

GENERIC · CHASSIS

C0641

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0641

Brake Pressure Sensor K Circuit/Open

C0641 indicates that the antilock braking system (ABS) control module has detected an open circuit or abnormal voltage on the signal circuit for brake pressure sensor K, which is one of several pressure sensors used to monitor hydraulic brake pressure. The module expects a specific voltage range from this sensor and flags the code when the signal is missing, out of range, or inconsistent with other pressure readings.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Chassis	Generic (all makes)	Medium	Intermediate	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 stored code C0641 in the ABS module with no other drivability symptoms
- Reduced or disabled ABS function, which may only be noticed during hard braking or on slippery surfaces
- Electronic stability control (ESC) may be deactivated, reducing intervention during evasive maneuvers
- In some vehicles, a chime or message indicating a brake system fault appears in the driver information center
- Brake pedal feel may remain normal, so the driver often has no indication beyond the warning lights

Common causes, most likely first

- 1 Damaged or corroded wiring harness at the brake pressure sensor connector, especially at the sensor pigtail
- 2 Open circuit inside the brake pressure sensor itself, often due to internal failure or contamination
- 3 Failed connection at the ABS control module connector, such as pushed-out pins or water intrusion
- 4 Chafed or broken wire between the sensor and the ABS module, commonly near suspension or steering components
- 5 Low brake fluid or air in the hydraulic system causing the sensor to read outside its expected range
- 6 Corrosion or debris on the sensor electrical contacts preventing a clean signal
- 7 A faulty ABS control module, though this is less common than wiring or sensor issues



How to diagnose and fix it

- 1 Verify the code with a scan tool that can read ABS module data and check for other stored codes in the ABS and related systems
- 2 Inspect the brake pressure sensor connector and wiring for corrosion, damage, or loose pins, and repair as needed
- 3 Check the brake fluid level and condition, and bleed the brakes if air is suspected in the hydraulic system
- 4 Measure the sensor signal voltage and resistance with a multimeter and compare to manufacturer specifications
- 5 Perform a wiggle test on the harness while monitoring sensor data to identify intermittent opens
- 6 If the sensor is faulty, replace it and clear the codes, then verify the repair with a road test and re-scan
- 7 If wiring and sensor are good, diagnose the ABS module and its connectors for internal faults or communication issues

What the pressure sensor code really tells you

- A brake pressure sensor open circuit is often caused by a broken wire inside the insulation near the sensor connector, which can be invisible to a visual inspection and only show up during a wiggle test.
- The code can set intermittently due to vibration or temperature changes, so a clear-and-retest strategy is often needed before condemning any part.
- Low brake fluid or a spongy pedal can cause the sensor to read outside its expected range and set this code, so always check the hydraulic system before replacing electrical components.
- On some vehicles, the brake pressure sensor is integrated into the ABS hydraulic unit, making replacement a costly affair; confirm the sensor is separate before ordering parts.
- A failing ABS module can mimic a sensor circuit fault, so check powers, grounds, and communication before assuming the module is bad.

Can I keep driving with C0641?

The vehicle remains drivable with normal braking in most cases, but ABS and stability control may be disabled, which reduces safety in emergency stops or slippery conditions. Avoid hard braking and slippery roads until the fault is repaired, and have the system diagnosed promptly.

Tools that help

- OBD-II scan tool with ABS module capability
- Digital multimeter
- Wiring diagram for the ABS system
- Back probe pins or breakout box
- Brake fluid tester and bleeding kit



Reading C0641

- 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.
- 41** The exact fault within that area.

Often seen with

C0040 Left Rear Wheel Speed Sensor Circuit · **C0050** Right Rear Wheel Speed Sensor Circuit Malfunction · **C0110** ABS Pump Motor Circuit Malfunction · **C0640** Brake Pressure Sensor J Range/Performance · **C0642** Brake Pressure Sensor K Circuit High

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/c0641/>

