

GENERIC · POWERTRAIN

P05FF

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P05FF

Brake Pressure Sensor/Brake Pedal Position Sensor Correlation

P05FF means the powertrain control module (PCM) has compared the brake pressure sensor signal with the brake pedal position sensor signal and found they disagree beyond the calibrated tolerance. The computer expects the hydraulic pressure reading and the pedal travel reading to rise and fall together whenever the driver presses or releases the brake, and this code sets when that correlation is lost.

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 anti-lock braking system (ABS) warning light, traction control light, or red brake warning lamp may illuminate on the dashboard.
- The brake pedal may feel unusually soft, firm, or inconsistent compared with normal operation.
- Cruise control may fail to engage or may disengage unexpectedly while driving.
- The vehicle may disable hill-start assist, automatic emergency braking, or other brake-dependent driver aids.
- A stored code may be the only sign, with no noticeable change in braking feel or pedal behavior.
- The transmission may shift harshly or hesitate when the brake pedal is applied during low-speed maneuvers.

Common causes, most likely first

- A failing brake pedal position sensor that produces a signal inconsistent with actual pedal travel.
- A faulty brake pressure sensor that reads hydraulic pressure inaccurately or intermittently drops its signal.
- Contaminated or aerated brake fluid that causes pressure readings to lag behind pedal movement.
- A brake pedal that is mechanically binding, misadjusted, or has a worn pivot, preventing full travel.
- Damaged or corroded wiring and connectors between either sensor and the control module.
- A software calibration issue in the control module that misinterprets valid sensor signals.
- Air trapped in the hydraulic system after recent brake service, causing a pressure-pedal mismatch.



How to diagnose and fix it

- 1 Read all stored and pending codes with a scan tool that can display live brake pressure and pedal position data.
- 2 Inspect both sensors and their connectors for corrosion, loose pins, or damaged wiring, and repair as needed.
- 3 Compare brake pressure sensor voltage with brake pedal position sensor voltage while slowly pressing and releasing the pedal.
- 4 Check brake fluid level and condition, then bleed the hydraulic system if air or contamination is suspected.
- 5 Verify the brake pedal moves freely through its full range without binding and that the pedal stop and return spring are intact.
- 6 Recalibrate or relearn the brake pedal position sensor using the scan tool if the manufacturer requires it after service.
- 7 Replace the sensor that deviates from the expected correlation, then clear codes and confirm the repair with a road test.

What the correlation code really tells you

- A brake pedal position sensor that is only slightly out of calibration can set this code without any change in pedal feel, so live data comparison matters more than a visual inspection.
- Low brake fluid or air in the system after a recent brake job is a common cause that technicians overlook because both sensors test fine on their own.
- This code does not automatically mean either sensor has failed, since a binding pedal assembly or a weak brake booster can create the same mismatch between pressure and pedal travel.
- Some vehicles require a brake pedal position sensor relearn after battery replacement or module reprogramming, and skipping that step can set P05FF immediately.
- A failing ABS pump or hydraulic control unit can distort pressure readings at the sensor, so the fault may live in the hydraulic assembly rather than either sensor.

Can I keep driving with P05FF?

The vehicle remains driveable in most cases because the base hydraulic brakes still work, but you should avoid heavy braking, towing, and any situation that relies on anti-lock or stability control until the fault is diagnosed. If the pedal feels soft or the red brake warning lamp is on, stop driving and have the vehicle inspected immediately.

Tools that help

- OBD-II scan tool with live data and brake system capability
- Digital multimeter
- Brake fluid tester
- Pressure bleeder or vacuum bleeder
- Basic hand tools for sensor and pedal inspection



Reading P05FF

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.
FF	The exact fault within that area.

Often seen with

C0040 Left Rear Wheel Speed Sensor Circuit · **C0051** Front Left ABS Solenoid 1 Circuit Malfunction · **P0504** Brake Switch 'A'/'B' Correlation · **P0571** Brake Switch 'A' Circuit · **P05FE** Active Grille Air Shutter C Performance/Stuck Off

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/p05ff/>

