

GENERIC · NETWORK

U040B

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U040B

Invalid Data Received From Exhaust Gas Recirculation Control Module A

U040B is a communication fault where the engine control module (ECM) or another primary controller receives invalid or corrupted data from the exhaust gas recirculation (EGR) control module over the vehicle's controller area network (CAN) bus. The computer detects that the EGR module's messages are missing expected values, out of range, or fail a checksum, so it flags the data as invalid rather than simply absent.

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

Symptoms you may notice

- Illumination of the check engine light or service engine soon light, often with no other noticeable symptoms.
- Rough idle or stumbling when the EGR valve should be opening or closing.
- Intermittent hesitation or surge during light-throttle cruising.
- A stored U040B code accompanied by other communication or EGR-related codes.
- Reduced fuel economy or slightly elevated emissions if the EGR system is disabled by the fault.
- In rare cases, the engine may enter limp mode or limit power if the invalid data affects torque calculations.

Common causes, most likely first

- 1 Corroded, loose, or damaged wiring and connectors at the EGR control module or its CAN bus splice points.
- 2 A failing EGR control module that intermittently drops off the network or sends corrupted data frames.
- 3 Low battery voltage or a weak charging system causing the EGR module to reset or transmit invalid data.
- 4 A shorted or open CAN bus wire between the EGR module and the ECM, often due to chafing or rodent damage.
- 5 Software or calibration issues in the EGR module or ECM that cause message interpretation errors.
- 6 A faulty ground connection for the EGR control module, leading to unstable communication.
- 7 Aftermarket electrical accessories or poor installations that introduce noise onto the CAN bus.



How to diagnose and fix it

- 1 Connect a scan tool and record all stored, pending, and permanent codes, then check for related communication codes in other modules.
- 2 Inspect the EGR control module connectors and wiring for corrosion, loose pins, chafing, or rodent damage, and repair as needed.
- 3 Test the battery and charging system to confirm stable voltage above 12.4 volts at rest and 13.5–14.5 volts while running.
- 4 Measure CAN bus resistance and voltage at the EGR module connector to verify the bus is intact and not shorted.
- 5 Check and clean the EGR control module ground connection, ensuring less than 0.1 volt drop under load.
- 6 If wiring and power are good, substitute a known-good EGR control module or perform a software update if available.
- 7 Clear codes and perform a road test with the scan tool recording live data to confirm the invalid data fault does not return.

When the EGR module talks nonsense

- U040B is often set by a low or failing battery because the EGR module may boot up slowly and transmit invalid data frames during voltage dips.
- A dirty or failing EGR valve can cause the EGR control module to send out-of-range data, which the ECM interprets as invalid rather than as a separate EGR flow code.
- Technicians sometimes replace the EGR module only to find a corroded CAN bus splice inside the harness, so always inspect the network wiring before condemning the module.
- This code can be stored alongside U0100 or U0401, and those codes may point to a broader communication issue rather than a fault isolated to the EGR module.
- Some vehicles require a relearn or initialization procedure after EGR module replacement, and skipping it can cause U040B to reset immediately.

Can I keep driving with U040B?

The vehicle is generally safe to drive with U040B because the ECM defaults to a conservative EGR strategy, but avoid long trips or heavy loads until the fault is repaired. If the engine runs rough, stalls, or enters limp mode, stop driving and have the vehicle towed to a repair shop.



Tools that help

- OBD-II scan tool with live data and CAN bus monitoring capability
- Digital multimeter with voltage and resistance measurement
- Wiring diagram and connector pinout for the EGR control module circuit
- Battery load tester and charging system tester
- Terminal pick and electrical contact cleaner
- Oscilloscope for CAN bus signal analysis (optional but helpful)

Reading U040B

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.
0B	The exact fault within that area.

Often seen with

P0400 Exhaust Gas Recirculation Flow Malfunction · **P0401** EGR Flow Insufficient Detected · **P0403** EGR Circuit Malfunction · **U0100** Lost Communication With ECM/PCM A · **U0401** Invalid Data Received From ECM/PCM

See it working

Watch the animated explainer [How a Wideband Air-Fuel Sensor Works](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u040b/>

