



U055D

Invalid Data Received From Special Purpose Vehicle Control Module D

U055D means a control module on the vehicle's controller area network (CAN) received data from the Special Purpose Vehicle Control Module D that it judged invalid or out of range for the current operating conditions. The receiving module sets this code when the message content fails its internal plausibility or checksum validation, not when the module is simply offline.

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

Symptoms you may notice

- Illumination of the malfunction indicator lamp (MIL) or a message on the driver information center
- Often no symptoms besides the warning light, with the vehicle driving normally
- Intermittent operation of a special-purpose system such as a power take-off, auxiliary hydraulic controller, or body-mounted equipment module
- Reduced or disabled function of the affected auxiliary system while the rest of the vehicle operates normally
- Multiple unrelated warning lights if the invalid data disrupts shared CAN messaging
- A stored code that returns immediately after clearing even though the module powers up and communicates

Common causes, most likely first

- 1 Faulty Special Purpose Vehicle Control Module D internal processing or software calibration error
- 2 Corroded, pushed-back, or damaged terminals in the module's CAN connector causing corrupted message content
- 3 CAN bus wiring damage such as chafed twisted pair, water intrusion, or a poor splice that distorts signal integrity
- 4 Low or unstable system voltage to the module, often from a weak battery or poor ground, causing it to transmit malformed data
- 5 Aftermarket accessories or unapproved modules on the bus transmitting conflicting or non-conforming messages
- 6 Failed software update or incorrect configuration in the special purpose module after a repair or replacement
- 7 A different module on the network transmitting invalid data that the special purpose module repeats or that corrupts arbitration



How to diagnose and fix it

- 1 Record all stored codes and freeze-frame data from every module before clearing anything, then verify U055D returns
- 2 Inspect the Special Purpose Vehicle Control Module D connector for corrosion, bent pins, and loose terminal tension, and check its ground and power feeds under load
- 3 Perform a voltage drop test on the module's power and ground circuits and verify battery and charging system health
- 4 Scope or resistance-test the CAN bus wiring at the module connector to rule out shorts, opens, and excessive resistance
- 5 Check for aftermarket devices wired to the CAN bus and temporarily disconnect them to see if the code stops setting
- 6 Verify the module has the correct software calibration and configuration, and reprogram or reconfigure it if a mismatch is found
- 7 If wiring and power are proven good, substitute a known-good module of the same part number and configuration to confirm the fault follows the module

When the module talks but the data is wrong

- U055D is a content fault, not a communication fault, so a module that answers a scan tool perfectly can still set this code because the receiving module rejects the values inside its messages.
- A weak battery or a bad ground on the special purpose module is a commonly missed cause because the module still powers up and communicates while transmitting corrupted data under low-voltage conditions.
- Aftermarket accessories spliced into the CAN bus are a frequent trigger on work trucks and specialty vehicles, and disconnecting them is a fast way to confirm or rule out the cause.
- Do not replace the special purpose module first; a different module on the bus sending invalid data can cause the same code, so check all network participants before condemning the module named in the definition.
- The code often persists after a repair until the module is reconfigured or the adaptation is relearned, so a returning code after replacement does not automatically mean the new module is faulty.

Can I keep driving with U055D?

The vehicle is generally safe to drive because the fault affects a special-purpose auxiliary system rather than core powertrain or braking functions, but avoid relying on the affected equipment until the cause is found. If multiple warning lights appear or the vehicle enters a reduced-power mode, have it inspected promptly.



Tools that help

- OBD-II scan tool with full module access and live data capability
- Digital multimeter with voltage drop and resistance functions
- Oscilloscope for CAN bus signal integrity testing
- Terminal pick and connector repair kit
- Battery load tester and charging system tester
- Manufacturer service information for module configuration and CAN topology

Reading U055D

U Network: communication between the vehicle's control modules.

0 Generic (SAE) code: it means the same thing on every OBD-II vehicle.

5 Network communication.

5D The exact fault within that area.

Often seen with

U0001 Loss of Bus Communication · **U0100** Lost Communication With ECM/PCM A · **U0140** Lost Communication With Instrument Panel Cluster · **U055C** Invalid Data Received From Special Purpose Vehicle Control M · **U055E** Invalid Data Received From Front Controls Interface Module B

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/u055d/>

