

NISSAN · POWERTRAIN

P1738

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1738 · Nissan

Automatic Transmission System Malfunction

P1738 on Nissan vehicles indicates that the Transmission Control Module (TCM) has detected a general malfunction within the automatic transmission system, often related to abnormal sensor readings or actuator performance. The TCM sets this code when it cannot reconcile expected transmission behavior with actual operating data, triggering the warning light and possibly limiting shift quality.

SYSTEM

Powertrain

CODE TYPE

Nissan specific

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Transmission

Symptoms you may notice

- Illumination of the Check Engine Light or Transmission Warning Light
- Harsh or delayed gear shifts, or the transmission entering limp mode
- Slipping between gears or failure to engage certain gears
- Unusual noises or vibrations during acceleration
- Often no symptoms besides the warning light, especially in early stages

Common causes, most likely first

- 1 Faulty transmission control module (TCM) or internal software glitch
- 2 Degraded or contaminated automatic transmission fluid (ATF)
- 3 Malfunctioning shift solenoid or pressure control solenoid
- 4 Wiring harness damage or corroded connectors between TCM and transmission
- 5 Internal transmission mechanical wear, such as clutch pack or valve body issues
- 6 Faulty transmission speed sensor or input/output shaft sensor

How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, and record freeze-frame data to identify when the fault occurred
- 2 Check transmission fluid level and condition; top off or replace fluid if degraded
- 3 Inspect wiring and connectors at the transmission and TCM for damage or corrosion
- 4 Test shift solenoids and pressure control solenoids for resistance and operation
- 5 Perform a relearn or adaptive reset procedure for the TCM if no hardware faults are found
- 6 Verify transmission speed sensor signals with a scan tool during a test drive
- 7 If internal mechanical issues are suspected, perform a pressure test and consult a transmission specialist



What P1738 Really Means on Nissan Transmissions

- P1738 is often a generic code that Nissan uses to indicate a problem with the transmission's adaptive learning or clutch engagement, not necessarily a hard failure.
- A weak battery or charging system issue can cause the TCM to set this code due to voltage fluctuations, so always check battery health first.
- Some Nissan models require a TCM reprogramming or software update to resolve false P1738 triggers, especially after transmission repairs.
- The code may be stored without any drivability symptoms, leading to unnecessary transmission replacements if diagnostics are skipped.
- Dirty or degraded transmission fluid is a common culprit; Nissan recommends specific fluid intervals that are often overlooked.

Can I keep driving with P1738?

If the transmission is shifting normally and the light is steady, you can drive cautiously to a repair shop, but avoid heavy acceleration or towing. If the transmission is in limp mode or shifting harshly, stop driving and seek professional diagnosis to prevent further damage.

Tools that help

- OBD-II scan tool with Nissan-specific software
- Digital multimeter
- Transmission fluid level dipstick or scan tool for fluid temperature
- Jack and jack stands or a lift for under-vehicle inspection
- Socket set and trim removal tools for accessing TCM and connectors

Reading P1738

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

Often seen with

P0700 Transmission Control System Malfunction · **P0720** Output Speed Sensor Circuit Malfunction · **P0730** Incorrect Gear Ratio · **P0740** Torque Converter Clutch Circuit Malfunction · **P0750** Shift Solenoid 'A'



See it working

Watch the animated explainer [How an Automatic Transmission Works, Gear by Gear](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/nissan-p1738/>

