

GENERIC · POWERTRAIN

P0385

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0385

Crankshaft Position Sensor 'B' Circuit

P0385 indicates that the powertrain control module has detected an electrical fault in the circuit for crankshaft position sensor 'B', which is the second crank sensor on engines that use two for redundancy or for different signal ranges. The computer monitors the signal voltage and timing from this sensor and sets the code when the signal is missing, erratic, or outside the expected range during engine operation.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Ignition system and misfire

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Intermittent engine stalling or a sudden loss of power while driving
- Difficulty starting or a no-start condition, especially when the engine is hot
- Rough running or misfiring due to inaccurate ignition timing
- A tachometer that reads erratically or drops to zero intermittently

Common causes, most likely first

- 1 Failed crankshaft position sensor 'B' due to heat, age, or contamination
- 2 Damaged or corroded wiring harness and connector at the sensor
- 3 Metal debris or a damaged reluctor wheel interfering with the sensor signal
- 4 Poor electrical connection at the powertrain control module
- 5 Open or short circuit in the sensor signal or ground circuit
- 6 Mechanical wear in the sensor mounting or air gap misalignment

How to diagnose and fix it

- 1 Perform a visual inspection of the sensor, connector, and wiring for damage or debris
- 2 Check for technical service bulletins or known issues for the specific vehicle
- 3 Measure sensor resistance and compare to specifications, then check for signal output with a scope
- 4 Verify the integrity of the sensor ground and signal circuits with a multimeter
- 5 Inspect the reluctor wheel for cracks, missing teeth, or excessive runout
- 6 Replace the crankshaft position sensor 'B' if tests indicate failure
- 7 Clear the code and perform a road test to confirm the repair



What most technicians overlook with P0385

- A failing sensor 'B' often does not prevent the engine from running because sensor 'A' provides a backup signal, so the only clue may be the stored code.
- Debris stuck to the magnetic tip of the sensor can mimic an electrical failure and is frequently missed during diagnosis.
- Wiring harness chafing near hot exhaust components or sharp brackets is a common cause that visual inspection alone may not reveal.
- The code can be set by a faulty powertrain control module, but this is rare and should only be suspected after all other possibilities are ruled out.
- After replacing the sensor, the crankshaft position variation learn procedure may be required on some vehicles to prevent a repeat code.

Can I keep driving with P0385?

It is generally safe to drive with P0385 if the engine runs normally, but avoid aggressive acceleration or long trips until the fault is repaired because a complete sensor failure could cause sudden stalling. If the engine stalls or loses power, pull over safely and arrange a tow.

Tools that help

- OBD-II scanner
- Digital multimeter
- Oscilloscope
- Socket and ratchet set
- Feeler gauges

Reading P0385

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
3	Ignition system and misfire.
85	The exact fault within that area.

Often seen with

P0335 Crankshaft Position Sensor A Circuit Malfunction · **P0336** Crankshaft Position Sensor A Circuit Range/Performance · **P0386** Crankshaft Position Sensor 'B' Circuit Range/Performance · **P0387** Crankshaft Position Sensor 'B' Circuit Low · **P0388** Crankshaft Position Sensor 'B' Circuit High



See it working

Watch the animated explainer **Four-Stroke Engine Cutaway: Intake to Exhaust** on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0385/>

