

GENERIC · CHASSIS

C0003

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0003

TCS Control Channel B Valve 1

C0003 indicates that the traction control system (TCS) control module has detected an electrical fault in the circuit for control channel B valve 1, which is one of the solenoid valves inside the hydraulic modulator assembly. The computer monitors the valve's voltage and current and sets this code when the signal falls outside the expected range, preventing the TCS from operating correctly.

SYSTEM

Chassis

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Brakes, steering and suspension

Symptoms you may notice

- Traction control warning light illuminated on the dashboard
- Anti-lock brake system (ABS) warning light may also be on, depending on the vehicle
- Traction control system disabled, often with a message on the driver information display
- Reduced or no traction control intervention during slippery conditions
- Often no other symptoms besides the warning light
- In rare cases, a slight brake drag or unusual pedal feel if the valve is stuck partially open

Common causes, most likely first

- 1 Damaged or corroded wiring harness to the TCS hydraulic modulator valve
- 2 Faulty TCS control channel B valve 1 solenoid inside the modulator assembly
- 3 Poor electrical connection at the modulator connector, such as loose pins or water intrusion
- 4 Failed TCS control module (less common but possible)
- 5 Blown fuse or relay supplying power to the TCS modulator
- 6 Internal short or open in the valve coil winding

How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related ABS or TCS codes before proceeding
- 2 Inspect the wiring harness and connector at the TCS hydraulic modulator for damage, corrosion, or loose pins
- 3 Check the fuse and relay that supply power to the TCS modulator and replace if faulty
- 4 Measure resistance and voltage at the valve solenoid terminals to compare with manufacturer specifications
- 5 If the valve coil is out of specification, replace the hydraulic modulator assembly or the faulty solenoid if serviceable
- 6 Clear the code and perform a road test to confirm the repair, ensuring the TCS warning light stays off
- 7 If the code persists after electrical checks, diagnose the TCS control module for internal faults



What Most Techs Miss on C0003

- A loose or corroded ground connection at the TCS modulator can mimic a failed valve and set C0003 without any fault in the valve itself.
- Water intrusion into the modulator connector is a common cause on vehicles that see road salt or frequent wet conditions, and it often damages pins before the valve fails.
- The code can be set by a momentary voltage spike or low battery voltage, so always check the charging system and battery condition before replacing expensive parts.
- Some vehicles require a relearn or calibration procedure after replacing the modulator, and skipping it will cause the code to return even with good hardware.
- C0003 is often accompanied by other valve codes if the modulator is failing internally, so a full circuit check is more reliable than replacing the valve alone.

Can I keep driving with C0003?

You can usually continue driving with C0003 because the base brakes remain functional, but the traction control system will not assist you in slippery conditions. Avoid driving in rain, snow, or on loose surfaces where traction control is needed, and have the fault diagnosed promptly to prevent further damage to the modulator.

Tools that help

- OBD-II scan tool with ABS/TCS capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Socket set and trim removal tools
- Contact cleaner and dielectric grease

Reading C0003

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

Often seen with

C0001 TCS Control Channel A Valve 1 · **C0002** TCS Control Channel A Valve 2 · **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/c0003/>

