

CHEVROLET

Model:	Engine identification:	Year:
Avalanche 5.3/6.0/8.1L	VIN position 8 = 3/0/G/K/T/Y	2002-09
Aveo 1.6L	VIN position 8 = 6	2004-09
Colorado 2.8/3.5L	VIN position 8 = 8/6	2004-06
Colorado 2.9/3.6/5.7L	VIN position 8 = 9/E/L	2007-09
Impala 3.4/3.8L	VIN position 8 = E/K/1	2000-05
Malibu 2.2/2.4/3.5/3.6L	VIN position 8 = 5/7/B/F/N/8	2004-09
Malibu 2.4/3.1L	VIN position 8 = J/M/T	1997-03
Prizm 1.8L	VIN position 8 = 8	1998-02
SSR 5.3/6.0L	VIN position 8 = H/P	2003-07
Trailblazer 4.2/5.3/6.0L	VIN position 8 = H/M/P/S	2002-09
Venture 3.4L	VIN position 8 = E	1997-04

System:


GM

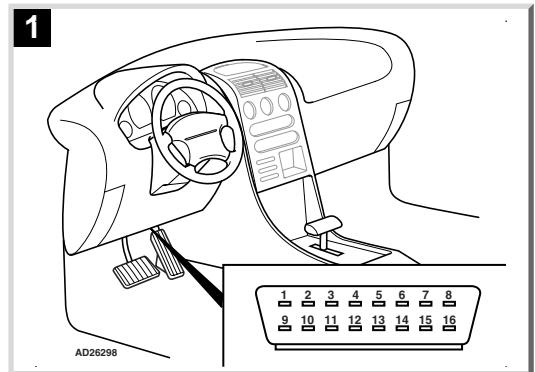
Trouble codes

General information

- Refer to the front of this manual for general test conditions, terminology, detailed descriptions of wiring faults and a general trouble shooter for electrical and mechanical faults.
- Malfunction indicator lamp (MIL) will illuminate or flash if certain faults are recorded.
- ECM operates in backup mode if sensors fail, to enable vehicle to be driven to repair shop.

Accessing

- Trouble codes can only be displayed by using a Scan Tool connected to the data link connector (DLC) .



Erasing



- After the faults have been rectified, the manufacturer recommends that trouble codes are erased by using a Scan Tool connected to the data link connector (DLC).

Trouble code identification

Scan code	Fault location	Probable cause
P0, P2, U0	Refer to OBD-II trouble code tables	–
P1101	Intake air flow – incorrect	Wiring, mechanical fault, engine coolant temperature (ECT) sensor, barometric pressure (BARO) sensor, intake air temperature (IAT) sensor, manifold absolute pressure (MAP) sensor, mass air flow (MAF) sensor, throttle position (TP) switch
P1106	Manifold absolute pressure (MAP) sensor – voltage high, intermittent	Wiring open circuit/short circuit to positive, poor connections
P1107	Manifold absolute pressure (MAP) sensor – voltage low, intermittent	Wiring short circuit to ground, poor connections
P1111	Intake air temperature (IAT) sensor – voltage high, intermittent	Wiring open circuit/short to positive, poor connections
P1112	Intake air temperature (IAT) sensor – voltage low, intermittent	Wiring short circuit to ground
P1114	Engine coolant temperature (ECT) sensor – voltage low, intermittent	Wiring short circuit to ground, poor connections
P1115	Engine coolant temperature (ECT) sensor – voltage high, intermittent	Wiring open circuit/short to positive, poor connections
P1116	Engine coolant temperature (ECT) sensor – circuit malfunction	Wiring, ECT sensor, ECM
P1120	Throttle motor position sensor 1 – circuit malfunction	Wiring, throttle control module
P1121	Throttle position (TP) sensor – voltage high, intermittent	Wiring open circuit/short to positive, poor connections
P1122	Throttle position (TP) sensor – voltage low, intermittent	Wiring open circuit/short to ground, poor connections
P1125	Accelerator pedal position (APP) sensor 1/2/3 – signal malfunction	Wiring, APP sensor, ECM
P1133	Oxygen sensor (O2S)/heated oxygen sensor (HO2S) 1, bank 1 – insufficient switching	Wiring, exhaust system leaking, O2S/HO2S
P1134	Heated oxygen sensor (HO2S) 1, bank 1 – slow response	Wiring, oxygen sensor heater, exhaust system leaking, HO2S
P1137	Heated oxygen sensor (HO2S) 2, bank 1 – voltage low	Wiring, exhaust system leaking, HO2S
P1138	Heated oxygen sensor (HO2S) 2, bank 1 – voltage high	Wiring, HO2S
P1153	Heated oxygen sensor (HO2S) 1, bank 2 – insufficient switching	Wiring, oxygen sensor heater, exhaust system leaking, HO2S
P1154	Heated oxygen sensor (HO2S) 1, bank 2 – slow response	Wiring, oxygen sensor heater, exhaust system leaking, HO2S
P1166	Heated oxygen sensor (HO2S) 2, bank 1 – voltage low	Wiring, exhaust system leaking, HO2S
P1171	Fuel system – lean during acceleration	Fuel filter, fuel pump, HO2S, injectors

Scan code	Fault location	Probable cause
P1172	Fuel level sensors, primary & secondary sensor – no fuel level change during fuel transfer from secondary to primary tank	Wiring, fuel pump relays, secondary fuel pump, fuel level sensors, ECM
P1174	Heated oxygen sensor (HO2S) 1, bank 1 – mixture variation between cylinders	Intake/exhaust leak/blockage, mechanical fault, ignition control, HO2S
P1175	Heated oxygen sensor (HO2S) 2, bank 2 – mixture variation between cylinders	Intake/exhaust leak/blockage, mechanical fault, ignition control, HO2S
P1189	Engine oil pressure warning switch – circuit malfunction	Wiring open circuit, engine oil pressure warning switch, ECM
P1200	Injectors – circuit malfunction	Wiring open circuit/short circuit to ground/short circuit to positive, injectors, ECM
P1220	Throttle motor position sensor 2 – circuit malfunction	Wiring, throttle control module
P1221	Throttle motor position sensor 1/2 – signal variation	Wiring, throttle control module
P1255	Fuel pump control module – driver over-temperature	Fuel pump control module
P1271	Accelerator pedal position (APP) sensor 1/2 – signal variation	Wiring, APP sensor, ECM
P1275	Accelerator pedal position (APP) sensor 1 – circuit malfunction	Wiring, APP sensor, ECM
P1276	Accelerator pedal position (APP) sensor 1 – range performance	Wiring, APP sensor, ECM
P1280	Accelerator pedal position (APP) sensor 2 – circuit malfunction	Wiring, APP sensor, ECM
P1281	Accelerator pedal position (APP) sensor 2 – range performance	Wiring, APP sensor, ECM
P1285	Accelerator pedal position (APP) sensor 3 – circuit malfunction	Wiring, APP sensor, ECM
P1286	Accelerator pedal position (APP) sensor 3 – range performance	Wiring, APP sensor, ECM
P1300	Ignition coil 1 control – feedback circuit malfunction	Wiring, ignition coil 1, ECM
P1305	Ignition coil 2 control – feedback circuit malfunction	Wiring, ignition coil 2, ECM
P1310	Ignition coil 3 control – feedback circuit malfunction	Wiring, ignition coil 3, ECM
P1315	Ignition coil 4 control – feedback circuit malfunction	Wiring, ignition coil 4, ECM
P1335	Crankshaft position (CKP) sensor – circuit malfunction	Wiring, CKP sensor, ECM
P1336	Crankshaft position (CKP) sensor – variation not learned	Learning procedure not performed
P1345	Crankshaft position (CKP) sensor/camshaft position (CMP) sensor – signal variation	CKP sensor, distributor/camshaft alignment, mechanical fault

Scan code	Fault location	Probable cause
P1346	Camshaft position actuator – circuit malfunction	Wiring, mechanical fault, camshaft position actuator, ECM
P1349	Camshaft position actuator – circuit malfunction	Wiring, mechanical fault, camshaft position actuator, ECM
P1350	Ignition control system, bypass circuit – circuit malfunction	Wiring, poor connections, ICM, ECM
P1351 1	Ignition control system, coil – voltage high	Wiring open circuit, ICM, ECM
P1351 2	Ignition control module (ICM) – ignition coil 1 – circuit voltage high	Wiring open circuit/short circuit to ground/short circuit to positive, ICM, ECM
P1352 1	Ignition control system, bypass circuit – voltage high	Wiring open circuit, ICM, ECM
P1352 2	Ignition control module (ICM) – ignition coil 2 – circuit voltage high	Wiring open circuit/short circuit to ground/short circuit to positive, ICM, ECM
P1353	Ignition control module (ICM) – ignition coil 3 – circuit voltage high	Wiring open circuit/short circuit to ground/short circuit to positive, ICM, ECM
P1361 1	Ignition control system, ignition control (IC) circuit – voltage low	Wiring, circuit short circuit to ground, poor connections, ICM, ECM
P1361 2	Ignition control module (ICM) – ignition coil 1 – circuit voltage low	Wiring short circuit to ground/positive, bypass circuit short circuit to ground, ICM, ECM
P1362 1	Ignition control, bypass circuit – voltage low	Wiring short circuit to ground, ICM, ECM
P1362 2	Ignition control module (ICM) – ignition coil 2 – circuit voltage low	Wiring short circuit to ground/positive, bypass circuit short circuit to ground, ICM, ECM
P1363	Ignition control module (ICM) – ignition coil 3 – circuit voltage low	Wiring short circuit to ground/positive, bypass circuit short circuit to ground, ICM, ECM
P1374	Crankshaft position (CKP) sensor, high to low resolution frequency – signal variation	Wiring, wiring routed near spark plug wires, ignition coils arcing/tracking, ICM, ECM
P1380	Antilock brake system (ABS)/traction control system (TCS), rough road signal to engine control module (ECM) – malfunction	ABS trouble code(s) stored
P1381	Antilock brake system (ABS)/traction control system (TCS), rough road signal to engine control module (ECM) – no communication	Wiring, poor connections, ABS
P1391	Rough road sensor – signal malfunction	Wiring, rough road sensor, ECM
P1392	Rough road sensor – voltage low	Wiring, rough road sensor, ECM
P1393	Rough road sensor – voltage high	Wiring, rough road sensor, ECM
P1396	Rough road sensor – signal malfunction	Wiring, rough road sensor, wheel speed sensor, ECM
P1397	Rough road sensor – signal malfunction	Wiring, rough road sensor, wheel speed sensor, ABS control module
P1400	Cold start emission control – malfunction	Intake/exhaust leak/blockage, mechanical fault, idle speed control (ISC) system, ignition control, engine coolant temperature (ECT) sensor, HO2S

Scan code	Fault location	Probable cause
P1404	Exhaust gas recirculation (EGR) valve – not fully closing	Wiring, poor connections, EGR valve position sensor, EGR solenoid
P1406	Exhaust gas recirculation (EGR) valve position sensor – range performance	Wiring, EGR valve tight/sticking, EGR valve position sensor
P1441	Evaporative emission (EVAP) system – leak detected	Hose connection(s), EVAP canister, EVAP canister purge valve
P1442	Evaporative emission (EVAP) system vacuum switch – circuit malfunction	Hoses blocked/leaking, wiring, EVAP canister, ECM
P1483	Engine cooling system – performance	Cooling system, ECT sensor, IAT sensor
P1512	Throttle control unit – signal variation	Wiring, throttle control unit, ECM
P1514	Throttle control unit, intake air flow – excessive	Throttle control unit, MAP sensor, CMP sensor signal, ECM
P1515	Throttle command/actual throttle position – signal variation	Wiring, throttle valve sticking, throttle control module
P1516	Throttle command/actual throttle position – signal variation	Wiring, throttle valve sticking, throttle control module
P1517	Throttle control module – malfunction	Throttle control module
P1518	Throttle control module/engine control module (ECM) – communication malfunction	Wiring, throttle control module, ECM
P1520	Stoplamp switch – circuit malfunction	Wiring short to voltage, stoplamp switch, ECM
P1523	Throttle control unit, closed throttle position – performance	Throttle valve movement restricted, throttle control unit
P1546	A/C compressor clutch relay – circuit malfunction	Wiring, A/C compressor clutch relay, ECM
P1554	Cruise control status circuit – high voltage	Wiring open circuit/short circuit to ground, cruise control module, ECM
P1571	Traction control system (TCS), torque request signal – malfunction	Wiring, poor connections, ABS/TCS
P1573	Engine control module (ECM), antilock brake system (ABS)/traction control system (TCS) communication – malfunction	Wiring, poor connections, ABS control module, ECM
P1585	Cruise control, inhibit output circuit – voltage out of range	Wiring, cruise control module, ECM
P1600 	Engine control module (ECM) – malfunction	ECM
P1600 	Engine control module (ECM) – supply voltage	Wiring, ECM
P1601	CAN data bus, engine control module (ECM)/antilock brake system (ABS)/traction control system (TCS)/instrumentation control module/diagnostic control module – some communication lost	Wiring, poor connections, ECM, ABS/TCS, diagnostic control module, instrumentation control module
P1602	Engine control module (ECM) to antilock brake system (ABS)/traction control system (TCS), CAN data bus – communication failure	Wiring, poor connections, ABS control module
P1604	CAN data bus – instrument panel	Wiring, BCM trouble code(s) stored

Scan code	Fault location	Probable cause
P1605	CAN data bus – A/C	Wiring, A/C system trouble code(s) stored
P1610	CAN data bus – body control module (BCM)	Wiring, BCM trouble code(s) stored
P161B	Throttle motor control module – performance	ECM, transmission, A/C compressor, manifold absolute pressure (MAP) sensor hose
P1621	Engine control module (ECM) – malfunction	ECM
P1626	Engine control module (ECM) – fuel enable signal lost	Wiring, poor connections, immobilizer control module, ECM
P1627	Engine control module (ECM) – malfunction	ECM
P1629	Engine control module (ECM) – fuel enable signal not received	Incorrect ignition key, wiring, poor connections, immobilizer control module, ECM
P1630	Engine control module (ECM), immobilizer code – learning mode	ECM immobilizer code programming not completed
P1631	Engine control module (ECM) – incorrect immobilizer code	Incorrect key, immobilizer code not programmed
P1632	Engine control module (ECM) – fuel disable signal received	Fuses, BCM, immobilizer code
P1633	Engine control module (ECM), ignition supply voltage	Fuse, wiring open circuit, ECM
P1634	Engine control module (ECM), ignition supply voltage	Fuse, wiring open circuit, ECM
P1635	Engine control module (ECM), sensor supply voltage – circuit malfunction	Wiring, poor connections, TP sensor, MAP sensor, EGR valve position sensor, FTP sensor, ECM
P1637	Alternator 'L' terminal – circuit malfunction	Wiring open circuit/short circuit to ground, alternator, battery temperature sensor, ECM
P1638	Alternator 'F' terminal – circuit malfunction	Wiring open circuit/short circuit to ground, alternator, ECM
P1639 5 6 7	Engine control module (ECM), sensor supply voltage – circuit malfunction	Wiring, poor connections, A/C refrigerant pressure sensor, ECM
P1639 8 9	Engine control module (ECM), sensor supply voltage – circuit malfunction	Wiring, poor connections, FTP sensor, A/C refrigerant pressure sensor, ECM
P1639 10	Engine control module (ECM), sensor supply voltage – circuit malfunction	Wiring, poor connections, FTP sensor, throttle position (TP) sensor, ECM
P1639 11	Engine control module (ECM), sensor supply voltage – circuit malfunction	Wiring, poor connections, MAP sensor sensor, throttle position (TP) sensor 2, accelerator pedal position (APP) sensor 1, ECM
P1640	Engine control module, output driver 1 – supply voltage high	Wiring, loose alternator connection, alternator
P1641 12	Malfunction indicator lamp (MIL) – circuit malfunction	Wiring, poor connections, MIL, ECM
P1641 13	A/C compressor clutch relay – circuit malfunction	Wiring open circuit/short circuit to ground, A/C compressor clutch relay, ECM

Scan code	Fault location	Probable cause
P1650	Engine control module, output driver 2 – supply voltage high	Wiring, loose alternator connection, alternator
P1651	Engine coolant blower motor relay 1 – circuit malfunction	Wiring, engine coolant blower motor relay, ECM
P1652	Engine coolant blower motor relay 2 & 3 – circuit malfunction	Wiring, engine coolant blower motor relay(s), ECM
P1653 14	Fuel gauge, control signal – circuit malfunction	Wiring, ECM
P1653 15	Engine oil level 'low' warning lamp, control signal – circuit malfunction	Wiring short circuit to ground, engine oil level, ECM
P1654	A/C compressor clutch relay – circuit malfunction	Wiring open circuit/short circuit to ground, A/C compressor clutch relay, ECM
P1655	Evaporative emission (EVAP) canister purge valve – circuit malfunction	Wiring open circuit/short circuit to ground, EVAP canister vent valve, ECM
P1656	Camshaft position actuator – circuit malfunction	Wiring open circuit/short circuit to ground, camshaft position actuator, ECM
P1660 11	Engine control module, output driver 3 – supply voltage high	Wiring, loose alternator connection, alternator
P1660 21	Engine control module, serial input driver module – supply voltage high	Wiring short circuit to positive, ECM
P1662	Cruise control, inhibit output circuit – malfunction	Wiring open circuit/short circuit to ground, cruise control motor/actuator, cruise control module, ECM
P1663	Alternator warning lamp, control signal – circuit malfunction	Wiring, instrument panel, ECM
P1665	Evaporative emission (EVAP) canister vent valve – circuit malfunction	Wiring open circuit/short circuit to ground, EVAP canister vent valve, ECM
P1668	Alternator 'L' terminal – circuit malfunction	Wiring, ECM, voltage regulator, alternator
P1670	Engine control module, output driver 4 – supply voltage high	Wiring, loose alternator connection, alternator
P1671	Malfunction indicator lamp (MIL) – circuit malfunction	Wiring open circuit/short circuit to ground/short circuit to positive, MIL, ECM
P1672	Engine oil level 'low' warning lamp, control signal – circuit malfunction	Wiring short circuit to ground, engine oil level, ECM
P1673	Engine coolant 'hot' warning lamp – circuit malfunction	Wiring open circuit/short circuit to ground/short circuit to positive, instrument panel, cooling system, ECM
P1675	Evaporative emission (EVAP) canister vent valve – circuit malfunction	Wiring, poor connection, EVAP canister vent valve, ECM
P1676	Evaporative emission (EVAP) canister purge valve – circuit malfunction	Wiring open circuit/short circuit to ground, EVAP canister purge valve, ECM
P1680 16	Engine control module (ECM)	ECM
P1680 17	Accelerator pedal position (APP) sensor 2 – circuit malfunction	Wiring open circuit/short circuit to ground/short circuit to positive, APP sensor, ECM
P1681	Engine control module (ECM) – malfunction	ECM

Scan code	Fault location	Probable cause
P1682 ¹⁶	Engine control module (ECM) – ignition power supply less than 10 V	Wiring, ECM
P1682 ¹⁶	Throttle control module/engine control module (ECM) – ignition power supply variation	Wiring, ECM
P1683	Engine control module (ECM) – malfunction	ECM
P1689	Traction control system (TCS), delivered torque signal – malfunction	Wiring, poor connections, ECM
P1810	Transmission gear pressure switch, signal – circuit malfunction	Wiring open circuit/short circuit to ground, reverse/D1/D2/D3/D4 gear pressure switch(es), ECM
P3401	Cylinder cut-out solenoid, cylinder 1 – malfunction	Wiring, cylinder cut-out solenoid, mechanical fault, ECM
P3425	Cylinder cut-out solenoid, cylinder 4 – malfunction	Wiring, cylinder cut-out solenoid, mechanical fault, ECM
P3441	Cylinder cut-out solenoid, cylinder 6 – malfunction	Wiring, cylinder cut-out solenoid, mechanical fault, ECM
P3449	Cylinder cut-out solenoid, cylinder 7 – malfunction	Wiring, cylinder cut-out solenoid, mechanical fault, ECM
U1000	CAN data bus – communication malfunction	Wiring, BCM, ECM, antilock brake system (ABS)/traction control system (TCS), instrumentation control module, SDM
U1040	Antilock brake system (ABS)/traction control system (TCS), CAN data bus – communication malfunction	Wiring, ABS/TCS trouble codes stored
U1064	Body control module (BCM), CAN data bus – communication malfunction	Wiring, BCM

¹ Except Malibu 3.5L

² Malibu 3.5L

³ Except Prizm

⁴ Prizm

⁵ Impala 3.4L/3.8L

⁶ Malibu

⁷ Venture

⁸ 2001 Impala 3.8L

⁹ 2000 → Venture

¹⁰ Avalanche

¹¹ Trailblazer

¹² Except 1999 Malibu 3.1L

¹³ 1999 Malibu 3.1L

¹⁴ Except 1999 → Venture

¹⁵ 1999 Venture

¹⁶ When trouble codes P1600, P1621, P1627, P1680, P1681, P1683 are also present

¹⁷ When trouble code P1680 only present

¹⁸ Except Colorado, Malibu 2.2L

¹⁹ Colorado, Malibu 2.2L