

NISSAN · POWERTRAIN

P1361

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1361 · Nissan

TDC Sensor Intermittent Interruption

P1361 on Nissan vehicles means the engine control module (ECM) has detected an intermittent interruption in the signal from the top dead center (TDC) sensor, which is often part of the crankshaft position sensor or a dedicated sensor in the distributor. The ECM expects a consistent pulse pattern to identify cylinder number one and synchronize fuel injection and ignition timing, and an intermittent loss of that signal triggers this code.

SYSTEM

Powertrain

CODE TYPE

Nissan specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Ignition system
and misfire

Symptoms you may notice

- Check engine light illuminated, often with no other symptoms besides the warning light
- Intermittent engine stumble or misfire, especially during acceleration or at steady cruise
- Hard starting or a no-start condition that comes and goes, sometimes after the engine warms up
- Rough idle or fluctuating idle speed when the signal drops out briefly
- Reduced engine power or limp mode in some cases when the ECM loses synchronization

Common causes, most likely first

- 1 Faulty TDC sensor (crankshaft position sensor or distributor-mounted sensor) with an internal intermittent open circuit
- 2 Damaged or corroded wiring harness between the TDC sensor and the ECM, often from heat, oil, or chafing
- 3 Loose or corroded electrical connector at the sensor or ECM, causing an intermittent connection
- 4 Metal debris or damage on the sensor tip or reluctor wheel, disrupting the magnetic pulse
- 5 Failed distributor bearing or shaft play that causes the sensor air gap to vary (on distributor-equipped engines)
- 6 ECM internal fault affecting the sensor signal input circuit, though this is less common



How to diagnose and fix it

- 1 Inspect the TDC sensor connector and wiring for corrosion, looseness, or chafing, and repair as needed
- 2 Check the sensor air gap and reluctor wheel for debris or damage, and clean or replace components if necessary
- 3 Measure the sensor resistance and compare to the manufacturer's specification, replacing the sensor if out of range
- 4 Perform a wiggle test on the harness while monitoring sensor signal with an oscilloscope or scan tool to find intermittent opens
- 5 Check for technical service bulletins (TSBs) or known issues for the specific Nissan model and engine
- 6 Replace the TDC sensor if all wiring and connectors are good but the signal remains intermittent
- 7 If the signal is still lost after sensor replacement, diagnose the ECM and its ground circuits before condemning the module

Intermittent TDC Signal Traps to Avoid

- A common misdiagnosis is replacing the TDC sensor when the real problem is a chafed wire inside the harness loom near the exhaust manifold, where heat damage is hidden from view.
- On Nissan engines with a distributor, the TDC sensor is often built into the distributor assembly, so a failing distributor bearing can cause an intermittent signal without the sensor itself being faulty.
- The code may set only during specific conditions such as cold starts or high engine load, so a simple resistance check at idle can pass while the sensor still fails intermittently.
- Aftermarket sensors with incorrect air gap or weak magnetic strength can cause repeat P1361 codes even though they are new, so OEM-quality parts are recommended.
- A weak or failing crankshaft position sensor can sometimes set P1361 without a misfire code, leading technicians to overlook ignition system basics like spark plugs and coils.

Can I keep driving with P1361?

You can usually drive the vehicle short distances if the only symptom is the warning light, but avoid hard acceleration and long trips until the fault is repaired. If the engine stalls, misfires, or loses power, stop driving and have the vehicle towed to prevent safety risks.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter for resistance and voltage checks
- Oscilloscope for capturing intermittent sensor signals
- Basic hand tools (socket set, screwdrivers, wire crimpers)
- Manufacturer service information for wiring diagrams and specifications



Reading P1361

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

Often seen with

P1340 CKP CMP Sensor Signals Out Of Sequence · **P1340** Igniter Circuit Malfunction No 8 · **P1340** Camshaft Position Sensor B Circuit · **P1340** Camshaft Position Sensor B Circuit Malfunction · **P1340** Multiple Cylinder Misfire During Start · **P0335** Crankshaft Position Sensor A Circuit Malfunction · **P0336** Crankshaft Position Sensor A Circuit Range/Performance · **P0340** Camshaft Position Sensor A Circuit Malfunction (Bank 1) · **P0725** Engine Speed Input Circuit Malfunction

See it working

Watch the animated explainer [How a Starter Motor Works: Pre-Engaged Starter](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/nissan-p1361/>

