

GENERIC · POWERTRAIN

P34C3

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P34C3

B Camshaft Position Actuator Position Sensor A Circuit High Bank 2

P34C3 indicates that the powertrain control module has detected an abnormally high voltage on the signal circuit for the Bank 2 'A' camshaft position actuator position sensor, which is the feedback sensor inside the variable valve timing actuator. The circuit is reading above the expected range, so the module cannot trust the actuator's reported position and may limit variable valve timing operation.

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, especially when cold
- Reduced engine performance or poor fuel economy due to disabled variable valve timing
- A noticeable hesitation or stumble during acceleration
- In some cases, the engine may enter a limp-home mode with reduced power

Common causes, most likely first

- 1 A short to voltage on the sensor signal circuit, often from chafed or pinched wiring
- 2 A faulty camshaft position actuator position sensor internal short
- 3 Corroded, loose, or damaged electrical connector at the actuator or sensor
- 4 A failed variable valve timing actuator assembly causing the sensor to read out of range
- 5 Poor ground connection for the sensor or actuator circuit
- 6 A rare fault in the powertrain control module driver circuit for the sensor



How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related camshaft or crankshaft codes before proceeding
- 2 Inspect the sensor and actuator connectors for corrosion, loose pins, or damaged wiring, and repair as needed
- 3 Measure the sensor signal voltage with a multimeter with the key on and engine off, comparing to the manufacturer's specification
- 4 Check the sensor ground circuit for excessive resistance and repair any bad ground
- 5 Disconnect the sensor and inspect the actuator for mechanical binding or damage that could skew the sensor reading
- 6 If the circuit tests normal, substitute a known-good sensor or actuator to see if the code clears
- 7 After repairs, clear the codes and perform a road test to confirm the variable valve timing system operates correctly and the code does not return

Don't overlook the actuator itself

- A high voltage reading on this sensor circuit is often caused by a short to voltage in the wiring harness rather than a failed sensor, so always perform a voltage drop test before replacing parts.
- The sensor is typically integrated into the variable valve timing actuator on Bank 2, and a mechanically sticking actuator can produce a high signal voltage that mimics an electrical fault.
- This code can be set by a poor engine ground or a weak battery, so check the charging system and ground straps before condemning the sensor.
- On some engines, the Bank 2 actuator is difficult to access, and a misrouted harness after previous repairs is a common cause of this code.
- Do not confuse this code with a camshaft position sensor circuit code for the same bank; P34C3 specifically refers to the actuator position sensor, not the primary camshaft sensor.

Can I keep driving with P34C3?

You can usually drive the vehicle with this code, but avoid heavy acceleration and towing until it is repaired, because the variable valve timing system may be disabled and engine performance could be reduced. If the engine runs roughly or stalls, have it checked promptly.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Basic hand tools for connector and component access
- Test light or jumper wires for circuit testing



Reading P34C3

- P** Powertrain: engine, transmission and emissions.
- 3** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 4** Auxiliary emission controls.
- C3** 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) · **P0021** 'A' Camshaft Position - Timing Over-Advanced or System Perfo · **P34C2** B Camshaft Position Actuator Position Sensor A Circuit Low B · **P34C4** A Camshaft Position Actuator Control Circuit Driver Current/

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/p34c3/>

