

GENERIC · CHASSIS

C0580

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0580

Brake Booster Motor A Phase U-V-W Circuit Low

C0580 indicates that the brake booster motor's three-phase winding circuit has a low voltage condition on one or more phases, meaning the control module detected voltage below the expected threshold on the U, V, or W phase. This points to a problem in the motor circuit, such as a short to ground, a faulty motor winding, or a wiring issue, which can prevent the brake booster from assisting properly.

SYSTEM

Chassis

CODE TYPE

Generic (all makes)

SEVERITY

High

FIX DIFFICULTY

Professional

AREA

Brakes, steering and suspension

Symptoms you may notice

- Illumination of the brake system warning light or ABS (Anti-lock Braking System) light on the dashboard
- Often no symptoms besides the warning light, especially if the fault is intermittent
- Reduced brake assist, requiring harder pedal pressure to stop the vehicle
- A noticeable decrease in braking performance or a spongy brake pedal feel
- Audible clicking or whirring noises from the brake booster area when the brake pedal is pressed
- Possible activation of the fail-safe mode, limiting vehicle speed or disabling certain brake functions

Common causes, most likely first

- 1 Damaged or corroded wiring in the brake booster motor circuit, such as a short to ground or an open circuit
- 2 Faulty brake booster motor with a shorted or open phase winding
- 3 Poor electrical connection at the motor connector or the control module connector
- 4 Internal failure in the brake booster control module, such as a driver circuit fault
- 5 Water intrusion or contamination in the motor or connector causing low resistance
- 6 Loose or damaged ground connection for the brake booster motor circuit



How to diagnose and fix it

- 1 Perform a visual inspection of the brake booster motor wiring and connectors for damage, corrosion, or loose pins
- 2 Use a digital multimeter to check for continuity and resistance in each phase of the motor circuit, comparing to specifications
- 3 Check for short to ground on each phase wire by measuring resistance between the wire and chassis ground
- 4 Inspect the motor connector for signs of overheating or water intrusion and clean or repair as needed
- 5 Test the brake booster motor directly by applying power and ground to the motor terminals to verify operation
- 6 If the motor tests faulty, replace the brake booster motor assembly according to the manufacturer's procedure
- 7 If the motor and wiring are good, diagnose the control module for internal faults and replace if necessary

Common misdiagnosis traps for C0580

- A low voltage code on a motor phase circuit is often caused by a simple wiring issue, such as a chafed wire shorting to ground, rather than a failed motor or module.
Technicians sometimes replace the brake booster motor only to find the connector pins are corroded or pushed back, so always perform a thorough connector inspection first.
- The code can set intermittently due to vibration or temperature changes, so a wiggle test of the harness while monitoring live data can reveal the fault.
- On some vehicles, a weak battery or charging system can cause low voltage codes across multiple modules, so verify battery voltage and ground integrity before condemning the motor.

The brake booster motor is part of the electronic brake system, and a fault here may also trigger other codes like C0581 or C0582, so scan all modules to avoid missing related issues.

Can I keep driving with C0580?

If the brake warning light is on and you notice reduced braking performance, avoid driving the vehicle and have it towed to a repair shop. If the light is on but braking feels normal, drive cautiously to the nearest service center, avoiding heavy braking or high speeds.

Tools that help

- OBD-II scan tool with ABS/brake system capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Breakout box or back-probe kit
- Hand tools for connector and component access



Reading C0580

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

Often seen with

C0581 Park Brake Apply Performance · **C0582** Brake Booster Motor A Phase U-V-W Circuit Range/Performance · **C0583** Park Brake Release Performance · **C0584** Brake Booster Motor B Phase U-V-W Circuit Low · **C0585** Brake Booster Motor B Phase U-V-W Circuit High

See it working

Watch the animated explainer [Turbocharger Trainer: Boost, Wastegate and Intercooler](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/c0580/>

