

GENERIC · CHASSIS

C05A2

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C05A2

Brake Pressure Sensor E Range/Performance

C05A2 means the antilock braking system (ABS) module has determined that the signal from brake pressure sensor E is outside its expected range or is not performing as designed. The computer compares the sensor's voltage against known pressure values and flags the code when the signal is implausible, erratic, or stuck within a valid but incorrect band.

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
- Traction control and stability control warning lights may also be on
- Reduced or disabled ABS and traction control operation
- Brake pedal feels firmer or softer than usual, or has an inconsistent feel
- Often no symptoms besides the warning light

Common causes, most likely first

- 1 Faulty brake pressure sensor E
- 2 Damaged or corroded wiring or connector at the sensor
- 3 Contaminated or degraded brake fluid affecting sensor readings
- 4 Air trapped in the hydraulic system near the sensor
- 5 Internal fault in the ABS control module
- 6 Low brake fluid level or a hydraulic leak
- 7 Mechanical binding or sticking in the brake hydraulic circuit

How to diagnose and fix it

- 1 Check brake fluid level and condition; top up or replace fluid if contaminated
- 2 Inspect the sensor connector and wiring for corrosion, chafing, or loose pins
- 3 Use a scan tool to read live brake pressure sensor data and compare with a known good value or mechanical gauge
- 4 Perform a brake system bleed to remove trapped air
- 5 Test the sensor's resistance and voltage output according to the manufacturer's procedure
- 6 Replace the brake pressure sensor if testing confirms it is out of specification
- 7 Clear the code and verify the repair with a road test and live data review



What the pressure sensor code hides

- A brake pressure sensor can pass a simple resistance check yet still set C05A2 because the fault appears only under certain pressure or temperature conditions, so live data during a road test is essential.
- Contaminated brake fluid is a commonly overlooked cause; moisture or debris can alter hydraulic pressure response and trigger the code without any sensor failure.
- The ABS module may set this code when it detects an implausible correlation between the brake pressure sensor and other inputs such as wheel speed sensors, so a wheel speed fault can masquerade as a pressure sensor problem.
- After replacing the sensor, some vehicles require a calibration or learn procedure with a scan tool; skipping it can leave the code stored even though the hardware is good.
- A weak battery or charging system fault can cause erratic sensor voltages that set C05A2, so always verify system voltage before condemning the sensor.

Can I keep driving with C05A2?

The vehicle remains driveable with normal brakes, but ABS and traction control may be disabled, so avoid emergency braking and slippery conditions until the fault is repaired. If the brake pedal feel changes or the fluid level is low, stop driving and have the system inspected immediately.

Tools that help

- OBD-II scan tool with ABS live data capability
- Digital multimeter
- Brake pressure gauge
- Bleeder kit
- Socket and wrench set

Reading C05A2

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.
A2	The exact fault within that area.

Often seen with

C0040 Left Rear Wheel Speed Sensor Circuit · **C0051** Front Left ABS Solenoid 1 Circuit Malfunction · **C05A1** Brake Pressure Sensor E Circuit/Open · **C05A3** Wheel Speed Sensors Supply Circuit High · **P0571** Brake Switch 'A' Circuit



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/c05a2/>

