

GENERIC · CHASSIS

C0537

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0537

Motor Control B Circuit High

C0537 indicates that the body control module (BCM) or dedicated motor control module has detected an abnormally high voltage on the 'B' motor control circuit, which typically powers an actuator such as a HVAC blend door motor, headlight leveling motor, or seat motor. The circuit is monitored for voltage that stays above a calibrated threshold when the motor is commanded off or at a low duty cycle, suggesting a short to voltage or an open ground path.

SYSTEM

Chassis

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Brakes, steering and suspension

Symptoms you may notice

- The warning light (ABS, traction control, or service vehicle soon) illuminates on the dashboard.
- The affected motor may not operate at all, or may run in only one direction.
- The motor may run continuously even when the control is off, draining the battery.
- A clicking or buzzing noise from the actuator area may be heard with the ignition on.
- Often no symptoms besides the warning light, especially if the fault is intermittent.
- Other body functions controlled by the same module (e.g., HVAC, lighting) may behave erratically.

Common causes, most likely first

- 1 A short to voltage (B+) in the motor control 'B' circuit wiring, often due to chafed insulation against a power wire.
- 2 An open or high-resistance ground connection at the motor or module, causing the circuit to float high.
- 3 A faulty motor actuator with an internal short to voltage or damaged windings.
- 4 Corrosion or water intrusion in the connector at the motor or module, creating a high-resistance path.
- 5 A failed body control module (BCM) or motor control module driver internal to the module.
- 6 Aftermarket accessories improperly tapped into the circuit, introducing voltage backfeed.
- 7 A poor connection at the module connector, such as a backed-out terminal or loose pin.



How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related codes in other modules to narrow the circuit.
- 2 Inspect the motor connector and module connector for corrosion, water intrusion, or loose terminals; clean and reseat as needed.
- 3 Disconnect the motor and measure voltage on the control 'B' circuit with the key on; if voltage is present when it should be off, trace the harness for a short to voltage.
- 4 Check the ground circuit for the motor and module using a voltage drop test; repair any high-resistance ground.
- 5 Test the motor actuator by applying power and ground directly to confirm it operates smoothly and does not short internally.
- 6 If the circuit and motor test good, substitute a known-good module or perform a module relearn/configuration as required.
- 7 Clear the code and perform a road test or cycle the actuator through its full range to confirm the repair.

Before you replace the motor or module

- A shorted motor can backfeed voltage into the control circuit, setting a high-voltage code even when the wiring is intact, so always test the motor separately.
- The 'B' circuit often shares a connector with other motor circuits; a single corroded pin can affect multiple actuators and set companion codes.
- Intermittent C0537 often appears after a rainstorm or car wash, pointing to water intrusion in a connector rather than a failed component.
- The code can be set by a weak battery or charging system fluctuation that causes the module to see a voltage spike on the control circuit.
- Some vehicles require a module configuration or calibration after replacement, and skipping this step will cause the code to return immediately.

Can I keep driving with C0537?

The vehicle is generally safe to drive if the only symptom is a warning light, but avoid using the affected accessory to prevent battery drain or further damage. If the motor runs continuously or the battery drains, have the fault diagnosed promptly to avoid being stranded.

Tools that help

- OBD-II scan tool with body control module capability
- Digital multimeter (DMM)
- Test light
- Wire piercing probes or backprobe pins
- Service information for wiring diagrams and connector pinouts



Reading C0537

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

Often seen with

C0536 Motor Control B Circuit/Open · **C0538** Motor Control B Circuit Low · **C0800** Drive System Voltage Low · **U0140** Lost Communication With Instrument Panel Cluster

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/c0537/>

