

NISSAN · POWERTRAIN

**P1796**

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

## P1796 · Nissan

### Kick Down Switch Circuit

P1796 on Nissan vehicles indicates that the Transmission Control Module (TCM) has detected an abnormal signal from the kick down switch circuit, which is part of the accelerator pedal position sensor assembly. The TCM expects a specific voltage change when the accelerator is pressed fully to the floor, and it sets this code when the signal is out of range or inconsistent with other pedal position signals.

SYSTEM

Powertrain

CODE TYPE

Nissan specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Transmission

### Symptoms you may notice

- The transmission may not downshift when the accelerator is pressed fully to the floor, such as during passing or merging.
- The check engine light or transmission warning light may illuminate on the dashboard.
- The vehicle may feel sluggish or lack power because the transmission stays in a higher gear.
- In some cases, the transmission may shift harshly or at unexpected times due to the TCM entering a fail-safe mode.
- Often no symptoms besides the warning light, especially if the kick down function is rarely used.

### Common causes, most likely first

- 1 Faulty kick down switch or accelerator pedal position sensor assembly, which is the most common cause on Nissan vehicles.
- 2 Wiring damage or corrosion in the kick down switch circuit, including open or short circuits.
- 3 Poor electrical connection at the kick down switch connector or TCM connector.
- 4 Failed TCM, though this is less common and should be diagnosed last.
- 5 Contamination or debris interfering with the kick down switch mechanism inside the accelerator pedal assembly.



## How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related codes in the TCM and ECM to confirm the fault is isolated to the kick down switch circuit.
- 2 Inspect the accelerator pedal assembly and kick down switch for physical damage, debris, or sticking, and clean or replace as necessary.
- 3 Check the wiring harness and connectors between the kick down switch and the TCM for continuity, shorts, and corrosion, repairing any damaged wires.
- 4 Measure the voltage signal from the kick down switch at the TCM connector while pressing the accelerator pedal to the floor, comparing to the manufacturer's specification.
- 5 If the switch and wiring test good, substitute a known-good TCM to rule out an internal TCM fault, but only after all other checks pass.
- 6 Clear the code and perform a road test to verify the kick down function operates correctly and the code does not return.

## Kick Down Switch Circuit Pitfalls on Nissan

- The kick down switch is often integrated into the accelerator pedal position sensor, so a faulty pedal assembly can set P1796 even if the switch itself seems to click normally.
- A misadjusted or sticky accelerator pedal can cause the kick down switch to not engage fully, mimicking an electrical fault and leading to unnecessary parts replacement.
- P1796 can be set by a low battery or poor ground connection, so always check battery voltage and ground points before condemning the switch or TCM.
- On some Nissan models, the kick down switch signal is shared with the cruise control system, so related symptoms like inoperative cruise control may accompany this code.
- After repairs, the TCM may need a relearn procedure or a drive cycle to clear the code permanently, and simply clearing the code without fixing the root cause will lead to a repeat visit.

## Can I keep driving with P1796?

You can generally continue driving with P1796, but the transmission may not downshift when you need extra power for passing or merging, which can be a safety concern. Avoid heavy acceleration and plan your maneuvers carefully until the fault is repaired.

## Tools that help

- OBD-II scan tool with Nissan-specific software
- Digital multimeter
- Wiring diagram for the specific Nissan model
- Basic hand tools for interior trim removal
- Feeler gauges or test light for switch testing



## Reading P1796

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

## Often seen with

**P1775** Hydraulic Pressure Sensor 1 Adaptation At Limit · **P1705** Direct Clutch Speed Circuit Fault · **P1705** TCM ECT Sensor Circuit Fault · **P1705** 2-4 Brake Pressure Solenoid Valve Solenoid D Circuit · **P1706** Park Neutral Position PNP Switch · **P1705** Throttle Position Sensor Circuit AT · **P1705** Starter Lock-Out Backup Lamp Switch S161 · **P1776** Torque Down Signal 2 Circuit · **P1775** Torque Down Signal 1 Circuit · **P1706** High Vehicle Speed Observed In Park · **P1705** Transmission Range Sensor Out Of Self Test Range · **P1775** Transmission System MIL Fault · **P1776** Ignition Retard Request Duration · **P1706** TCM A/T Gear Position Switch Circuit Open · **P1705** TCM A/T Gear Position Switch Circuit Shorted · **P1705** P/N Signal Output Circuit · **P1706** High Vehicle Speed Observed in Park · **P1705** Manual Lever Position Sensor Out of Self-Test Range · **P0720** Output Speed Sensor 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-p1796/>

