

GENERIC · NETWORK

U0439

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U0439

Invalid Data Received From All Terrain Control Module

U0439 means the module that coordinates all-terrain driving systems, such as the All Terrain Control Module (ATCM), is sending data that other modules on the vehicle network consider invalid or out of range. The computer that set the code received a message from the ATCM that failed its internal plausibility or checksum validation, so it flagged the data as unusable rather than acting on it.

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

Symptoms you may notice

- Illumination of the malfunction indicator lamp (MIL) or a dedicated all-wheel-drive or terrain system warning light.
- The all-terrain or drive mode selector may default to a standard mode and refuse to change when the driver turns the dial.
- Traction control, stability control, or hill descent features may be disabled or behave erratically.
- A message on the driver information center stating that the all-terrain system is unavailable or needs service.
- Often no symptoms besides the warning light, with the vehicle driving normally in default mode.
- In some cases, the transmission may hold a gear or shift harshly because it is not receiving valid terrain data.

Common causes, most likely first

- 1 A failing All Terrain Control Module (ATCM) that is producing corrupted or out-of-range data frames.
- 2 Corroded, loose, or damaged wiring and connectors in the controller area network (CAN) bus circuit between the ATCM and other modules.
- 3 Low or unstable battery voltage causing the ATCM to reboot or transmit incomplete messages.
- 4 A software or calibration mismatch in the ATCM after a replacement or reprogramming event.
- 5 A faulty ground connection for the ATCM, leading to intermittent communication faults.
- 6 Another module on the same CAN bus flooding the network and disrupting ATCM messages, which the receiving module attributes to the ATCM.
- 7 Water intrusion into the ATCM connector or housing, common on vehicles that see off-road use.



How to diagnose and fix it

- 1 Connect a scan tool and record all stored, pending, and permanent codes in every module, then clear codes and test-drive to see whether U0439 returns immediately.
- 2 Inspect the ATCM connectors and harness for corrosion, pushed pins, chafing, or water intrusion, and repair any damaged terminals.
- 3 Measure battery voltage at rest and during cranking, and load-test the battery and charging system to rule out low-voltage communication faults.
- 4 Check the ATCM ground circuit for excessive resistance and clean or tighten the ground point as needed.
- 5 Perform a voltage drop test on the CAN bus wires at the ATCM while wiggling the harness to catch intermittent opens or shorts.
- 6 If wiring and power are good, follow the manufacturer's diagnostic flow for the ATCM, which may include a software update or reprogramming.
- 7 Replace the ATCM only after confirming that power, ground, and network integrity are correct, then perform any required calibration or learn procedure.

What the ATCM data fault really means

- U0439 is a communication data code, not a direct component failure code, so the ATCM itself may be healthy while a poor ground or low battery corrupts its messages.
- A weak battery or failing alternator often sets U0439 alongside other U-codes because the ATCM drops offline during cranking or voltage spikes.
- Technicians sometimes replace the ATCM only to find the same code returns, because the real fault was a corroded connector behind an inner fender or under a seat.
- Aftermarket accessories wired into the CAN bus, such as dash cams or trailer brake controllers, can disturb network traffic and trigger invalid data codes attributed to the ATCM.
- The code can be stored intermittently and may not reappear for weeks, so a single clear-and-drive test is not proof of repair; monitor pending codes over several drive cycles.

Can I keep driving with U0439?

The vehicle is generally safe to drive because the fault affects all-terrain features rather than brakes or steering, but avoid relying on off-road modes, hill descent, or advanced traction settings until the code is repaired. If the warning light is accompanied by stability control or transmission warnings, keep speeds moderate and schedule service promptly.



Tools that help

- OBD-II scan tool with manufacturer-level module access and live data capability
- Digital multimeter with voltage drop and resistance functions
- CAN bus breakout box or oscilloscope for network signal analysis
- Battery load tester and charging system tester
- Terminal pick and electrical contact cleaner for connector repair
- Factory service information for ATCM wiring diagrams and diagnostic flow charts

Reading U0439

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.
39	The exact fault within that area.

Often seen with

U0100 Lost Communication With ECM/PCM A · **U0126** Lost Communication With Steering Angle Sensor Module
 · **U0401** Invalid Data Received From ECM/PCM · **U0415** Invalid Data Received From Anti-Lock Brake System Control Mo · **U0422** Invalid Data Received From Body Control Module

See it working

Watch the animated explainer [How a Rotary Engine Works: Wankel in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u0439/>

