

GENERIC · BODY

B0016

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

B0016

Right Front/Passenger Frontal Deployment Loop Short to Ground

B0016 indicates that the airbag control module has detected a short to ground in the deployment loop for the right front passenger frontal airbag. This means the wiring that carries the firing current to the passenger airbag is touching ground, which could prevent the airbag from deploying in a crash or cause it to deploy unexpectedly.

SYSTEM

Body

CODE TYPE

Generic (all makes)

SEVERITY

High

FIX DIFFICULTY

Professional

AREA

Airbags, seats, doors, lights and comfort systems

Symptoms you may notice

- The airbag warning light on the instrument cluster is illuminated.
- Often no symptoms besides the warning light, with the vehicle driving normally.
- The passenger frontal airbag may be disabled automatically, and some vehicles show a passenger airbag off indicator.
- In rare cases, the airbag may deploy without a crash if the short is intermittent and mimics a firing signal.
- Other airbag-related warning messages may appear on the driver information center.

Common causes, most likely first

- 1 Damaged wiring harness in the passenger airbag circuit, often from chafing or pinching under the seat or behind the dashboard.
- 2 Corroded or loose connector at the passenger airbag module or at the airbag control module.
- 3 Internal short to ground inside the passenger frontal airbag inflator assembly.
- 4 Water intrusion or debris in the passenger airbag connector causing a ground path.
- 5 Aftermarket accessories or previous repairs that tapped into the airbag wiring incorrectly.
- 6 Faulty airbag control module with an internal short on the deployment driver circuit.



How to diagnose and fix it

- 1 Inspect the passenger airbag wiring harness for visible damage, chafing, or pinched areas, especially under the passenger seat and behind the glovebox.
- 2 Disconnect the battery and wait the recommended time, then check the passenger airbag connector for corrosion, loose pins, or water intrusion.
- 3 Use a digital multimeter to measure resistance from the deployment loop terminals to a known good ground; a reading below specification indicates a short.
- 4 Disconnect the passenger airbag module and recheck the circuit to isolate whether the short is in the wiring or the airbag itself.
- 5 If the wiring is intact, substitute a known-good passenger airbag module or use a simulator to see if the code clears.
- 6 Repair or replace the damaged section of the wiring harness, using proper crimps and heat shrink, and secure it away from moving parts.
- 7 Clear the diagnostic trouble codes and verify the airbag light goes out and stays out after a test drive.

What Most Techs Miss on B0016

- A short to ground in the deployment loop can be caused by a pinched wire under the passenger seat that only shorts when the seat is moved, so always wiggle the harness while watching live data.
- The airbag control module may set B0016 even if the short is intermittent, so a code that clears after clearing may still return under vibration or temperature changes.
- Never use a standard ohmmeter on an airbag circuit without first disconnecting the airbag module; the meter's battery can trigger deployment.
- Aftermarket seat covers or phone chargers plugged into the passenger seat can pinch the airbag wiring, leading to this code.
- A faulty passenger airbag disable switch or occupant detection system can sometimes cause the module to misinterpret the circuit as shorted, so check those related systems first.

Can I keep driving with B0016?

It is not safe to drive with B0016 because the passenger frontal airbag may not deploy in a crash or could deploy unexpectedly. Have the vehicle diagnosed and repaired by a qualified technician before driving, and avoid carrying a passenger in the front seat until fixed.



Tools that help

- Digital multimeter with low-ohm capability
- OBD-II scan tool with airbag system access
- Battery disconnect tool and memory saver
- Trim removal tools for accessing wiring
- Airbag simulator or load tool
- Wiring diagram for the specific vehicle

Reading B0016

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.
16	The exact fault within that area.

Often seen with

B0015 Passenger Knee Airbag Deployment Control · **B0017** Right Front/Passenger Frontal Deployment Loop Short to Batte · **B0018** Right Front/Passenger Frontal Deployment Loop Resistance Hig · **B0020** Passenger Frontal Stage 1 Deployment Control Circuit · **B0021** Left Side Deployment Stage 1 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/b0016/>

