

GENERIC · NETWORK

U3017

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U3017

Control Module Timer/Clock Performance

U3017 is a generic network communication code indicating that a control module has detected a timer or clock performance fault, meaning an internal or shared timing reference is not advancing or synchronizing as expected. The computer has logged that a module's clock signal is missing, erratic, or out of tolerance, which can disrupt scheduled tasks and inter-module communication.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Network	Generic (all makes)	Medium	Intermediate	Network wiring and bus faults

Symptoms you may notice

- Illumination of the malfunction indicator lamp (MIL) or a message on the driver information center.
- Intermittent operation of electronic features such as radio presets, clock display, or memory seats.
- Multiple warning lights or erratic gauge behavior if the timing fault affects several modules.
- The vehicle may fail to start or stall if the timing issue disrupts engine control synchronization.
- Often no symptoms besides the warning light, especially if the fault is stored in a non-critical module.

Common causes, most likely first

- 1 A weak or failing battery that causes voltage drops and disrupts module clock circuits.
- 2 Poor or corroded ground connections at the module or chassis, leading to unstable reference voltage.
- 3 A faulty control module with an internal timer/clock circuit failure.
- 4 Damaged or chafed wiring in the controller area network (CAN) or other communication bus, causing timing signal corruption.
- 5 Software or firmware corruption in a module that manages shared timing tasks.
- 6 A malfunctioning central timer module or body control module (BCM) that distributes clock signals.
- 7 Aftermarket electronic accessories improperly installed, introducing electrical noise that interferes with timing signals.



How to diagnose and fix it

- 1 Perform a battery and charging system test to rule out low voltage as the root cause.
- 2 Inspect and clean all ground connections related to the affected module and the vehicle chassis.
- 3 Use a scan tool to check for other stored codes and to verify which module set U3017, then consult service information for that module's timer circuit.
- 4 Check for technical service bulletins (TSBs) or software updates for the module that set the code.
- 5 Perform a wiggle test on the wiring harness and connectors at the suspect module while monitoring live data for timer signal stability.
- 6 If wiring and power are confirmed good, replace the module that set the code and reprogram it as required.
- 7 Clear codes and perform a road test to confirm the repair, ensuring the timer/clock performance is restored.

Timer faults often misdiagnosed as module failure

- A weak battery is a frequent culprit behind U3017 because modules require stable voltage to maintain accurate clock signals, and a marginal battery can cause intermittent timing faults without obvious starting problems.
- Corroded ground points, especially those hidden under carpets or behind trim panels, can introduce resistance that disrupts the low-current timing circuits inside modules.
- The code does not always mean the module itself is defective; aftermarket alarms, remote starters, or improperly installed accessories can inject electrical noise that mimics a timer failure.
- On some vehicles, U3017 is stored as a history code after a brief voltage dip during cranking, and it may not indicate a current fault if the battery and connections are healthy.
- A module that sets U3017 may still function normally for most operations, so replacing it without verifying power and ground integrity often leads to a repeat failure.

Can I keep driving with U3017?

The vehicle is generally safe to drive if it starts and runs normally, but avoid long trips or heavy electrical loads until the fault is diagnosed, as a failing battery or ground could leave you stranded. If the engine stalls or multiple systems act erratically, stop driving and seek professional diagnosis.

Tools that help

- OBD-II scan tool with live data and module communication capabilities
- Digital multimeter for voltage and resistance checks
- Battery tester and charging system analyzer
- Wiring diagram and service information for the specific vehicle
- Socket set and trim removal tools for accessing modules and grounds



Reading U3017

- U** Network: communication between the vehicle's control modules.
- 3** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 0** Network wiring and bus faults.
- 17** The exact fault within that area.

Often seen with

U0100 Lost Communication With ECM/PCM A · **U0140** Lost Communication With Instrument Panel Cluster · **U3000** Control Module · **U3001** Control Module Improper Shutdown Performance · **U3003** Battery Voltage

See it working

Watch the animated explainer [Car Relay Test Bench: Test 4-Pin and 5-Pin Relays](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u3017/>

