

NISSAN · POWERTRAIN

P1381

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1381 · Nissan

CYP Sensor A Intermittent Interruption

P1381 on Nissan vehicles means the engine control module (ECM) has detected an intermittent interruption in the signal from the cylinder identification (CYP) sensor, also called the camshaft position sensor. The ECM expects a consistent pulse pattern from this sensor to identify cylinder number one for sequential fuel injection and ignition timing, and it has logged a fault because the signal dropped out or became erratic.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Nissan specific	Medium	Intermediate	Ignition system and misfire

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Engine may hesitate or stumble during acceleration
- Rough idle or intermittent misfire
- Difficulty starting or extended cranking before the engine catches
- Reduced fuel economy or poor performance
- In rare cases, the engine may stall or refuse to start

Common causes, most likely first

- 1 Faulty camshaft position (CYP) sensor
- 2 Damaged or chafed wiring in the CYP sensor circuit
- 3 Corroded or loose electrical connector at the sensor or ECM
- 4 Metal debris or foreign material on the sensor tip or reluctor wheel
- 5 Worn or damaged reluctor wheel teeth on the camshaft
- 6 Poor ground connection for the sensor or ECM
- 7 Internal ECM fault (less common)



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, and record freeze-frame data to understand when the fault occurs
- 2 Visually inspect the CYP sensor, its connector, and the wiring harness for damage, corrosion, or loose pins
- 3 Check the sensor's resistance and signal output with a multimeter or oscilloscope while cranking or running the engine
- 4 Inspect the reluctor wheel on the camshaft for missing teeth, debris, or damage
- 5 Verify the sensor's air gap and mounting condition according to Nissan specifications
- 6 Perform a wiggle test on the wiring harness while monitoring sensor signal to reveal intermittent opens
- 7 If all checks pass, substitute a known-good sensor and re-test before condemning the ECM

What a CYP code really tells you

- A P1381 is often set by a momentary loss of signal that leaves no driveability complaint, so the sensor may test fine when the engine is cold or idling; always check for intermittent harness faults first.
Nissan CYP sensors are commonly misdiagnosed as crankshaft position sensor failures because both can cause no-start conditions, but the CYP sensor specifically identifies cylinder one for sequential injection.
- Oil or metallic sludge buildup on the sensor tip can disrupt the magnetic signal without any visible wiring damage, so removal and cleaning is a valid first step before replacement.
- The ECM may set P1381 as a result of a poor engine ground rather than a faulty sensor, especially on older Nissan models where ground straps corrode.
After replacing the sensor, the ECM may need a relearn or idle air volume learning procedure on some Nissan models to clear the code permanently.

Can I keep driving with P1381?

You can usually drive the vehicle short distances if the only symptom is the check engine light, but avoid hard acceleration, towing, or long trips until the fault is repaired. If the engine runs rough, stalls, or is hard to start, park the vehicle and arrange diagnosis, as an intermittent CYP signal can leave you stranded.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Oscilloscope (for signal waveform analysis)
- Basic hand tools (socket set, screwdrivers)
- Feeler gauges (for air gap check)
- Electrical contact cleaner and dielectric grease



Reading P1381

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Nissan): its meaning depends on the make.
- 3** Ignition system and misfire.
- 81** The exact fault within that area.

Often seen with

P1380 Misfire Detected Rough Road Data Not Available · **P1380** VCT Solenoid Valve Circuit Short or Open · **P1380** Misfire Detected Rough Road Data Not Available · **P0335** Crankshaft Position Sensor A Circuit Malfunction · **P0340** Camshaft Position Sensor A Circuit Malfunction (Bank 1) · **P0341** Camshaft Position Sensor A Circuit Range/Performance · **P0725** Engine Speed Input Circuit Malfunction

See it working

Watch the animated explainer [Helicopter Simulator: Take Off, Hover and Land](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/nissan-p1381/>

