

GENERIC · NETWORK

U3517

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

## U3517

# High Voltage System Interlock Circuit C Low

U3517 is a manufacturer-specific code indicating that the high-voltage interlock loop for circuit C is reporting a low voltage condition, which the vehicle's control module interprets as a potential breach in the high-voltage safety circuit. The computer detects this when the interlock circuit's voltage falls below the expected threshold, often due to a broken connection, faulty switch, or damaged wiring in the high-voltage system.

|         |                     |          |                |                       |
|---------|---------------------|----------|----------------|-----------------------|
| SYSTEM  | CODE TYPE           | SEVERITY | FIX DIFFICULTY | AREA                  |
| Network | Generic (all makes) | High     | Professional   | Network communication |

## Symptoms you may notice

- High-voltage system warning light illuminated on the dashboard
- Vehicle may refuse to start or enter 'ready' mode
- Reduced power or limp mode due to high-voltage system shutdown
- Often no symptoms besides the warning light if the interlock circuit is only intermittently low
- Possible inability to charge the high-voltage battery (in plug-in vehicles)
- Other high-voltage related codes stored in multiple modules

## Common causes, most likely first

- Damaged or disconnected high-voltage interlock wiring or connector
- Faulty high-voltage interlock switch inside a component (e.g., service disconnect, battery pack, inverter)
- Corrosion or water intrusion in a high-voltage connector
- Loose or improperly seated high-voltage connector
- Failed high-voltage control module or interlock detection circuit
- Aftermarket accessories or improper previous repairs affecting the interlock loop



## How to diagnose and fix it

- 1 Perform a visual inspection of all high-voltage connectors and wiring for damage, corrosion, or loose connections
- 2 Check service disconnect plug for proper seating and integrity
- 3 Use a scan tool to monitor interlock circuit voltage and identify which component is reporting the low signal
- 4 Perform continuity and resistance tests on the interlock circuit according to manufacturer procedures
- 5 Inspect and test individual high-voltage components (battery pack, inverter, motor) for internal interlock switch faults
- 6 Repair or replace damaged wiring, connectors, or faulty components as needed
- 7 Clear codes and verify the repair by test-driving and rechecking for return of the code

## Interlock Circuit Low Voltage Pitfalls

- A low interlock voltage often results from a simple unplugged connector that was not fully latched after previous service, so always check recent repair areas first.  
The interlock loop is a safety circuit, and some vehicles will disable high-voltage operation entirely even if the low voltage is intermittent, leading to a no-start condition.
- Corrosion inside a high-voltage connector can cause a low voltage signal without any visible external damage, so disconnecting and inspecting terminals is crucial.
- This code can be set by a faulty component that is not the main battery pack, such as the inverter or charger, so do not assume the battery is at fault.  
Aftermarket alarms or remote starters that tap into wiring can inadvertently affect the interlock circuit, leading to unexplained low voltage codes.

## Can I keep driving with U3517?

Do not continue driving with this code present, as the high-voltage system may be disabled or in a unsafe state. Have the vehicle inspected by a qualified high-voltage technician before further use.

## Tools that help

- High-voltage rated multimeter
- Scan tool with manufacturer-specific software
- Insulation tester (megohmmeter)
- Wiring diagram and service information
- Personal protective equipment (insulated gloves, safety glasses)



## Reading U3517

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

## Often seen with

**P0A0D** High Voltage System Interlock Circuit A High · **P0AA6** Hybrid/EV Battery Voltage System Isolation Fault  
 · **U0111** Lost Communication With Battery Energy Control Module 'A' · **U3516** High Voltage System Interlock Circuit C Performance · **U3518** High Voltage System Interlock Circuit C High

## See it working

Watch the animated explainer [Inline-Four Engine X-Ray: Firing Order 1-3-4-2](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u3517/>

