

GENERIC · NETWORK

U0406

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U0406

Invalid Data Received From Fuel Injector Control Module

U0406 is a communication fault where the engine control module (ECM) or another controller on the controller area network (CAN) bus receives data from the fuel injector control module that it considers invalid or out of range. The computer has detected that the module is responding but the content of its messages does not match expected values, so the ECM cannot trust the injector control data.

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

Symptoms you may notice

- Illuminated check engine light or service engine soon light, often with no other noticeable symptoms
- Rough idle, misfire, or hesitation under acceleration if the invalid data affects injector pulse width
- Reduced engine power or limp mode triggered by the ECM when injector control data is deemed unreliable
- Intermittent stalling or hard starting, especially when the fuel injector control module signal drops out
- Poor fuel economy or rich/lean running conditions reported by the driver
- Other communication-related warning lights if multiple modules share the same CAN bus segment

Common causes, most likely first

- 1 Corroded, loose, or damaged wiring and connectors at the fuel injector control module or its CAN bus splice points
- 2 Failed or failing fuel injector control module, often due to internal circuit faults or heat damage
- 3 Low battery voltage or poor charging system performance causing the module to send corrupted data
- 4 CAN bus wiring faults such as opens, shorts to ground, or shorts to voltage on the data lines
- 5 Software or calibration mismatch in the fuel injector control module after a replacement or reflash
- 6 Water intrusion or contamination in the module connector or harness, leading to intermittent invalid signals
- 7 A separate module on the same bus flooding the network with errors and disrupting injector control messages



How to diagnose and fix it

- 1 Perform a full scan of all modules and record all stored codes, then clear codes and test-drive to see if U0406 returns immediately or intermittently
- 2 Inspect the fuel injector control module connectors and harness for corrosion, loose pins, chafing, or water intrusion, and repair as needed
- 3 Check battery voltage and charging system output under load to rule out low voltage as the cause of corrupted module data
- 4 Measure CAN bus resistance and voltage at the diagnostic link connector to verify bus integrity and rule out wiring faults
- 5 If wiring and power are good, substitute a known-good fuel injector control module or perform a module reflash/calibration per manufacturer procedure
- 6 After repair, clear codes and verify that U0406 does not reset during a road test that includes idle, acceleration, and steady cruise

What the invalid data really means

- U0406 does not mean the fuel injector control module is dead; it means the module is alive enough to communicate but its data content is out of range, so a no-start condition is less common than with a no-communication code.
- A weak or failing battery is a frequent hidden cause because low voltage can corrupt the module's internal calculations without setting a low-voltage code first.
- Technicians often replace the fuel injector control module only to find a corroded ground or a chafed CAN wire at a splice pack was the real problem, so always inspect the harness before condemning the module.
- This code can be set by a module that has been incorrectly programmed or has mismatched software after a replacement, so verify calibration before assuming a hardware failure.
- Other modules on the same CAN bus can cause U0406 indirectly by flooding the network with invalid frames, so a full network scan is essential before focusing only on the injector control module.

Can I keep driving with U0406?

The vehicle may be safe to drive short distances if it runs normally and only the warning light is on, but avoid heavy acceleration, towing, or long trips until the fault is diagnosed. If the engine runs rough, misfires, or enters limp mode, stop driving and have the vehicle inspected promptly.



Tools that help

- OBD-II scan tool with full module scanning and live data capability
- Digital multimeter for voltage, resistance, and CAN bus signal checks
- Battery load tester and charging system tester
- Wiring diagram and connector pinout for the fuel injector control module
- CAN bus breakout box or oscilloscope for advanced network diagnostics
- Module programming or reflash tool if calibration is required

Reading U0406

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.
06	The exact fault within that area.

Often seen with

P0200 Injector Circuit Malfunction · **U0100** Lost Communication With ECM/PCM A · **U0101** Lost Communication with TCM · **U0401** Invalid Data Received From ECM/PCM · **U0405** Invalid Data Received From Cruise Control Module

See it working

Watch the animated explainer **V6 Engine Explained: 60° Bank and Firing Order** on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u0406/>

