

GENERIC · CHASSIS

C0538

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0538

Motor Control B Circuit Low

C0538 indicates that the vehicle's computer has detected an abnormally low voltage or current on the control circuit for 'Motor B', which is typically a secondary actuator motor used in systems such as adjustable pedals, power seats, or active suspension. The computer monitors the circuit and sets this code when the signal falls below the expected threshold, indicating a short to ground, an open circuit, or a faulty motor.

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

Symptoms you may notice

- The warning light on the dashboard illuminates, often accompanied by a message indicating a fault in the affected system.
- The motor controlled by circuit B may not operate at all, or may operate intermittently or in only one direction.
- The affected system (e.g., power seat, adjustable pedals, or suspension) may default to a fixed position or become stuck.
- A noticeable loss of functionality in the component driven by Motor B, such as inability to adjust the seat or pedals.
- In some cases, no symptoms besides the warning light, especially if the motor is not frequently used.

Common causes, most likely first

- A short to ground in the wiring harness or connector for the Motor B control circuit.
- An open circuit in the power or ground wire feeding the motor, often due to a broken wire or corroded connector.
- A faulty motor actuator itself, where the internal windings are shorted or open.
- Corrosion or water intrusion in the electrical connector at the motor or control module.
- A failed control module (e.g., body control module or suspension control module) that cannot supply the proper voltage.
- Damaged wiring from physical impact, rodent damage, or chafing against metal components.



How to diagnose and fix it

- 1 Inspect the wiring harness and connectors at the motor and control module for visible damage, corrosion, or loose pins; repair or replace as needed.
- 2 Disconnect the motor and measure resistance across its terminals; compare to specifications to determine if the motor is faulty.
- 3 Check for continuity and short-to-ground on the control circuit wires using a multimeter; isolate the section of wiring causing the fault.
- 4 Test the control module's output voltage to the motor with a multimeter while commanding the motor on; if voltage is low or absent, suspect the module or its power/ground.
- 5 If the motor is faulty, replace it with a known-good unit and clear the code; verify proper operation.
- 6 If the control module is faulty, replace or reprogram it as required, ensuring all connections are clean and tight.
- 7 After repairs, clear the diagnostic trouble codes and perform a road test or function test to confirm the code does not return.

Motor B circuit faults often misdiagnosed

- A low voltage on the control circuit can be caused by a poor ground connection at the motor or module, which is often overlooked when focusing on the positive side of the circuit.
- The code may set intermittently due to a wire that is only grounded when the vehicle is in motion or when the harness is flexed, so a wiggle test while monitoring live data is essential.
- In some vehicles, Motor B is part of a shared circuit with other motors, and a fault in one motor can affect the others, leading to multiple codes; always check for related codes before replacing parts.
- A weak battery or charging system issue can cause low voltage conditions that trigger this code, so verify battery voltage and charging system performance before extensive diagnostics.
- Aftermarket accessories or improper previous repairs, such as wire splices or incorrect connectors, are common causes of this code that are not immediately obvious.

Can I keep driving with C0538?

If the affected system is not critical to safety, such as a power seat or adjustable pedals, you may drive the vehicle cautiously, but avoid using the faulty motor to prevent further damage. If the code affects a safety-related system like active suspension, have the vehicle inspected by a professional before driving at highway speeds.

Tools that help

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



Reading C0538

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

Often seen with

C0537 Motor Control B Circuit High · **C0539** Motor Control B Supply Voltage Circuit/Open · **C0540** Hill Hold Control Performance · **C0541** Brake Pressure Sensor B Range/Performance · **C0542** Brake Pressure Sensor B Circuit Low

See it working

Watch the animated explainer [Fuel Trims Explained: Short-Term and Long-Term](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/c0538/>

