

GENERIC · POWERTRAIN

P0014

OBD-II TROUBLE CODE

P0014

Exhaust Camshaft Position - Over-Advanced (Bank 1)

P0014 means the engine computer has detected that the exhaust camshaft on bank 1 is advanced further than the commanded target, based on the camshaft position sensor signal compared to the crankshaft position sensor. The powertrain control module (PCM) sets this code when the actual exhaust cam timing exceeds the desired advance by a calibrated threshold for a set time.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering and auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough idle or unstable engine speed, especially when cold
- Reduced engine power or sluggish acceleration
- Poor fuel economy or increased emissions
- Engine may stall or hesitate during deceleration
- In some cases, a rattling or ticking noise from the timing chain area

Common causes, most likely first

- 1 Contaminated or degraded engine oil causing the oil control valve (OCV) to stick
- 2 Faulty exhaust camshaft position (CMP) sensor or its wiring
- 3 Failed camshaft phaser (VVT actuator) due to wear or sludge
- 4 Restricted oil passages or a clogged oil control valve screen
- 5 Wiring issues such as open, short, or high resistance in the OCV or CMP circuits
- 6 PCM software calibration or internal fault (less common)
- 7 Timing chain stretched or jumped a tooth (rare but possible)



How to diagnose and fix it

- 1 Verify engine oil level and condition; change oil and filter if overdue or contaminated
- 2 Inspect the oil control valve (OCV) for sludge or debris; clean or replace as needed
- 3 Check the exhaust camshaft position sensor and its wiring for damage or corrosion
- 4 Test the OCV with a scan tool by commanding advance and observing cam timing response
- 5 Perform a mechanical timing check to ensure the timing chain is correctly aligned
- 6 Compare commanded versus actual cam timing using a scan tool to isolate electrical versus mechanical faults
- 7 If all else fails, consult factory service information for specific diagnostic procedures and PCM reprogramming

Oil quality and VVT screen checks

- A sticking oil control valve caused by neglected oil changes is one of the most frequent triggers for P0014, so always inspect the valve and its screen before condemning the phaser.
- The code can be set by a faulty camshaft position sensor that reports an advanced position even when the camshaft is mechanically correct, so compare sensor signals with a known-good waveform.
- On some engines, a stretched timing chain can cause the exhaust cam to be over-advanced relative to the crankshaft, setting P0014 without any VVT component failure.
- A dirty or restricted oil passage to the cam phaser can mimic a failed phaser, so oil pressure and flow to the phaser should be verified before replacement.
- P0014 is often accompanied by other cam/crank correlation codes, so diagnosing the root cause requires looking at the entire timing system rather than just the exhaust cam.

Can I keep driving with P0014?

You can usually continue driving to a repair shop, but avoid aggressive acceleration and heavy loads because over-advanced exhaust cam timing can cause poor performance and increased emissions. If the engine runs rough or stalls, stop driving and seek immediate service.

Tools that help

- OBD-II scan tool with live data and bidirectional control
- Digital multimeter
- Oil pressure gauge
- Basic hand tools (wrenches, sockets, screwdrivers)
- Feeler gauges or timing chain inspection tools



Reading P0014

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 0** Fuel and air metering and auxiliary emission controls.
- 14** 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) · **P0015** 'B' Camshaft Position - Timing Over-Retarded (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/p0014/>

