



U061D

Lost Communication With Reductant Temperature Sensor B

U061D is a network communication fault indicating that a control module on the vehicle's controller area network (CAN) bus has lost contact with the reductant temperature sensor B, which is part of the diesel exhaust fluid (DEF) system. The module that monitors this sensor, typically the engine control module or a dedicated reductant control module, has stopped receiving valid temperature data over the communication bus, so it cannot confirm that the DEF is at a safe temperature for proper dosing and regeneration.

SYSTEM Network	CODE TYPE Generic (all makes)	SEVERITY Medium	FIX DIFFICULTY Intermediate	AREA Network communication
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Symptoms you may notice

- Illumination of the malfunction indicator lamp (MIL) with no other obvious driving complaints.
- A message on the dash warning that the DEF system is unavailable or that the vehicle will enter limp mode after a countdown.
- Reduced engine power or a speed limiter engaging after a certain number of key cycles.
- Inconsistent or missing DEF level and temperature readings on the driver information display.
- Rough running or poor fuel economy if the reductant system stops dosing correctly.
- Often no symptoms besides the warning light, especially on vehicles that have not yet reached the derate threshold.

Common causes, most likely first

- 1 A faulty reductant temperature sensor B or its internal thermistor failing open or shorted.
- 2 Damaged, chafed, or corroded wiring between the sensor and the reductant control module, including connector pins backing out.
- 3 Water or DEF intrusion into the sensor connector or module harness causing intermittent communication.
- 4 A failed reductant control module or engine control module that is not transmitting or receiving CAN messages correctly.
- 5 Low battery voltage or a poor ground connection that disrupts module communication on the CAN bus.
- 6 Aftermarket electronic accessories or a recent radio or alarm installation disturbing the CAN wiring.
- 7 A software calibration issue in the reductant control module that requires a flash update.



How to diagnose and fix it

- 1 Connect a scan tool and read all modules for communication codes, then record freeze-frame data for U061D and any companion codes.
- 2 Inspect the reductant temperature sensor B connector and the module connector for corrosion, water intrusion, or loose pins, and clean or repair as needed.
- 3 Measure the sensor's resistance with a multimeter at known temperatures and compare to the manufacturer's specification to confirm the sensor is in range.
- 4 Check the CAN bus wiring between the sensor circuit and the control module for continuity, shorts to ground, and shorts to voltage, repairing any damaged harness sections.
- 5 Verify battery voltage and ground integrity at the reductant control module and the engine control module, as low voltage can mimic communication faults.
- 6 If wiring and sensor test good, substitute a known-good reductant temperature sensor B or perform a module swap with a programmed unit to isolate the fault.
- 7 After repairs, clear codes, perform the manufacturer's reductant system adaptation or relearn procedure, and road-test to confirm U061D does not return.

What most technicians miss on U061D

- A loose or corroded ground strap on the frame or engine block can cause U061D to set intermittently because the reductant module loses its reference voltage and drops off the CAN bus.
- The code does not always mean the sensor itself has failed; a failed reductant control module or a chafed harness near the DEF tank is just as common and often cheaper to fix than a module.
- Aftermarket remote starters, alarms, or dash cameras tapped into the CAN wiring can introduce noise that corrupts messages and triggers U061D without any hard sensor fault.
- Some vehicles require a reductant system reset or adaptation after replacing the sensor or module, and skipping that step will cause the code to reset immediately even with good parts.
- U061D can be stored alongside U029D or U02A1 when multiple reductant sensors share a common power or ground circuit, so always check for companion codes before condemning a single sensor.

Can I keep driving with U061D?

You can usually drive the vehicle short distances to a repair shop, but avoid long trips or heavy loads because the engine may derate or enter limp mode once the fault counter reaches its threshold. Do not ignore the warning light, as continued driving with a failed reductant temperature sensor can lead to DEF dosing errors and eventual no-start conditions.



Tools that help

- OBD-II scan tool with CAN bus and module communication capability
- Digital multimeter with resistance and voltage measurement
- Wiring diagram and connector pinout for the reductant system
- Socket set and trim removal tools for accessing the sensor and module
- Manufacturer-specific diagnostic software for module relearn and adaptation

Reading U061D

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

Often seen with

P20B9 Reductant Heater A Control Circuit/Open · **P20BA** Reductant Heater A Control Performance · **U0100** Lost Communication With ECM/PCM A · **U029D** Lost Communication With NOx Sensor A · **U02A1** Lost Communication With NOx Sensor C

See it working

Watch the animated explainer [Car Relay Test Bench: Test 4-Pin and 5-Pin Relays](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u061d/>

