



- Locate DLC at top center of firewall and use jumper wire to connect ENG. TEST and ground terminals.
- On 1995 Sportage models, turn ignition to On, but do not start engine.
- On other models, start and warm engine, then run at 2,000 RPM for 3 minutes.
- Diagnostic trouble codes will be displayed as a series of long and short flashes on the malfunction indicator lamp (MIL).

Kia: Reading Diagnostic Trouble Codes

- The ECM indicates stored fault code by flashing the malfunction indicator/check engine lamp.
- Fault codes 1 through 9 are indicated by individual short blinks.
- Fault codes 10 and above are indicated by long and short blinks. One long blink is equivalent to 10 short blinks. The fault code can be determined by adding the long and short blinks.

Clearing Trouble Codes

Diagnostic trouble codes may be cleared by disconnecting the battery ground cable for at least 20 seconds.

Kia: Diagnostic Trouble Codes OBD1

Without Onboard Diagnostics (OBD-II)

2	Distributor no Signal.
3	Distributor G Signal.

7	Fault on SGT Signal.
8	Mass Air Flow Sensor.
9	Engine Coolant Temperature Sensor.
10	Intake Air Temperature Sensor.
12	Throttle Position Sensor.
14	Atmospheric Pressure Sensor.
15	Oxygen Sensor.
16	EGR Valve Position Sensor.
17	Feedback System.
18	Injector No. 1 open or short.
19	Injector No. 2 open or short.
20	Injector No. 3 open or short.
21	Injector No. 4 open or short.
24	Fuel Pump Relay open or short.
25	Pressure Regulator Control Solenoid Valve.
26	Purge Control Solenoid Valve.
28	Solenoid Valve (EGR) open or short.
34	Idle Speed Control Solenoid Valve.
35	Deteriorated Injector.
36	Deteriorated Air Flow Sensor.
37	Intake System Air Leakage.
41	Variable Inertia Charging System Solenoid Valve.
46	A/C Cut Relay open or short.
48	Power Stage Group 1 Malfunction (inside ECM). Injector 1-4 Purge Solenoid Valve, EGR Solenoid Valve or Damaged Power Stage.

49	Power Stage Group 2 Malfunction (inside ECM). Idle Speed Control Valve Failure or Damaged Power Stage.
56	Idle Speed Control Valve Closing Coil open or short.
57	A/C Compressor Input Signal short.
73	Vehicle Speed Sensor open or short.
87	Malfunction Indicator Lamp short Circuit.
88	ECM Data.
99	Battery.

Common OBD2 Codes

For a complete list please see [our Kia OBD2 codes list page](#). For best results, please look up your Kia model if available in our OBD2 model table on this page.

OBD-II	
P0100	Mass Air Flow or Volume Air Flow Circuit Malfunction.
P0101	Mass Air Flow or Volume Air Flow Circuit Range/Performance problem.
P0102	Mass Air Flow or Volume Air Flow Circuit Low Input.
P0103	Mass Air Flow or Volume Air Flow Circuit High Input.
P0107	MAP/BARO Circuit Low Input.
P0108	MAP/BARO Circuit High Input.
P0110	A/T Circuit Malfunction.
P0115	Engine Coolant Temperature Circuit Malfunction.
P0116	Engine Coolant Temperature Circuit Range/Performance Condition.
P0117	Engine Coolant Temperature Circuit Low Input.
P0118	Engine Coolant Temperature Circuit High Input.
P0120	Throttle Position Malfunction – Circuit A.

P0122	APP/TPP Sensor Switch Low Input – Circuit A.
P0123	APP/TPP Sensor Switch High Input – Circuit A.
P0125	Insufficient Coolant Temperature for Closed Loop Fuel Control.
P0130	Oxygen Sensor Circuit Malfunction – Bank 1 Sensor 1.
P0131	Oxygen Sensor Circuit Low Voltage – Bank 1 Sensor 1.
P0132	Oxygen Sensor Circuit High Voltage – Bank 1 Sensor 1.
P0133	Oxygen Sensor Circuit Slow Response – Bank 1 Sensor 1.
P0134	Oxygen Sensor Circuit No Activity detected – Bank 1 Sensor 1.
P0135	Oxygen Sensor Heater Circuit Malfunction – Bank 1 Sensor 1.
P0136	Oxygen Sensor Circuit Malfunction – Bank 1 Sensor 2.
P0137	Oxygen Sensor Circuit Low Voltage – Bank 1 Sensor 2.
P0138	Oxygen Sensor Circuit High Voltage – Bank 1 Sensor 2.
P0139	Oxygen Sensor Circuit Slow Response – Bank 1 Sensor 2.
P0140	Oxygen Sensor Circuit No Activity detected – Bank 1 Sensor 2.
P0141	Oxygen Sensor Heater Circuit Malfunction – Bank 1 Sensor 2.
P0170	Fuel Trim Malfunction – Bank 1.
P0171	System too Lean – Bank 1.
P0172	System too Rich – Bank 1.
P0261	Injector Circuit Low – Cyl. 1.
P0262	Injector Circuit High – Cyl. 1.
P0264	Injector Circuit Low – Cyl. 2.
P0265	Injector Circuit High – Cyl. 2.
P0267	Injector Circuit Low – Cyl. 3.
P0268	Injector Circuit High – Cyl. 3.
P0270	Injector Circuit Low – Cyl. 4.

P0271	Injector Circuit High – Cyl. 4.
P0300	Multiple/Random Misfire detected.
P0301	Misfire detected – Cyls. 1-4.
P0302	Misfire detected – Cyls. 1-4.
P0303	Misfire detected – Cyls. 1-4.
P0304	Misfire detected – Cyls. 1-4.
P0325	Knock Sensor Circuit Malfunction
P0326	Knock Sensor 1 Circuit Range/Performance – Bank 1 or Single Sensor.
P0335	Crankshaft Position Sensor Malfunction – Circuit A.
P0336	Crankshaft Position Sensor Range/Performance – Circuit A.
P0340	Crankshaft Position Sensor Circuit Malfunction.
P0342	Crankshaft Position Sensor Circuit Low Input.
P0343	Crankshaft Position Sensor Circuit High Input.
P0400	EGR Flow Malfunction.
P0403	EGR Circuit Malfunction.
P0404	EGR Circuit Range/Performance Malfunction.
P0420	Catalyst System Efficiency below Threshold – Bank 1.
P0422	Main Catalyst Efficiency below Threshold – Bank 1.
P0440	Evaporative Control Malfunction.
P0441	Evaporative Control System – Improper Purge.
P0442	Evaporative Control System – Small Leak detected.
P0443	Evaporative Control System Purge Control Valve Circuit Malfunction.
P0446	Evaporative Vent Control Circuit Malfunction.
P0447	Evaporative Vent Control Circuit Open.
P0448	Evaporative Vent Control Circuit Short.

P0450	Evaporative System Pressure Sensor Circuit Malfunction.
P0452	Evaporative Control System Pressure Sensor Low Input.
P0453	Evaporative Control System Pressure Sensor High Input.
P0455	Evaporative Control System – Large Leak detected.
P0470	Exhaust Pressure Sensor Malfunction.
P0500	Vehicle Speed Sensor Malfunction.
P0501	Vehicle Speed Sensor Range/Performance.
P0505	Idle Air Control System Malfunction.
P0506	Idle Air Control System Malfunction – RPM Lower than expected.
P0507	Idle Air Control System Malfunction – RPM Higher than expected.
P0510	CTP Switch Malfunction.
P0561	System Voltage Unstable.
P0562	System Voltage Low.
P0563	System Voltage High.
P0601	Internal Control Module Memory Checksum Error.
P0604	Internal Control Module RAM Error.
P0703	Torque Converter/Brake Pedal Switch Malfunction – Circuit B.
P0705	Transaxle Range Sensor Circuit Malfunction (PRNDL Input).
P0706	A/T Range Sensor Circuit Range/ Performance.
P0710	Transaxle Fluid Temperature Sensor Circuit Malfunction.
P0711	A/T Fluid Temperature Sensor Circuit Range/Performance.
P0715	Input/Turbine Speed Sensor Circuit Malfunction.
P0722	Output Speed Sensor Circuit No Signal.
P0726	Engine Speed Input Circuit Range/ Performance.
P0727	Engine Speed Input Circuit – No Signal.

P0731	A/T Gear 1 Improper Ratio.
P0732	A/T Gear 2 Improper Ratio.
P0733	A/T Gear 3 Improper Ratio.
P0734	A/T Gear 4 Improper Ratio.
P0740	Torque Converter Clutch System Malfunction.
P0743	Torque Converter Clutch Circuit Electrical.
P0750	Shift Solenoid “A” Malfunction.
P0753	Shift Solenoid “A” Electrical.
P0755	Shift Solenoid “B” Malfunction.
P0758	Shift Solenoid “B” Electrical.
P0760	Shift Solenoid “C” Malfunction.
P1000	Readiness Function Code.
P1115	Engine Coolant Temperature Signal from ECM to TCM.
P1121	Throttle Position Sensor Signal Malfunction from ECM to TCM.
P1170	Front Heated Oxygen Sensor Stuck.
P1195	EGR Pressure Sensor (1.6L) or Boost Sensor (1.8L) Open or Short.
P1196	Ignition Switch “Start” Open or Short (1.6L).
P1250	Pressure Regulator Control Solenoid Valve Open or Short.
P1252	Pressure Regulator Control Solenoid Valve No. 2 Circuit Malfunction.
P1307	Chassis Acceleration Sensor Signal Malfunction.
P1308	Chassis Acceleration Sensor Signal Low.
P1309	Chassis Acceleration Sensor Signal High.
P1345	No SGC Signal (1.6L).
P1386	Knock Sensor Control Zero Test.
P1402	EGR Valve Position Sensor Open or Short.

P1449	Canister Drain Cut Valve Open or Short (1.8L).
P1450	Excessive Vacuum Leak.
P1455	Fuel Tank Sending Unit Open or Short (1.8L).
P1457	Purge Solenoid Valve Low System Malfunction.
P1458	A/C Compressor Control Signal Malfunction.
P1485	EGR Solenoid Valve Vacuum Open or Short.
P1486	EGR Solenoid Valve Vent Open or Short.
P1487	EGR Boost Sensor Solenoid Valve Open or Short.
P1496	EGR Stepper Motor Malfunction – Circuit 1 (1.8L).
P1497	EGR Stepper Motor Malfunction – Circuit 2 (1.8L).
P1498	EGR Stepper Motor Malfunction – Circuit 3 (1.8L).
P1499	EGR Stepper Motor Malfunction – Circuit 4 (1.8L).
P1500	No Vehicle Speed Signal to TCM.
P1505	Idle Air Control Valve Opening Coil Voltage Low.
P1506	Idle Air Control Valve Opening Coil Voltage High.
P1507	Idle Air Control Valve Closing Coil Voltage Low.
P1508	Idle Air Control Valve Closing Coil Voltage High.
P1523	VICS Solenoid Valve.
P1586	A/T-M/T Codification.
P1608	PCM Malfunction.
P1611	MIL Request Circuit Voltage Low.
P1614	MIL Request Circuit Voltage High.
P1624	MIL Request Signal from TCM to ECM.
P1631	Alternator “T” Open or No Power Output (1.8L).
P1632	Battery Voltage Detection Circuit for Alternator Regulator (1.8L).

P1633	Battery Overcharge.
P1634	Alternator "B" Open (1.8L).
P1693	MIL Circuit Malfunction.
P1743	Torque Converter Clutch Solenoid Valve Open or Short.
P1794	Battery or Circuit Failure.
P1795	4WD Switch Signal Malfunction.
P1797	P or N Range Signal or Clutch Pedal Position Switch Open or Short.

Kia Diagnostic Trouble Codes by Model

Model	Year	Engine identification	System
Amanti 3.5L	2004-06	G6CU	Mazda EGI
Amanti 3.8L	2007-08	G60A	MFI
Borrego 3.8L	2009	G60A	MFI ETS
Borrego 4.6L	2009	G8BA	MFI
Optima 2.4L	2001-05	G4JS	Mazda EGI
Optima 2.4/2.7L	2006-09	G4JS/G4KC/G4KE/G6EA	MFI
Optima 2.5L	2001-02	G6BV	Mazda EGI
Optima 2.7L	2001-05	G6BA	Mazda EGI
Rio 1.5/1.6L	2001-05	A50/A60	Mazda EGI
Rio 1.6L	2006-08	G4EO	MFI
Rondo 2.4/2.7L	2006-09	G4KC/G4EK	MFI
Sedona 3.5L	2002-05	G6CU	Mazda EGI
Sedona 3.8L	2006-08	G60A	MFI
Sephia 1.6L	1996-97	B6 OOHc	Mazda EGI