

GENERIC · CHASSIS

C05A5

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C05A5

ABS Pump Motor Supply Voltage B Circuit/Open

The anti-lock braking system (ABS) control module has detected an open circuit or abnormal voltage on the supply circuit for the ABS pump motor, specifically the 'B' side or secondary supply line. This means the module cannot reliably power the pump motor that builds hydraulic pressure during ABS activation, so it disables ABS function and turns on the warning light.

SYSTEM

Chassis

CODE TYPE

Generic (all makes)

SEVERITY

High

FIX DIFFICULTY

Professional

AREA

Brakes, steering and suspension

Symptoms you may notice

- ABS warning light illuminated on the dashboard
- Traction control and stability control lights may also be on if those systems share the pump
- Often no symptoms besides the warning light during normal driving
- ABS may not activate during hard braking or slippery conditions, increasing stopping distance
- Pump motor may not run during a self-test, which a technician can hear or feel
- In some vehicles, a chime or message indicating a brake system fault

Common causes, most likely first

- 1 Damaged or corroded wiring or connector at the ABS pump motor or control module
- 2 Blown fuse or failed relay in the ABS pump motor supply circuit
- 3 Open circuit in the power or ground wire to the pump motor (broken wire, loose terminal)
- 4 Failed ABS pump motor (internal open circuit or worn brushes)
- 5 Faulty ABS control module (internal driver or voltage sensing circuit)
- 6 High resistance or corrosion at the battery or ground connections affecting supply voltage
- 7 Aftermarket accessories or poor previous repairs tapping into the circuit



How to diagnose and fix it

- 1 Check the ABS fuses and relays related to the pump motor supply and replace any that are blown or faulty
- 2 Inspect the wiring harness and connectors at the ABS pump motor and control module for corrosion, damage, or loose pins
- 3 Measure battery voltage and ground integrity at the ABS module and pump motor connector with a multimeter
- 4 Perform a voltage drop test on the supply and ground circuits while the pump motor is commanded on with a scan tool
- 5 Command the ABS pump motor on with a bidirectional scan tool and listen for operation; if it does not run, test the motor directly
- 6 If the motor does not run with direct power and ground, replace the ABS pump motor or assembly as required
- 7 If all circuits and the motor test good, diagnose or replace the ABS control module

What the ABS pump supply code really means

- A weak or failing battery can cause this code because the ABS module monitors supply voltage and may set a fault if voltage drops during pump motor activation.
- Corroded ground connections, especially at the chassis or engine block, are a frequent hidden cause of supply voltage faults on ABS circuits.
- The code can be set intermittently by a loose connector that only loses contact during vibration or temperature changes, so a wiggle test while monitoring live data is valuable.
- Some vehicles use a shared power supply for the ABS pump and other high-current systems, so a fault in an unrelated circuit can affect the ABS supply.
- Replacing the ABS pump motor without checking the relay and wiring first is a common misdiagnosis that leads to repeat failures.

Can I keep driving with C05A5?

The vehicle remains driveable with normal braking, but ABS is disabled, so avoid hard braking or slippery conditions where ABS would be needed. Have the fault diagnosed promptly, especially if the brake warning light is also on.

Tools that help

- OBD-II scan tool with bidirectional control and live data
- Digital multimeter
- Test light
- Wiring diagram for the ABS circuit
- Socket set and trim removal tools



Reading C05A5

- 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.
- A5** 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 · **C05A4** Wheel Speed Sensors Supply Circuit Low · **C05A6** ABS Pump Motor Supply Voltage B 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/c05a5/>

