

GENERIC · POWERTRAIN

P34B7

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P34B7

B Camshaft Position Actuator Temperature Sensor Circuit High Bank 1

P34B7 indicates that the powertrain control module has detected an abnormally high voltage signal from the camshaft position actuator temperature sensor on bank 1. The sensor circuit is reporting a temperature that is higher than the plausible range, which the computer interprets as a fault in the sensor, its wiring, or the actuator itself.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms.
- Rough idle or engine misfire, particularly when the engine is cold or under light load.
- Reduced engine performance or power, as the variable cam timing may be limited.
- Poor fuel economy due to incorrect camshaft phasing.
- In rare cases, the engine may enter limp mode or stall.
- Intermittent symptoms if the fault is due to a loose connection or chafed wire.

Common causes, most likely first

- 1 Faulty camshaft position actuator temperature sensor.
- 2 Damaged or corroded wiring or connector at the sensor or actuator.
- 3 Open circuit or high resistance in the sensor signal circuit.
- 4 Short to voltage in the sensor reference or signal circuit.
- 5 Failed camshaft position actuator (oil control valve) affecting sensor readings.
- 6 Contaminated engine oil or sludge blocking the actuator oil passages, causing overheating.
- 7 Rarely, a faulty powertrain control module.



How to diagnose and fix it

- 1 Perform a visual inspection of the sensor, actuator, and wiring for damage, corrosion, or oil leaks.
- 2 Check for technical service bulletins or recalls related to the camshaft actuator temperature sensor circuit.
- 3 Measure the sensor resistance and compare to specifications; replace if out of range.
- 4 Backprobe the sensor connector to check reference voltage (typically 5V) and ground integrity.
- 5 Inspect the camshaft actuator for sludge or mechanical binding; clean or replace as needed.
- 6 Verify engine oil condition and change oil and filter if contaminated.
- 7 Clear the diagnostic trouble code and perform a road test to confirm the repair.

Common oversights when diagnosing P34B7

- A high voltage reading often results from a short to voltage in the signal circuit, which can be caused by a chafed wire rubbing against a hot exhaust component.
- The camshaft position actuator temperature sensor is sometimes integrated into the actuator assembly, so replacing just the sensor may not be possible or cost-effective.
- Engine oil sludge or lack of maintenance can cause the actuator to overheat and trigger this code, so always check oil condition before replacing parts.
- This code can be set by a poor ground connection at the actuator, which is often overlooked during diagnosis.
- In some vehicles, the sensor circuit shares a reference voltage with other sensors; a fault in one can affect the other, leading to misdiagnosis.

Can I keep driving with P34B7?

Driving with P34B7 is generally safe for short distances, but avoid heavy acceleration or towing until the fault is repaired. Prolonged driving may lead to reduced fuel economy or engine performance, and in rare cases, limp mode.

Tools that help

- OBD-II scanner with live data capability
- Digital multimeter
- Wire repair kit (splices, heat shrink, electrical tape)
- Socket and wrench set
- Oil pressure gauge (if checking actuator operation)



Reading P34B7

- P** Powertrain: engine, transmission and emissions.
- 3** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 4** Auxiliary emission controls.
- B7** The exact fault within that area.

Often seen with

P0011 'A' Camshaft Position - Timing Over-Advanced or System Perfo · **P0012** 'A' Camshaft Position - Timing Over-Retarded (Bank 1) · **P0013** 'B' Camshaft Position - Actuator Circuit (Bank 1) · **P0014** Exhaust Camshaft Position - Over-Advanced (Bank 1) · **P0016** Crankshaft/Camshaft Position Correlation (Bank 1 Sensor A)

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/p34b7/>

