

NISSAN · POWERTRAIN

P1386

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1386 · Nissan

CYP Sensor B Intermittent Interruption

P1386 on Nissan vehicles indicates an intermittent interruption in the signal from the Cylinder Position (CYP) sensor B, which is the sensor that tells the engine control module (ECM) the exact position of the camshaft for cylinder identification. The ECM has detected that the CYP sensor B signal drops out or becomes erratic for brief periods, typically during specific operating conditions, and it sets this code when the interruption is frequent enough to affect fuel injection and ignition timing.

SYSTEM

Powertrain

CODE TYPE

Nissan specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Ignition system and misfire

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms.
- Intermittent engine misfire or rough running, especially during acceleration or under load.
- Difficulty starting or extended cranking times, particularly when the engine is cold or hot.
- Occasional stalling or hesitation that may come and go without warning.
- Reduced engine performance and fuel economy due to incorrect timing signals.

Common causes, most likely first

- 1 Faulty CYP sensor B (camshaft position sensor) due to internal failure or heat damage.
- 2 Damaged or corroded electrical connector at the CYP sensor B, causing intermittent contact.
- 3 Wiring harness damage such as chafed wires, broken insulation, or loose pins between the sensor and ECM.
- 4 Metal debris or foreign material on the sensor tip or reluctor wheel, disrupting the magnetic signal.
- 5 Excessive air gap between the sensor and the reluctor wheel due to wear or incorrect installation.
- 6 ECM internal fault or software issue, though this is less common and should be diagnosed last.
- 7 Interference from aftermarket electrical accessories or poor grounds affecting the sensor signal.



How to diagnose and fix it

- 1 Perform a visual inspection of the CYP sensor B, its connector, and the wiring harness for obvious damage, corrosion, or loose connections.
- 2 Use an OBD-II scanner to check for pending or stored codes and review freeze-frame data to understand when the fault occurs.
- 3 Measure the resistance of the CYP sensor B with a multimeter and compare to the manufacturer's specification; replace if out of range.
- 4 Backprobe the sensor signal wire at the ECM and monitor the waveform with an oscilloscope while wiggling the harness to detect intermittent interruptions.
- 5 Check the air gap between the sensor and reluctor wheel and clean any metallic debris from the sensor tip.
- 6 Repair or replace any damaged wiring or connectors, then clear the code and perform a road test to verify the fix.
- 7 If all else fails, substitute a known-good CYP sensor B and retest; if the code persists, diagnose the ECM and its power/ground circuits.

Intermittent CYP Sensor B Signal Traps

- A common oversight is replacing the CYP sensor B without checking the connector terminals for fretting corrosion, which can cause intermittent signal loss that mimics a sensor failure.
- The CYP sensor B signal can be interrupted by a failing crankshaft position sensor (CKP) sharing the same ground circuit, so always check both sensors and their shared grounds.
- Aftermarket alarm systems or remote starters tapped into the cam sensor wiring can introduce noise or intermittent opens that set P1386, especially if installation was careless.
- On some Nissan engines, the CYP sensor B is integrated into the camshaft sprocket assembly, and a worn timing chain can cause erratic reluctor movement without triggering a timing code.
- The ECM may set P1386 only under specific conditions such as cold starts or high engine load, so a simple key-on test may not reveal the fault; a test drive with a live data recorder is often necessary.

Can I keep driving with P1386?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration, towing, or long trips because the intermittent signal can cause sudden stalling or misfire that may damage the catalytic converter. If the engine runs rough or stalls frequently, stop driving and have the vehicle towed to prevent safety risks.



Tools that help

- OBD-II scanner with live data and freeze-frame capability
- Digital multimeter
- Oscilloscope for waveform analysis
- Basic hand tools (socket set, screwdrivers, wire crimpers)
- Feeler gauge for air gap measurement
- Electrical contact cleaner and dielectric grease

Reading P1386

P Powertrain: engine, transmission and emissions.

1 Manufacturer-specific code (Nissan): its meaning depends on the make.

3 Ignition system and misfire.

86 The exact fault within that area.

Often seen with

P1385 Variable Cam Timing Solenoid B Malfunction · **P1385** Knock Sensor 4 Circuit · **P0011** 'A' Camshaft Position - Timing Over-Advanced or System Perfo · **P0335** Crankshaft Position Sensor A Circuit Malfunction · **P0340** Camshaft Position Sensor A Circuit Malfunction (Bank 1) · **P0345** Camshaft Position Sensor A Circuit (Bank 2)

See it working

Watch the animated explainer [How an Elevator Works: Traction Lift in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/nissan-p1386/>

