

GENERIC · NETWORK

U012D

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U012D

Lost Communication With Generator A Control Module

U012D is a generic communication code indicating that one of the vehicle's control modules has lost contact with the Generator A Control Module over the controller area network (CAN) bus. The module that set the code, often the engine control module (ECM) or body control module (BCM), has stopped receiving regular status messages from the generator control module, so it flags a communication failure.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Network	Generic (all makes)	Medium	Intermediate	Lost communication with a control module

Symptoms you may notice

- Illumination of the malfunction indicator lamp (MIL) or a dedicated charging system warning light.
- The battery may not charge properly, leading to a no-start condition or dimming lights over time.
- Voltage gauge may read low or fluctuate if the generator control module is not commanding the alternator.
- Stop-start or intelligent charging features may be disabled, and the vehicle may default to a fixed charging voltage.
- Often no symptoms besides the warning light, especially if the generator still produces charging voltage through a default or limp-home strategy.

Common causes, most likely first

- 1 Damaged, corroded, or disconnected wiring in the CAN bus circuit between the generator control module and the module that set the code.
- 2 Failed generator control module, which may be internal to the alternator on many modern vehicles.
- 3 Poor ground connection at the generator control module or the module that set the code.
- 4 Open or shorted CAN bus wiring caused by chafing, rodent damage, or water intrusion.
- 5 Low battery voltage or a weak battery that causes modules to drop off the network intermittently.
- 6 A faulty module that set the code, though this is less common than wiring or generator control module issues.



How to diagnose and fix it

- 1 Perform a full battery and charging system test, including a load test and voltage drop checks on the battery cables.
- 2 Use a scan tool to read all modules and record which modules are online and which are missing from the CAN bus.
- 3 Inspect the generator control module connector and the CAN bus wiring for corrosion, loose pins, or physical damage.
- 4 Check the CAN bus voltages (CAN high and CAN low) with a digital multimeter to confirm the bus is not shorted or open.
- 5 Perform a wiggle test on the harness while watching live data for the generator control module communication status.
- 6 If wiring and power/ground are good, substitute a known-good generator control module or alternator to confirm the fault.
- 7 Clear the code and verify repair by driving the vehicle through a complete drive cycle and confirming the code does not return.

What the code does not always mean

- A U012D code does not automatically mean the alternator or generator control module has failed; a simple loose ground or corroded connector can set the same communication loss.
- Many vehicles will continue to charge the battery at a default voltage even with this code stored, so a charging system test may pass and mislead you away from the communication fault.
- The module that sets U012D is not always the engine control module; on some platforms the body control module or a dedicated gateway module may be the one reporting the lost communication.
- Intermittent low voltage from a weak battery can cause modules to drop off the CAN bus and set U012D without any permanent wiring fault, so always load-test the battery first.
- After repairing the communication fault, some vehicles require a generator control module configuration or learn procedure before charging system operation returns to normal.

Can I keep driving with U012D?

You can usually drive the vehicle short distances to a repair shop because many generators default to a safe charging voltage, but avoid long trips or heavy electrical loads since the battery may not receive optimal charging. If the battery warning light is on and voltage is dropping, stop driving and arrange a tow to prevent a no-start or stall.



Tools that help

- OBD-II scan tool with live data and module communication capabilities
- Digital multimeter with CAN bus voltage measurement
- Battery load tester
- Wiring diagram for the generator control module circuit
- Terminal pick and electrical contact cleaner

Reading U012D

- U** Network: communication between the vehicle's control modules.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 1** Lost communication with a control module.
- 2D** The exact fault within that area.

Often seen with

P0562 System Voltage Low · **P0563** System Voltage High · **U0100** Lost Communication With ECM/PCM A · **U0111** Lost Communication With Battery Energy Control Module 'A' · **U0128** Lost Communication With Park Brake Control Module

See it working

Watch the animated explainer [How a Radiator Fan Relay Circuit Works](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u012d/>

