

GENERIC · NETWORK

U013D

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U013D

Lost Communication With Vacuum Sensor A

U013D is a generic communication fault indicating that a control module on the vehicle's controller area network (CAN) bus has lost contact with the vacuum sensor designated as Sensor A. The module that monitors this sensor, often the engine control module or a dedicated body/chassis module, has stopped receiving valid data messages from the sensor for a calibrated period, so it sets this code and may substitute a default value.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Network	Generic (all makes)	Medium	Intermediate	Lost communication with a control module

Symptoms you may notice

- Illumination of the malfunction indicator lamp (MIL) or a message on the driver information center, often with no other noticeable change in vehicle behavior.
- Rough or erratic engine idle if the vacuum sensor is used for load calculation and the module substitutes a fixed default value.
- Poor fuel economy or altered shift quality when the powertrain control module loses vacuum-based load information.
- Intermittent operation of vacuum-controlled accessories such as brake assist, HVAC door actuators, or emissions purge functions.
- A stored code that returns immediately after clearing, or that appears only during damp weather or over rough roads.
- Other communication codes (U-codes) stored in multiple modules if the fault lies on the shared bus rather than at the sensor.

Common causes, most likely first

- 1 A failed vacuum sensor A, including internal electronics that no longer transmit on the bus.
- 2 Damaged, chafed, or corroded wiring in the sensor's power, ground, or CAN communication circuit.
- 3 A loose or contaminated connector at the sensor or at the module that receives its signal.
- 4 Low battery voltage or a weak charging system causing modules to drop off the bus intermittently.
- 5 A faulty module that hosts the sensor interface, or a software/calibration issue in that module.
- 6 A shorted or open CAN bus segment that isolates the sensor's network node.
- 7 Aftermarket accessories or poor previous repairs that disturbed the sensor circuit or bus wiring.



How to diagnose and fix it

- 1 Verify battery state of charge and charging system output, then clear the code and test-drive to confirm it returns.
- 2 Inspect the vacuum sensor A connector and the receiving module connector for corrosion, pushed pins, or loose terminals.
- 3 Perform a visual inspection of the sensor wiring harness for chafing, pinches, or heat damage along its routing.
- 4 Use a scan tool to check for other U-codes and to view live data from vacuum sensor A to see whether any signal is present.
- 5 Measure resistance and continuity on the sensor's power, ground, and communication wires against the manufacturer's wiring diagram.
- 6 If wiring and connectors are good, substitute a known-good sensor of the same part type and recheck communication.
- 7 If the sensor communicates on a bench test but not in the vehicle, diagnose the module or bus segment that hosts the sensor node.

What most technicians miss on U013D

- A U013D often sets because the sensor's ground circuit has high resistance rather than because the sensor itself has failed, so a voltage drop test on the ground side is more revealing than a simple continuity check.
- The code can be stored by a module that is not the engine controller, so always check every module for communication codes before assuming the powertrain control module is the one that lost the sensor.
- Intermittent U013D faults are frequently caused by water intrusion into a connector that looks dry from the outside, especially on sensors mounted low in the engine bay or near wheel wells.
- Replacing the vacuum sensor without first checking for a second U-code on the same bus often leads to a comeback, because a single failed node can pull down the entire network segment.
- Some vehicles use the vacuum sensor A signal for brake booster and emissions purge diagnostics, so a communication loss can trigger unrelated-looking performance complaints without any drivability symptom at first.

Can I keep driving with U013D?

The vehicle is generally safe to drive to a repair shop because the fault is a communication loss rather than a direct safety-system failure, but avoid towing heavy loads or relying on vacuum-assisted braking if the pedal feels unusually firm. Do not continue driving for long if the code is accompanied by rough running, because default values can affect emissions and fuel mixture.



Tools that help

- OBD-II scan tool with live data and module communication capability
- Digital multimeter with voltage drop and resistance functions
- Manufacturer-specific wiring diagram or service information
- Terminal pick and contact cleaner for connector inspection
- Known-good vacuum sensor of the same type for substitution testing

Reading U013D

- U** Network: communication between the vehicle's control modules.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 1** Lost communication with a control module.
- 3D** The exact fault within that area.

Often seen with

P0105 MAP/Barometric Pressure Circuit Malfunction · **P0106** MAP/Barometric Pressure Circuit Range/Performance · **U0100** Lost Communication With ECM/PCM A · **U0121** Lost Communication With Anti-Lock Brake System (ABS) Control · **U0140** Lost Communication With Instrument Panel Cluster

See it working

Watch the animated explainer [How a Helicopter Flies: Rotor and Tail in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u013d/>

