

GENERIC · NETWORK

U3515

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U3515

High Voltage System Interlock Circuit C

U3515 indicates that the high-voltage interlock circuit C has reported a voltage above the expected range, which the vehicle's control module interprets as a potential safety hazard. The interlock is a low-voltage loop that runs through high-voltage connectors and covers; when it is broken or shorted, the system disables the high-voltage contactors to prevent electric shock.

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

Symptoms you may notice

- High-voltage system warning light or message displayed on the dashboard
- Vehicle may refuse to start or enter 'Ready' mode, leaving you stranded
- Loss of electric propulsion or reduced power in hybrid/electric vehicles
- Charging system may be disabled, preventing the high-voltage battery from recharging
- Often no symptoms besides the warning light if the fault is intermittent
- Possible audible click or no sound from high-voltage contactors when attempting to start

Common causes, most likely first

- 1 Damaged or corroded high-voltage interlock connector pins or terminals
- 2 Broken or chafed interlock wire within the high-voltage cable harness
- 3 Faulty high-voltage component cover or service disconnect plug not fully seated
- 4 Internal failure of a high-voltage component (e.g., battery pack, inverter, motor) affecting the interlock loop
- 5 Water intrusion or contamination in a high-voltage connector causing a short to voltage
- 6 Aftermarket accessories or improper previous repairs disturbing the interlock circuit
- 7 Failed high-voltage control module or interlock detection circuit inside the module



How to diagnose and fix it

- 1 Perform a visual inspection of all high-voltage connectors, covers, and service disconnects for damage, corrosion, or loose fitment
- 2 Use a scan tool to read live data and check for other high-voltage system codes that may pinpoint the affected circuit
- 3 Check the interlock circuit continuity and resistance with a multimeter, following the manufacturer's service information for pinouts and expected values
- 4 Inspect the wiring harness for chafing, pinches, or breaks, especially near moving components or sharp edges
- 5 Test the interlock loop at each high-voltage component by disconnecting and checking for the presence of the loop signal
- 6 If a component is suspected, substitute with a known-good unit only if safe and per procedures, or perform pinpoint tests as directed
- 7 Repair or replace the faulty connector, wire, or component, then clear codes and verify the interlock circuit operates correctly

Interlock circuit faults often misdiagnosed

- A common mistake is replacing the high-voltage battery pack when the actual fault is a simple unseated service disconnect plug or a corroded interlock pin in a connector.
- The interlock circuit is a low-voltage loop, so a high-voltage insulation tester is not needed; a standard multimeter is sufficient for most continuity checks.
- Aftermarket alarms or remote starters that tap into wiring near high-voltage components can inadvertently disturb the interlock circuit and set this code.
- Some vehicles set U3515 when the 12-volt battery is weak or failing, as the interlock detection circuit may not receive stable voltage, so always check the 12-volt system first.
- The code can be stored intermittently due to vibration or temperature changes, so a wiggle test of connectors and harnesses while monitoring live data is a valuable diagnostic step.

Can I keep driving with U3515?

Do not drive the vehicle if the high-voltage system warning is active, as the vehicle may lose propulsion unexpectedly or disable safety systems. If the light is on but the vehicle drives normally, limit driving to a safe location for diagnosis and avoid high-voltage component access.

Tools that help

- OBD-II scan tool with live data and manufacturer-specific capabilities
- Digital multimeter with low-voltage and continuity functions
- High-voltage safety gloves and insulated tools
- Vehicle service information for wiring diagrams and pinpoint tests
- Insulation tester (megohmmeter) for high-voltage cable checks if directed



Reading U3515

- 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.
- 15** 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' · **U3514** High Voltage System Interlock Circuit B High · **U3516** High Voltage System Interlock Circuit C Performance

See it working

Watch the animated explainer [How an Elevator Works: Traction Lift in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u3515/>

