

GENERIC · NETWORK

U3516

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U3516

High Voltage System Interlock Circuit C Performance

U3516 is a manufacturer-specific body code indicating that the high-voltage system interlock circuit C has reported a performance fault, typically an unexpected voltage level or continuity issue. The interlock is a safety loop that confirms high-voltage connectors and covers are properly seated before the vehicle allows the traction battery to energize, and the control module sets this code when the circuit's voltage or resistance falls outside the expected range.

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

Symptoms you may notice

- Hybrid or electric vehicle may refuse to start or enter Ready mode
- Instrument cluster displays a high-voltage system warning or service vehicle soon message
- Traction battery contactors may not close, leaving the vehicle without electric propulsion
- Often no symptoms besides the warning light if the fault is intermittent
- Charging may be disabled or interrupted on plug-in models
- Reduced power or limp-home mode may be triggered as a protective strategy

Common causes, most likely first

- A high-voltage connector or service disconnect plug not fully latched, allowing the interlock pins to lose contact
- Corrosion, water intrusion, or terminal fretting inside an interlock connector
- Damaged or pinched interlock wiring harness between the high-voltage components
- Failed interlock switch or sensor integrated into a high-voltage component cover
- Faulty high-voltage control module or battery energy control module internal driver
- Aftermarket or improperly installed high-voltage components disturbing the interlock loop
- Loose or backed-out terminal in the interlock circuit connector



How to diagnose and fix it

- 1 Inspect all high-voltage connectors and service disconnect plugs for full engagement and secure latching
- 2 Check the interlock circuit wiring for chafing, pinching, or corrosion, especially near component covers
- 3 Measure interlock circuit voltage and continuity at the control module connector and compare to manufacturer specifications
- 4 Perform a wiggle test on connectors and harness while monitoring interlock status on a scan tool
- 5 Verify the interlock switch inside the suspect high-voltage component with a multimeter
- 6 Repair or replace damaged terminals, connectors, or harness sections as needed
- 7 Clear the code and perform a road test or key cycle to confirm the interlock circuit performs correctly

Interlock faults that mimic component failures

- A partially latched high-voltage connector is the most common cause of this code, and it often happens after service work that did not fully reseal the plug.
- The interlock circuit is a low-voltage safety loop, so a failure does not necessarily mean the high-voltage battery or inverter is defective.
- Water intrusion into a connector can create intermittent interlock faults that only appear in damp conditions or after a car wash.
- Some vehicles set U3516 when the 12-volt auxiliary battery is weak because the control module misreads interlock voltage during low-voltage conditions.
- Technicians sometimes replace an expensive high-voltage component when the real fault is a chafed interlock wire behind a cover or in a harness bend.

Can I keep driving with U3516?

Do not continue driving with an active high-voltage interlock fault, because the vehicle may disable the traction battery or shut down unexpectedly. Have the vehicle inspected by a qualified high-voltage technician before attempting further operation.

Tools that help

- Diagnostic scan tool capable of reading hybrid/EV-specific codes and data
- Digital multimeter with low-voltage and continuity capability
- High-voltage safety gloves and insulated tools
- Manufacturer service information for interlock circuit pinouts and specifications
- Terminal pick and connector repair kit



Reading U3516

- 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.
- 16** The exact fault within that area.

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0A0F** Engine Failed to Start · **U0111** Lost Communication With Battery Energy Control Module 'A' · **U3515** High Voltage System Interlock Circuit C · **U3517** High Voltage System Interlock Circuit C Low

See it working

Watch the animated explainer [How an EGR Valve Works: Exhaust Gas Recirculation](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u3516/>

