

GENERIC · POWERTRAIN

P07BB

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P07BB

Transmission Park Position Sensor/Switch B Circuit Performance/Low

P07BB indicates that the transmission control module has detected a performance fault or low signal on the circuit for Park Position Sensor/Switch B, which is used to confirm the transmission is mechanically in Park. The computer compares the expected state of this switch with other range signals and sets the code when the B circuit voltage is out of range or does not change as expected.

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

Symptoms you may notice

- The warning light on the instrument cluster illuminates, often with no other noticeable symptoms.
- The engine may not start because the vehicle does not recognize that the transmission is in Park.
- The gear position indicator may flash, show the wrong range, or fail to display Park.
- A message such as 'Shift to Park' or 'Transmission not in Park' may appear on the driver information display.
- The vehicle may not allow the key to be removed or the shifter to move out of Park.
- In some cases, the transmission may default to a limp mode or restrict certain gear ranges.

Common causes, most likely first

- A faulty park position sensor/switch B, including internal wear or contamination.
- Damaged, corroded, or loose wiring or connector terminals at the switch or transmission harness.
- A poor ground connection for the sensor circuit, causing a low signal.
- Debris or mechanical wear in the shifter assembly preventing the switch from actuating correctly.
- A software issue or faulty transmission control module (TCM) in rare cases.
- Aftermarket accessories or improper previous repairs interfering with the circuit.



How to diagnose and fix it

- 1 Connect a scan tool and record all stored and pending codes, then clear codes and test-drive to see if P07BB returns.
- 2 Visually inspect the park position sensor, its connector, and the wiring harness for damage, corrosion, or loose pins.
- 3 Check the sensor circuit voltage and ground with a digital multimeter, comparing readings to the manufacturer's specifications.
- 4 Test the park position switch operation through its full range using a scan tool's live data to confirm it signals Park correctly.
- 5 If the switch fails testing, replace the park position sensor/switch and clear codes.
- 6 Repair any damaged wiring or connectors, then recheck circuit integrity and clear codes.
- 7 If the fault persists after electrical repairs, follow the manufacturer's diagnostic flow for the TCM or shifter assembly, including software updates if applicable.

Before you replace the park position switch

- A weak or corroded ground connection at the transmission can cause a low signal on the B circuit that mimics a failed sensor, so always load-test the ground before condemning the switch.
- The park position sensor often shares a reference voltage or ground with other transmission sensors, so a fault in a shared circuit can set P07BB along with other codes.
- Debris or a worn detent in the shifter assembly can prevent the switch from reaching the Park position electrically even though the lever feels engaged, so inspect the mechanical linkage first.
- On some vehicles, a low battery or voltage spikes during cranking can set a false P07BB, so verify battery health and charging system operation before deeper diagnostics.
- After replacing the sensor, some vehicles require a relearn or calibration procedure for the transmission range sensor, which a scan tool must perform to avoid a repeat code.

Can I keep driving with P07BB?

If the vehicle starts and drives normally, you can drive it to a repair shop, but avoid relying on the remote start or keyless entry system and be aware that the engine may not restart if it fails to recognize Park. If the vehicle will not start or shift out of Park, do not force the shifter; have it towed to avoid further damage.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wire probe set and terminal cleaning tools
- Vehicle-specific service information for circuit specifications
- Basic hand tools for trim and connector access



Reading P07BB

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

Often seen with

P07B5 Transmission Park Position Sensor/Switch A Circuit Performan · **P07B6** Transmission Park Position Sensor/Switch A Circuit Performan · **P07B7** Transmission Park Position Sensor/Switch A Circuit Intermitt · **P07B8** Transmission Park Position Sensor/Switch B Circuit/Open · **P07B9** Transmission Park Position Sensor/Switch B Circuit Low

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/p07bb/>

