

GENERIC · CHASSIS

C0161

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0161

ABS/TCS Brake Switch Circuit

C0161 indicates that the antilock braking system (ABS) or traction control system (TCS) control module has detected an implausible signal from the brake switch circuit, which typically involves the brake pedal position switch and its wiring. The module expects a specific voltage pattern when the brake pedal is pressed or released, and it sets this code when the signal does not match expected values or conflicts with other inputs such as vehicle speed and throttle position.

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 warning light illuminate on the dashboard.
- The traction control system may be disabled, reducing traction in slippery conditions.
- The ABS may be disabled, though base braking without antilock function remains available.
- Cruise control may become inoperative if it relies on the brake switch signal.
- Some vehicles may exhibit a delayed or improper release of the brake lights.
- Often no symptoms besides the warning light, with normal braking performance.

Common causes, most likely first

- Faulty brake pedal position switch (also called brake light switch) that is misadjusted, worn, or internally failed.
- Damaged, corroded, or disconnected wiring or connector at the brake switch or along the circuit to the ABS/TCS module.
- Blown fuse or poor ground connection affecting the brake switch circuit.
- Failed ABS/TCS control module, though this is less common and should be diagnosed last.
- Aftermarket accessories or improper wiring repairs tapping into the brake circuit and causing signal interference.
- Brake pedal binding or mechanical issues preventing the switch from actuating correctly.



How to diagnose and fix it

- 1 Verify the brake lights operate correctly when the pedal is pressed and released; if not, inspect the brake switch and its adjustment first.
- 2 Use a scan tool to read live data from the ABS/TCS module and observe the brake switch status while pressing and releasing the pedal to confirm the signal is being seen correctly.
- 3 Visually inspect the brake switch connector and wiring for corrosion, damage, or loose pins, and repair as needed.
- 4 Check the fuse that supplies power to the brake switch circuit and replace if blown, then recheck for the code.
- 5 Test the brake switch with a multimeter for continuity and proper switching action according to the manufacturer's specification, and replace if faulty.
- 6 If the switch and wiring are good, check for continuity and voltage drops on the signal circuit between the switch and the ABS/TCS module to rule out an open or short.
- 7 If all external circuits test good, consult the factory service information for specific pinpoint tests before condemning the ABS/TCS module.

Brake Switch Circuit Diagnosis Traps

- A misadjusted brake switch that still operates the brake lights can cause this code because the ABS module may see a delayed or inconsistent signal compared to other inputs.
- The brake switch often has multiple internal contacts, and one set may fail while the brake lights still work, leading to a false sense that the switch is good.
- Aftermarket LED brake light bulbs or improper trailer wiring can backfeed voltage into the brake switch circuit and set this code without any faulty component.
- Some vehicles use the brake switch signal for cruise control and transmission shift interlock, so a fault here can cause related drivability issues that mislead diagnosis.
- The code can be set by a momentary glitch, so always clear it and verify it returns before replacing parts.

Can I keep driving with C0161?

The vehicle remains safe to drive under normal conditions because base braking is unaffected, but you should avoid relying on ABS or traction control and be cautious in slippery conditions. Have the fault diagnosed soon to restore full safety system function and prevent related issues with cruise control or brake lights.

Tools that help

- OBD-II scan tool with ABS/TCS capability
- Digital multimeter
- Test light
- Basic hand tools for trim and switch removal
- Factory service information or wiring diagrams



Reading C0161

- C** Chassis: brakes, steering and suspension.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 1** Brakes, steering and suspension.
- 61** 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 · **P0504** Brake Switch 'A'/'B' Correlation

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/c0161/>

