

GENERIC · NETWORK

U0629

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U0629

Lost Communication With A/C Refrigerant Temperature Sensor B

U0629 is a generic network communication code indicating that a control module on the vehicle's Controller Area Network (CAN) bus has lost contact with the A/C refrigerant temperature sensor B circuit, typically monitored by the climate control module or a dedicated sensor interface. The computer has detected that expected temperature data from this sensor is no longer arriving within the required time frame, which can disable or degrade automatic climate control functions.

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

Symptoms you may notice

- The air conditioning may blow warm or fail to regulate cabin temperature automatically.
- The climate control panel may show a flashing or steady warning light, or display a communication error message.
- Automatic climate control modes may default to a fixed setting or stop responding to temperature adjustments.
- The A/C compressor may be inhibited from engaging as a protective measure.
- Often no symptoms besides the warning light, especially if the system reverts to a default strategy.
- In some vehicles, unrelated modules may log communication codes if the fault disrupts the bus.

Common causes, most likely first

- A faulty A/C refrigerant temperature sensor B itself, internally shorted or open.
- Damaged, chafed, or corroded wiring between the sensor and the control module.
- Loose or corroded connector pins at the sensor or at the module harness.
- A failed climate control module or sensor interface that cannot process the sensor signal.
- CAN bus communication faults, such as a shorted or open data line, affecting multiple modules.
- Low system voltage or a weak battery causing intermittent module dropouts.
- Aftermarket accessories or improper prior repairs introducing electrical interference.



How to diagnose and fix it

- 1 Perform a full scan of all modules to confirm U0629 is current and check for related communication codes.
- 2 Inspect the sensor connector and wiring for corrosion, loose pins, or physical damage, and repair as needed.
- 3 Measure reference voltage and ground at the sensor connector to verify the circuit is intact.
- 4 Test the sensor's resistance or voltage output against the manufacturer's specification and replace if out of range.
- 5 Check the CAN bus data lines for shorts or opens using a multimeter or oscilloscope, and repair wiring faults.
- 6 Verify battery and charging system health to rule out low-voltage-induced communication errors.
- 7 If all external circuits test good, substitute a known-good module or perform module reprogramming per service information.

When the sensor is not the real culprit

- A chafed harness behind the dashboard or near the A/C evaporator case often causes this code, and the sensor itself tests perfectly fine.
Water intrusion into a connector near the evaporator drain can corrode pins and interrupt the signal without any visible damage to the sensor.
- The code can set intermittently from a weak battery or poor ground, so always check voltage and grounds before condemning parts.
- Some vehicles use a shared reference voltage for multiple sensors, so a short in an unrelated sensor can pull down the A/C temperature signal and set U0629.
Replacing the sensor without clearing and rechecking the code can leave the module in a locked-out state that requires a relearn or battery reset.

Can I keep driving with U0629?

You can usually drive the vehicle safely, but the air conditioning may not function correctly and automatic climate control could be disabled. Avoid long trips in hot weather if cabin cooling is important, and have the fault diagnosed soon to prevent further module communication issues.

Tools that help

- OBD-II scan tool with module-level communication capability
- Digital multimeter
- Oscilloscope for CAN bus signal analysis
- Wire repair kit with crimpers and heat shrink
- Manufacturer service information for wiring diagrams and sensor specifications



Reading U0629

- 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.
- 29** The exact fault within that area.

Often seen with

U0100 Lost Communication With ECM/PCM A · **U0140** Lost Communication With Instrument Panel Cluster · **U0628** Lost Communication With A/C Refrigerant Pressure Sensor B · **U0630** Lost Communication With Engine Coolant Temperature Sensor 4

See it working

Watch the animated explainer [Inline-Four Engine X-Ray: Firing Order 1-3-4-2](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u0629/>

