

GENERIC · CHASSIS

C0302

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0302

Outlet Valve Front Left Performance

C0302 indicates that the antilock braking system (ABS) control module has detected a performance fault in the front left outlet valve circuit, meaning the valve is not responding as expected during an ABS event or self-test. The module monitors valve current and hydraulic pressure response, and when the outlet valve fails to open or close correctly, it stores this code and typically disables ABS on that wheel.

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

Symptoms you may notice

- ABS warning light illuminated on the dashboard
- Traction control or stability control warning light may also be on
- Often no symptoms besides the warning light during normal driving
- ABS may activate prematurely or not at all during hard braking
- Brake pedal may feel different or pulsate unexpectedly during low-speed stops
- A diagnostic trouble code is stored in the ABS module with no other obvious drivability issues

Common causes, most likely first

- 1 Faulty front left outlet valve solenoid inside the ABS hydraulic control unit
- 2 Damaged or corroded wiring harness or connector at the front left wheel speed sensor or ABS pump
- 3 Failed ABS control module internal driver circuit for the outlet valve
- 4 Contaminated brake fluid causing valve sticking or restricted movement
- 5 Poor electrical ground connection for the ABS module or hydraulic unit
- 6 Collapsed or restricted brake line near the front left wheel
- 7 Worn or damaged ABS pump motor or relay affecting valve performance



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm the code is current and not history
- 2 Inspect the front left wheel area for damaged wiring, corroded connectors, and proper sensor mounting
- 3 Check brake fluid level and condition; flush if contaminated or overdue
- 4 Perform an ABS active test with a capable scan tool to command the front left outlet valve and observe pressure changes
- 5 Measure resistance and voltage at the outlet valve solenoid circuit to compare with manufacturer specifications
- 6 Verify ground connections and power supply to the ABS module and hydraulic unit
- 7 If electrical checks pass, replace the ABS hydraulic control unit or module as required, then bleed the brakes and clear codes

What the outlet valve code really means

- A sticking outlet valve can cause a pull to one side during ABS stops, but many drivers never notice until the warning light appears.
- Low brake fluid or air in the hydraulic system can mimic a valve performance fault, so always bleed the system before condemning the ABS unit.
- Corrosion at the ABS pump connector is a common hidden cause, especially in regions with road salt, and often sets multiple valve codes at once.
- The code does not always mean the valve is mechanically failed; a weak battery or charging system fault can cause the module to log false performance codes.
- After replacing the ABS module or hydraulic unit, a scan tool is required to perform calibration and bleed procedures on many vehicles.

Can I keep driving with C0302?

You can usually continue driving with the warning light on, but the ABS may not function on the front left wheel, increasing stopping distance in an emergency. Avoid hard braking and slippery conditions until the fault is repaired, and have the system diagnosed promptly.

Tools that help

- OBD-II scan tool with ABS and active test capabilities
- Digital multimeter for circuit testing
- Brake pressure gauge and bleeder kit
- Vehicle-specific service information for valve resistance specifications
- Socket set and trim removal tools for accessing the ABS module and wheel area



Reading C0302

- 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.
- 02** 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 · **C0301** Air Suspension Compressor Relay · **C0303** Inlet Valve Front Right Performance · **C0304** Outlet Valve Front Right Performance

See it working

Watch the animated explainer [Four-Stroke Engine Cutaway: Intake to Exhaust](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/c0302/>

