



P1705 · Nissan

Throttle Position Sensor Circuit AT

P1705 on Nissan vehicles means the Transmission Control Module (TCM) has detected an abnormal signal from the throttle position sensor (TPS) circuit that it uses to manage shift timing and pressure. The TCM compares the TPS voltage against expected values and sets this code when the signal is out of range, intermittent, or implausible for the current driving conditions.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Nissan specific	Medium	Intermediate	Transmission

Symptoms you may notice

- Harsh or delayed automatic transmission shifts, especially when accelerating from a stop
- Transmission stuck in a single gear or failing to downshift during kickdown
- Erratic or hunting shift patterns that change without driver input
- Reduced engine power or limp-home mode with the malfunction indicator light illuminated
- Often no symptoms besides the warning light, particularly if the fault is intermittent

Common causes, most likely first

- 1 Worn or dirty throttle position sensor causing a dead spot or erratic voltage output
- 2 Damaged or corroded wiring and connectors between the TPS and the TCM
- 3 Poor electrical ground at the throttle body or engine block affecting sensor reference voltage
- 4 Failed TCM or a software calibration issue misinterpreting a valid TPS signal
- 5 Contaminated throttle body or sticking throttle plate altering the sensor's mechanical sweep
- 6 Aftermarket throttle body or sensor with incorrect resistance characteristics

How to diagnose and fix it

- 1 Connect a scan tool and record live TPS voltage through the full pedal travel to confirm a smooth sweep with no dropouts
- 2 Inspect the TPS connector and harness for corrosion, chafing, or pushed-back pins, and clean or repair as needed
- 3 Measure reference voltage and ground at the TPS connector with a multimeter to rule out supply-side faults
- 4 Check and clean the throttle body and plate, then perform a throttle position relearn if the vehicle supports it
- 5 Back-probe the TPS signal wire at the TCM and compare it with the sensor output to isolate a wiring fault
- 6 Replace the throttle position sensor or throttle body assembly if the signal is proven faulty
- 7 Clear the code and road-test through several drive cycles to confirm the repair and verify no pending return



Why P1705 is often a wiring fault

- A common misdiagnosis is replacing the TCM when the real problem is a chafed TPS signal wire near the throttle body or a corroded ground that shifts the reference voltage.
- Intermittent P1705 codes often appear only on rough roads or after engine bay heat soak, so a static multimeter test at idle can pass while the fault is still present.
- A dirty throttle body can cause the TPS to report a slightly different closed-throttle voltage, and the TCM may flag P1705 without any sensor failure at all.
- Some Nissan models require a throttle position relearn after battery replacement or throttle body cleaning, and skipping it can set P1705 immediately after an otherwise correct repair.
- P1705 does not always mean the transmission itself is failing; the TCM uses TPS input for shift pressure, so a sensor fault can mimic internal transmission problems.

Can I keep driving with P1705?

You can usually drive the vehicle to a workshop, but expect harsh shifts and possible limp-home mode; avoid heavy acceleration, towing, or long trips until the fault is diagnosed because erratic TPS input can cause unsafe shift behavior.

Tools that help

- OBD-II scan tool with live data and Nissan-specific capabilities
- Digital multimeter with back-probe pins
- Wiring diagram for the TPS and TCM circuits
- Throttle body cleaner and soft brush
- Basic hand tools for connector and sensor access

Reading P1705

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

Often seen with

P1706 Park Neutral Position PNP Switch · **P1706** High Vehicle Speed Observed In Park · **P1706** TCM A/T Gear Position Switch Circuit Open · **P1706** High Vehicle Speed Observed in Park · **P0120** Throttle Position Sensor A Circuit Malfunction · **P0121** Throttle Position Sensor A Circuit Range/Performance · **P0122** Throttle Position Sensor A Circuit Low Input · **P0123** Throttle Position Sensor A Circuit High Input



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-p1705/>

