

GENERIC · POWERTRAIN

P07BC

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P07BC

Transmission Park Position Sensor/Switch B Circuit Performance High

P07BC indicates that the transmission control module has detected an abnormally high voltage or performance issue on the circuit for Park Position Sensor/Switch B, which is used to confirm the transmission is securely in Park. The computer compares the expected signal from this switch against other gear position inputs and sets the code when the B circuit voltage stays above the calibrated threshold for too long.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Transmission

Symptoms you may notice

- The warning light on the dashboard is often the only thing the driver notices, with no change in how the vehicle drives.
- The engine may not start because the computer does not recognize that the transmission is in Park, preventing the starter from engaging.
- The gear selector may feel normal, but the instrument cluster may fail to show the Park position or may show the wrong gear.
- The vehicle may not allow the key to be removed from the ignition or may not permit the shifter to move out of Park without using the manual override.
- In some cases, the transmission may default to a limp mode or restrict certain gear ranges as a protective measure.

Common causes, most likely first

- A faulty Park Position Sensor/Switch B that is stuck in a high-voltage state or has failed internally.
- Damaged or corroded wiring in the sensor circuit, such as a short to voltage or an open ground connection.
- A poor electrical connection at the sensor connector or at the transmission control module, often due to water intrusion or loose pins.
- A misadjusted or misaligned park position switch, which can happen after transmission work or from normal wear.
- A failed transmission control module that is misreading the sensor signal, although this is less common.
- Mechanical wear inside the transmission range selector mechanism that prevents the switch from moving through its full travel.



How to diagnose and fix it

- 1 Use a scan tool to read all transmission control module codes and freeze-frame data, then clear the code and test-drive to see if it returns immediately.
- 2 Visually inspect the park position sensor, its connector, and the wiring harness for damage, corrosion, or loose pins, repairing any obvious faults.
- 3 Check the sensor circuit with a digital multimeter for short to voltage, open circuits, and proper ground continuity, comparing readings to the factory service information.
- 4 Verify the mechanical adjustment of the park position switch according to the manufacturer's procedure, which often involves aligning marks or using a scan tool to confirm the Park signal.
- 5 If the circuit tests good and the switch is properly adjusted, substitute a known-good sensor or perform a resistance and voltage test on the sensor itself to confirm failure.
- 6 After replacing the sensor or repairing wiring, clear the codes and perform a relearn or calibration procedure if required, then verify the Park signal reads correctly in all gear positions.

Why Park Switch B Codes Mislead

- A common misdiagnosis is replacing the transmission range sensor when the real problem is a chafed wire in the harness near the transmission mount, which shorts to voltage only when the engine moves under load.
- The B circuit often refers to a secondary or redundant Park confirmation signal, so the vehicle may still start and drive normally while the code is stored, leading owners to ignore it until a no-start occurs.
- Water intrusion into the connector at the park position switch is a frequent cause that is easily missed during a quick visual inspection, especially on vehicles that have been driven through deep puddles.
- A weak or failing battery can cause erratic sensor signals that set this code, so always check charging system health before condemning the switch or wiring.
- After transmission replacement or rebuild, the park position switch must be adjusted precisely; a switch that is slightly off can set P07BC without any drivability complaint.

Can I keep driving with P07BC?

You can usually continue driving if the vehicle starts and moves normally, but avoid parking on steep inclines where the vehicle might roll if the Park position is not reliably confirmed. If the engine will not start or the shifter will not move out of Park, do not force anything and have the vehicle inspected promptly.

Tools that help

- OBD-II scan tool with transmission control module capability
- Digital multimeter
- Factory service information or wiring diagrams
- Basic hand tools for trim and connector removal
- Jack and jack stands or ramps for under-vehicle access



Reading P07BC

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

Often seen with

P0705 Transmission Range Sensor Circuit Malfunction · **P07BB** Transmission Park Position Sensor/Switch B Circuit Performan · **P07BD** Transmission Park Position Sensor/Switch B Circuit Intermitt · **P07BE** Transmission Park Position Sensor/Switch A/B Correlation · **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/p07bc/>

