

GENERIC · CHASSIS

C0301

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0301

Air Suspension Compressor Relay

C0301 indicates that the air suspension control module has detected a fault in the electrical circuit for the compressor relay, which supplies power to the air suspension compressor. The module monitors the relay control circuit and the relay's output for expected voltage or current, and when the values fall outside the programmed range, it stores this code and typically disables the air suspension system.

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

Symptoms you may notice

- Illumination of the air suspension warning light on the dashboard
- The vehicle may sit lower than normal, especially at one or more corners
- The air compressor may not run at all, or may run continuously without building pressure
- A noticeable drop in ride quality due to the suspension resting on bump stops
- Often no symptoms besides the warning light, with the system otherwise functioning normally

Common causes, most likely first

- 1 Failed air suspension compressor relay, often due to burnt contacts or a faulty coil
- 2 Blown fuse or fusible link in the compressor relay power circuit
- 3 Corroded, loose, or damaged wiring or connectors at the relay, compressor, or control module
- 4 Open or shorted relay control circuit between the control module and the relay
- 5 Faulty air suspension control module, though this is less common
- 6 Water intrusion or contamination in the relay box or connector causing intermittent faults



How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related codes in the air suspension system
- 2 Inspect the compressor relay fuse and replace it if blown, then recheck for the code
- 3 Locate the compressor relay, swap it with an identical known-good relay from another circuit, and clear the code to see if it returns
- 4 Perform a visual inspection of the relay connector and wiring for corrosion, loose pins, or damage, and repair as needed
- 5 Use a digital multimeter to check for battery voltage at the relay power terminals and ground continuity at the relay ground terminal
- 6 Test the relay control circuit from the control module to the relay for opens or shorts, referring to the factory wiring diagram
- 7 If all circuits and the relay test good, suspect the air suspension control module and perform further diagnostics before replacement

Relay circuit faults often misdiagnosed

- A relay that clicks does not guarantee good contacts; the internal contacts can be burnt and fail under load while the coil still operates.
- Corrosion at the relay socket or compressor connector is a frequent cause, especially on vehicles driven in wet or salty conditions, and is often overlooked.
- The code can be set by a momentary voltage drop during compressor startup, so intermittent faults may not reappear during a quick test drive.
- Some systems use a solid-state relay integrated into the control module, so a relay replacement may not be possible and module testing is required.
- A weak battery or charging system fault can cause low voltage that triggers this code, so always check battery condition and connections first.

Can I keep driving with C0301?

Driving with C0301 is generally safe for short distances, but the air suspension may be disabled, leading to a harsh ride and potential tire rubbing. Avoid carrying heavy loads or driving at high speeds until the fault is repaired, as the vehicle may handle unpredictably.

Tools that help

- OBD-II scan tool with air suspension capability
- Digital multimeter
- Relay puller or small flathead screwdriver
- Factory wiring diagrams for the specific vehicle
- Test light or power probe



Reading C0301

- C** Chassis: brakes, steering and suspension.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 3** Brakes, steering and suspension.
- 01** The exact fault within that area.

Often seen with

C0300 ABS Control System Malfunction · **C0302** Outlet Valve Front Left Performance · **C0303** Inlet Valve Front Right Performance · **C0304** Outlet Valve Front Right Performance · **C0305** Inlet Valve Rear Left Performance

See it working

Watch the animated explainer [Car Relay Test Bench: Test 4-Pin and 5-Pin Relays](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/c0301/>

