



U0421

Invalid Data Received From Ride Level Control Module

U0421 means the vehicle's main network gateway or engine control computer received data from the ride level control module that it judged invalid or out of range. The ride level module is responsible for monitoring and adjusting suspension height, and when its messages are corrupt or missing, the receiving module sets this communication fault.

SYSTEM Network	CODE TYPE Generic (all makes)	SEVERITY Medium	FIX DIFFICULTY Intermediate	AREA Invalid data received from a module
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Symptoms you may notice

- Often no symptoms besides the warning light, especially if the fault is intermittent
- Ride height may be stuck at one level or the vehicle may sit unevenly
- Suspension warning or ride control light illuminated on the dashboard
- The ride level control module may not respond to height adjustment commands
- Other unrelated warning lights may appear if the network bus is disturbed

Common causes, most likely first

- 1 Corroded or damaged wiring or connectors at the ride level control module
- 2 Faulty ride height sensor or sensor wiring sending implausible data
- 3 Low battery voltage or poor grounds affecting module communication
- 4 Failed ride level control module
- 5 Network bus wiring fault (CAN or other protocol) between modules
- 6 Water intrusion into the ride level module or connector
- 7 Aftermarket accessories tapping into the network wiring

How to diagnose and fix it

- 1 Check battery voltage and condition, and load-test the charging system
- 2 Inspect the ride level control module connectors for corrosion, water, or loose pins
- 3 Scan all modules for related codes and check live data from the ride level module
- 4 Perform a voltage drop test on the module's power and ground circuits
- 5 Check network bus wiring for shorts, opens, or excessive resistance
- 6 Test ride height sensors and their wiring for plausible signals
- 7 If all external checks pass, replace and reprogram the ride level control module



Before you replace the ride level module

- A weak battery or failing alternator often causes invalid data codes on multiple modules, so always verify charging system health first.
- Corroded grounds near the suspension components are a common hidden cause that mimics a failed module.
- The code can be set by a faulty ride height sensor even though the sensor itself has no dedicated code, because its implausible signal corrupts the module's data.
- Aftermarket suspension modifications or wiring taps can introduce noise on the network bus and trigger U0421 without any hard failure.
- Intermittent U0421 that clears after a key cycle often points to a wiring harness chafe rather than a defective module.

Can I keep driving with U0421?

The vehicle is generally safe to drive if the suspension remains at a stable height, but avoid high-speed cornering or heavy loads until repaired. If the vehicle sits unevenly or the suspension is bottomed out, limit driving to low speeds and seek service promptly.

Tools that help

- OBD-II scan tool with live data and module communication capabilities
- Digital multimeter
- Wiring diagram for the ride level control circuit
- Battery load tester
- Trim removal tools for accessing module connectors

Reading U0421

U	Network: communication between the vehicle's control modules.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
4	Invalid data received from a module.
21	The exact fault within that area.

Often seen with

U0100 Lost Communication With ECM/PCM A · **U0122** Lost Communication With Vehicle Dynamics Control Module · **U0422** Invalid Data Received From Body Control Module



See it working

Watch the animated explainer [How a CVT Works: Belt and Pulley Transmission](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u0421/>

