

GENERIC · NETWORK

U040A

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U040A

Invalid Data Received From Air Conditioning Control Module

U040A is a communication fault that sets when a control module on the vehicle's network receives data from the air conditioning control module that fails its internal validity check, such as a missing checksum, out-of-range value, or corrupted message. The receiving module knows the air conditioning module is present and transmitting, but the content of the data cannot be trusted, so it flags the invalid data condition rather than a total loss of communication.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Network	Generic (all makes)	Low	Intermediate	Invalid data received from a module

Symptoms you may notice

- Illumination of the malfunction indicator lamp (MIL) or a message on the driver information display
- Often no symptoms besides the warning light, with the air conditioning continuing to blow cold
- Air conditioning that defaults to a fixed temperature, blower speed, or recirculation mode
- Intermittent or complete loss of air conditioning function, especially after a cold start
- Climate control panel buttons or display that respond slowly or not at all
- Other unrelated warning lights if the fault corrupts the shared communication bus

Common causes, most likely first

- 1 Corroded, loose, or damaged pins and terminals in the air conditioning control module connector
- 2 Chafed, pinched, or water-intruded wiring in the controller area network (CAN) or local interconnect network (LIN) harness to the air conditioning module
- 3 A failing air conditioning control module that transmits corrupted or out-of-range data frames
- 4 Low or unstable battery voltage causing the air conditioning module to boot incorrectly and send invalid data
- 5 A software or calibration mismatch in the air conditioning module after a replacement or reprogramming event
- 6 A shorted or open LIN bus segment between the climate panel and the air conditioning module
- 7 Poor ground connection shared by the air conditioning module and the module reporting the fault



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, record freeze-frame data, and clear codes to see whether U040A returns immediately
- 2 Perform a visual inspection of the air conditioning control module connector and harness for corrosion, water intrusion, and backed-out terminals
- 3 Measure battery voltage and charging system output to rule out low-voltage corruption of module data
- 4 Check the CAN or LIN bus integrity with a digital multimeter or oscilloscope, looking for correct bias voltage and clean signal transitions
- 5 Verify the air conditioning module part number and software calibration match the vehicle build, and reprogram if a mismatch is found
- 6 Substitute a known-good air conditioning control module or perform a module swap test to confirm the source of invalid data
- 7 Repair or replace the faulty wiring, connector, or module, then clear codes and verify U040A does not return after a complete drive cycle

Why the AC module talks but is not understood

- U040A is not a loss-of-communication code; the air conditioning module is alive and transmitting, which is why technicians who only check for power and ground at the module miss the real fault.
- A weak or failing battery is a frequent hidden cause because the air conditioning module can boot into an invalid state and broadcast corrupted frames without ever setting an undervoltage code.
- Aftermarket remote starters, alarm systems, and dashcams spliced into the CAN or LIN bus commonly corrupt air conditioning module data and set U040A with no fault in the module itself.
- The code can be stored by a module other than the air conditioning module, so the module reporting U040A is not always the module that needs repair.
- Replacing the air conditioning control module without checking the connector for water intrusion often leads to a repeat failure within weeks on vehicles with cowl or evaporator drain leaks.

Can I keep driving with U040A?

The vehicle remains safe to drive because U040A affects comfort systems rather than steering, braking, or powertrain control, but avoid extended driving with the air conditioning on maximum if the blower or compressor behavior becomes erratic. Address the fault promptly to prevent a corrupted bus from affecting other modules.



Tools that help

- OBD-II scan tool with bidirectional module communication capability
- Digital multimeter with min/max recording
- Oscilloscope for CAN or LIN bus signal analysis
- Wiring diagram and connector pinout for the air conditioning control module
- Terminal pick and contact cleaner for connector repair
- Battery load tester and charging system analyzer

Reading U040A

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

Often seen with

U0140 Lost Communication With Instrument Panel Cluster · **U0401** Invalid Data Received From ECM/PCM · **U0402** Invalid Data Received From Transmission Control Module · **U0403** Invalid Data Received From Transfer Case Control Module · **U0423** Invalid Data Received From Instrument Panel Control Module

See it working

Watch the animated explainer [How a Padlock Works: Pin Tumbler Lock in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u040a/>

