

GENERIC · NETWORK

U020A

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U020A

Lost Communication With Moveable Roof Control Module B

U020A is a network communication fault indicating that the module responsible for a moveable roof system, designated as Control Module B, has stopped reporting on the vehicle's Controller Area Network (CAN) bus. The computer that stores this code has detected a loss of the periodic heartbeat message from that specific roof control module, meaning it can no longer confirm the module is powered and functioning.

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

Symptoms you may notice

- The moveable roof may fail to open, close, or stop mid-travel without warning.
- A warning light or message on the dashboard indicating a roof system fault or network error.
- The roof control switch may feel unresponsive, with no motor sound or relay click when pressed.
- Other unrelated electrical features may act erratically if the module shares a power or ground circuit.
- Often no symptoms besides the warning light, especially if the roof was not recently used.
- In some vehicles, the roof may default to a locked or vented position for safety.

Common causes, most likely first

- A blown fuse or corroded fuse box connection supplying power to the moveable roof control module B.
- Damaged, chafed, or disconnected wiring in the harness that runs to the roof module, often near hinges or moving panels.
- Water intrusion into the roof control module connector or housing, causing corrosion and signal loss.
- A failed moveable roof control module B itself, due to internal electronic fault or water damage.
- Poor ground connection for the roof module, leading to intermittent or total communication loss.
- A fault on the CAN bus wiring, such as a short to ground or voltage, that disrupts messages from this module.
- Low battery voltage or a weak charging system that causes modules to drop offline intermittently.



How to diagnose and fix it

- 1 Verify battery voltage and charging system output, as low voltage is a common cause of spurious communication codes.
- 2 Check all fuses related to the moveable roof system and inspect the fuse box for corrosion or loose terminals.
- 3 Locate the moveable roof control module B and inspect its electrical connector for water intrusion, corrosion, or loose pins.
- 4 Perform a wiggle test on the wiring harness near the roof hinges and module while watching live network data for intermittent communication.
- 5 Use a scan tool to check for communication with the roof module directly; if it does not respond, test power and ground at the module connector.
- 6 If power and ground are good, check the CAN bus wiring for continuity and shorts using a multimeter or oscilloscope.
- 7 If all external circuits test good, substitute a known-good module of the same part number to confirm internal failure before replacement.

Roof module faults that mimic network codes

- A moveable roof control module B that loses communication often does so because of water damage from clogged sunroof drains or roof seals, which technicians frequently overlook when chasing electrical faults.
- The code can set intermittently if the module's power feed is shared with a circuit that draws high current, such as a rear defroster, causing voltage drops that reset the module.
- Some vehicles require recalibration or initialization of the roof module after battery replacement or module swap, and skipping this step can leave the roof inoperative even with good communication.
- A failed roof module may still communicate on the bus but report implausible position data, so U020A can appear alongside other codes that point to the roof system rather than the network.
- Aftermarket accessories wired into the roof circuit, such as dash cams or alarm systems, can backfeed voltage and disrupt CAN communication, setting this code without any factory component failure.

Can I keep driving with U020A?

You can generally drive the vehicle with this code, but avoid operating the moveable roof until the fault is repaired, as a malfunctioning roof could open unexpectedly or fail to latch securely. If the roof is stuck open or ajar, do not drive at highway speeds or in rain, and have the system inspected promptly.



Tools that help

- OBD-II scan tool with live network data capability
- Digital multimeter
- Test light
- Wiring diagram for the specific vehicle
- Trim removal tools for accessing the roof module
- Oscilloscope (optional for advanced CAN bus diagnostics)

Reading U020A

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

Often seen with

U0140 Lost Communication With Instrument Panel Cluster · **U0208** Lost Communication With 'Seat Control Module A' · **U0209** Lost Communication With 'Seat Control Module B' · **U0210** Lost Communication With 'Seat Control Module C' · **U3003** Battery Voltage

See it working

Watch the animated explainer [How a Starter Motor Works: Pre-Engaged Starter](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u020a/>

