

GENERIC · CHASSIS

C05A4

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C05A4

Wheel Speed Sensors Supply Circuit Low

This code means the antilock brake system (ABS) control module has detected an abnormally low voltage on the power supply circuit that feeds the wheel speed sensors. The module monitors the voltage it sends to the sensors and flags this fault when that supply circuit drops below the expected threshold, which can prevent the ABS and traction control systems from operating correctly.

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
- Traction control and stability control systems disabled, which may be noticeable on slippery surfaces
- A stored code in the ABS module with no other drivability complaints
- Intermittent warning light that comes and goes, especially in wet or cold conditions
- Often no symptoms besides the warning light, with normal braking performance in dry conditions
- In some cases, a slight pulsing or unusual brake pedal feel if the ABS module cannot read a sensor

Common causes, most likely first

- 1 Damaged or corroded wiring harness between the ABS module and one or more wheel speed sensors
- 2 A wheel speed sensor with an internal short that pulls the shared supply voltage down
- 3 Water intrusion or corrosion at a wheel speed sensor connector, especially near the hubs
- 4 A poor ground connection for the ABS module or sensor return circuit
- 5 A failing ABS control module with an internal fault in its sensor supply circuit
- 6 Blown fuse or high-resistance connection in the ABS module's power feed circuit
- 7 Aftermarket or incorrectly installed electrical accessories tapping into the ABS wiring



How to diagnose and fix it

- 1 Use a scan tool to read all ABS module codes and freeze-frame data, then record which sensor circuits are affected
- 2 Inspect the wheel speed sensor wiring and connectors at each wheel for chafing, corrosion, or water intrusion
- 3 Measure the supply voltage at each wheel speed sensor connector with the key on and compare to the manufacturer's specification
- 4 Check the ABS module ground and power feed circuits for voltage drop and clean any corroded connections
- 5 Disconnect sensors one at a time to see if the low-voltage fault clears, isolating a shorted sensor
- 6 Repair or replace damaged wiring, terminals, or a faulty wheel speed sensor as indicated by testing
- 7 Clear the codes and verify the repair with a road test, confirming the ABS and traction control systems operate normally

What a low sensor supply really means

- A single shorted wheel speed sensor can drag down the shared supply voltage for all sensors, so the code may point to the whole circuit rather than one wheel.
- Corrosion inside a connector that looks fine from the outside is a frequent culprit, especially on vehicles driven in salt-belt states or through deep water.
- The ABS module may set this code intermittently when the supply voltage drops only under certain conditions, such as when the engine is cranking or electrical loads are high.
- A weak battery or failing alternator can cause system voltage to sag enough to trigger this code, so always check charging system health before condemning ABS components.
- This code does not always mean a sensor has failed; a poor ground or a chafed wire in the harness often produces the same low-voltage condition.

Can I keep driving with C05A4?

You can usually drive the vehicle with this code because normal hydraulic braking remains functional, but the ABS and traction control systems may be disabled, so avoid slippery roads and hard braking situations until the fault is repaired.

Tools that help

- OBD-II scan tool with ABS module capability
- Digital multimeter
- Wiring diagram for the ABS system
- Terminal pick and electrical contact cleaner
- Jack and jack stands or a lift



Reading C05A4

- 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.
- A4** 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/c05a4/>

