

GENERIC · POWERTRAIN

P08A3

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P08A3

Gear Lever Y Position Sensor 2 Circuit Intermittent/Erratic

P08A3 indicates that the powertrain control module (PCM) has detected an intermittent or erratic signal from the Gear Lever Y Position Sensor 2, which is a secondary sensor used to confirm the gear lever's position. The PCM compares this signal with other range sensors and sets the code when the voltage or signal pattern jumps unpredictably rather than changing smoothly.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Transmission

Symptoms you may notice

- Illumination of the check engine light or service transmission warning
- Harsh or delayed gear engagements, especially when shifting from park or neutral
- Transmission may enter limp mode or default to a fixed gear
- Incorrect gear indicator display on the instrument cluster
- Intermittent no-start condition if the vehicle does not recognize park or neutral
- Often no symptoms besides the warning light, especially if the fault is momentary

Common causes, most likely first

- 1 Worn or contaminated electrical connector at the gear lever position sensor
- 2 Chafed or broken wiring in the harness near the gear selector assembly
- 3 Internal failure of the Gear Lever Y Position Sensor 2
- 4 Loose or corroded ground connection for the sensor circuit
- 5 Mechanical wear in the gear lever mechanism causing erratic sensor movement
- 6 Water or fluid intrusion into the sensor housing
- 7 PCM software issue or faulty signal processing (less common)



How to diagnose and fix it

- 1 Use a scan tool to record live data from the Gear Lever Y Position Sensor 2 while moving the lever through all positions to confirm erratic behavior
- 2 Inspect the sensor connector and wiring for corrosion, looseness, or damage, and clean or repair as needed
- 3 Check the sensor's ground circuit for excessive resistance and repair any faulty ground
- 4 Perform a voltage drop test on the signal wire while wiggling the harness to detect intermittent opens
- 5 Replace the Gear Lever Y Position Sensor 2 if the signal remains erratic after electrical checks
- 6 Clear the code and perform a relearn or calibration procedure if required by the vehicle manufacturer
- 7 Verify the repair by test-driving and monitoring live data to ensure the signal is stable

Intermittent Sensor Codes Can Mislead

- A loose or corroded connector often causes this code, so always inspect the pins and terminals before condemning the sensor itself.
- The code can be set by a momentary glitch that never returns, so clearing it and test-driving may be the only way to confirm if it is a hard fault.
- Mechanical wear in the shift lever assembly can mimic a sensor failure, so check for excessive play or binding in the lever mechanism.
- Related codes such as P08A2 or P08A4 may also be present, indicating a broader issue with the position sensor circuit or other range sensors.
- Some vehicles require a relearn procedure after sensor replacement, and skipping it can cause the code to reset immediately.

Can I keep driving with P08A3?

If the vehicle drives normally and the warning light is steady, you can drive cautiously to a repair shop, but avoid aggressive acceleration or frequent gear changes. If the transmission is in limp mode or shifts harshly, limit driving to a short distance and seek professional diagnosis promptly.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wire piercing probes or back probe pins
- Electrical contact cleaner
- Vehicle-specific service information for sensor location and testing



Reading P08A3

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 8** Transmission.
- A3** The exact fault within that area.

Often seen with

P0705 Transmission Range Sensor Circuit Malfunction · **P0706** Transmission Range Sensor Circuit Range/Performance · **P0707** Transmission Range Sensor Circuit Low · **P08A2** Gear Lever Y Position Sensor 2 Circuit High · **P08A4** Gear Lever X Position Sensor 1/2 Correlation

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/p08a3/>

