

GENERIC · POWERTRAIN

P0347

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0347

Camshaft Position Sensor 'A' Circuit Low

P0347 indicates that the engine control module (ECM) has detected a low-voltage condition on the camshaft position sensor 'A' circuit, which is responsible for reporting the camshaft's position to the computer. The ECM expects a signal that toggles between high and low voltage as the camshaft rotates, but the circuit is staying below the expected threshold for too long. This can disrupt fuel injection and ignition timing, leading to poor performance or a no-start condition.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Ignition system and misfire

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Engine may crank but fail to start, or start and stall immediately
- Rough idle or misfiring due to incorrect timing signals
- Reduced engine power or hesitation during acceleration
- Poor fuel economy from inefficient combustion
- Intermittent stalling while driving or at stops

Common causes, most likely first

- 1 Faulty camshaft position sensor 'A' (internal short or open)
- 2 Damaged or corroded wiring in the sensor circuit (open, short to ground, or high resistance)
- 3 Loose or corroded electrical connector at the sensor or ECM
- 4 Metal debris or damage on the sensor tip or reluctor wheel
- 5 ECM internal fault affecting the sensor reference voltage or signal processing
- 6 Aftermarket or incorrect sensor installed previously



How to diagnose and fix it

- 1 Perform a visual inspection of the sensor, connector, and wiring for obvious damage or corrosion
- 2 Check for technical service bulletins (TSBs) or recalls related to the camshaft sensor circuit for the specific vehicle
- 3 Use a digital multimeter to measure reference voltage (typically 5V or 12V) at the sensor connector with the key on
- 4 Test the sensor signal circuit for continuity and shorts to ground or power, wiggle-testing the harness
- 5 Replace the camshaft position sensor with a known-good OEM part if voltage tests indicate a faulty sensor
- 6 Clear the diagnostic trouble codes (DTCs) and perform a road test to verify the repair
- 7 If the code persists, diagnose the ECM and its connections as the last step

Don't overlook the sensor reluctor wheel

- A common oversight is ignoring the reluctor wheel or tone ring on the camshaft, which can accumulate metal shavings or become damaged, causing a low signal even with a new sensor.
P0347 can be set by a poor ground connection at the sensor or ECM, so checking ground integrity is as important as checking the signal wire.
- In some vehicles, a failing camshaft sensor may not prevent the engine from running because the ECM can default to a limp mode using the crankshaft sensor, masking the severity.
- Aftermarket sensors are a frequent cause of repeat P0347 codes; always verify the sensor's resistance and signal output against factory specifications.

A low voltage on the camshaft sensor circuit can sometimes be caused by a short to ground in a related circuit, such as the crankshaft sensor wiring, due to shared harness routing.

Can I keep driving with P0347?

It is not advisable to continue driving with P0347 because the engine may stall unexpectedly or fail to start, and prolonged driving with incorrect timing can damage the catalytic converter. If the vehicle is driveable, limit travel to a short distance to a repair shop and avoid high speeds or heavy loads.

Tools that help

- OBD-II scanner
- Digital multimeter
- Wire probe set
- Service manual with wiring diagrams
- Basic hand tools (socket set, screwdrivers)



Reading P0347

- 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.
- 47** The exact fault within that area.

Often seen with

P0016 Crankshaft/Camshaft Position Correlation (Bank 1 Sensor A) · **P0345** Camshaft Position Sensor A Circuit (Bank 2) · **P0346** Camshaft Position Sensor 'A' Circuit Range/Performance · **P0348** Camshaft Position Sensor 'A' Circuit High · **P0349** Camshaft Position Sensor 'A' Circuit Intermittent

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/p0347/>

