

GENERIC · POWERTRAIN

P0D15

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0D15

Battery Charging System A High Voltage Interlock Circuit/Open

P0D15 indicates that the battery charging system's high-voltage interlock loop, specifically circuit A, has an open circuit or a voltage reading outside the expected range. The computer monitors this safety circuit and sets the code when it detects a break in the continuous low-voltage loop that confirms all high-voltage connectors are properly seated.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	High	Professional	Hybrid propulsion

Symptoms you may notice

- Illumination of the high-voltage system warning light or service vehicle soon message
- The vehicle may refuse to start or enter ready mode, especially in hybrid and electric models
- Charging system may be disabled, preventing the high-voltage battery from recharging
- Reduced power output or limp mode activation to protect the high-voltage components
- Often no symptoms besides the warning light if the interlock circuit is only intermittently open

Common causes, most likely first

- 1 A high-voltage connector that is not fully latched or has a damaged interlock pin
- 2 Broken or chafed wire in the interlock circuit, often near a hinge or vibration point
- 3 Corrosion or water intrusion in a high-voltage connector causing high resistance
- 4 Faulty high-voltage component (such as the battery pack, inverter, or charger) with an internal interlock switch failure
- 5 Damaged service disconnect switch or its associated interlock circuit
- 6 Poor connection at the interlock circuit's ground or splice point



How to diagnose and fix it

- 1 Inspect all high-voltage connectors for proper seating and latch engagement, reseating any that are loose
- 2 Check the service disconnect plug for full insertion and secure locking
- 3 Perform a visual inspection of interlock wiring for chafing, corrosion, or damage, especially near moving parts
- 4 Use a scan tool to view live data for the interlock circuit status and identify intermittent opens
- 5 Measure resistance and voltage on the interlock circuit at each connector to isolate the open segment
- 6 Repair or replace damaged wiring, pins, or connectors as needed, then clear codes and verify the loop is continuous
- 7 If the interlock is internal to a high-voltage component, follow manufacturer procedures to replace that component

Interlock Circuit Checks Before Replacing Parts

- A partially latched high-voltage connector is the most common cause, yet it often looks fully seated until you wiggle it or check the latch tab.
The interlock loop is a low-voltage safety circuit, so a code P0D15 does not necessarily mean the high-voltage system itself has a fault; the issue is usually in the small signal wiring.
- Intermittent opens can be caused by vibration or thermal expansion, so a wiggle test of the harness while watching live data can reveal a fault that a static resistance check misses.
- Some vehicles set this code if the 12-volt battery is weak or disconnected during service, so always clear codes and recheck before condemning a high-voltage component.
The interlock circuit often daisy-chains through several components, so a single unplugged connector anywhere in the chain will set the same code for the entire loop.

Can I keep driving with P0D15?

Do not drive the vehicle with this code active, because the high-voltage system may be disabled or unsafe, and continued operation could lead to a no-start condition or damage. Have the vehicle inspected by a qualified high-voltage technician before attempting to drive.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter with low-resistance measurement
- High-voltage safety gloves and insulated tools
- Vehicle-specific service information for interlock circuit routing
- Terminal pick and connector release tools



Reading P0D15

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- D** Hybrid propulsion.
- 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
 · **P0C76** Hybrid/EV Battery System Discharge Time Too Long · **P0D16** Battery Charging System A High Voltage Interlock Circuit Per · **P0D17** Battery Charging System A High Voltage Interlock Circuit Low

See it working

Watch the animated explainer [How Drive-by-Wire Works: Electronic Throttle Body](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0d15/>

