

GENERIC · POWERTRAIN

P07B7

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P07B7

Transmission Park Position Sensor/Switch A Circuit Intermittent/Erratic

P07B7 indicates that the transmission control module (TCM) has detected an intermittent or erratic signal from the transmission park position sensor/switch A circuit. This sensor tells the computer whether the transmission is securely in Park, and the erratic signal means the voltage readings are jumping around or dropping out unpredictably rather than showing a steady state.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Transmission

Symptoms you may notice

- The warning light (malfunction indicator lamp) illuminates on the dashboard.
- The gear indicator may flash or show incorrect position, such as Park not registering.
- The vehicle may not start because the computer does not recognize Park, preventing starter engagement.
- In some cases, the transmission may not shift out of Park or may engage Park unexpectedly while driving.
- Often no symptoms besides the warning light, especially if the fault is intermittent.
- A stored code may be the only sign, with no drivability issues noticed by the driver.

Common causes, most likely first

- 1 Faulty transmission park position sensor/switch A.
- 2 Wiring damage (chafed, corroded, or broken wires) in the circuit between the sensor and the TCM.
- 3 Loose or corroded electrical connectors at the sensor or TCM.
- 4 Water intrusion or contamination in the sensor connector or housing.
- 5 Internal TCM fault causing misinterpretation of the sensor signal.
- 6 Mechanical wear in the park position detent or linkage affecting sensor alignment.



How to diagnose and fix it

- 1 Perform a visual inspection of the sensor and its wiring for obvious damage, corrosion, or loose connections.
- 2 Use a scan tool to monitor the park position sensor data while wiggling the wiring harness to check for intermittent signals.
- 3 Check the sensor's electrical connector for tightness and clean any corrosion; apply dielectric grease if needed.
- 4 Test the sensor circuit with a multimeter to verify voltage and continuity according to the manufacturer's specifications.
- 5 If the sensor is faulty, replace it and clear the code to see if it returns.
- 6 Inspect the TCM connectors and wiring for signs of damage or water intrusion.
- 7 If the code persists after sensor replacement, diagnose the TCM and its software for faults or updates.

Intermittent Park Sensor Signals Can Mislead

- A common oversight is replacing the sensor without checking the wiring harness, which often causes intermittent signals due to chafing or corrosion.
- The code can set even if the sensor is functioning correctly, because a poor electrical connection at the TCM can mimic a sensor fault.
- Some vehicles use a park position switch integrated into the transmission range sensor, so a fault in that assembly may trigger P07B7 along with other range codes.
- Intermittent faults may not appear during a quick test drive; extended monitoring with a scan tool is often necessary to catch the erratic signal.
- After any repair, clear the code and perform a relearn or calibration procedure if required by the manufacturer to ensure proper park position recognition.

Can I keep driving with P07B7?

If the vehicle starts and drives normally, you can drive it to a repair shop, but avoid relying on the park position indicator and use the parking brake when parked. If the vehicle fails to start or shows erratic shifting, stop driving and have it towed to prevent safety risks.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wire probe set
- Electrical contact cleaner
- Dielectric grease
- Vehicle-specific service information for circuit testing



Reading P07B7

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 7** Transmission.
- B7** The exact fault within that area.

Often seen with

P0705 Transmission Range Sensor Circuit Malfunction · **P07B5** Transmission Park Position Sensor/Switch A Circuit Performan · **P07B6** Transmission Park Position Sensor/Switch A Circuit Performan · **P07B8** Transmission Park Position Sensor/Switch B Circuit/Open · **P0850** Park/Neutral Switch Input Circuit

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/p07b7/>

