

# How to Check Engine (ECU) Trouble Codes

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The "Check Engine Light" indicates transmission codes. Long blinks = 10, short blinks = 1. In other words, two long and two short blinks is a code 22. One long and one short is code 11.

### The following self diagnosis will show any fault codes for the engine:

1. Remove the kick panel just beside the left foot rest on the driver's side.
2. Locate blue wires.
3. Locate black connector (smaller of the 2 black ones). Hold it notch up.
4. With ignition off, insert one of the wires into top row, 2nd pin from left.
5. Turn key to on position, but do not start the car.
6. Count the blinks from check engine light on dashboard.

### To clear codes (after problem has been resolved):

1. With engine off, stick the blue wires to 1st and 2nd pin in the top row counting from left on the black connector, with notch facing up.
2. Start car. Shut off car. Remove pins.
3. Read codes to make sure they are clear. No codes = steady blinks at 1/4 second intervals.

List of ECU Trouble Codes		
Trouble Code	Item	Diagnosis
11	Crank angle sensor 1	No signal from crank angle sensor 1 for more than 3 seconds after start switch on.
12	Starter switch	Abnormal signal from ignition switch.
13	Cam angle sensor	No signal from cam angle sensor, but signal from crank angle sensor 1.
14	Injector #1	Fuel injector inoperative. (Abnormal signal from monitor circuit.)
15	Injector #2	
16	Injector #3	
17	Injector #4	
18	Injector #5	
19	Injector #6	
21	Water Temperature Sensor	Abnormal signal from water temperature sensor.
22	Knock sensor 1 (RH)	Abnormal voltage in knock sensor monitor circuit.
23	Air flow sensor	Abnormal voltage from air flow sensor.
24	By-pass air control solenoid valve	By-pass air control solenoid valve inoperative. (Abnormal signal in monitor circuit.)
28	Knock sensor 2 (LH)	Abnormal voltage in knock sensor monitor circuit.
29	Crank angle sensor 2	No signal from crank angle sensor 2, but two signals

		from crank angle sensor 1.
31	Throttle sensor	Abnormal voltage from throttle sensor.
32	O <sub>2</sub> sensor 1 (RH)	O <sub>2</sub> sensor 1 inoperative.
33	Vehicle speed sensor 2	No signal from vehicle speed sensor 2.
34	EGR solenoid valve	EGR solenoid valve inoperative.
35	Purge control solenoid valve	Purge control solenoid valve inoperative.
37	O <sub>2</sub> sensor 2 (LH)	O <sub>2</sub> sensor 2 inoperative.
38	Engine torque control	Wiring harness between ECU and TCU is in short circuit.
41	A/F learning control	Faulty learning control function.
45	Atmospheric pressure sensor	Faulty atmospheric pressure sensor inside ECU.
51	Neutral switch	Abnormal signal from inhibitor switch.
52	Parking switch	Abnormal signal from parking switch.
55	EGR gas temperature sensor (CAL.)	Abnormal signal from EGR gas temperature sensor.
56	EGR system (CAL.)	EGR calve open/close stick, EGR hose disconnect or exhaust pressure valve damaged.