

GENERIC · NETWORK

U019D

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U019D

Lost Communication With Direct Ozone Reduction Catalyst Temperature Sensor

U019D means the engine control module (ECM) or another network controller has lost the controller area network (CAN) communication signal from the direct ozone reduction catalyst temperature sensor. The ECM monitors a dedicated serial data line or a CAN message from that sensor and sets this code when the expected signal is missing for a calibrated time, not when the sensor simply reads an implausible temperature.

SYSTEM

Network

CODE TYPE

Generic (all makes)

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Lost communication with a control module

Symptoms you may notice

- Illumination of the malfunction indicator lamp (MIL) with no noticeable change in engine performance
- Often no symptoms besides the warning light, because the ozone reduction system does not affect driveability
- A stored U019D code alongside other communication or emissions-related codes in multiple modules
- Possible failure of an emissions readiness monitor or state inspection because the catalyst monitor cannot complete
- In rare cases, a message on the driver information center about a service emissions system or reduced remote start availability

Common causes, most likely first

- 1 Open, chafed, or corroded wiring in the dedicated sensor circuit between the sensor and the ECM or network gateway
- 2 Failed direct ozone reduction catalyst temperature sensor, including internal electronics that no longer transmit on the bus
- 3 Loose or damaged connector pins at the sensor or at the ECM, often from vibration or heat cycling
- 4 Blown fuse or missing power/ground feed to the sensor, preventing it from powering up and communicating
- 5 CAN bus fault elsewhere in the network that disrupts messages from the sensor's node
- 6 Failed ECM or gateway module that cannot receive or process the sensor message
- 7 Aftermarket electronic accessory wired into the same bus or power circuit, causing interference or a short



How to diagnose and fix it

- 1 Connect a scan tool and record all stored, pending, and permanent codes in every module before clearing anything
- 2 Inspect the sensor connector and the ECM connector for corrosion, pushed pins, or water intrusion, and check the sensor fuse and ground
- 3 Measure resistance and continuity on the sensor communication line and power/ground circuits against the factory wiring diagram
- 4 Perform a wiggle test on the harness while watching live sensor data or bus communication status to expose an intermittent fault
- 5 If wiring and power are good, substitute a known-good sensor or use a lab scope to confirm the sensor is actually transmitting
- 6 Check for other modules with communication codes and scope the CAN bus to rule out a network-wide fault before condemning the ECM
- 7 After repair, clear codes, complete the appropriate drive cycle, and verify the ozone reduction catalyst monitor runs and the code does not return

What the ozone sensor code really means

- This code is a communication loss, not a temperature performance fault, so replacing the sensor before checking power, ground, and bus wiring is the most common misdiagnosis.
- The direct ozone reduction catalyst temperature sensor is fitted to a relatively small number of vehicles, so many generic scan tools cannot display live data for it and technicians mistake missing data for a bad sensor.
- A single unpowered sensor can pull down or disrupt the entire bus on some network layouts, producing unrelated communication codes in other modules that disappear once the sensor circuit is repaired.
- Heat and vibration at the sensor mounting point often crack the internal circuit board or wear the pigtail, so the sensor can pass a resistance check cold and still drop off the bus when hot.
- The ECM may set U019D only after a long continuous missing-message timer, so a brief intermittent fault can take several drive cycles to mature into a hard code.

Can I keep driving with U019D?

The vehicle remains safe to drive because this fault affects only an emissions monitoring circuit and not engine control, but the check engine light will stay on and an emissions inspection will fail until it is repaired. Avoid clearing the code repeatedly and schedule diagnosis soon so the fault does not mask a developing network problem.



Tools that help

- OBD-II scan tool with module-level code reading and live data
- Digital multimeter with back-probe pins
- Automotive lab scope for CAN bus and sensor signal testing
- Factory or equivalent wiring diagram for the sensor circuit
- Trim removal tools and contact cleaner for connector inspection

Reading U019D

- 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.
- 9D** The exact fault within that area.

Often seen with

P0420 Catalyst System Efficiency Below Threshold (Bank 1) · **U0100** Lost Communication With ECM/PCM A · **U0140** Lost Communication With Instrument Panel Cluster · **U019C** Lost Communication With Glow Plug Control Module 2 · **U019E** Lost Communication With Transmission Range Control Module

See it working

Watch the animated explainer [How Misfire Detection Works: Crankshaft Speed](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u019d/>

