal Biased/Stuck Lean (Bank 2 Sensor 3)
P2277	Oxygen Sensor Signal Biased/Stuck Rich (Bank 2 Sensor 3)
P2278	Oxygen Sensor Signals Swapped (Bank 1 Sensor 3)
P2279	Intake Air System Leak
P2283	Injector Control Pressure Sensor Circuit
P2284	Injector Control Pressure Sensor Circuit Range/Performance
P2285	Injector Control Pressure Sensor Circuit Low
P2286	Injector Control Pressure Sensor Circuit High
P2287	Injector Control Pressure Sensor Circuit Intermittent

ERROR CODE	ERROR
P2288	Injector Control Pressure Too High
P2289	Injector Control Pressure Too High - Engine Off
P228A	Fuel Pressure Regulator 1 - Forced Engine Shutdown
P228B	Fuel Pressure Regulator 2 - Forced Engine Shutdown
P228C	Fuel Pressure Regulator 1 Exceeded Control Limits - Pressure Too Low
P228D	Fuel Pressure Regulator 1 Exceeded Control Limits - Pressure Too High
P228E	Fuel Pressure Regulator 1 Exceeded Learning Limits - Too Low
P228F	Fuel Pressure Regulator 1 Exceeded Learning Limits - Too High
P2290	Injector Control Pressure Too Low
P2291	Injector Control Pressure Too Low - Engine Cranking
P2292	Injector Control Pressure Erratic
P2293	Fuel Pressure Regulator 2 Performance
P2294	Fuel Pressure Regulator 2 Control Circuit/Open
P2295	Fuel Pressure Regulator 2 Control Circuit Low
P2296	Fuel Pressure Regulator 2 Control Circuit High
P2297	Oxygen Sensor Out of Range During Deceleration (Bank 1 Sensor 2)
P2298	Oxygen Sensor Out of Range During Deceleration (Bank 2 Sensor 1)
P229A	Fuel Pressure Regulator Exceeded Control Limits - Pressure Too Low
P229B	Fuel Pressure Regulator Exceeded Control Limits - Pressure Too High
P229C	Fuel Pressure Regulator Exceeded Learning Limits - Too Low
P229D	Fuel Pressure Regulator Exceeded Learning Limits - Too High
P2300	Ignition coils
P2301	Ignition coils
P2302	Ignition Coil A Secondary Circuit
P2303	Ignition Coil B Primary Control Circuit Low
P2304	Ignition Coil B Primary Control Circuit High
P2305	Ignition Coil B Secondary Circuit
P2306	Ignition Coil C Primary Control Circuit Low
P2307	Ignition Coil C Primary Control Circuit High
P2308	Ignition Coil C Secondary Circuit
P2309	Ignition Coil D Primary Control Circuit Low
P2310	Ignition Coil D Primary Control Circuit High
P2311	Ignition Coil D Secondary Circuit
P2312	Ignition Coil E Primary Control Circuit Low
P2313	Ignition Coil E Primary Control Circuit High
P2314	Ignition Coil E Secondary Circuit
P2315	Ignition Coil F Primary Control Circuit Low
P2316	Ignition Coil F Primary Control Circuit High
P2317	Ignition Coil F Secondary Circuit
P2318	Ignition Coil G Primary Control Circuit Low
P2319	Ignition Coil G Primary Control Circuit High
P2320	Ignition Coil G Secondary Circuit
P2321	Ignition Coil H Primary Control Circuit Low
P2322	Ignition Coil H Primary Control Circuit High
P2323	Ignition Coil H Secondary Circuit
P2324	Ignition Coil I Primary Control Circuit Low
P2325	Ignition Coil I Primary Control Circuit High
P2326	Ignition Coil I Secondary Circuit
P2327	Ignition Coil J Primary Control Circuit Low

ERROR CODE	ERROR
P2328	Ignition Coil J Primary Control Circuit High
P2329	Ignition Coil J Secondary Circuit
P2330	Ignition Coil K Primary Control Circuit Low
P2331	Ignition Coil K Primary Control Circuit High
P2332	Ignition Coil K Secondary Circuit
P2333	Ignition Coil L Primary Control Circuit Low
P2334	Ignition Coil L Primary Control Circuit High
P2335	Ignition Coil L Secondary Circuit
P2336	Cylinder 1 above knock threshold
P2337	Cylinder 2 above knock threshold
P2338	Cylinder 3 above knock threshold
P2339	Cylinder 4 above knock threshold
P2340	Cylinder 5 above knock threshold
P2341	Cylinder 6 above knock threshold
P2400	Evaporative emission system leak detection pump control - circuit open
P2401	Evaporative emission system leak detection pump control - circuit low
P2402	Evaporative emission system leak detection pump control - circuit high
P2403	Evaporative emission system leak detection pump sense - circuit open
P2404	Evaporative emission system leak detection pump sense - circuit range/performance
P2405	Evaporative emission system leak detection pump sense - circuit low
P2406	Evaporative emission system leak detection pump sense - circuit high
P2407	Evaporative emission system leak detection pump sense - circuit intermittent/erratic
P2408	Fuel cap sensor / switch circuit
P2409	Fuel cap sensor / switch circuit, range/performance problem
P240A	Evaporative emission system leak detection pump heater - circuit open
P240B	Evaporative emission system leak detection pump heater - circuit low
P240C	Evaporative emission system leak detection pump heater - circuit high
P2410	Fuel cap sensor / switch circuit low
P2411	Fuel cap sensor / switch circuit high
P2412	Fuel Cap Sensor/Switch Circuit Intermittent/Erratic
P2414	Oxygen Sensor Exhaust Sample Error (Bank 1 Sensor 1)
P2415	Oxygen Sensor Exhaust Sample Error (Bank 1 Sensor 1)
P2416	Oxygen Sensor Exhaust Sample Error (Bank 2 Sensor 1)
P2417	Oxygen Sensor Exhaust Sample Error (bank 2, sensor 2)
P2418	Evaporative Emission System Switching Valve Control Circuit, Open
P2419	Evaporative Emission System Switching Valve Control - Circuit Low
P2420	Evaporative Emission System Switching Valve Control Circuit High
P2421	Evaporative emission system switching valve - performance or stuck open
P2422	Evaporative Emission System Vent Valve Stuck Closed.
P2423	HC Adsorption Catalyst Efficiency Below Threshold Bank 1
P2424	HC Adsorption Catalyst Efficiency Below Threshold Bank 2
P2428	Exhaust gas temperature too high (bank 1)
P2429	Exhaust gas temperature too high (bank 2)
P242A	Exhaust Gas Temperature Sensor Circuit Bank 1 Sensor 3
P242B	Exhaust Gas Temperature Sensor Circuit Range/Performance Bank 1 Sensor 3
P242C	Exhaust Gas Temperature Sensor Circuit Low Bank 1 Sensor 3
P242D	Exhaust Gas Temperature Sensor Circuit High Bank 1 Sensor 3
P242E	Exhaust Gas Temperature Sensor Circuit Intermittent/Erratic Bank 1 Sensor 3

ERROR CODE	ERROR
P2430	Secondary Air Injection System Air Flow/Pressure Sensor Circuit Bank 1
P2431	Secondary air injection system air flow/pressure sensor - circuit range/performance (Bank 1)
P2432	Secondary air injection system air flow/pressure sensor - circuit low (Bank 1)
P2433	Secondary air injection system air flow/pressure sensor - circuit high (Bank 1)
P2434	Secondary air injection system air flow/pressure sensor - intermittent/erratic circuit (Bank 1)
P2435	Secondary air injection system - insufficient air flow (Bank 2)
P2436	Secondary air injection system air flow/pressure sensor - circuit range/performance (Bank 2)
P2437	Secondary air injection system air flow/pressure sensor - circuit low (Bank 2)
P2438	Secondary air injection system air flow/pressure sensor - circuit high (Bank 2)
P2439	Secondary air injection system air flow/pressure sensor - intermittent/erratic circuit (Bank 2)
P2440	Secondary air injection system switching valve - stuck open (Bank 1)
P2441	Secondary air injection system switching valve - stuck closed (Bank 1)
P2442	Secondary air injection system switching valve - stuck open (Bank 2)
P2443	Secondary air injection system switching valve - stuck closed (Bank 2)
P2444	Secondary air injection system pump - stuck on (Bank 1)
P2445	Secondary air injection system pump - stuck off (Bank 1)
P2446	Secondary air injection system pump - stuck on (Bank 2)
P2447	Secondary air injection system pump - stuck off (Bank 2)
P2450	Evaporative emission system switching valve - performance or stuck open
P2466	Exhaust gas temperature sensor circuit, bank 2, sensor 3,
P2467	Exhaust gas temperature sensor circuit range/performance - bank 2 sensor 3.
P2468	Exhaust Gas Temperature Sensor Circuit Low Bank 2 Sensor 3
P2469	Exhaust Gas Temperature Sensor Circuit High Bank 2 Sensor 3
P246A	Exhaust gas temperature sensor circuit intermittent/erratic - bank 2 sensor 3.
P246E	Exhaust gas temperature sensor circuit (bank 1, sensor 4)
P246F	Exhaust gas temperature sensor circuit out of range (bank 1 sensor 4)
P2470	Exhaust gas temperature sensor circuit low (bank 1 sensor 4)
P2471	Exhaust gas temperature sensor circuit high (bank 1 sensor 4)
P2472	Exhaust Gas Temperature Sensor Circuit Intermittent Bank 1 Sensor 4
P2473	Exhaust gas temperature sensor circuit (bank 2, sensor 4)
P2474	Exhaust gas temperature sensor circuit out of range (bank 2 sensor 4)
P2475	Exhaust gas temperature sensor circuit low (bank 2 sensor 4)
P2476	Exhaust gas temperature sensor circuit high (bank 2 sensor 4)
P2477	Exhaust Gas Temperature Sensor Circuit Intermittent Bank 2 Sensor 4
P2478	Exhaust gas temperature out of range, bank 1, sensor 1
P2479	Exhaust gas temperature, out of range (bank 1, sensor 2)
P247A	Exhaust gas temperature, out of range (bank 1, sensor 3)
P247B	Exhaust gas temperature, out of range (bank 1, sensor 4)
P247C	Exhaust gas temperature, out of range (bank 2, sensor 1)
P247D	Exhaust gas temperature, out of range (bank 2, sensor 2)
P247E	Exhaust gas temperature, out of range (bank 2, sensor 3)
P247F	Exhaust gas temperature, out of range (bank 2, sensor 4)
P2480	Exhaust gas temperature sensor circuit (bank 1, sensor 5)
P2481	Exhaust Gas Temperature Sensor Circuit Low Bank 1 Sensor 5
P2482	Exhaust Gas Temperature Sensor Circuit High Bank 1 Sensor 5

<b>ERROR CODE</b>	<b>ERROR</b>
P2483	Exhaust Gas Temperature Sensor Circuit Range/Performance Bank 1 Sensor 5
P2484	Exhaust Gas Temperature Sensor Circuit Intermittent/Erratic Bank 1 Sensor 5
P2485	Exhaust Gas Temperature Sensor Circuit/Open Bank 2 Sensor 5
P2486	Exhaust Gas Temperature Sensor Circuit Low Bank 2 Sensor 5
P2487	Exhaust Gas Temperature Sensor Circuit High Bank 2 Sensor 5
P2488	Exhaust Gas Temperature Sensor Circuit Range/Performance Bank 2 Sensor 5
P2489	Exhaust Gas Temperature Sensor Circuit Intermittent/Erratic Bank 2 Sensor 5
P2500	Generator Lamp/L-Terminal Circuit Low
P2501	Generator Lamp/L-Terminal Circuit High
P2502	Charging System Voltage
P2503	Charging System Voltage Low
P2504	Charging System Voltage High
P2505	ECM/PCM Power Input Signal
P2506	ECM/PCM Power Input Signal Range/Performance
P2507	ECM/PCM Power Input Signal Low
P2508	ECM/PCM Power Input Signal High
P2509	ECM/PCM Power Input Signal Intermittent
P250A	Engine oil level sensor circuit
P250A	Long term fuel trim - range/performance
P250B	Engine Oil Level Sensor - Circuit Range/Performance
P250C	Engine oil level sensor - circuit low
P250D	Engine oil level sensor - circuit high
P250E	Engine oil level sensor - circuit intermittent/erratic
P250F	Engine oil level too low
P2510	ECM/PCM power relay sense - circuit range/performance
P2511	ECM/PCM power relay sense - circuit intermittent
P2512	Event Data Recorder Request Circuit, Open
P2513	Engine oil level sensor - circuit low
P2514	Engine oil level sensor - circuit high
P2525	Vacuum Reservoir Pressure Sensor Circuit
P2526	Vacuum Reservoir Pressure Sensor Circuit Range/Performance
P2527	Vacuum Reservoir Pressure Sensor Circuit Low
P2528	Vacuum Reservoir Pressure Sensor Circuit High
P2529	Vacuum Reservoir Pressure Sensor Circuit Intermittent
P252A	Engine Oil Quality Sensor Circuit
P252B	Engine Oil Quality Sensor - Circuit Range/Performance
P252C	Engine oil quality sensor - circuit low
P252D	Engine oil quality sensor - circuit high
P252E	Engine oil quality sensor - circuit intermittent/erratic
P252F	Engine oil level too high
P2530	Ignition Switch Run Position Circuit
P2531	Ignition Switch Run Position Circuit Low
P2532	Ignition Switch Run Position Circuit High
P2533	Ignition Switch Run/Start Position Circuit
P2534	Ignition Switch Run/Start Position Circuit Low
P2535	Ignition Switch Run/Start Position Circuit High
P2536	Ignition Switch Accessory Position Circuit
P2537	Ignition Switch Accessory Position Circuit Low

<b>ERROR CODE</b>	<b>ERROR</b>
P2538	Ignition Switch Accessory Position Circuit High
P2539	Low Pressure Fuel System Sensor Circuit
P253F	Engine Oil Deteriorated
P2540	Low Pressure Fuel System Sensor Circuit Range/Performance
P2541	Low Pressure Fuel System Sensor Circuit Low
P2542	Low Pressure Fuel System Sensor Circuit High
P2543	Low Pressure Fuel System Sensor Circuit Intermittent
P2544	Torque Management Request Input Signal A
P2545	Torque Management Request Input Signal A Range/Performance
P2546	Torque Management Request Input Signal A Low
P2547	Torque Management Request Input Signal A High
P2548	Torque Management Request Input Signal B
P2549	Torque Management Request Input Signal B Range/Performance
P254F	Engine Hood Switch Circuit
P2550	Torque Management Request Input Signal B Low
P2551	Torque Management Request Input Signal B High
P2552	Throttle/Fuel Inhibit Circuit
P2553	Throttle/Fuel Inhibit Circuit Range/Performance
P2554	Throttle/Fuel Inhibit Circuit Low
P2555	Throttle/Fuel Inhibit Circuit High
P2556	Engine Coolant Level Sensor/Switch Circuit
P2557	Engine Coolant Level Sensor/Switch Circuit Range/Performance
P2558	Engine Coolant Level Sensor/Switch Circuit Low
P2559	Engine Coolant Level Sensor/Switch - Circuit High
P2560	Engine Coolant Level Sensor/Switch Circuit
P256A	Engine Idle Speed Selector Sensor/Switch Circuit/Open
P256B	Engine Idle Speed Selector Sensor/Switch Range/Performance
P256C	Engine Idle Speed Selector Sensor/Switch Circuit Low
P256D	Engine Idle Speed Selector Sensor/Switch Circuit High
P256E	Engine Idle Speed Selector Sensor/Switch Circuit Intermittent/Erratic
P257A	Vacuum Reservoir Control Circuit/Open
P257B	Vacuum Reservoir Control Circuit Low
P257C	Vacuum Reservoir Control Circuit High
P257D	Engine Hood Switch Circuit Range/Performance
P257E	Engine Hood Switch Circuit Low
P257F	Engine Hood Switch Circuit High
P2583	Cruise Control Front Distance Range Sensor Single Sensor or Center
P2584	Fuel Additive Control Module Requested MIL Illumination
P2585	Fuel Additive Control Module Warning Lamp Request
P258A	Vacuum Pump Control Circuit/Open
P258B	Vacuum Pump Control Range/Performance
P258C	Vacuum Pump Control Circuit Low
P258D	Vacuum Pump Control Circuit High
P258F	Torque Management Request Output Signal
P2591	Cruise Control Front Distance Range Sensor Left
P2592	Cruise Control Front Distance Range Sensor Right
P2600	Coolant Pump A Control Circuit/Open
P2601	Coolant Pump A Control Circuit Range/Performance
P2602	Coolant Pump A Control Circuit Low



<b>ERROR CODE</b>	<b>ERROR</b>
P2603	Coolant Pump A Control Circuit High
P2604	Intake Air Heater A Circuit Range/Performance
P2605	Intake Air Heater A Circuit Open
P2606	Intake Air Heater B Circuit Range/Performance
P2607	Intake Air Heater B Circuit Low
P2608	Intake Air Heater B Circuit High
P2609	Intake Air Heater System Performance
P260F	Evaporative System Monitoring Processor Performance
P2610	ECM/PCM Internal Engine Off Timer Performance
P2611	A/C Refrigerant Distribution Valve Control Circuit/Open
P2612	A/C Refrigerant Distribution Valve Control Circuit Low
P2613	A/C Refrigerant Distribution Valve Control Circuit High
P2614	Camshaft Position Signal Output Circuit/Open
P2615	Camshaft Position Signal Output Circuit Low
P2616	Camshaft Position Signal Output Circuit High
P2617	Crankshaft Position Signal Output Circuit/Open
P2618	Crankshaft Position Signal Output Circuit Low
P2619	Crankshaft Position Signal Output Circuit High
P261A	Coolant Pump B Control Circuit/Open
P261B	Coolant Pump B Control Circuit Range/Performance
P261C	Coolant Pump B Control Circuit Low
P261D	Coolant Pump B Control Circuit High
P2620	Throttle Position Output Circuit/Open
P2621	Throttle Position Output Circuit Low
P2622	Throttle Position Output Circuit High
P2623	Injector Control Pressure Regulator Circuit/Open
P2624	Injector Control Pressure Regulator Circuit Low
P2625	Injector Control Pressure Regulator Circuit High
P2626	Oxygen Sensor Pumping Current Trim Circuit/Open (Bank 1 Sensor 1)
P2627	Oxygen Sensor Pumping Current Trim Circuit Low (Bank 1 Sensor 1)
P2628	Oxygen Sensor Pumping Current Trim Circuit High (Bank 1 Sensor 1)
P2629	Oxygen Sensor Pumping Current Trim Circuit/Open (Bank 2 Sensor 1)
P2630	Oxygen Sensor Pumping Current Trim Circuit Low (Bank 2 Sensor 1)
P2631	Oxygen Sensor Pumping Current Trim Circuit High (Bank 2 Sensor 1)
P2632	Fuel Pump B Control Circuit /Open
P2633	Fuel Pump B Control Circuit Low
P2634	Fuel Pump B Control Circuit High
P2635	Fuel Pump A Low Flow/Performance
P2636	Fuel Pump B Low Flow/Performance
P2637	Torque Management Feedback Signal A
P2638	Torque Management Feedback Signal A Range/Performance
P2639	Torque Management Feedback Signal A Low
P2640	Torque Management Feedback Signal A High
P2641	Torque Management Feedback Signal B
P2642	Torque Management Feedback Signal B - Range/Performance
P2643	Torque Management Feedback Signal B Low
P2644	Torque Management Feedback Signal B High
P2645	A Rocker Arm Actuator Control Circuit/Open Bank 1
P2646	A Rocker Arm Actuator System Performance/Stuck Off Bank 1

<b>ERROR CODE</b>	<b>ERROR</b>
P2647	A Rocker Arm Actuator System Stuck On Bank 1
P2648	A Rocker Arm Actuator Control Circuit Low Bank 1
P2649	A Rocker Arm Actuator Control Circuit High Bank 1
P264A	A Rocker Arm Actuator Position Sensor Circuit Bank 1
P264B	A Rocker Arm Actuator Position Sensor Circuit Range/Performance Bank 1
P264C	A Rocker Arm Actuator Position Sensor Circuit Low Bank 1
P264D	A Rocker Arm Actuator Position Sensor Circuit High Bank 1
P264E	A Rocker Arm Actuator Position Sensor Circuit Intermittent/Erratic Bank 1
P2650	B Rocker Arm Actuator Control Circuit/Open Bank 1
P2651	B Rocker Arm Actuator System Performance/Stuck Off Bank 1
P2652	B Rocker Arm Actuator System Stuck On Bank 1
P2653	B Rocker Arm Actuator Control Circuit Low Bank 1
P2654	B Rocker Arm Actuator Control Circuit High Bank 1
P2655	A Rocker Arm Actuator Control Circuit/Open Bank 2
P2656	A Rocker Arm Actuator System Performance/Stuck Off Bank 2
P2657	A Rocker Arm Actuator System Stuck On Bank 2
P2658	A Rocker Arm Actuator Control Circuit Low Bank 2
P2659	A Rocker Arm Actuator Control Circuit High Bank 2
P265A	B Rocker Arm Actuator Position Sensor Circuit Bank 1
P265B	B Rocker Arm Actuator Position Sensor Circuit Range/Performance Bank 1
P265C	B Rocker Arm Actuator Position Sensor Circuit Low Bank 1
P265D	B Rocker Arm Actuator Position Sensor Circuit High Bank 1
P265E	B Rocker Arm Actuator Position Sensor Circuit Intermittent/Erratic Bank 1
P2660	B Rocker Arm Actuator Control Circuit/Open Bank 2
P2661	B Rocker Arm Actuator System Performance/Stuck Off Bank 2
P2662	B Rocker Arm Actuator System Stuck On Bank 2
P2663	B Rocker Arm Actuator Control Circuit Low Bank 2
P2664	B Rocker Arm Actuator Control Circuit High Bank 2
P2665	Fuel Shutoff Valve B Control Circuit/Open
P2666	Fuel Shutoff Valve B Control Circuit Low
P2667	Fuel Shutoff Valve B Control Circuit High
P2668	Fuel Mode Indicator Lamp Control Circuit
P2669	Actuator Supply Voltage B Circuit /Open
P266A	A Rocker Arm Actuator Position Sensor Circuit Bank 2
P266B	A Rocker Arm Actuator Position Sensor Circuit Range/Performance Bank 2
P266D	A Rocker Arm Actuator Position Sensor Circuit High Bank 2
P266E	A Rocker Arm Actuator Position Sensor Circuit Intermittent/Erratic Bank 2
P2670	Actuator Supply Voltage B Circuit Low
P2671	Actuator Supply Voltage B Circuit High
P2672	Injection Pump Timing Offset
P2673	Injection Pump Timing Calibration Not Learned
P2674	Injection Pump Fuel Calibration Not Learned
P2678	Coolant Degassing Valve Control Circuit/Open
P2679	Coolant Degassing Valve Control Circuit Low
P267A	B Rocker Arm Actuator Position Sensor Circuit Bank 2
P267B	B Rocker Arm Actuator Position Sensor Circuit Range/Performance Bank 2
P267C	B Rocker Arm Actuator Position Sensor Circuit Low Bank 2
P267D	B Rocker Arm Actuator Position Sensor Circuit High Bank 2
P267E	B Rocker Arm Actuator Position Sensor Circuit Intermittent/Erratic Bank 2

ERROR CODE	ERROR
P2680	Coolant Degassing Valve Control Circuit High
P2681	Engine Coolant Bypass Valve Control Circuit/Open
P2682	Engine Coolant Bypass Valve Control Circuit Low
P2683	Engine Coolant Bypass Valve Control Circuit High
P2684	Actuator Supply Voltage C Circuit/Open
P2685	Actuator Supply Voltage C Circuit Low
P2686	Actuator Supply Voltage C Circuit High
P2687	Fuel Supply Heater Control Circuit/Open
P2688	Fuel Supply Heater Control Circuit Low
P2689	Fuel Supply Heater Control Circuit High
P268A	Fuel Injector Calibration Not Learned/Programmed
P268B	High Pressure Fuel Pump Calibration Not Learned/Programmed
P268C	Cylinder 1 Injector Data Incompatible
P268D	Cylinder 2 Injector Data Incompatible
P268E	Cylinder 3 Injector Data Incompatible
P268F	Cylinder 4 Injector Data Incompatible
P2690	Cylinder 5 Injector Data Incompatible
P2691	Cylinder 6 Injector Data Incompatible
P2696	Injector Data Incompatible
P2697	Exhaust Aftertreatment Fuel Injector A Control Circuit/Open
P2698	Exhaust Aftertreatment Fuel Injector A Control Performance
P2699	Exhaust Aftertreatment Fuel Injector A Control Circuit Low
P269A	Exhaust Aftertreatment Fuel Injector A Control Circuit High
P269B	Exhaust Aftertreatment Glow Plug Control Circuit/Open
P269C	Exhaust Aftertreatment Glow Plug Control Performance
P269D	Exhaust Aftertreatment Glow Plug Control Circuit Low
P269E	Exhaust Aftertreatment Glow Plug Control Circuit High
P269F	Exhaust Aftertreatment Glow Plug Circuit/Open
P26A0	Exhaust Aftertreatment Glow Plug Performance
P26A1	Exhaust Aftertreatment Glow Plug Circuit Low
P26A2	Exhaust Aftertreatment Glow Plug Circuit High
P2711	Unexpected Mechanical Gear Disengagement
P2712	Hydraulic Power Unit Leakage
P2745	Intermediate Shaft Speed Sensor B Circuit
P2746	Intermediate Shaft Speed Sensor B Circuit Range/Performance
P2747	Intermediate Shaft Speed Sensor B Circuit No Signal
P2748	Intermediate Shaft Speed Sensor B Circuit Intermittent
P2749	Intermediate Shaft Speed Sensor C Circuit
P2750	Intermediate Shaft Speed Sensor C Circuit Range/Performance
P2751	Intermediate Shaft Speed Sensor C Circuit No Signal
P2752	Intermediate Shaft Speed Sensor C Circuit Intermittent
P2756	Torque Converter Clutch Pressure Control Solenoid
P2757	Torque Converter Clutch Pressure Control Solenoid Control Circuit Performance/Stuck Off
P2758	Torque Converter Clutch Pressure Control Solenoid Control Circuit Stuck On
P2759	Torque Converter Clutch Pressure Control Solenoid Control Circuit Electrical
P2760	Torque Converter Clutch Pressure Control Solenoid Control Circuit Intermittent
P2761	Torque Converter Clutch Pressure Control Solenoid Control Circuit/Open

ERROR CODE	ERROR
P2762	Torque Converter Clutch Pressure Control Solenoid Control Circuit Range/Performance
P2763	Torque Converter Clutch Pressure Control Solenoid Control Circuit High
P2764	Torque Converter Clutch Pressure Control Solenoid Control Circuit Low
P2765	Input/Turbine Speed Sensor B Circuit
P2766	Input/Turbine Speed Sensor B Circuit Range/Performance
P2767	Input/Turbine Speed Sensor B Circuit No Signal
P2768	Input/Turbine Speed Sensor B Circuit Intermittent
P2769	Torque Converter Clutch Circuit Low
P2770	Torque Converter Clutch Circuit High
P2783	Torque Converter Temperature Too High
P2784	Input/Turbine Speed Sensor A/B Correlation
P2785	Clutch Actuator Temperature Too High
P2786	Gear Shift Actuator Temperature Too High
P2787	Clutch Temperature Too High
P2789	Clutch A Adaptive Learning at Limit
P278A	Kick down switch circuit
P278B	Kick down switch - circuit range/performance
P278C	Kick down switch - circuit low
P278D	Kick down switch - circuit high
P278E	Kick down switch - circuit intermittent/irregular
P278F	Clutch B Adaptive Learning at Limit
P2790	Gate Select Direction Circuit
P2791	Gate Select Direction Circuit Low
P2792	Gate Select Direction Circuit High
P2793	Gear Shift Direction Circuit
P2794	Gear Shift Direction Circuit Low
P2795	Gear Shift Direction Circuit High
P279A	Transfer Case Gear High Incorrect Ratio
P279B	Transfer Case Gear Low Incorrect Ratio
P279C	Transfer Case Gear Neutral Incorrect Ratio
P2800	Transmission Range Sensor B Circuit (PRNDL Input)
P2801	Transmission Range Sensor B Circuit Range/Performance
P2802	Transmission Range Sensor B Circuit Low
P2803	Transmission Range Sensor B Circuit High
P2804	Transmission Range Sensor B Circuit Intermittent
P2805	Transmission Range Sensor A/B Correlation
P2806	Transmission Range Sensor Alignment
P280A	Transmission Range Sensor A Circuit Not Learned
P280B	Transmission Range Sensor B Circuit Not Learned
P2853	Clutch A Pressure Discharge Performance
P2854	Clutch B Pressure Discharge Performance
P2855	Clutch A Pressure Charge Performance
P2856	Clutch B Pressure Charge Performance
P2857	Clutch A Pressure Engagement Performance
P2858	Clutch B Pressure Engagement Performance
P2859	Clutch A Pressure Disengagement Performance
P285A	Clutch B Pressure Disengagement Performance
P2A00	Oxygen Sensor Circuit Range/Performance (Bank 1, Sensor 1)
P2A01	Oxygen Sensor Circuit Range/Performance (Bank 1, Sensor 2)

<b>ERROR CODE</b>	<b>ERROR</b>
P2A02	Oxygen Sensor Circuit Range/Performance (Bank 1, Sensor 3)
P2A03	Oxygen Sensor Circuit Range/Performance (Bank 2, Sensor 1)
P2A04	Oxygen Sensor Circuit Range/Performance (Bank 2, Sensor 2)
P2A05	Oxygen Sensor Circuit Range/Performance (Bank 1, Sensor 3)
P2A06	Oxygen Sensor Negative Voltage Bank 1 Sensor 1
P2A07	Oxygen Sensor Negative Voltage - Bank 1 Sensor 2
P2A08	Oxygen Sensor Negative Voltage - Bank 1 Sensor 3
P2A09	Oxygen Sensor Negative Voltage - Bank 2 Sensor 1
P2A10	Oxygen Sensor Negative Voltage - Bank 2 Sensor 2
P2A11	Oxygen Sensor Negative Voltage - Bank 2 Sensor 3
P3000	Manufacturer Controlled DTC, bank 1
P3100	Manufacturer Controlled
P3200	Manufacturer Controlled
P3300	Manufacturer Controlled
P3400	Cylinder deactivation system
P3401	Cylinder 1 Deactivation/Intake Valve Control Circuit/Open
P3402	Cylinder 1 Deactivation/Intake Valve Control Circuit Performance
P3403	Cylinder 1 Deactivation/Intake Valve Control Circuit Low
P3404	Cylinder 1 Deactivation/Intake Valve Control Circuit High
P3405	Cylinder 1 Exhaust Valve Control Circuit/Open
P3406	Cylinder 1 Exhaust Valve Control Circuit Performance
P3407	Cylinder 1 Exhaust Valve Control Circuit Low
P3408	Cylinder 1 Exhaust Valve Control Circuit High
P3409	Cylinder 2 Deactivation/Intake Valve Control Circuit/Open
P3410	Cylinder 2 Deactivation/Intake Valve Control Circuit Performance
P3411	Cylinder 2 Deactivation/Intake Valve Control Circuit Low
P3412	Cylinder 2 Deactivation/Intake Valve Control Circuit High
P3413	Cylinder 2 exhaust valve control - circuit open
P3414	Cylinder 2 Exhaust Valve Control Circuit Performance
P3415	Cylinder 2 exhaust valve control - circuit low
P3416	Cylinder 2 exhaust valve control - circuit high
P3417	Cylinder 3 Deactivation/Intake Valve Control Circuit/Open
P3418	Cylinder 3 Deactivation/Intake Valve Control Circuit Performance
P3419	Cylinder 3 Deactivation/Intake Valve Control Circuit Low
P3420	Cylinder 3 Deactivation/Intake Valve Control Circuit High
P3421	Cylinder 3 exhaust valve control - circuit open
P3422	Cylinder 3 Exhaust Valve Control Circuit Performance
P3423	Cylinder 3 exhaust valve control - circuit low
P3424	Cylinder 3 exhaust valve control - circuit high
P3425	Cylinder 4 Deactivation/Intake Valve Control Circuit/Open
P3426	Cylinder 4 Deactivation/Intake Valve Control Circuit Performance
P3427	Cylinder 4 Deactivation/Intake Valve Control Circuit Low
P3428	Cylinder 4 Deactivation/Intake Valve Control Circuit High
P3429	Cylinder 4 exhaust valve control - circuit open
P3430	Cylinder 4 Exhaust Valve Control Circuit Performance
P3431	Cylinder 4 exhaust valve control - circuit low
P3432	Cylinder 4 exhaust valve control - circuit high
P3433	Cylinder 5 Deactivation/Intake Valve Control Circuit/Open
P3434	Cylinder 5 Deactivation/Intake Valve Control Circuit Performance

<b>ERROR CODE</b>	<b>ERROR</b>
P3435	Cylinder 5 Deactivation/Intake Valve Control Circuit Low
P3436	Cylinder 5 Deactivation/Intake Valve Control Circuit High
P3437	Cylinder 5 exhaust valve control - circuit open
P3438	Cylinder 5 Exhaust Valve Control Circuit Performance
P3439	Cylinder 5 exhaust valve control - circuit low
P3440	Cylinder 5 exhaust valve control - circuit high
P3441	Cylinder 6 Deactivation/Intake Valve Control Circuit/Open
P3442	Cylinder 6 Deactivation/Intake Valve Control Circuit Performance
P3443	Cylinder 6 Deactivation/Intake Valve Control Circuit Low
P3444	Cylinder 6 Deactivation/Intake Valve Control Circuit High
P3445	Cylinder 6 exhaust valve control - circuit open
P3446	Cylinder 6 Exhaust Valve Control Circuit Performance
P3447	Cylinder 6 exhaust valve control - circuit low
P3448	Cylinder 6 exhaust valve control - circuit high
P3497	Cylinder deactivation system bank 2

**11.2.2 ABS module error code table**

<b>ERROR CODE</b>	<b>ERROR</b>	<b>ADDITIONAL DESCRIPTION</b>
C1013	Rear suction valve	
C1014	Internal error: solenoid valve relay fault	
C1014	Rear exhaust valve	
C1015	Internal error: recirculation pump failure	
C1017	Front suction valve	
C1018	Front exhaust valve	
C1019	Valve relay error	
C1021	Internal error: control unit failure	
C1024	Speed comparison between front and rear wheel: excessive difference	
	Deviazione sensore di velocità ruote	
C1025	Wheel speed sensor deviation	
C1031	Rear wheel speed sensor: electrical diagnosis (circuit open or shorted to negative or shorted to positive)	
C1032	Rear wheel speed sensor: functional diagnosis (not plausible signal)	
C1033	Front wheel speed sensor: electrical diagnosis (circuit open or shorted to negative or shorted to positive)	
C1034	Front wheel speed sensor: functional diagnosis (not plausible signal)	
C1035	Pump motor	Malfunction
C1042	Front wheel speed sensor	Not plausible
C1043	Front wheel speed sensor	Short circuit to ground
C1044	Rear wheel speed sensor	Not plausible
C1045	Rear wheel speed sensor	Short circuit to ground
C1048	Internal error: rear circuit output solenoid valve fault	
C1049	Internal error: front circuit output solenoid valve fault	
C1052	Internal error: rear circuit inout solenoid valve fault	
C1052	Supply voltage (low voltage)	
C1053	Supply voltage (high voltage)	
C1054	Internal error: front circuit input solenoid valve fault	
C1055	Control unit malfunction	
C1058	Supply voltage (low voltage)	
C1059	Supply voltage (high voltage)	
C1089	Coding error	
C1092	IMU sensor [Wrong fitting]	
C1094	IMU Sensor [Wrong Signal]	
C1331	Internal error: pressure sensor failure	
C1332	Internal error: pressure sensor failure (offset)	
C1333	Internal error: pressure sensor failure (power supply)	
C1E11	CAN line	bus off
C1E12	CAN message (ABS mode switching) absent	
C1E13	CAN bus checksum anomaly	
C1E14	Signal anomaly caused by checksum error/stall counter	
C1E15	CAN line	ABS mode switch
C1E16	CAN line	Vehicle code
C1E17	CAN bus time out combined instrument	
C1E59	Incorrect control unit coding	
C1D90	Front speed sensor	Electric malfunction



<b>ERROR CODE</b>	<b>ERROR</b>	<b>ADDITIONAL DESCRIPTION</b>
C1D91	Front speed sensor	The signal changes intermittently
C1D92	Front speed sensor	The signal decays periodically
C1D93	Front speed sensor	Lack of signal or speed detected too low with respect to the rear wheel
C1D94	Front speed sensor	No acceleration after pressure reduction
C1D95	Front speed sensor	Excessive speed detected
	Sensore di velocità posteriore	Malfunzionamento elettrico
C1D9A	Front wheel pressure sensor circuit	
C1DA0	Rear speed sensor	Electric malfunction
C1DA1	Rear speed sensor	The signal changes intermittently
C1DA2	Rear speed sensor	The signal decays periodically
C1DA3	Rear speed sensor	
C1DA4	Rear speed sensor	Signal not plausible
C1DAA	Rear wheel pressure sensor circuit	
C1DD3	ECU software error	
C1DF0	Recirculation pump	
C1DF1	Recirculation pump	
C1DF2	Generic hardware error inside the control unit	
C1DF4	Low electric voltage	
C1DF5	Generic hardware error inside the control unit	
C1DF7	High electric voltage	
C1E5A	ABS switch	Failuire
U1347	CAN transmission error	Timeout
U2921	CAN error: controller error	
U2922	CAN error: line fault (bus off)	
U2924	CAN error: no reception from the dashboard	
U2925	CAN error: no reception from the injection control unit	
U2926	Key + (connect to the injection control unit diagnosis)	
U2927	Key - (connect to the injection control unit diagnosis)	
U2928	IMU sensor [Signal not plausible]	
U2929	IMU sensor [Timeout]	
U3930	On board network undervoltage	
U3931	On board network overvoltage	
U3932	CAN message	Timeout
U3933	CAN message	Timeout / Wrong DLC / Checksum / Corrupt Data / Counter
U3934	CAN message	Timeout
U3935	CAN message	Signal error
U301F	Generic hardware error inside the control unit	
U30CB	PIN code check	KL 30 voltage too low