

GENERIC · NETWORK

U0437

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U0437

Invalid Data Received From Differential Control Module - Rear

U0437 is a communication fault where the vehicle's main control modules receive invalid or missing data from the rear differential control module over the controller area network (CAN) bus. The computer has detected that the messages from the rear differential module are either absent, corrupted, or outside the expected range, so it cannot trust the information for functions like all-wheel-drive engagement or differential locking.

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

Symptoms you may notice

- Illumination of the malfunction indicator lamp (MIL) or a dedicated all-wheel-drive (AWD) warning light.
- The rear differential may fail to lock or engage, reducing traction in slippery conditions.
- A message on the driver information center stating 'AWD system disabled' or 'Service rear differential'.
- The vehicle may default to front-wheel drive only, with a noticeable loss of grip on loose surfaces.
- Often no symptoms besides the warning light, especially if the fault is intermittent.
- Possible hesitation or clunking from the rear axle during low-speed turns if the differential control is erratic.

Common causes, most likely first

- 1 A weak or failing 12-volt battery, causing low voltage that disrupts CAN bus communication.
- 2 Corroded, loose, or damaged wiring and connectors at the rear differential control module or along the harness.
- 3 A faulty rear differential control module, often due to internal electronics failure or water intrusion.
- 4 A software glitch or outdated calibration in the rear differential control module or other modules on the bus.
- 5 A shorted or open CAN bus line (CAN high or CAN low) between the rear differential module and the rest of the network.
- 6 A malfunctioning component within the rear differential (e.g., a failed actuator or sensor) that causes the module to send invalid data.
- 7 Poor ground connection for the rear differential control module, leading to unstable operation.



How to diagnose and fix it

- 1 Perform a battery and charging system test to rule out low voltage as the root cause.
- 2 Inspect and clean the rear differential control module connectors and harness for corrosion, chafing, or loose pins.
- 3 Use a scan tool to check for other communication codes (U-codes) and retrieve module-specific data to confirm the rear differential module is online.
- 4 Measure resistance and voltage on the CAN bus lines at the rear differential module to check for shorts or opens.
- 5 Check and clean the module's ground connection to the chassis.
- 6 If communication is restored but the code persists, reprogram or update the rear differential control module with the latest software.
- 7 If all else fails, replace the rear differential control module and perform any required calibration or relearn procedure.

What Most Techs Miss on U0437

- A weak battery is the most common cause of U0437 on vehicles that sit for long periods; always load-test the battery before condemning the module.
- The rear differential control module often shares a power feed with other rear-mounted components, so a blown fuse or relay can cause this code without any module fault.
- U0437 can be set by a faulty wheel speed sensor or steering angle sensor that feeds data to the differential module, so check those systems if the module itself tests good.
- Intermittent U0437 codes often result from water intrusion into the rear differential module connector, especially on vehicles driven through deep water or in salty conditions.
- Do not replace the rear differential control module until you have verified power, ground, and CAN bus integrity; many modules are replaced unnecessarily due to wiring issues.

Can I keep driving with U0437?

You can usually continue driving with U0437, but the all-wheel-drive or differential lock system may be disabled, reducing traction in poor conditions. Avoid aggressive driving on slippery surfaces and have the fault diagnosed soon to prevent further communication issues.

Tools that help

- OBD-II scan tool with CAN bus capability
- Digital multimeter
- Battery load tester
- Wiring diagram for the vehicle
- Socket set and trim removal tools



Reading U0437

- 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.
- 37** The exact fault within that area.

Often seen with

U0102 Lost Communication with Transfer Case Control Module · **U0122** Lost Communication With Vehicle Dynamics Control Module · **U0415** Invalid Data Received From Anti-Lock Brake System Control Mo · **U0436** Invalid Data Received From Differential Control Module - Fro · **U0438** Invalid Data Received from Park Brake Control Module

See it working

Watch the animated explainer [How ABS Works: Anti-Lock Brakes in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u0437/>

