

GENERIC · CHASSIS

C056D

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C056D

Brake Pedal Position Sensor Supply Voltage Circuit Low

The C056D code indicates that the antilock braking system (ABS) control module has detected a low supply voltage on the circuit that feeds the brake pedal position sensor. This sensor tells the module how far the brake pedal is pressed, and a low voltage on its supply wire can prevent the module from accurately reading pedal position, potentially affecting brake assist and stability control functions.

SYSTEM

Chassis

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Brakes, steering and suspension

Symptoms you may notice

- The ABS warning light, traction control light, or both may illuminate on the dashboard.
- The brake pedal may feel different, such as a delayed response or a harder pedal under certain conditions.
- Cruise control may become inoperative or disengage unexpectedly.
- Hill start assist or other brake-related driver aids may stop working.
- Often no symptoms besides the warning light, especially if the voltage drop is intermittent.
- In some cases, the vehicle may enter a reduced-power mode or limit certain stability functions.

Common causes, most likely first

- 1 A weak or failing vehicle battery that cannot maintain proper voltage under load.
- 2 Corroded, loose, or damaged wiring or connectors in the brake pedal position sensor supply circuit.
- 3 A faulty brake pedal position sensor that internally shorts or draws excessive current.
- 4 A poor ground connection for the ABS module or the sensor circuit.
- 5 A failing ABS control module that misinterprets or incorrectly sets the code.
- 6 Chafed or broken wires in the harness near the brake pedal assembly or under the dashboard.



How to diagnose and fix it

- 1 Check the battery state of charge and perform a load test; recharge or replace the battery if it fails.
- 2 Inspect the brake pedal position sensor connector and supply wire for corrosion, looseness, or damage; clean and secure as needed.
- 3 Measure voltage at the sensor supply terminal with the key on and compare to the manufacturer's specification; trace the circuit back to the ABS module if low.
- 4 Check the ABS module ground connections for tightness and cleanliness; repair any poor grounds.
- 5 Test the brake pedal position sensor with a multimeter or scan tool to verify its output matches pedal travel; replace if faulty.
- 6 If all wiring and sensors check out, diagnose the ABS control module for internal faults; reprogram or replace if necessary.
- 7 Clear the code and perform a road test to verify the repair and ensure the code does not return.

Don't overlook the simple voltage drop

- A marginal battery or charging system often sets this code before any hard failure occurs, so always load-test the battery and check charging voltage first.
- The brake pedal position sensor supply is a low-current reference voltage, so even a small amount of corrosion in a connector can cause a low-voltage code without any visible damage.
- Technicians sometimes replace the sensor only to find the code returns because the real problem is a chafed wire behind the pedal assembly or a poor ground on the ABS module.
- This code can be set by a voltage drop that only happens during cranking or when other high-current accessories are on, so intermittent symptoms may not appear during a simple key-on test.
- A scan tool that can read live data for the brake pedal position sensor is far more useful than a basic code reader, because it shows whether the voltage is low only at certain pedal positions.

Can I keep driving with C056D?

If the brake pedal feels normal and the warning light is steady, you can usually drive cautiously to a repair shop, but avoid heavy braking or towing. If the pedal feels abnormal or multiple brake warnings are on, stop driving and have the vehicle towed to prevent loss of braking assist.

Tools that help

- Digital multimeter
- Scan tool with live data capability
- Battery load tester
- Wire terminal pick and electrical contact cleaner
- Vehicle-specific wiring diagram



Reading C056D

- C** Chassis: brakes, steering and suspension.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 5** Brakes, steering and suspension.
- 6D** The exact fault within that area.

Often seen with

C0040 Left Rear Wheel Speed Sensor Circuit · **C0051** Front Left ABS Solenoid 1 Circuit Malfunction · **C056C** Brake Pressure Sensor B Intermittent/Erratic · **C056E** Brake Pedal Position Sensor Supply Voltage Circuit High · **P0571** Brake Switch 'A' Circuit

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/c056d/>

