

GENERIC · CHASSIS

C0643

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0643

Brake Pressure Sensor K Circuit Low

C0643 means the antilock brake system (ABS) control module has detected a low-voltage condition on the circuit for brake pressure sensor K, which is one of several pressure sensors used to monitor hydraulic brake pressure. The module expects a signal voltage within a specific range, and a reading below that range for a set time triggers this code.

SYSTEM

Chassis

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Brakes, steering and suspension

Symptoms you may notice

- ABS warning light illuminated on the dashboard
- Traction control or stability control warning light also on
- Often no symptoms besides the warning light
- Reduced or disabled ABS function during hard braking
- Brake pedal feels normal in most cases, but may feel slightly different if the sensor is skewed
- In some vehicles, the electronic parking brake or hill-start assist may be disabled

Common causes, most likely first

- 1 Faulty brake pressure sensor K
- 2 Damaged or corroded wiring harness or connector at the sensor
- 3 Open circuit or short to ground in the sensor signal circuit
- 4 Low brake fluid level or air in the hydraulic system affecting sensor reading
- 5 Failed ABS control module (less common)
- 6 Poor electrical ground connection for the ABS module or sensor
- 7 Aftermarket or incorrect sensor installed previously

How to diagnose and fix it

- 1 Scan all modules for codes and record freeze-frame data to confirm C0643 is current and not history
- 2 Inspect the brake pressure sensor K connector and wiring for corrosion, chafing, or loose pins
- 3 Check brake fluid level and bleed the brakes if air is suspected
- 4 Measure sensor reference voltage and signal voltage with a multimeter and compare to manufacturer specifications
- 5 Perform a resistance test on the sensor circuit and wiggle-test the harness while monitoring live data
- 6 Replace the brake pressure sensor K if electrical tests confirm it is out of specification
- 7 Clear codes and perform a road test to verify the repair, then recheck for returning codes



What most technicians overlook on C0643

- A low brake fluid level can set this code because the pressure sensor reads lower than expected, so always check fluid before condemning the sensor.
- Corroded pins in the connector are a frequent cause on older vehicles, and a visual inspection often reveals green or white corrosion that a simple code reader cannot show.
- The code can be stored intermittently by a harness that rubs against a suspension component, so a wiggle test while watching live pressure data is more reliable than a static resistance check.
- Replacing the ABS module without first verifying the sensor circuit is an expensive misdiagnosis, because the module rarely fails compared to wiring and sensor faults.
- Some vehicles require a relearn or calibration procedure after sensor replacement, and skipping it will leave the warning light on even with a good sensor.

Can I keep driving with C0643?

The vehicle remains safe to drive under normal conditions because the base brakes still work, but ABS and stability control may be disabled, so avoid hard braking or slippery surfaces until the fault is repaired.

Tools that help

- OBD-II scan tool with ABS capability
- Digital multimeter
- Brake pressure gauge
- Wire terminal pick and electrical contact cleaner
- Vehicle service information for wiring diagrams and voltage specifications

Reading C0643

C	Chassis: brakes, steering and suspension.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
6	Brakes, steering and suspension.
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 · **C0050** Right Rear Wheel Speed Sensor Circuit Malfunction · **C0642** Brake Pressure Sensor K Circuit High · **C0644** Brake Pressure Sensor K Range/Performance



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/c0643/>

