

GENERIC · POWERTRAIN

P2615

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2615

Camshaft Position Signal Output Circuit Low

P2615 means the engine control module (ECM) has detected that the camshaft position signal output circuit is reporting a voltage lower than expected for the current operating conditions. The ECM monitors this circuit to determine camshaft position and uses that data for fuel injection and variable valve timing; a low signal can disrupt those functions.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Computer and output circuits

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough idle or misfire, especially when the engine is cold
- Reduced engine performance or lack of power during acceleration
- Poor fuel economy due to incorrect injection timing
- Intermittent stalling or difficulty starting
- In some cases, the engine may enter limp mode

Common causes, most likely first

- 1 Faulty camshaft position sensor or its internal circuitry
- 2 Damaged or corroded wiring in the camshaft position signal output circuit
- 3 Loose or corroded electrical connector at the sensor or ECM
- 4 Failed ECM driver for the signal output circuit
- 5 Aftermarket or incorrect sensor installed previously
- 6 Oil or debris contamination on the sensor or reluctor wheel
- 7 Mechanical timing issues such as a stretched timing chain or worn camshaft phaser



How to diagnose and fix it

- 1 Use a scan tool to verify P2615 is current and check for related camshaft or crankshaft codes
- 2 Inspect the camshaft position sensor connector and wiring for damage, corrosion, or loose pins
- 3 Measure the signal output voltage at the sensor with a multimeter and compare to specifications
- 4 Check the sensor's ground and power supply circuits for continuity and voltage drops
- 5 Perform a wiggle test on the harness while monitoring live data to detect intermittent faults
- 6 Replace the camshaft position sensor if tests indicate it is faulty
- 7 If the sensor and wiring are good, diagnose the ECM driver circuit or replace the ECM as needed

Common misdiagnosis traps for P2615

- A low signal output can be caused by a poor ground connection at the sensor or ECM, which is often overlooked when replacing the sensor.
- Aftermarket sensors with incorrect resistance values can set this code even when new, so always use OEM-quality parts.
- The code can be triggered by a mechanical issue like a worn camshaft phaser or timing chain, not just an electrical fault.
- Intermittent wiring faults may only appear when the engine is hot or vibrating, so a wiggle test is essential.
- Some vehicles use a shared ground for multiple sensors, so a fault in another circuit can affect the camshaft signal.

Can I keep driving with P2615?

You can usually drive the vehicle with this code, but avoid heavy acceleration or towing until it is repaired. If the engine runs rough or stalls, seek service immediately to prevent damage to the catalytic converter or other components.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Basic hand tools for sensor removal
- Oscilloscope for advanced signal analysis



Reading P2615

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 6** Computer and output circuits.
- 15** The exact fault within that area.

Often seen with

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 · **P0342** Camshaft Position Sensor A Circuit Low Input · **P0343** Camshaft Position Sensor A Circuit High Input

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/p2615/>

