

GENERIC · CHASSIS

C0002

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0002

TCS Control Channel A Valve 2

C0002 indicates that the traction control system (TCS) control module has detected an electrical fault in the control channel for valve 2 of the hydraulic modulator assembly. The computer monitors the valve's circuit for abnormal voltage or current and sets this code when the signal falls outside the expected range, which can disable traction control and illuminate the warning light.

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

Symptoms you may notice

- Traction control warning light illuminated on the dashboard
- Traction control system disabled, often accompanied by a stability control (ESC) light
- Often no symptoms besides the warning light, with normal braking performance
- Reduced or no traction control intervention during wheel slip
- In some cases, a slight brake drag or pull if the valve sticks partially open
- ABS light may also illuminate if the fault affects shared hydraulic circuits

Common causes, most likely first

- 1 Damaged or corroded wiring harness to the TCS valve 2 solenoid
- 2 Faulty TCS valve 2 solenoid coil (open or short circuit)
- 3 Contaminated or degraded brake fluid causing valve sticking
- 4 Failed TCS control module or internal driver circuit
- 5 Loose or corroded electrical connector at the hydraulic modulator
- 6 Blown fuse or relay supplying power to the TCS valve circuit

How to diagnose and fix it

- 1 Scan all modules for related codes and record freeze-frame data to confirm the fault conditions
- 2 Inspect the wiring harness and connector at the TCS valve 2 solenoid for damage, corrosion, or loose pins
- 3 Measure resistance of the valve 2 solenoid coil and compare to manufacturer specifications
- 4 Check for power and ground signals at the valve connector with a multimeter or test light
- 5 Perform a bidirectional actuator test to command the valve and listen for operation
- 6 Flush and replace brake fluid if contamination is suspected, then clear codes and retest
- 7 If the circuit tests good, replace the TCS hydraulic modulator assembly or control module as needed



What most technicians overlook on C0002

- A sticking valve due to old brake fluid can set this code intermittently without any hard circuit failure, so a fluid flush often resolves the issue.
- The code can be triggered by a weak battery or charging system, as low voltage may cause the TCS module to log false valve circuit faults.
- Corrosion inside the connector pins is a common cause that visual inspection alone may miss; a voltage drop test under load is more reliable.
- After replacing the hydraulic modulator, some vehicles require a calibration or bleed procedure with a scan tool to prevent the code from returning.
- This code does not always mean the valve itself is bad; the control module driver circuit or a poor ground connection can produce the same symptom.

Can I keep driving with C0002?

The vehicle remains safe to drive under normal conditions because the base braking system is unaffected, but traction control and stability assist are disabled. Avoid driving in low-traction conditions such as rain, snow, or gravel, and have the fault diagnosed promptly to restore full safety system function.

Tools that help

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

Reading C0002

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

Often seen with

C0001 TCS Control Channel A Valve 1 · **C0003** TCS Control Channel B Valve 1 · **C0004** TCS Control Channel B Valve 2 · **C0035** Left Front Wheel Speed Sensor Circuit Range/Performance · **C0040** Left Rear Wheel Speed Sensor Circuit



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/c0002/>

