

GENERIC · NETWORK

U01B5

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U01B5

Lost Communication With Catalyst Heater Control Module

U01B5 is a generic network communication code indicating that a control module on the vehicle's data bus has lost contact with the catalyst heater control module. The powertrain control module (PCM) or another supervising module sets this code when it stops receiving the periodic status messages that the catalyst heater control module is programmed to broadcast.

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

- Illumination of the malfunction indicator lamp (MIL) on the dashboard, often with no other noticeable symptoms
- A stored U01B5 code in one or more modules, sometimes accompanied by other U-codes for the same module
- Extended crank time or a no-start condition if the catalyst heater control module shares a power or ground circuit with the fuel pump relay
- A catalyst monitor that will not run or shows 'not ready' on a scan tool inspection report
- Possible reduced engine performance or forced limp-home mode if the PCM substitutes default values for catalyst temperature
- In cold climates, slower catalyst light-off and higher cold-start emissions because the heater element is not being commanded

Common causes, most likely first

- 1 A blown fuse or faulty relay in the catalyst heater control module's power supply circuit
- 2 Corroded, pushed-back, or damaged terminals at the catalyst heater control module connector
- 3 An open or shorted wire in the controller area network (CAN) bus pair between the catalyst heater control module and the module that sets the code
- 4 A failed catalyst heater control module, often due to internal water intrusion or heat damage
- 5 A weak or failing battery or charging system that drops network voltage below the threshold during cranking
- 6 A poor ground connection at the catalyst heater control module mounting point or chassis ground stud
- 7 Another module on the same bus segment holding the bus low and disrupting communication for all nodes



How to diagnose and fix it

- 1 Connect a scan tool and record all stored codes in every module, then verify that U01B5 is current and not history
- 2 Check the fuse and relay that feed the catalyst heater control module, and confirm battery voltage and ground quality at the module connector
- 3 Inspect the module connector pins for corrosion, fretting, or pushed-back terminals, and perform a wiggle test while watching live network data
- 4 Measure CAN bus resistance between the two data lines with the battery disconnected; a reading near 60 ohms confirms the terminating resistors are intact
- 5 Scope the CAN high and CAN low signals at the catalyst heater control module to look for distortion, dropouts, or a shorted segment
- 6 If power, ground, and bus signals are good at the module, substitute a known-good catalyst heater control module and recheck communication
- 7 After repair, clear all codes, perform a road test that includes a cold start, and confirm the catalyst monitor runs to completion

What the catalyst heater module really does

- The catalyst heater control module is often a stand-alone unit mounted near the underbody catalyst, where road splash and heat cycling cause connector corrosion that looks like a failed module but is really a terminal repair.
- A U01B5 can be set by a completely different module on the same bus segment that is shorting the CAN lines, so always check for other U-codes before condemning the catalyst heater module.
- Many vehicles will run and drive normally with this code because the PCM can estimate catalyst temperature from exhaust gas temperature models, so the absence of driveability symptoms does not mean the fault is unimportant.
- A weak battery that drops below about 10 volts during cranking can set communication codes across several modules, including U01B5, and the code may never return after the battery is replaced.
- Aftermarket remote starters and alarm systems tapped into the CAN bus are a frequent cause of intermittent communication loss that sets U01B5 only under certain key-on sequences.

Can I keep driving with U01B5?

The vehicle is generally safe to drive with U01B5 because the fault affects emissions control rather than braking or steering, but avoid long periods of idling from cold and do not ignore the code if your state requires an emissions inspection. If the engine cranks slowly or other modules also report communication faults, have the charging system checked before driving further.



Tools that help

- OBD-II scan tool with module-level code reading and live data
- Digital multimeter with min/max recording
- Automotive oscilloscope for CAN bus signal analysis
- Wiring diagram for the catalyst heater control module circuit
- Terminal pick and contact cleaner for connector repair
- Battery load tester and charging system tester

Reading U01B5

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.
B5	The exact fault within that area.

Often seen with

P0420 Catalyst System Efficiency Below Threshold (Bank 1) · **U0100** Lost Communication With ECM/PCM A · **U0121** Lost Communication With Anti-Lock Brake System (ABS) Control · **U0140** Lost Communication With Instrument Panel Cluster · **U01B6** Lost Communication With Fuel Heater Control Module

See it working

Watch the animated explainer [How Airbags Work: A 50 km/h Crash in Slow Motion](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u01b5/>

