

GENERIC · CHASSIS

C0112

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0112

ABS Activation Frequency Too High

C0112 indicates that the anti-lock brake system (ABS) control module has detected an excessively high activation frequency, meaning the system is engaging far more often than expected during normal driving. The module monitors wheel speed sensor signals and compares them to vehicle speed, and when it sees repeated rapid activation cycles within a short time, it logs this code and typically disables ABS to prevent overheating or false engagement.

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 brake warning lights.
- ABS may activate unexpectedly during light braking or at low speeds, causing a pulsating brake pedal and grinding noise.
- The brake pedal may feel unusually firm or spongy, or pulse rapidly even when you are not braking hard.
- Loss of ABS function, meaning the wheels can lock during emergency braking, especially on slippery surfaces.
- In some vehicles, the transmission may enter limp mode or the speedometer may fluctuate if the module shares wheel speed data.
- Often no symptoms besides the warning light, with the ABS simply disabled until the fault is cleared.

Common causes, most likely first

- Contaminated or damaged wheel speed sensor tone ring (reluctor ring) causing erratic signal pulses.
- A failing wheel speed sensor that produces intermittent or noisy signals, especially at low speeds.
- Wiring damage or corrosion in the wheel speed sensor circuit, including chafed harnesses near suspension components.
- Excessive air gap between the wheel speed sensor and tone ring due to rust jacking or incorrect installation.
- A faulty ABS control module that misinterprets normal sensor signals as high-frequency activation.
- Low brake fluid level or a hydraulic issue that causes the ABS pump to cycle more frequently than normal.
- Mismatched tire sizes or severely uneven tire wear, which alters wheel speed relationships and triggers frequent ABS corrections.



How to diagnose and fix it

- 1 Scan all modules for ABS and related codes, and record freeze-frame data to see which wheel or condition triggered C0112.
- 2 Inspect each wheel speed sensor and tone ring for physical damage, rust, debris, or excessive air gap, cleaning or replacing as needed.
- 3 Perform a live data test of wheel speed sensors while driving at various speeds to compare signals and spot dropouts or erratic readings.
- 4 Check the wheel speed sensor wiring and connectors for corrosion, chafing, or loose pins, and repair any faults found.
- 5 Verify tire sizes and pressures are correct and consistent across the vehicle, and correct any mismatches.
- 6 Check brake fluid level and condition, and inspect for hydraulic leaks that could cause abnormal ABS pump cycling.
- 7 If all external components test good, follow the manufacturer's diagnostic flow for the ABS module, which may require module replacement or reprogramming.

What most technicians miss with C0112

- A common cause of C0112 is a rust-swollen tone ring that pushes the sensor out of its proper air gap, creating a weak signal that the module interprets as high-frequency activation.
- The code can be set by a failing wheel speed sensor that only acts up at very low speeds, so a test drive with live data at walking pace is often more revealing than a high-speed scan.
- Mismatched tire sizes or a space-saver spare fitted for too long can trigger this code because the ABS sees one wheel spinning faster than the others and activates repeatedly.
- Some ABS modules log C0112 when the brake pedal is pumped rapidly during a panic stop, so the code may be a stored history code rather than a current fault.
- A weak battery or charging system can cause the ABS module to misread sensor signals, so always check system voltage before condemning the module.

Can I keep driving with C0112?

You can usually drive the vehicle with C0112, but the ABS is likely disabled, so braking distances on slippery surfaces will increase and you should avoid hard braking or emergency maneuvers. Have the system diagnosed soon, especially if the brake warning light is also on, as that may indicate a hydraulic fault.

Tools that help

- OBD-II scan tool with ABS and live data capability
- Digital multimeter for circuit testing
- Feeler gauge for checking wheel speed sensor air gap
- Jack and jack stands or a lift for wheel inspection
- Brake fluid tester and basic hand tools



Reading C0112

- C** Chassis: brakes, steering and suspension.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 1** Brakes, steering and suspension.
- 12** 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 · **C0121** Valve Relay Circuit Malfunction · **P0500** Vehicle Speed Sensor Malfunction

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/c0112/>

