



C053F

Brake Pressure Sensor A Circuit High

C053F means the antilock braking system (ABS) module has detected an abnormally high voltage on the signal circuit for brake pressure sensor A, which is the primary sensor that reports how hard the driver is pressing the brake pedal. The computer expects a voltage within a calibrated range and flags this code when the signal stays above the upper limit, indicating an open circuit, a short to voltage, or a sensor that has failed high.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Chassis	Generic (all makes)	Medium	Intermediate	Brakes, steering and suspension

Symptoms you may notice

- The ABS warning light and often the traction control and stability control lights illuminate on the dashboard. The brake pedal may feel unusually firm or unusually soft, depending on whether the sensor is stuck high or the circuit is open.
- Cruise control may refuse to engage or may disengage unexpectedly because the system relies on brake pressure information.
- Hill-start assist, automatic emergency braking, or other driver-assist features may be disabled.
- The vehicle may set a reduced-power or limp mode in some makes when brake pressure data is implausible.
- Often no symptoms besides the warning light, with normal brake pedal feel and normal braking performance.

Common causes, most likely first

- 1 An open circuit in the brake pressure sensor signal wire, such as a broken wire or a disconnected connector terminal.
- 2 A short to voltage on the signal circuit, often from chafed wiring rubbing against a power wire or a faulty sensor internally shorting.
- 3 A failed brake pressure sensor that reads high and cannot return a valid low-pressure signal.
- 4 Corroded or water-intruded connector pins at the sensor or at the ABS module, causing high resistance or intermittent opens.
- 5 A faulty ABS control module with an internal driver or signal-conditioning fault on the sensor input.
- 6 Low brake fluid or air in the hydraulic system that causes the sensor to see an implausible pressure signal, though this is less common for a high-voltage code.
- 7 A poor ground connection for the sensor or ABS module that skews the signal voltage reference.



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, then record freeze-frame data for C053F to see the voltage and pressure values at the moment of failure.
- 2 Visually inspect the brake pressure sensor connector and the ABS module connector for corrosion, water intrusion, bent pins, or loose terminals, and clean or repair as needed.
- 3 Use a digital multimeter to measure the sensor signal voltage with the key on and the brake pedal released, comparing it to the manufacturer's specification.
- 4 Check the sensor's reference voltage and ground circuits for correct values, then wiggle-test the harness while watching the meter to catch intermittent opens.
- 5 If the signal circuit reads high with the sensor disconnected, repair the short to voltage or open in the harness before condemning the sensor.
- 6 If the circuit tests good and the sensor output stays high, replace the brake pressure sensor and perform any required calibration or adaptation with a scan tool.
- 7 Clear the codes and road-test the vehicle through several braking cycles to confirm the code does not return, and verify that all related warning lights stay off.

What a high brake pressure signal really means

- A high signal voltage does not automatically mean the sensor is bad; an open signal wire or a poor ground can pull the voltage above the expected range and mimic a failed sensor.
- Some vehicles use two brake pressure sensors, and a high code on sensor A can be set by a hydraulic fault or air in the system that makes sensor A disagree with sensor B.
- Water intrusion into the sensor connector is a common hidden cause, especially on vehicles where the sensor is mounted low on the master cylinder or near the ABS pump.
- A weak battery or charging system fault can cause the ABS module to misread sensor voltage, so check system voltage before replacing parts.
- After replacing the sensor or module, many vehicles require a zero-point calibration of the brake pressure sensor, and skipping that step can leave the code stored or cause poor pedal feel.

Can I keep driving with C053F?

The vehicle remains safe to drive in most cases because the base hydraulic brakes still work, but ABS, traction control, and stability control are disabled, so avoid hard braking, slippery roads, and towing until the fault is repaired. If the brake pedal feels abnormal or the fluid level is low, stop driving and have the system inspected immediately.



Tools that help

- OBD-II scan tool with ABS and live-data capability
- Digital multimeter with back-probing pins
- Wiring diagram for the brake pressure sensor circuit
- Brake pressure gauge set
- Terminal pick and contact cleaner
- Scan tool capable of performing calibration or adaptation

Reading C053F

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.
3F	The exact fault within that area.

Often seen with

C0040 Left Rear Wheel Speed Sensor Circuit · **C0051** Front Left ABS Solenoid 1 Circuit Malfunction · **C053E** Brake Pressure Sensor A Circuit Low · **C0540** Hill Hold Control Performance · **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/c053f/>

