

GENERIC · CHASSIS

C055A

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C055A

ABS Pump Motor Supply Voltage Circuit A High

C055A indicates that the anti-lock braking system (ABS) control module has detected an abnormally high voltage on the power supply circuit for the ABS pump motor, specifically on circuit A. The module monitors the voltage feed to the pump motor and sets this code when the signal exceeds the expected range, which can be caused by a charging system fault, wiring issue, or internal module problem.

SYSTEM

Chassis

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Brakes, steering and suspension

Symptoms you may notice

- ABS warning light illuminated on the dashboard
- Traction control or stability control warning light may also be on
- Often no symptoms besides the warning light
- ABS may be disabled, leading to increased stopping distances in slippery conditions
- In rare cases, the pump motor may run continuously or stay off, affecting brake assist
- Other electrical systems may show erratic behavior if the cause is a charging system overvoltage

Common causes, most likely first

- 1 Faulty voltage regulator in the alternator causing overcharging
- 2 Corroded, damaged, or shorted wiring in the ABS pump motor supply circuit
- 3 Poor ground connection for the ABS module or pump motor
- 4 Failed ABS pump motor (internal short or resistance out of specification)
- 5 Defective ABS control module
- 6 Blown fuse or faulty relay in the pump motor circuit (though less likely to cause high voltage)
- 7 Water intrusion or contamination in the ABS connector



How to diagnose and fix it

- 1 Use a scan tool to retrieve all codes and verify C055A is current; clear codes and test-drive to see if it returns.
- 2 Check battery voltage and charging system output with a multimeter; ensure voltage is within 13.5–14.5 volts with the engine running.
- 3 Inspect the ABS pump motor supply circuit wiring for damage, corrosion, or loose connections; repair as needed.
- 4 Test the ABS pump motor relay and fuse; replace if faulty.
- 5 Measure resistance and voltage drop across the pump motor and ground circuit to identify excessive resistance or shorts.
- 6 If all external checks pass, test the ABS control module and pump motor according to manufacturer procedures; replace faulty components.
- 7 After repairs, clear codes and perform a road test to confirm the ABS system operates correctly and the code does not reset.

Overvoltage Faults Often Misdiagnosed

- A high voltage code on the ABS pump motor circuit is frequently caused by a failing alternator voltage regulator, not the ABS system itself, so always check charging system voltage first.
- Corroded ground connections can cause voltage spikes that the module interprets as high supply voltage, so inspect and clean grounds before replacing expensive ABS components.
- Some vehicles set this code intermittently due to a weak battery that causes the alternator to overcharge; load-test the battery as part of diagnosis.
- The code may be stored in history without an active warning light if the overvoltage event was brief, so do not replace parts based solely on a stored code without verifying current data.
- Aftermarket accessories or improper jump-starting can introduce voltage spikes that trigger this code, so ask the driver about recent electrical work or jump starts.

Can I keep driving with C055A?

If the ABS warning light is on, the ABS system may be disabled, which can increase stopping distances in emergency situations. Avoid driving in slippery conditions or at high speeds until the fault is repaired, and do not continue driving if the brake pedal feels abnormal or the battery/charging warning light is also on.

Tools that help

- OBD-II scan tool with ABS capability
- Digital multimeter
- Test light
- Wiring diagram for the specific vehicle
- Socket set and screwdrivers for connector access



Reading C055A

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

Often seen with

C055B ABS Pump Motor Supply Voltage Circuit A Low · **C055C** ABS Pump Motor Supply Voltage Circuit A Range/Performance · **C055D** Brake Hydraulic Circuit B Leak · **C055E** Brake Hydraulic Circuit A Leak · **P0563** System Voltage 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/c055a/>

