

GENERIC · NETWORK

U3512

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U3512

High Voltage System Interlock Circuit B Performance

U3512 indicates that the high-voltage interlock loop circuit B has reported a performance fault, typically a voltage reading outside the expected range, to the vehicle's control module. The interlock is a safety circuit that confirms all high-voltage connectors and covers are properly seated before allowing the high-voltage system to energize.

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 if the vehicle does drive
- High-voltage system may be disabled entirely, preventing EV operation
- Often no symptoms besides the warning light if the fault is intermittent

Common causes, most likely first

- Loose or improperly seated high-voltage connector on circuit B
- Damaged interlock switch or wiring within a high-voltage component
- Corrosion or water intrusion in a high-voltage connector
- Faulty high-voltage battery pack interlock circuit
- Failed inverter or converter interlock switch
- Chafed or broken interlock wire harness
- Software glitch in the control module managing the interlock loop

How to diagnose and fix it

- Inspect all high-voltage connectors for proper seating and visible damage
- Check for corrosion or water intrusion at each interlock connector
- Measure interlock loop continuity and resistance with a multimeter
- Verify interlock switch operation at each high-voltage component
- Inspect wiring harness for chafing, breaks, or loose pins
- Clear the code and test-drive to see if the fault returns
- If hardware checks pass, update or reprogram the control module



Interlock faults that mimic component failures

- A partially latched connector can pass a visual inspection but still set U3512 because the interlock switch does not fully close.
- Water intrusion in a high-voltage connector often causes intermittent U3512 codes that appear only after rain or car washes.
- Technicians sometimes replace expensive high-voltage components when the real fault is a chafed interlock wire in the harness.
- The interlock loop is a low-voltage safety circuit, so a failure does not necessarily mean the high-voltage system itself is damaged.
- After any high-voltage repair, the interlock loop must be fully reconnected and verified before clearing codes, or U3512 will reset immediately.

Can I keep driving with U3512?

Do not drive the vehicle if the high-voltage system warning is active, as the high-voltage system may be disabled or unsafe. Have the vehicle inspected by a qualified high-voltage technician before attempting to move it under its own power.

Tools that help

- Digital multimeter with high-voltage safety rating
- Insulation resistance tester
- OBD-II scan tool capable of reading hybrid/EV codes
- High-voltage safety gloves and insulated tools
- Vehicle-specific service information for interlock circuit diagrams

Reading U3512

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.
12	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 · **U3510** Control Module Missing Calibration · **U3511** High Voltage System Interlock Circuit B · **U3513** High Voltage System Interlock Circuit B Low



See it working

Watch the animated explainer [How the EVAP System Works: Fuel Vapour and Leak Test](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u3512/>

