

GENERIC · POWERTRAIN

P0A0E

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0A0E

High Voltage System Interlock Circuit A Intermittent

P0A0E indicates that the high-voltage interlock loop, a safety circuit that confirms all high-voltage connectors are properly seated, has reported an intermittent break in continuity. The computer detected the interlock circuit voltage or current fluctuating outside the expected range for a calibrated period, which can be caused by a loose connector, damaged wiring, or a failing interlock switch inside a high-voltage component.

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

Symptoms you may notice

- High-voltage system warning light illuminated on the dashboard
- Vehicle may refuse to start or enter 'Ready' mode intermittently
- Reduced power or limp-home mode when the fault is active
- Intermittent loss of high-voltage accessories such as air conditioning
- Often no symptoms besides the warning light if the break is brief

Common causes, most likely first

- Loose or partially seated high-voltage connector at the battery pack, inverter, or motor
- Corroded or damaged terminals inside a high-voltage interlock connector
- Frayed or chafed interlock wiring harness rubbing against a metal edge
- Failed interlock switch integrated into a high-voltage component cover
- Water intrusion into a high-voltage connector causing intermittent continuity
- Poor pin fit or terminal fretting at the interlock loop splice point

How to diagnose and fix it

- Scan all modules for stored and pending codes, then clear and test-drive to confirm P0A0E returns
- Inspect every high-voltage connector for proper seating, corrosion, and water intrusion
- Perform a voltage drop or continuity test on the interlock loop while wiggling the harness
- Check service information for the specific interlock circuit pinout and resistance specifications
- Repair or replace damaged wiring, terminals, or the affected high-voltage component cover switch
- Clear codes and verify the interlock circuit reads stable voltage with the key on and during a road test



Why interlock faults fool good technicians

- A momentary voltage spike from a loose 12-volt ground can mimic an interlock fault, so always check chassis grounds before condemning high-voltage parts.
- The interlock loop often passes through the service disconnect plug, and a partially latched disconnect is a common cause that looks like a failed component.
- Some vehicles set P0A0E when the 12-volt battery is weak because the interlock monitor circuit misreads low supply voltage as an open circuit.
- After any high-voltage connector repair, the code may remain stored until a successful key cycle and self-test complete, so do not assume the fix failed.
- Interlock circuits are not always a simple series loop; some models use a pulsed signal, and a standard ohmmeter will not diagnose them correctly.

Can I keep driving with P0A0E?

Do not continue driving with an active high-voltage interlock fault, because the vehicle may shut down unexpectedly or disable the high-voltage system while in motion. Have the vehicle inspected by a qualified high-voltage technician before resuming normal use.

Tools that help

- OBD-II scan tool with manufacturer-specific high-voltage system support
- Digital multimeter with min/max recording
- Insulation tester or megohmmeter rated for high-voltage systems
- Service information for interlock circuit pinouts and resistance specs
- Terminal pick and connector release tools

Reading P0A0E

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
A	Hybrid propulsion.
0E	The exact fault within that area.

Often seen with

P0A0C High Voltage System Interlock Circuit A Low · **P0A0D** High Voltage System Interlock Circuit A High · **P0A0F** Engine Failed to Start · **P0A1F** Battery Energy Control Module A Performance · **P0AA6** Hybrid/EV Battery Voltage System Isolation Fault



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/p0a0e/>

