

GENERIC · CHASSIS

C0581

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0581

Park Brake Apply Performance

C0581 indicates that the electronic brake control module (EBCM) commanded the parking brake to apply but did not see the expected mechanical response within its calibrated time window. The module monitors the parking brake actuator circuit and feedback signals, and it sets this code when the apply request is not confirmed by the brake system.

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

Symptoms you may notice

- The red brake warning light or a dedicated parking brake warning light stays illuminated on the dashboard.
- The parking brake may fail to engage when the driver presses the button or pulls the lever, leaving the vehicle unsecured on a slope.
- A chime or message may appear on the driver information center stating that the parking brake is unavailable or needs service.
- The parking brake may apply and then release unexpectedly, or it may make unusual noises during operation.
- Often no symptoms besides the warning light, especially if the fault is intermittent or only occurs under specific conditions.

Common causes, most likely first

- A binding or seized parking brake cable, caliper lever, or actuator mechanism that prevents full application.
- A faulty parking brake actuator motor or solenoid that fails to move the brake mechanism when commanded.
- Wiring damage such as an open circuit, chafed wire, or corroded connector in the parking brake actuator circuit.
- A failed parking brake control switch or button that does not send a valid apply request to the EBCM.
- Low brake fluid level or a hydraulic issue that affects the parking brake system on vehicles where it shares components with the service brake.
- A software or calibration issue in the EBCM that misinterprets the feedback signal, requiring a module update or relearn.
- A weak or failing battery or charging system that causes voltage drops during parking brake operation, leading to incomplete actuator movement.



How to diagnose and fix it

- 1 Verify the battery voltage and charging system output, as low voltage can cause false parking brake codes and actuator underperformance.
- 2 Inspect the parking brake cables, caliper levers, and actuator for mechanical binding, corrosion, or debris, and lubricate or repair as needed.
- 3 Check the parking brake control switch and its wiring for continuity, corrosion, and proper signal output using a multimeter.
- 4 Test the parking brake actuator motor or solenoid directly with a scan tool or by applying power and ground to confirm it moves freely and draws normal current.
- 5 Inspect the wiring harness and connectors between the EBCM and the parking brake actuator for opens, shorts, or high resistance.
- 6 Use a scan tool to command the parking brake to apply and release while monitoring live data for actuator position and feedback signals to pinpoint the failure.
- 7 If all mechanical and electrical checks pass, check for technical service bulletins or software updates for the EBCM, and perform any required calibration or relearn procedure.

Parking brake apply faults that fool technicians

- A binding parking brake cable or corroded caliper lever is often the root cause, yet many technicians replace the actuator motor first and the code returns.
- The EBCM may set C0581 even when the parking brake applies fully but the feedback sensor or switch is faulty, so always verify the feedback circuit before condemning the actuator.
- On vehicles with an electronic parking brake, a weak battery or poor ground can cause the actuator to stall and set this code without any mechanical fault.
- C0581 can be triggered by a parking brake control switch that intermittently fails to send an apply request, so wiggle-test the switch and wiring while watching live data.
- After repairs, the parking brake system often requires a calibration or relearn procedure with a scan tool, and skipping this step will leave the code stored.

Can I keep driving with C0581?

If the parking brake does not engage, avoid parking on inclines and use wheel chocks or another secure method until repaired. The service brakes remain functional, so normal driving is generally safe, but do not rely on the parking brake to hold the vehicle.



Tools that help

- Scan tool with bidirectional control and live data capability
- Digital multimeter
- Test light
- Socket and wrench set
- Brake cable lubricant
- Jack and jack stands

Reading C0581

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.
81	The exact fault within that area.

Often seen with

C0580 Brake Booster Motor A Phase U-V-W Circuit Low · **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 [How ABS Works: Anti-Lock Brakes in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/c0581/>

