

NISSAN · POWERTRAIN

**P1793**

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

## P1793 · Nissan

### Intake Air Volume Circuit

P1793 on Nissan vehicles indicates that the engine control module (ECM) has detected an implausible signal from the intake air volume circuit, which typically involves the mass air flow (MAF) sensor or its associated wiring. The ECM compares the expected air volume based on throttle position and engine speed against the actual measured value and sets the code when the discrepancy exceeds calibrated limits.

SYSTEM

Powertrain

CODE TYPE

Nissan specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Transmission

### Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough idle or stumbling during acceleration
- Reduced engine power or hesitation when accelerating
- Poor fuel economy or rich/lean fuel mixture symptoms
- Occasional stalling or difficulty starting
- Black smoke from the exhaust or strong fuel odor

### Common causes, most likely first

- 1 Contaminated or failed mass air flow (MAF) sensor
- 2 Intake air leaks between the MAF sensor and throttle body
- 3 Damaged or corroded MAF sensor wiring or connector
- 4 Clogged or improperly installed air filter element
- 5 Faulty engine control module (ECM) software or calibration
- 6 Restricted exhaust or intake system causing abnormal air flow readings

### How to diagnose and fix it

- 1 Inspect the air intake system for leaks, loose clamps, or disconnected hoses
- 2 Check the air filter element for clogging or improper installation
- 3 Clean the MAF sensor element with a dedicated MAF cleaner and re-test
- 4 Perform a visual inspection of the MAF sensor wiring and connector for damage or corrosion
- 5 Use a scan tool to monitor live MAF sensor data and compare to expected values
- 6 Test the MAF sensor signal circuit with a multimeter or oscilloscope for voltage irregularities
- 7 Replace the MAF sensor if cleaning and wiring checks do not resolve the issue, then clear the code and verify



## Don't overlook intake leaks and dirty sensors

- A dirty MAF sensor element is a frequent cause of P1793 on Nissan engines, often due to oil from aftermarket air filters or normal contamination over time.
- Intake air leaks downstream of the MAF sensor can cause the ECM to see less air than expected, triggering the code even when the sensor itself is functioning correctly.
- Some technicians replace the MAF sensor prematurely without checking for a clogged air filter or a loose intake hose, leading to a repeat of the code.
- The ECM may set P1793 in conjunction with other codes like P0101 or P0171, so always diagnose all stored codes before replacing parts.
- On certain Nissan models, a software update to the ECM may be required to correct false P1793 settings, so check for technical service bulletins.

## Can I keep driving with P1793?

You can usually drive the vehicle with P1793, but avoid aggressive acceleration or heavy loads until the fault is repaired, as the engine may run with incorrect fuel mixture and reduced performance.

## Tools that help

- OBD-II scan tool with live data capability
- MAF sensor cleaner
- Multimeter or oscilloscope
- Socket set and screwdrivers
- Flashlight and inspection mirror

## Reading P1793

|           |                                                                       |
|-----------|-----------------------------------------------------------------------|
| <b>P</b>  | Powertrain: engine, transmission and emissions.                       |
| <b>1</b>  | Manufacturer-specific code (Nissan): its meaning depends on the make. |
| <b>7</b>  | Transmission.                                                         |
| <b>93</b> | The exact fault within that area.                                     |

## Often seen with

**P0101** Mass/Volume Air Flow Circuit Range/Performance · **P0102** Mass/Volume Air Flow Circuit Low Input · **P0103** Mass/Volume Air Flow Circuit High Input · **P0171** System Too Lean (Bank 1) · **P0172** System Too Rich (Bank 1)



## See it working

Watch the animated explainer [How a Car Clutch Works: Diaphragm Clutch Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/nissan-p1793/>

