

GENERIC · POWERTRAIN

P0371

OBD-II TROUBLE CODE

P0371

Timing Reference High Resolution Signal 'A' Too Many Pulses

P0371 means the engine computer detected too many pulses on the high-resolution timing reference signal 'A' circuit, which is used to precisely locate the crankshaft or camshaft position. The computer expects a specific number of pulses per revolution and flags the code when the count exceeds that threshold, indicating a signal integrity problem.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Ignition system and misfire

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Rough idle or misfire due to inaccurate timing
- Engine may stall or hesitate during acceleration
- Difficulty starting or extended cranking
- Reduced fuel economy and power output
- In some cases, the engine may enter limp mode

Common causes, most likely first

- 1 Damaged or chipped reluctor wheel (tone ring) on the crankshaft or camshaft
- 2 Faulty crankshaft or camshaft position sensor
- 3 Wiring harness damage such as chafed wires, loose connectors, or corrosion
- 4 Electrical interference from aftermarket ignition components or poor grounding
- 5 Metal debris stuck to the sensor tip or reluctor wheel
- 6 Worn timing chain or belt causing erratic signal
- 7 Engine control module (ECM) internal fault (rare)



How to diagnose and fix it

- 1 Inspect the sensor and reluctor wheel for physical damage, debris, or misalignment
- 2 Check the wiring and connectors for the high-resolution timing sensor circuit for continuity and corrosion
- 3 Measure sensor resistance and compare to manufacturer specifications
- 4 Use an oscilloscope to verify the signal waveform for extra pulses or noise
- 5 Check for aftermarket accessories that may introduce electrical interference and temporarily disconnect them
- 6 Replace the faulty sensor if tests indicate failure
- 7 If the reluctor wheel is damaged, replace it according to service procedures

Signal integrity checks before parts replacement

- A common oversight is assuming the sensor is at fault when the reluctor wheel has a cracked or missing tooth that causes extra pulses.
- Electrical noise from poorly routed aftermarket wiring or a failing alternator can mimic a faulty sensor and set this code.
- The code can be set by a loose or corroded connector that intermittently adds resistance, so wiggle-testing the harness is essential.
- On some engines, a stretched timing chain can cause the camshaft signal to have extra pulses relative to the crankshaft, triggering P0371.
- Always clear the code and perform a road test to confirm the repair, as the fault may be intermittent and not immediately reappear.

Can I keep driving with P0371?

You can drive the vehicle cautiously to a repair shop, but avoid heavy acceleration or towing, as inaccurate timing can cause misfires and potential engine damage. If the engine runs poorly or stalls, stop driving and seek professional assistance.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Oscilloscope
- Feeler gauge or non-magnetic feeler gauge
- Basic hand tools (socket set, screwdrivers)



Reading P0371

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 3** Ignition system and misfire.
- 71** The exact fault within that area.

Often seen with

P0335 Crankshaft Position Sensor A Circuit Malfunction · **P0336** Crankshaft Position Sensor A Circuit Range/Performance · **P0340** Camshaft Position Sensor A Circuit Malfunction (Bank 1) · **P0341** Camshaft Position Sensor A Circuit Range/Performance · **P0372** Timing Reference High Resolution Signal 'A' Too Few Pulses

See it working

Watch the animated explainer [Inline-Four Engine X-Ray: Firing Order 1-3-4-2](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0371/>

