

GENERIC · NETWORK

U052A

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U052A

Invalid Data Received From Heated Steering Wheel Module

U052A is a communication fault indicating that the heated steering wheel module is sending data the body control module or gateway cannot interpret as valid. The computer has detected a message from the heated steering wheel module that is missing expected parameters, contains out-of-range values, or fails a checksum, so it flags the data as invalid rather than treating it as a normal status update.

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

Symptoms you may notice

- The heated steering wheel may not turn on at all, or it may turn on and then shut off after a few seconds.
- The heated steering wheel indicator light may flash, stay off, or behave erratically when the button is pressed.
- A warning light or message on the dashboard, often a service vehicle soon or steering system warning, appears even though the steering feels normal.
- The heated steering wheel may work intermittently, heating only on some drive cycles or only at certain temperatures.
- Often no symptoms besides the warning light, because the heated steering wheel is a comfort feature and the vehicle remains fully drivable.
- Other steering wheel-mounted controls, such as horn or cruise control buttons, may act up if the fault involves shared wiring or a common module.

Common causes, most likely first

- A failing heated steering wheel module, often due to internal circuit board faults or heat damage from repeated heating cycles.
- Corroded, loose, or damaged electrical connectors at the heated steering wheel module or the steering column harness.
- A chafed or broken wire in the steering column, especially where the harness flexes with steering wheel movement.
- Low battery voltage or a weak charging system that causes modules to reboot or transmit corrupted data.
- A software or calibration issue in the heated steering wheel module or the body control module that interprets its messages.
- Water intrusion into the steering wheel or column area, leading to short circuits or intermittent signal faults.
- A faulty clock spring (steering wheel rotary connector) that interrupts power or data to the heated steering wheel module.



How to diagnose and fix it

- 1 Perform a full battery and charging system test, including a load test and voltage drop check, because low voltage is a common cause of invalid data messages.
- 2 Use a scan tool to read all modules and record the exact U052A status, then clear the code and test-drive to see if it returns immediately or only after a specific action.
- 3 Inspect the heated steering wheel module connectors and the steering column harness for corrosion, loose pins, or chafed wires, and repair as needed.
- 4 Check the clock spring for continuity and signs of wear, and replace it if the heated steering wheel circuit is intermittent when turning the wheel.
- 5 Verify that the heated steering wheel module has the latest software or calibration available from the manufacturer and reprogram it if required.
- 6 If wiring and power are good, substitute a known-good heated steering wheel module and retest to confirm whether the original module is faulty.
- 7 After any repair, clear all codes and perform a complete drive cycle to confirm the U052A does not reset and the heated steering wheel operates correctly.

Why the heated wheel module sends bad data

- A weak or failing battery is one of the most overlooked causes of U052A, because modules that boot up with low voltage can transmit corrupted frames that the gateway rejects as invalid.
- The code does not always mean the heated steering wheel module itself is bad; a poor ground connection at the steering column or body can cause the same invalid data message.
- Intermittent U052A that appears only in cold weather often points to a clock spring or harness issue rather than a failed module, because cold makes marginal connections worse.
- Some vehicles share a communication bus between the heated steering wheel module and other steering wheel controls, so a fault in one can set invalid data codes for the other.
- After replacing a heated steering wheel module, some vehicles require a configuration or calibration procedure, and skipping it can leave U052A stored even with a good part.

Can I keep driving with U052A?

You can generally keep driving with U052A because the heated steering wheel is a comfort feature and does not affect steering control or safety. Avoid relying on the heated steering wheel until the fault is repaired, and address any low battery or charging system issue promptly to prevent related communication faults.



Tools that help

- OBD-II scan tool with module-level communication and live data capability
- Digital multimeter for voltage, resistance, and continuity checks
- Battery load tester and charging system tester
- Trim removal tools for accessing steering column covers
- Wiring diagram and connector pinout for the heated steering wheel circuit

Reading U052A

- 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.
- 2A** The exact fault within that area.

Often seen with

U0100 Lost Communication With ECM/PCM A · **U0140** Lost Communication With Instrument Panel Cluster · **U0529** Invalid Data Received From Door Window Motor G

See it working

Watch the animated explainer [Four-Stroke Engine Cutaway: Intake to Exhaust](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u052a/>

