

GENERIC · CHASSIS

C055F

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C055F

BSCM/EBBC Hydraulic Unit Performance

C055F indicates that the Brake System Control Module (BSCM) or Electronic Brake Booster Control (EBBC) has detected a performance fault within its hydraulic unit, meaning the module cannot verify that the hydraulic pressure it commands matches the pressure it actually achieves. The computer sets this code when internal pressure sensor readings, pump motor operation, or solenoid valve response fall outside the expected range during a self-test or normal braking event.

SYSTEM

Chassis

CODE TYPE

Generic (all makes)

SEVERITY

High

FIX DIFFICULTY

Professional

AREA

Brakes, steering and suspension

Symptoms you may notice

- Illumination of the ABS, traction control, and brake system warning lights on the dashboard
- A noticeable reduction or complete loss of power-assist braking, requiring much higher pedal effort
- The brake pedal may feel unusually firm, spongy, or travel further than normal
- Audible cycling or running of the brake hydraulic pump when the brake pedal is not pressed
- Often no symptoms besides the warning light, especially in the early stages of the fault
- Disabling of advanced driver-assist features such as automatic emergency braking or adaptive cruise control

Common causes, most likely first

- 1 Degraded or contaminated brake fluid causing restricted flow through the hydraulic unit
- 2 Internal leakage or sticking solenoid valves inside the BSCM/EBBC hydraulic assembly
- 3 Failed pressure sensor within the hydraulic unit reporting inaccurate values to the control module
- 4 Faulty pump motor or pump motor relay preventing the unit from building commanded pressure
- 5 Air trapped in the hydraulic circuit after recent brake service or a fluid leak
- 6 Corroded or damaged electrical connectors at the BSCM/EBBC, causing intermittent signal loss
- 7 Low brake fluid level due to a leak in the hydraulic system



How to diagnose and fix it

- 1 Check brake fluid level and condition; top off or replace fluid if it is dark or contaminated
- 2 Perform a visual inspection of the hydraulic unit, brake lines, and calipers for leaks or damage
- 3 Scan all modules for related codes and check live pressure sensor data against a mechanical gauge
- 4 Inspect and clean the electrical connectors and grounds at the BSCM/EBBC
- 5 Run the manufacturer's automated bleed and calibration procedure for the hydraulic unit
- 6 Test the pump motor and relay circuit for proper voltage and operation
- 7 If internal faults are confirmed, replace or rebuild the BSCM/EBBC hydraulic assembly and perform required programming

Why this code often misleads brake diagnostics

- A low brake fluid level or air in the system can trigger C055F without any internal fault in the hydraulic unit, so always rule out basic fluid issues first.
- The BSCM/EBBC often logs this code after a battery replacement or voltage drop, and a simple module reset and relearn may clear it permanently.
- Technicians sometimes replace the entire hydraulic unit when the real problem is a corroded connector or a failing pump motor relay that costs far less to fix.
- This code can be set by a wheel speed sensor or steering angle sensor fault that disrupts the module's self-test, so check for companion codes before condemning the hydraulic unit.
- After any repair involving the hydraulic unit, the system must be bled with a scan tool to cycle the ABS pump, or the code will return immediately.

Can I keep driving with C055F?

If the brake pedal feels normal and only the warning light is on, you may drive cautiously to a repair shop, but avoid heavy braking or towing. If pedal effort has increased noticeably or the pedal feels spongy, stop driving and have the vehicle towed, as braking performance may be compromised.

Tools that help

- OBD-II scan tool with ABS and brake system capabilities
- Digital multimeter for circuit testing
- Brake pressure gauge for verifying hydraulic pressure
- Scan tool with bidirectional control for pump and solenoid activation
- Brake bleeder kit for proper hydraulic bleeding



Reading C055F

- 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.
- 5F** The exact fault within that area.

Often seen with

C0040 Left Rear Wheel Speed Sensor Circuit · **C0050** Right Rear Wheel Speed Sensor Circuit Malfunction · **C0550** Encoder Position Switch Circuit · **C0551** Longitudinal Acceleration Sensor Circuit/Open · **C0561** ABS Disabled Warning Indicator Request

See it working

Watch the animated explainer [How a MAP Sensor Works: Engine Vacuum and Load](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/c055f/>

