

GENERIC · BODY

B0033

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

B0033

Right Side Deployment Stage 1 Loop Short to Ground

B0033 indicates that the right side deployment stage 1 loop has a short to ground, meaning the airbag control module detects an abnormally low resistance path to chassis ground in the circuit that fires the right-side airbag. The module monitors the loop's voltage and current and sets this code when the signal line is pulled below a threshold, which would prevent proper deployment or cause an unintended deployment.

SYSTEM

Body

CODE TYPE

Generic (all makes)

SEVERITY

High

FIX DIFFICULTY

Professional

AREA

Airbags, seats, doors, lights and comfort systems

Symptoms you may notice

- Airbag warning light illuminated on the instrument cluster
- Often no symptoms besides the warning light
- Right-side airbag may be disabled and will not deploy in a collision
- In rare cases, the airbag may deploy unexpectedly while driving
- Other airbag-related codes may be stored alongside B0033
- Passenger airbag status indicator may show a fault or remain off

Common causes, most likely first

- 1 Chafed or pinched wire in the right side airbag circuit contacting ground
- 2 Damaged clock spring or wiring harness connector at the right side airbag
- 3 Moisture or corrosion in a connector causing a short to ground
- 4 Faulty right side airbag module with an internal short to ground
- 5 Airbag control module internal failure causing a false short detection
- 6 Aftermarket accessories or previous repairs improperly routed wiring



How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related airbag codes before clearing
- 2 Inspect the right side airbag wiring harness for visible damage, chafing, or pinched sections
- 3 Disconnect the right side airbag connector and measure resistance from the signal wire to ground
- 4 Check the clock spring and all connectors in the circuit for corrosion or loose pins
- 5 Perform a wiggle test on the harness while monitoring live data to locate intermittent shorts
- 6 If the wiring is intact, substitute a known-good airbag module to rule out an internal short
- 7 Replace the faulty component (wiring, connector, airbag, or control module) and clear the code

What Most Techs Miss on B0033

- A short to ground in the airbag loop can be caused by a pinched wire under a seat or sill plate that only shorts when the vehicle flexes, so a static resistance check may pass.
- The airbag control module often sets B0033 when the loop resistance is below a specific threshold, but a weak ground connection at the module itself can mimic a short and lead to unnecessary airbag replacement.
- Aftermarket seat covers or audio equipment installed with screws through the floor can pierce the airbag harness and create a short that appears only after the accessory was added.
- B0033 does not always mean the airbag is defective; a shorted connector terminal or a damaged pigtail is more common than a failed airbag inflator.
- Clearing the code without repairing the short can leave the airbag disabled, and the light may stay off until the next key cycle or bump, giving a false sense of repair.

Can I keep driving with B0033?

Because a shorted airbag loop can disable the right-side airbag or cause an unexpected deployment, you should avoid driving until the fault is repaired. If you must move the vehicle, drive slowly and directly to a repair facility, and do not transport passengers in the right seat.

Tools that help

- OBD-II scan tool with airbag system capability
- Digital multimeter with resistance and continuity functions
- Wiring diagram for the right side airbag circuit
- Trim removal tools for accessing harness routing
- Insulation piercing probes or back-probe kit



Reading B0033

- B** Body: airbags, seats, doors, lights and comfort systems.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 0** Airbags, seats, doors, lights and comfort systems.
- 33** The exact fault within that area.

Often seen with

B0028 Driver Side Curtain Air Bag Deployment Control · **B0029** Right Side Curtain Air Bag Deployment Control
 · **B0032** Right Side Deployment Stage 1 Loop Open · **B0034** Right Side Deployment Stage 2 Control

See it working

Watch the animated explainer [How Airbags Work: A 50 km/h Crash in Slow Motion](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/b0033/>

