

GENERIC · NETWORK

U045E

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U045E

Invalid Data Received From Automated Driving System Control Module B

U045E is a communication fault where a control module receives data from the Automated Driving System Control Module B that fails the module's internal validity check, meaning the message arrives but its content is implausible, out of range, or inconsistent with other sensor inputs. The receiving module sets this code because it cannot trust the automated driving data, not because the data bus is necessarily dead.

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

Symptoms you may notice

- Illumination of the traction control, stability control, or forward collision warning light, often accompanied by a chime
- Adaptive cruise control, lane keeping assist, or automated braking features become unavailable or disabled
- A message on the driver information center stating that driver assist systems are temporarily unavailable
- The vehicle may default to manual driving mode with reduced steering assist or no automated lane centering
- Intermittent operation of automated driving features that return after a key cycle, especially in wet or hot conditions
- Often no symptoms besides the warning light if the invalid data affects a non-critical automated driving sub-function

Common causes, most likely first

- 1 Corroded, loose, or water-intruded connector pins at Automated Driving System Control Module B or its CAN (Controller Area Network) gateway
- 2 A failing wheel speed, steering angle, or yaw rate sensor feeding implausible data that the automated driving module then rebroadcasts as invalid
- 3 Software calibration mismatch or outdated firmware in Automated Driving System Control Module B after a battery replacement or module swap
- 4 Chafed or shorted CAN bus wiring between the automated driving module and the module that sets the code, causing corrupted message frames
- 5 Low voltage or a weak battery that causes the automated driving module to boot incorrectly and transmit invalid data frames
- 6 Internal failure of Automated Driving System Control Module B, such as a faulty processor or memory corruption that produces out-of-range messages



How to diagnose and fix it

- 1 Connect a scan tool and record all stored codes in every module, then clear U045E and test-drive to see if it returns immediately or only under specific conditions
- 2 Inspect and clean the connectors at Automated Driving System Control Module B and the module reporting the code, checking for corrosion, pushed pins, or water intrusion
- 3 Measure battery voltage and perform a load test, then check charging system output because low voltage corrupts module communication
- 4 Check live data for wheel speed, steering angle, and yaw rate sensors to confirm they report plausible values before blaming the automated driving module
- 5 Perform a wiggle test on the CAN bus wiring and connectors while watching for the code to set, looking for intermittent opens or shorts
- 6 Verify the software calibration and part number of Automated Driving System Control Module B against the manufacturer's latest service bulletin and reflash if needed
- 7 If all wiring and sensor inputs are correct, substitute a known-good Automated Driving System Control Module B and perform any required calibration or programming

Before you replace the automated driving module

- A wheel speed sensor with an intermittent dropout can cause U045E because the automated driving module receives implausible speed data and rebroadcasts an invalid message, so always check sensor live data before condemning the module.
- Water intrusion into the connector at Automated Driving System Control Module B is a common cause on vehicles where the module is mounted low in the cabin or near the floor, and the pins can look clean until you separate the connector.
- A weak battery that still starts the engine can produce U045E because the automated driving module may boot with insufficient voltage and transmit corrupted frames, so load-test the battery before any module replacement.
- This code does not always mean the automated driving module is faulty; the receiving module sets U045E when data is invalid, and the actual defect may be in a sensor or wiring that feeds the automated driving module.
- After replacing or reflashing Automated Driving System Control Module B, many vehicles require a steering angle sensor calibration and a road test at highway speed before the code will stay cleared.

Can I keep driving with U045E?

You can usually drive the vehicle manually, but automated driving features such as adaptive cruise control and lane keeping will be disabled, so do not rely on them. Avoid long trips or towing until the fault is diagnosed, and have the vehicle scanned promptly because a failing sensor or wiring fault can worsen.



Tools that help

- OBD-II scan tool with manufacturer-specific module access and live data
- Digital multimeter with back-probe pins
- Battery load tester
- CAN bus breakout box or oscilloscope
- Terminal pick and contact cleaner
- Manufacturer service information for calibration and programming procedures

Reading U045E

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.
5E	The exact fault within that area.

Often seen with

C0050 Right Rear Wheel Speed Sensor Circuit Malfunction · **U0126** Lost Communication With Steering Angle Sensor Module · **U0401** Invalid Data Received From ECM/PCM · **U045D** Invalid Data Received From Automated Driving System Control · **U045F** Invalid Data Received From Automated Driving System Interfac

See it working

Watch the animated explainer [How a Refrigerator Works: The Cooling Cycle](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u045e/>

