

GENERIC · POWERTRAIN

P34B9

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P34B9

B Camshaft Position Actuator Temperature Sensor Range/Performance Bank 2

P34B9 indicates that the powertrain control module (PCM) has detected an out-of-range or performance fault in the temperature sensor circuit for the bank 2 camshaft position actuator. The PCM expects the sensor's signal to change in a predictable way as the actuator warms and cools, and it has logged a fault because the voltage or resistance did not match the expected profile.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough idle or unstable engine operation when the camshaft actuator is not controlled correctly
- Reduced engine performance or power, especially at low speeds
- Poor fuel economy due to incorrect camshaft timing adjustments
- Intermittent stalling or hesitation during acceleration
- In rare cases, a fail-safe mode that limits engine speed

Common causes, most likely first

- 1 Faulty camshaft position actuator temperature sensor
- 2 Damaged or corroded wiring or connector at the sensor
- 3 Open or short circuit in the sensor signal or ground circuit
- 4 Contaminated or degraded engine oil affecting sensor response
- 5 Failed camshaft position actuator solenoid or mechanical actuator issue
- 6 PCM software calibration issue or internal PCM fault



How to diagnose and fix it

- 1 Use an OBD-II scanner to verify P34B9 and check for related codes in the camshaft actuator and engine control systems
- 2 Inspect the sensor connector and wiring for corrosion, chafing, or loose pins, and repair as needed
- 3 Measure the sensor's resistance or voltage output with a multimeter and compare to the manufacturer's specification
- 4 Check engine oil condition and level, as degraded oil can affect actuator and sensor performance
- 5 Test the camshaft position actuator solenoid for proper operation and replace if faulty
- 6 Replace the camshaft position actuator temperature sensor if it fails electrical or performance tests
- 7 Clear codes and perform a road test to confirm the repair, and reprogram the PCM if a software update is available

Don't overlook oil quality and wiring

- A common oversight is replacing the temperature sensor when the real problem is degraded engine oil that has clogged the actuator and skewed the sensor's readings.
- The code can be set by a poor electrical connection at the sensor that only acts up when the engine is hot or vibrating, so a wiggle test of the harness is essential.
- Some technicians misdiagnose P34B9 as a camshaft position sensor fault, but this code specifically refers to the actuator's temperature sensor, not the position sensor.
- A failing camshaft position actuator solenoid can cause the temperature sensor to read out of range because the actuator does not move as commanded, leading to a false sensor code.
- Always check for technical service bulletins (TSBs) for the specific vehicle, as some manufacturers have released updated wiring harnesses or PCM calibrations for this issue.

Can I keep driving with P34B9?

You can usually continue driving with P34B9, but avoid aggressive acceleration and heavy loads until the fault is repaired, as incorrect camshaft timing can affect performance and emissions. If the engine runs roughly or stalls, seek service promptly to prevent further damage.

Tools that help

- OBD-II scanner with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Socket set and basic hand tools
- Oil condition checker or dipstick



Reading P34B9

- P** Powertrain: engine, transmission and emissions.
- 3** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 4** Auxiliary emission controls.
- B9** The exact fault within that area.

Often seen with

P0010 'A' Camshaft Position Actuator Circuit (Bank 1) · **P0011** 'A' Camshaft Position - Timing Over-Advanced or System Perfo · **P0016** Crankshaft/Camshaft Position Correlation (Bank 1 Sensor A) · **P0340** Camshaft Position Sensor A Circuit Malfunction (Bank 1) · **P0365** Camshaft Position Sensor 'B' Circuit (Bank 1)

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/p34b9/>

