

GENERIC · CHASSIS

C0597

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0597

Brake System Control Module A Performance

C0597 indicates that the brake system control module (often called the ABS or ESC module) has reported an internal performance fault, meaning the module's self-diagnostics detected a problem with its own processing, memory, or output drivers. The code is set when the module fails to complete its own integrity checks or when its commanded outputs do not match expected results.

SYSTEM

Chassis

CODE TYPE

Generic (all makes)

SEVERITY

High

FIX DIFFICULTY

Professional

AREA

Brakes, steering and suspension

Symptoms you may notice

- Anti-lock brake system (ABS) warning light illuminated on the dashboard
- Traction control or electronic stability control (ESC) warning light also on
- Brake system warning light may be on if the fault affects the module's ability to command the hydraulic pump
- ABS and stability control systems disabled, though normal braking usually remains functional
- Often no symptoms besides the warning light, with the driver noticing no change in brake pedal feel or stopping distance

Common causes, most likely first

- 1 Internal failure of the brake system control module (faulty processor, memory, or output driver)
- 2 Low or unstable battery voltage causing the module to fail its self-test
- 3 Corroded, loose, or damaged ground connections at the module or chassis
- 4 Damaged or shorted wiring in the module's power or ground circuits
- 5 Water intrusion or connector corrosion at the module harness
- 6 Software corruption or a failed module reflash
- 7 A related component (wheel speed sensor, hydraulic pump) that the module interprets as an internal performance fault



How to diagnose and fix it

- 1 Verify battery voltage and charging system output; charge or replace the battery if it is below 12.4 volts at rest
- 2 Inspect and clean the module's ground connections and power feed terminals
- 3 Check the module harness connectors for corrosion, water intrusion, or loose pins
- 4 Perform a voltage drop test on the module's power and ground circuits under load
- 5 Use a scan tool to clear the code and recheck; if it returns immediately, proceed with module diagnostics
- 6 Check for technical service bulletins (TSBs) or software updates for the brake control module
- 7 If all external circuits test good, replace or reprogram the brake system control module as the final step

When the module blames itself

- A low battery or failing alternator is a common cause of C0597 because the module's self-test can fail during cranking or low-voltage conditions, so always check the charging system first.
- Corroded ground straps, especially those shared with the ABS pump motor, can cause the module to report an internal performance fault even though the module itself is healthy.
- The code does not always mean the module is bad; a shorted wheel speed sensor or a failing hydraulic pump can sometimes trigger a performance fault in the module's output driver circuit.
- After replacing or reflashing the module, some vehicles require a calibration or learn procedure for the steering angle sensor and yaw rate sensor, or the code may reset.
- Water intrusion into the module connector is a frequent missed cause, particularly on vehicles where the module is mounted low in the engine bay or under the hood near the cowl.

Can I keep driving with C0597?

Because ABS and stability control are disabled, the vehicle may be less stable in emergency braking or slippery conditions, so drive cautiously and avoid hard braking or evasive maneuvers until the fault is repaired. Normal braking usually remains, but have the system diagnosed promptly.

Tools that help

- OBD-II scan tool with ABS/ESC capability
- Digital multimeter
- Battery tester and charging system analyzer
- Wiring diagram for the brake control module circuits
- Socket set and terminal cleaning tools



Reading C0597

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

Often seen with

C0035 Left Front Wheel Speed Sensor Circuit Range/Performance · **C0040** Left Rear Wheel Speed Sensor Circuit · **C0050** Right Rear Wheel Speed Sensor Circuit Malfunction · **C0110** ABS Pump Motor Circuit Malfunction · **U0121** Lost Communication With Anti-Lock Brake System (ABS) Control

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/c0597/>

