

GENERIC · CHASSIS

C0004

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0004

TCS Control Channel B Valve 2

C0004 indicates that the traction control system (TCS) control module has detected an electrical fault in the circuit for control channel B valve 2, which is one of the solenoid valves inside the hydraulic modulator assembly. The module monitors the valve's current draw and voltage and sets this code when the signal is out of range, indicating an open, short, or excessive resistance in the valve circuit.

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

Symptoms you may notice

- Traction control system warning light illuminated on the dashboard
- Anti-lock braking system (ABS) warning light may also be on, depending on the vehicle
- Traction control system disabled, with reduced or no intervention during wheel slip
- Often no symptoms besides the warning light, especially if the valve is only intermittently faulty
- In rare cases, a slight brake drag or uneven braking if the valve is stuck partially open
- Electronic stability control (ESC) may also be disabled if the systems share the same modulator

Common causes, most likely first

- 1 Faulty TCS control channel B valve 2 solenoid inside the hydraulic modulator
- 2 Damaged or corroded wiring harness or connector at the modulator
- 3 Open or short circuit in the valve control circuit, including chafed wires
- 4 Failed TCS control module or internal driver for the valve
- 5 Poor ground connection for the modulator assembly
- 6 Contaminated brake fluid or debris causing valve sticking and abnormal current draw



How to diagnose and fix it

- 1 Scan all modules for codes and record freeze-frame data to confirm C0004 is current and not history
- 2 Inspect the modulator connector and wiring for corrosion, loose pins, or chafing, and repair as needed
- 3 Measure resistance of the channel B valve 2 solenoid at the modulator connector and compare to manufacturer specification
- 4 Check for short to ground or power on the control circuit between the module and the valve
- 5 Test the valve with a bidirectional scan tool to command it on and off while listening for a click and monitoring current
- 6 If the valve tests out of specification, replace the hydraulic modulator assembly or the faulty solenoid if serviceable
- 7 Clear codes and perform a road test to verify the repair and ensure the TCS operates correctly

What most technicians overlook on C0004

- A sticking valve can cause this code without any electrical fault, so always check brake fluid condition and perform a valve activation test before condemning the modulator.
- The same valve may be used for both traction control and stability control functions, so a fault can disable multiple driver aids even if the ABS light stays off.
- Intermittent codes often stem from a poor ground at the modulator mounting bolts, which is easy to miss when focusing only on the valve circuit.
- Some vehicles require programming or calibration of the new modulator after replacement, and skipping this step will leave the code set.
- A weak battery or low charging voltage can cause the module to set false valve codes, so verify battery and charging system health first.

Can I keep driving with C0004?

You can usually drive the vehicle with the warning light on, but traction control and stability assist will be disabled, so reduce speed and avoid slippery conditions. If the brake pedal feels strange or the ABS light is also on, have the system inspected promptly.

Tools that help

- OBD-II scan tool with bidirectional control and live data
- Digital multimeter
- Wiring diagram for the specific vehicle
- Socket set and trim tools for accessing the modulator
- Brake fluid tester



Reading C0004

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

Often seen with

C0001 TCS Control Channel A Valve 1 · **C0002** TCS Control Channel A Valve 2 · **C0003** TCS Control Channel B Valve 1 · **C0050** Right Rear Wheel Speed Sensor Circuit Malfunction

See it working

Watch the animated explainer [Four-Stroke Engine Cutaway: Intake to Exhaust](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/c0004/>

