

GENERIC · CHASSIS

C0543

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0543

Brake Pressure Sensor B Circuit High

C0543 indicates that the anti-lock brake system (ABS) control module has detected an abnormally high voltage on the circuit for brake pressure sensor B, which is typically the rear or secondary pressure sensor. The module expects a voltage within a specific range that corresponds to hydraulic brake pressure, and a high reading means the signal wire may be shorted to power, the sensor may have failed, or the ground reference may be compromised.

SYSTEM

Chassis

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Brakes, steering and suspension

Symptoms you may notice

- Illumination of the ABS warning light, and often the traction control and stability control lights as well
- A hard or unusually firm brake pedal feel, sometimes with reduced power assist
- The ABS system may deactivate, leaving conventional braking without anti-lock function
- Intermittent or permanent disabling of electronic stability control (ESC) and hill-start assist features
- Often no symptoms besides the warning light, especially if the fault is intermittent or only affects a secondary sensor
- Possible diagnostic trouble codes stored in other modules, such as the powertrain control module (PCM) or body control module (BCM), due to shared data

Common causes, most likely first

- 1 A short to voltage on the signal wire between brake pressure sensor B and the ABS control module
- 2 A failed brake pressure sensor B, internally shorted or reading out of range
- 3 Corroded, loose, or damaged electrical connector at the sensor or ABS module
- 4 A faulty ground connection for the sensor or the ABS module, causing a reference voltage shift
- 5 Contamination or air in the brake hydraulic circuit affecting sensor readings
- 6 A malfunctioning ABS control module, though this is less common than wiring or sensor issues
- 7 Aftermarket accessories or improper wiring repairs that introduce voltage into the sensor circuit



How to diagnose and fix it

- 1 Use a scan tool to retrieve all codes and verify that C0543 is current, then inspect freeze-frame data for sensor B voltage and brake pressure readings
- 2 Visually inspect the brake pressure sensor B, its connector, and the wiring harness for signs of damage, corrosion, or chafing
- 3 Disconnect the sensor and measure the reference voltage and ground at the connector with a digital multimeter (DMM) to confirm the module is supplying the correct values
- 4 Check the signal wire for a short to voltage by measuring resistance to ground and to battery positive with the sensor disconnected
- 5 Compare live sensor B data with sensor A and with a known-good pressure gauge to determine if the sensor is reporting false high pressure
- 6 If wiring and connectors are good, replace brake pressure sensor B and clear the codes to see if the fault returns
- 7 If the code persists after sensor replacement, perform a continuity and short-to-power test on the entire circuit, and if all checks pass, suspect the ABS control module

Before you replace the ABS module

- A high voltage reading on a pressure sensor circuit is more often caused by a short to power in the wiring harness than by a failed sensor, so always check for rubbed-through insulation near metal brackets or heat sources.
- Some vehicles use a shared 5-volt reference for multiple sensors; a short in another sensor's circuit can pull the reference voltage high and set C0543 even though sensor B itself is fine.
- The ABS module may set this code intermittently if the sensor connector is loose but not fully disconnected, so wiggle-test the harness while watching live data.
- Brake pressure sensor B is sometimes located on the master cylinder or the hydraulic control unit, and its signal can be affected by air trapped in the ABS pump after a repair, which mimics a sensor fault.
- Do not assume the code means the sensor is bad; a bad ground at the ABS module can cause all pressure sensor readings to skew high, leading to unnecessary parts replacement.

Can I keep driving with C0543?

You can usually drive the vehicle with C0543 set, but the ABS and stability control systems may be disabled, so maintain extra distance and avoid panic stops or slippery conditions. If the brake pedal feels abnormal or the warning light is accompanied by a hard pedal, have the vehicle inspected before continuing to drive.



Tools that help

- OBD-II scan tool with ABS and live data capability
- Digital multimeter (DMM)
- Brake pressure gauge set
- Wire piercing probes and back-probe kit
- Vehicle-specific service information for wiring diagrams and sensor locations

Reading C0543

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

Often seen with

C0035 Left Front Wheel Speed Sensor Circuit Range/Performance · **C0040** Left Rear Wheel Speed Sensor Circuit · **C0110** ABS Pump Motor Circuit Malfunction · **C0542** Brake Pressure Sensor B Circuit Low · **C0544** Brake Pressure Sensor B Circuit/Open

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/c0543/>

