

GENERIC · NETWORK

U0416

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U0416

Invalid Data Received From Vehicle Dynamics Control Module

U0416 means the vehicle's main computers are receiving invalid or missing data from the Vehicle Dynamics Control Module, which is the system that manages stability control, traction control, and often anti-lock braking. The code is set when a control module that expects regular, valid messages from that module detects corrupted, absent, or out-of-range data on the controller area network bus.

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 stability control, traction control, and anti-lock brake warning lights
- The stability control system may be disabled, reducing traction in slippery conditions
- A warning message on the dashboard such as 'Service StabiliTrak' or 'VDC Off'
- Often no symptoms besides the warning light, with normal braking and driving behavior
- In some cases, the vehicle may enter a reduced-power limp mode or limit engine torque
- Intermittent warning light activation that comes and goes with bumps or temperature changes

Common causes, most likely first

- 1 Corroded, loose, or damaged wiring and connectors at the Vehicle Dynamics Control Module
- 2 A failing Vehicle Dynamics Control Module due to internal electronic faults or water intrusion
- 3 Controller area network bus wiring faults such as opens, shorts, or chafed harnesses
- 4 Low or unstable battery voltage causing modules to drop offline intermittently
- 5 A software or calibration issue in the Vehicle Dynamics Control Module or another module on the bus
- 6 Faulty wheel speed sensors or associated wiring that corrupt data sent by the Vehicle Dynamics Control Module
- 7 A malfunctioning gateway module or body control module that disrupts communication between networks



How to diagnose and fix it

- 1 Perform a full scan of all modules to record stored, pending, and history codes, then clear codes and test-drive to see if U0416 returns
- 2 Inspect and test the battery, charging system, and ground connections to rule out low voltage as the root cause
- 3 Visually inspect the Vehicle Dynamics Control Module connectors and harness for corrosion, water intrusion, or loose pins
- 4 Check controller area network bus wiring for continuity, shorts to ground, and shorts to voltage using a wiring diagram
- 5 Verify that the Vehicle Dynamics Control Module is powered and grounded correctly, and that it communicates on the bus with a scan tool
- 6 If communication is intermittent, perform a wiggle test on harnesses and connectors while monitoring live data for the Vehicle Dynamics Control Module
- 7 If all wiring and power checks pass, follow the manufacturer's diagnostic flow for module replacement or software reprogramming

What most technicians miss on U0416

- A weak or failing battery is a frequent hidden cause; modules can drop off the bus momentarily during cranking, setting U0416 without any hard fault in the module itself.
- Corrosion inside a connector that looks fine from the outside is common, especially at the Vehicle Dynamics Control Module where road splash and salt attack the pins.
- U0416 can be set by a faulty wheel speed sensor or its wiring because the Vehicle Dynamics Control Module uses those inputs to build the data it broadcasts; the sensor code may not always store.
- After replacing the Vehicle Dynamics Control Module, some vehicles require calibration or programming of the steering angle sensor and yaw rate sensor, or the code will return.
- A controller area network bus fault elsewhere, such as a chafed harness near a suspension component, can corrupt messages from the Vehicle Dynamics Control Module and trigger U0416 in multiple modules.

Can I keep driving with U0416?

The vehicle is generally safe to drive because the fault usually disables stability and traction control rather than affecting base braking, but you should avoid slippery conditions and aggressive maneuvers until it is repaired. If the warning light is accompanied by a limp mode or reduced power, drive only to a safe location and seek professional diagnosis.



Tools that help

- OBD-II scan tool with full system and live data capability
- Digital multimeter for voltage, resistance, and continuity checks
- Wiring diagram and connector pinout for the vehicle
- Test light or logic probe for quick circuit verification
- Battery load tester and charging system tester
- Terminal pick and contact cleaner for connector inspection

Reading U0416

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.
16	The exact fault within that area.

Often seen with

C0035 Left Front Wheel Speed Sensor Circuit Range/Performance · **C0050** Right Rear Wheel Speed Sensor Circuit Malfunction · **U0100** Lost Communication With ECM/PCM A · **U0121** Lost Communication With Anti-Lock Brake System (ABS) Control · **U0415** Invalid Data Received From Anti-Lock Brake System Control Mo

See it working

Watch the animated explainer [How a Jet Engine Works: Two-Spool Turbofan](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u0416/>

