



P1317 · Nissan

Spark Plug Voltage Detection Circuit Malfunction Rear Bank

P1317 on Nissan vehicles indicates that the engine control module (ECM) has detected an abnormal signal from the spark plug voltage detection circuit for the rear bank of cylinders. The circuit monitors ionization or spark voltage to confirm combustion quality, and the ECM sets this code when the signal is out of expected range or missing entirely.

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

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough idle or misfire sensation, especially when the engine is cold
- Slight hesitation or stumble during acceleration
- Reduced fuel economy due to inefficient combustion
- In rare cases, a flashing check engine light if the misfire becomes severe

Common causes, most likely first

- 1 Faulty ignition coil or spark plug boot on the rear bank
- 2 Worn or fouled spark plug on the rear bank
- 3 Damaged or corroded wiring in the spark plug voltage detection circuit
- 4 Poor electrical connection at the ignition coil harness
- 5 Failed spark plug voltage detection sensor or module (if equipped separately)
- 6 Engine control module (ECM) internal fault affecting the detection circuit
- 7 Aftermarket ignition components that do not produce the expected voltage signal

How to diagnose and fix it

- 1 Inspect the rear bank spark plugs and ignition coils for visible damage, wear, or oil fouling
- 2 Check the wiring harness and connectors at each rear bank ignition coil for corrosion or loose pins
- 3 Swap a known-good ignition coil from another cylinder to see if the code follows the coil
- 4 Measure resistance of the spark plug voltage detection circuit wiring and compare to factory specifications
- 5 Test the spark plug voltage detection sensor (if separate) with a multimeter or oscilloscope
- 6 Replace faulty spark plugs, ignition coils, or detection sensor as needed
- 7 Clear the code and perform a road test to verify the repair



What Nissan Technicians Check First for P1317

- The rear bank on transverse V6 Nissan engines is often buried under the intake plenum, so technicians frequently find worn spark plugs or coils that were missed during routine service.
- A loose or corroded ground connection at the rear bank ignition coil can mimic a failed detection circuit, so always verify grounds before replacing parts.
- Aftermarket ignition coils sometimes produce a different voltage signature that the ECM interprets as a fault, even though the engine runs fine.
- P1317 can be set by a simple misfire that does not trigger a P0300 code, so do not assume the detection circuit itself is defective without checking spark quality.
- On some Nissan models, the spark plug voltage detection circuit is integrated into the ECM, and a faulty ECM is a rare but possible cause after all other checks pass.

Can I keep driving with P1317?

You can generally continue driving with P1317 as long as the check engine light is steady and the engine runs smoothly, but avoid heavy acceleration or towing until the fault is repaired. If the light flashes or you notice pronounced misfiring, stop driving and have the vehicle inspected promptly to prevent catalytic converter damage.

Tools that help

- OBD-II scan tool with Nissan-specific software
- Digital multimeter
- Oscilloscope (for signal analysis)
- Spark plug socket and wrench
- Torque wrench
- Basic hand tools (screwdrivers, pliers, socket set)

Reading P1317

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



Often seen with

P1316 Spark Plug Voltage Detection Circuit Malfunction Front Bank · **P1316** Misfire Rate Exceeds Emissions · **P1316** Spark Plug Voltage Detection Circuit Malfunction Front Bank · **P1316** Injector Circuit IDM Codes Detected · **P0300** Random/Multiple Cylinder Misfire Detected · **P0302** Cylinder 2 Misfire Detected · **P0304** Cylinder 4 Misfire Detected · **P0306** Cylinder 6 Misfire Detected

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/nissan-p1317/>

