

GENERIC · POWERTRAIN

P2EBB

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2EBB

Crankcase Temperature Sensor Circuit

P2EBB indicates that the powertrain control module (PCM) has detected an abnormal signal from the crankcase temperature sensor circuit, which monitors the temperature of the engine crankcase. The PCM compares the sensor's voltage to expected values and sets this code when the signal falls outside the normal range or is intermittent.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Low	Intermediate	Hybrid propulsion

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough running or poor fuel economy if the sensor fault affects fuel mixture calculations
- Difficulty starting in cold weather due to incorrect temperature data
- Intermittent stalling or hesitation during acceleration
- A slight decrease in engine performance as the PCM may default to a safe operating strategy

Common causes, most likely first

- 1 Faulty crankcase temperature sensor
- 2 Damaged or corroded wiring or connector at the sensor
- 3 Open or short circuit in the sensor signal circuit
- 4 Poor ground connection for the sensor
- 5 Failed PCM (rare but possible)

How to diagnose and fix it

- 1 Inspect the sensor and its connector for physical damage or corrosion
- 2 Check the sensor's resistance and compare it to the manufacturer's specification
- 3 Test the wiring harness for continuity and shorts between the sensor and PCM
- 4 Verify the sensor's ground circuit is clean and tight
- 5 Replace the crankcase temperature sensor if it fails testing
- 6 Clear the diagnostic trouble codes and perform a road test to confirm the repair



Don't overlook the crankcase sensor wiring

- A common oversight is assuming the sensor itself is at fault when the real problem is a chafed wire near the engine block.
- The crankcase temperature sensor often shares a ground with other sensors, so a bad ground can set multiple codes.
- In some vehicles, the crankcase temperature sensor is integrated into the oil level sensor, so a failure may also affect oil level readings.
- This code can be set by a temporary low oil level causing the sensor to overheat, so always check the oil level first.
- After replacing the sensor, the PCM may require a relearn procedure to calibrate the new sensor's signal.

Can I keep driving with P2EBB?

The vehicle is generally safe to drive with this code because it does not cause immediate engine damage, but you should avoid heavy loads or aggressive driving until the fault is repaired. Prolonged driving with a faulty sensor may lead to reduced fuel economy or minor performance issues.

Tools that help

- OBD-II scanner
- Digital multimeter
- Socket set
- Wiring diagram for the specific vehicle
- Heat gun or thermometer for sensor testing

Reading P2EBB

P	Powertrain: engine, transmission and emissions.
2	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
E	Hybrid propulsion.
BB	The exact fault within that area.

Often seen with

P0117 Engine Coolant Temperature Circuit Low Input · **P0118** Engine Coolant Temperature Circuit High Input · **P2EBC** Crankcase Temperature Sensor Circuit Range/Performance · **P2EBD** Crankcase Temperature Sensor Circuit High



See it working

Watch the animated explainer [How ABS Works: Anti-Lock Brakes in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2ebb/>

