

GENERIC · POWERTRAIN

P05DE

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P05DE

Brake Pedal Position Sensor B Circuit High

P05DE means the powertrain control module (PCM) has detected a high-voltage condition on the signal circuit for brake pedal position sensor B, which is often the second channel in a redundant or dual-sensor brake pedal assembly. The PCM expects the sensor B signal to stay within a calibrated voltage window as the pedal moves, and a sustained voltage above the upper limit sets this code.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Vehicle speed, idle control and auxiliary inputs

Symptoms you may notice

- The brake warning light or check engine light illuminates on the dashboard.
- The engine may not start because the PCM cannot confirm the brake pedal is depressed for push-button start logic.
- Cruise control may fail to engage or may disengage unexpectedly while driving.
- The transmission may be difficult to shift out of park, or the brake-shift interlock may not release.
- Regenerative braking or hill-hold features may behave erratically on hybrid and electric vehicles.
- Often no symptoms besides the warning light, especially if sensor A remains functional.

Common causes, most likely first

- A faulty brake pedal position sensor B that has an internal short to voltage or an open ground reference.
- A damaged or chafed signal wire shorted to a power wire in the harness near the pedal assembly.
- Corroded or loose terminals at the sensor connector or at the PCM connector.
- A misadjusted sensor or pedal assembly that holds sensor B outside its expected voltage range.
- Water intrusion into the sensor or connector from a leaking windshield or cowl seal.
- A PCM internal fault that incorrectly reads the sensor B voltage as high, though this is rare.
- Aftermarket accessories wired into the brake pedal circuit that backfeed voltage onto the signal line.



How to diagnose and fix it

- 1 Connect a scan tool and read the live data for brake pedal position sensor B while slowly pressing and releasing the pedal to confirm the voltage is stuck high or spikes.
- 2 Visually inspect the sensor B connector, wiring harness, and pedal assembly for chafing, corrosion, water intrusion, or a loose sensor mounting.
- 3 Measure the reference voltage and ground at the sensor B connector with a digital multimeter to verify the sensor is receiving the correct supply and ground.
- 4 Backprobe the sensor B signal wire and compare its voltage with the scan tool reading to rule out a wiring or connector fault between the sensor and PCM.
- 5 Check for continuity to voltage on the signal wire with the sensor disconnected to identify a short to power in the harness.
- 6 If the wiring and connectors are good, replace the brake pedal position sensor B and clear the code, then recheck live data and perform any required calibration.
- 7 If the code persists after sensor replacement, inspect the PCM connectors and, as a last resort, test the PCM for an internal fault.

What a high brake sensor B reading really means

- A high voltage on sensor B does not automatically mean the sensor has failed; a shorted signal wire or a bad ground reference can produce the same reading and is often missed.
- On vehicles with a dual brake pedal sensor, sensor A and sensor B are usually inverse of each other, so a high reading on B may be caused by a fault in the shared five-volt reference or ground circuit rather than the sensor itself.
- Aftermarket remote starters, brake controllers, or alarm systems tapped into the brake switch wiring can backfeed voltage onto the sensor B signal line and set this code intermittently.
- The PCM may set P05DE only after seeing the high voltage for a calibrated time, so a momentary spike from a poor connection may not store the code until the fault becomes more consistent.
- A misadjusted brake pedal position sensor or a worn pedal bushing can hold sensor B at the top of its travel and trigger this code without any electrical fault at all.

Can I keep driving with P05DE?

The vehicle is generally safe to drive if the brake pedal feels normal and the only symptom is a warning light, but avoid relying on cruise control or push-button start until the fault is repaired. If the engine will not start, the transmission will not shift out of park, or the brake lights behave erratically, have the vehicle inspected before continuing to drive.



Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Backprobe pins or breakout leads
- Wire repair kit with crimpers and heat shrink
- Service information for brake pedal position sensor calibration

Reading P05DE

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
5	Vehicle speed, idle control and auxiliary inputs.
DE	The exact fault within that area.

Often seen with

P0571 Brake Switch 'A' Circuit · **P0572** Brake Switch 'A' Circuit Low · **P05DD** Brake Pedal Position Sensor B Circuit Low · **P05DF** Brake Pedal Position Sensor B Circuit Intermittent/Erratic · **P05E0** Brake Pedal Position Sensor A/B Correlation

See it working

Watch the animated explainer [How ABS Works: Anti-Lock Brakes in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p05de/>

