

GENERIC · NETWORK

U0319

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U0319

Software Incompatibility with Steering Effort Control Module

U0319 is a communication fault indicating that a control module on the vehicle's network has detected a software incompatibility with the Steering Effort Control Module, which manages power steering assist. The module receiving the message expects a different software version, calibration, or data format than the steering module is broadcasting, so it flags the mismatch and may disable or limit steering assist as a precaution.

SYSTEM

Network

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Software and configuration mismatches

Symptoms you may notice

- Illumination of the power steering warning light or a generic service vehicle soon message
- Heavier than normal steering effort, especially at low speeds or during parking maneuvers
- A warning chime or message on the driver information center stating steering assist is reduced
- Intermittent loss of power steering assist that may return after a key cycle
- Often no symptoms besides the warning light, with steering feel unchanged in mild cases

Common causes, most likely first

- 1 Steering Effort Control Module software or calibration is outdated or mismatched after a replacement or reprogramming event
- 2 A module on the same network was replaced or updated without performing the required software configuration or adaptation
- 3 Corrupted or incomplete flash programming of the steering effort control module
- 4 Low battery voltage or a voltage spike during programming caused an incomplete software write
- 5 Aftermarket performance tuner or piggyback device altered network messages or module calibrations
- 6 Faulty CAN bus wiring or a poor ground causing corrupted data that the receiving module interprets as a software mismatch
- 7 Internal fault in the steering effort control module preventing it from reporting the correct software identifier



How to diagnose and fix it

- 1 Connect a scan tool and read all modules for stored codes, software part numbers, and calibration identifiers to confirm which module is reporting the incompatibility
- 2 Check battery voltage and charging system output, then clear the code and verify whether it returns immediately or only after a drive cycle
- 3 Inspect the CAN bus wiring and grounds at the steering effort control module and any recently serviced modules for corrosion, looseness, or chafing
- 4 Verify that all modules on the network have the latest manufacturer-approved software and that no aftermarket tuner is installed
- 5 Perform the manufacturer's software update or reprogramming procedure for the steering effort control module using a factory-level scan tool
- 6 Run the required configuration, adaptation, or initialization routine for the steering system after programming
- 7 If the mismatch persists, substitute a known-good steering effort control module and repeat programming to isolate an internal module fault

Why a software mismatch is rarely the module's fault

- A common oversight is replacing the steering effort control module with a used unit from another vehicle; the software identifier and calibration often differ, so the network immediately flags U0319 even though the hardware is fine.
- Technicians sometimes chase the steering module when the real problem is a different module that was flashed with the wrong calibration or left in a bootloader state after an interrupted programming session.
- U0319 can be set by a low-voltage event during programming rather than by a genuine incompatibility, so clearing the code after a battery charge and rechecking is a valid first step before any replacement.
- Aftermarket tuners and piggyback modules that modify CAN messages can mimic a software incompatibility, and removing them often clears the code without any dealer-level reprogramming.
- The code does not always mean the steering assist is disabled; some vehicles log it as a history code and continue normal operation until the next full network wake-up cycle.

Can I keep driving with U0319?

You can usually drive the vehicle to a repair shop, but expect heavier steering effort and reduced assist, so avoid high-speed maneuvers and parking situations that require quick steering. If the steering assist cuts out completely or the wheel becomes very hard to turn, stop driving and have the vehicle towed.



Tools that help

- Factory-level or OEM-compatible scan tool with module programming capability
- Digital multimeter for battery and CAN bus voltage checks
- Battery charger or power supply to maintain voltage during programming
- Wiring diagram and CAN bus topology chart for the vehicle
- Socket and trim tools for accessing the steering effort control module

Reading U0319

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

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

3 Software and configuration mismatches.

19 The exact fault within that area.

Often seen with

U0100 Lost Communication With ECM/PCM A · **U0126** Lost Communication With Steering Angle Sensor Module
 · **U0131** Lost Communication With Power Steering Control Module · **U0140** Lost Communication With Instrument Panel Cluster

See it working

Watch the animated explainer [How Crank and Cam Position Sensors Work](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u0319/>

