

GENERIC · POWERTRAIN

P34B5

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P34B5

B Camshaft Position Actuator Temperature Sensor Range/Performance Bank 1

P34B5 indicates that the powertrain control module (PCM) has detected an out-of-range or performance fault in the temperature sensor circuit for the bank 1 B camshaft position actuator. The PCM compares the sensor signal against expected values under specific operating conditions and sets this code when the signal does not correlate with engine temperature or actuator behavior.

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 commanded
- Reduced engine performance or power, particularly at low RPM
- Poor fuel economy due to incorrect actuator timing control
- Intermittent stalling or hesitation during acceleration
- Possible extended crank time or hard starting in cold conditions

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 readings
- 5 Failed camshaft position actuator solenoid or mechanical actuator issue
- 6 PCM software calibration issue or internal PCM fault (rare)

How to diagnose and fix it

- 1 Use a scan tool to verify the code and check live data for the actuator temperature sensor signal
- 2 Inspect the sensor connector and wiring for corrosion, damage, or loose pins
- 3 Measure sensor resistance and compare to manufacturer specifications
- 4 Check for engine oil condition and level, as dirty oil can affect actuator performance
- 5 Test the camshaft position actuator solenoid for proper operation and resistance
- 6 Replace the temperature sensor if faulty and clear the code
- 7 Reprogram or replace the PCM only after all other causes are ruled out



Don't overlook oil condition and wiring

- A common oversight is ignoring degraded engine oil, which can cause the actuator temperature sensor to read out of range due to poor lubrication and heat transfer.
- The code can be set by a faulty camshaft position actuator solenoid rather than the temperature sensor itself, so testing the solenoid is essential.
- Intermittent wiring faults often appear only when the engine is hot or vibrating, so wiggle-test the harness while monitoring live data.
- Some vehicles use the same sensor signal for multiple functions, so a failure may also affect variable valve timing performance without triggering other codes.
- Replacing the sensor without checking the actuator solenoid can lead to a repeat code if the root cause is mechanical or hydraulic.

Can I keep driving with P34B5?

You can usually drive the vehicle with this code, but avoid aggressive acceleration or heavy loads until it is repaired. Prolonged driving may lead to reduced fuel economy or degraded engine performance, and if drivability symptoms worsen, seek service promptly.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Basic hand tools (socket set, screwdrivers)
- Wiring diagram for the specific vehicle
- Oil condition checker or dipstick

Reading P34B5

P	Powertrain: engine, transmission and emissions.
3	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
4	Auxiliary emission controls.
B5	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) · **P0341** Camshaft Position Sensor A Circuit Range/Performance



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/p34b5/>

