

NISSAN · POWERTRAIN

P1794

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1794 · Nissan

Powertrain Control Module Battery Direct Power Circuit

P1794 on Nissan vehicles means the Powertrain Control Module (PCM) has detected a problem with its direct battery power circuit, which is the constant 12-volt feed that keeps the PCM's memory alive and powers certain internal functions. The PCM monitors this circuit and sets the code when the voltage on the direct battery input falls outside the expected range, typically because of a blown fuse, a bad connection, or a wiring fault.

SYSTEM

Powertrain

CODE TYPE

Nissan specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Transmission

Symptoms you may notice

- Illuminated Check Engine Light (CEL) on the dashboard
- Often no symptoms besides the warning light, especially if the engine still starts and runs normally
- Intermittent stalling or no-start condition if the power feed is completely lost
- Loss of adaptive memory, causing rough running or poor driveability after a battery disconnect
- Other unrelated codes stored in the PCM due to low or intermittent power
- Hard starting or a dead battery if the fault is a parasitic draw on the direct power circuit

Common causes, most likely first

- 1 Blown fuse in the PCM's direct battery power circuit, often located in the engine bay fuse box
- 2 Corroded, loose, or damaged battery terminal connections or ground straps
- 3 Open or shorted wire in the constant power feed from the battery to the PCM
- 4 Faulty PCM power relay or fuse box internal fault
- 5 Damaged PCM connector pins or corrosion at the PCM harness
- 6 Failed PCM internal power supply (rare but possible)



How to diagnose and fix it

- 1 Check the battery voltage and state of charge; a weak battery can trigger this code
- 2 Inspect and test the fuse for the PCM direct battery power circuit, replace if blown
- 3 Check battery terminals, grounds, and the PCM connector for corrosion or looseness; clean and tighten as needed
- 4 Perform a voltage drop test on the constant power wire from the battery to the PCM to find excessive resistance
- 5 Test the PCM power relay and related fuses; swap with a known-good relay if suspected
- 6 If all wiring and fuses check out, test the PCM's power input at the connector; if voltage is present but the code persists, the PCM may be faulty

Before you replace the PCM for P1794

- A blown fuse for the PCM's constant power is often caused by a shorted oxygen sensor heater or other accessory on the same circuit, so always find the root cause before replacing the fuse.
- Intermittent P1794 codes are frequently traced to a loose battery terminal or a corroded ground connection that only acts up under vibration or temperature changes.
- Some Nissan models use a separate fuse box internal to the IPDM (Intelligent Power Distribution Module), and a faulty IPDM can mimic a PCM power circuit failure.
- The PCM may still run the engine with a P1794 stored, but adaptive learning and emissions-related memory may be lost, leading to driveability complaints that seem unrelated.
- Always check for aftermarket accessories wired into the PCM power circuit, as improper installations are a common cause of this code.

Can I keep driving with P1794?

You can usually drive the vehicle with P1794 stored if it starts and runs normally, but avoid long trips or heavy electrical loads until the fault is repaired. If the engine stalls, cranks but won't start, or the battery goes dead repeatedly, stop driving and have the circuit diagnosed to prevent being stranded.

Tools that help

- Digital multimeter (DMM)
- Test light
- Fuse puller
- Wire brush or terminal cleaner
- Socket set for battery terminal and ground connections
- OBD-II scan tool to clear codes and verify repair



Reading P1794

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Nissan): its meaning depends on the make.
- 7** Transmission.
- 94** The exact fault within that area.

Often seen with

P0560 System Voltage Malfunction · **P0562** System Voltage Low · **P0563** System Voltage High · **P0600** Serial Communication Link Malfunction · **P0601** Internal Control Module Memory Checksum Error

See it working

Watch the animated explainer [How Regenerative Braking Works in Electric Cars](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/nissan-p1794/>

