

GENERIC · CHASSIS

C052C

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C052C

ABS Pump Motor Control Circuit/Open

C052C means the antilock braking system (ABS) controller has detected an open circuit in the wiring that powers or controls the ABS pump motor, so the motor cannot be commanded to run. The controller typically monitors the motor circuit for expected voltage or current when the pump is activated and flags an open when that electrical path is broken.

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

Symptoms you may notice

- ABS warning light illuminated on the dashboard, often accompanied by the traction control and stability control lights
- ABS disabled, so the wheels can lock during hard braking and the pedal may feel different or pulse abnormally
- Pump motor never runs during an ABS self-test, which a technician can confirm by listening or feeling for pump activation
- Traction control and stability control systems may be disabled as a consequence of the ABS fault
- Often no symptoms besides the warning light, because normal braking without ABS still works
- In some vehicles a chime or message displays warning that ABS and stability control are unavailable

Common causes, most likely first

- Broken, corroded, or disconnected wire in the ABS pump motor power or ground circuit
- Failed ABS pump motor relay or blown fuse supplying the motor
- Corroded or loose connector at the ABS pump motor or at the ABS control module
- Open winding or worn brushes inside the ABS pump motor itself
- Internal open circuit in the ABS control module's motor driver circuitry
- Damaged wiring harness from road debris, chafing, or rodent damage
- Poor ground connection for the ABS pump motor circuit



How to diagnose and fix it

- 1 Scan all modules for codes and record freeze-frame data to confirm C052C is current and not history
- 2 Check the ABS pump motor fuse and relay, then test the relay operation and fuse continuity
- 3 Inspect the pump motor connector and wiring for corrosion, looseness, or physical damage
- 4 Measure resistance and voltage drop across the pump motor power and ground circuits with a multimeter
- 5 Command the ABS pump motor on with a scan tool and listen for operation while monitoring circuit voltage
- 6 If the circuit tests good, test the pump motor directly with fused power and ground to isolate a motor fault
- 7 If the motor and wiring are good, diagnose the ABS control module's motor output circuit or replace the module as needed

What the open circuit really means

- A failed pump motor relay is one of the most common causes and is often overlooked because the relay may click audibly while its contacts are burned and not passing current.
- The ABS pump motor circuit is separate from the valve circuits, so a vehicle can have normal ABS valve function but still set C052C if only the motor path is open.
- Corrosion inside the pump motor connector is frequently misdiagnosed as a failed ABS module, so always inspect and load-test the connector before condemning the module.
- Some vehicles set C052C when battery voltage is low during cranking, so clear the code and verify it returns before replacing parts.
- A pump motor that runs but draws excessive current can eventually open the circuit, so check motor current draw when the circuit is restored.

Can I keep driving with C052C?

The vehicle remains driveable with normal hydraulic brakes, but ABS, traction control, and stability control are disabled, so leave extra stopping distance and avoid slippery or emergency-braking situations until repaired.

Tools that help

- OBD-II scan tool with ABS and bidirectional control capability
- Digital multimeter
- Fused jumper wires
- Relay puller and test light
- Wiring diagram for the ABS pump motor circuit
- Socket set and trim tools for access



Reading C052C

- 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.
- 2C** 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 · **C0110** ABS Pump Motor Circuit Malfunction · **C052B** ABS Pump Motor Control Range/Performance · **C052D** ABS Pump Motor Control 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/c052c/>

