

GENERIC · POWERTRAIN

P0A0B

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0A0B

High Voltage System Interlock Circuit A Performance

P0A0B indicates that the high-voltage interlock loop, a safety circuit that confirms all high-voltage connectors and covers are properly seated, has detected a performance fault on circuit A. The computer monitors a low-voltage signal through the loop and sets this code when the signal is out of range, indicating a break, short, or excessive resistance in the interlock path.

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 master warning indicator
- Vehicle may refuse to start or enter 'Ready' mode, leaving you with a no-start condition
- Reduced power or limp mode if the vehicle does start, often limiting speed
- Inability to engage drive or charge the high-voltage battery on plug-in models
- Often no symptoms besides the warning light if the fault is intermittent
- Audible alert or message on the dash instructing you to pull over safely

Common causes, most likely first

- 1 A high-voltage connector that is not fully latched or has a damaged interlock pin
- 2 Corrosion or water intrusion in a high-voltage connector or service disconnect plug
- 3 A broken or chafed interlock wire in the harness between high-voltage components
- 4 Faulty high-voltage component cover or service plug that fails to close the interlock circuit
- 5 Internal failure of a high-voltage component (such as the battery pack, inverter, or motor) affecting the interlock switch
- 6 Damaged or misrouted wiring causing an intermittent short to ground or power
- 7 Aftermarket alarm or remote start installation that tapped into the interlock circuit incorrectly



How to diagnose and fix it

- 1 Inspect all high-voltage connectors for proper seating, latch engagement, and visible damage, reseating any that are loose
- 2 Check the service disconnect plug and high-voltage component covers for correct installation and interlock switch operation
- 3 Perform a visual inspection of the interlock wiring harness for chafing, corrosion, or pin damage, especially near moving parts or heat sources
- 4 Use a scan tool to read live data for the interlock circuit status and monitor for intermittent changes while wiggling connectors
- 5 Measure resistance and continuity of the interlock loop according to the manufacturer's service information, comparing to specifications
- 6 If the interlock circuit is integrated into a component, follow the OEM diagnostic flow to test that component's internal switch
- 7 Repair or replace the faulty connector, wire, or component, then clear codes and verify the interlock signal returns to normal

Interlock faults that fool even seasoned techs

- A partially latched high-voltage connector that looks secure can still set P0A0B because the interlock pin makes contact only at the final click, so always push until you hear or feel the latch engage.
- Water intrusion from a car wash or heavy rain can corrode interlock pins without leaving obvious external damage, so check inside connectors for green or white corrosion even if they appear dry.
- Aftermarket accessories wired into the high-voltage system, such as alarm sensors or remote start modules, often back-probe the interlock circuit and create intermittent faults that mimic a failed component.
- The code can be stored by a low auxiliary battery if the interlock circuit reference voltage drops during cranking, so load-test the 12-volt battery before condemning high-voltage parts.
- Some vehicles require a specific sequence to clear the code after repair, such as cycling the ignition or performing a high-voltage system reset, and the code may reappear until that procedure is done.

Can I keep driving with P0A0B?

Do not continue driving with this code set, because the high-voltage system may shut down unexpectedly or disable the vehicle while in motion. Have the vehicle inspected by a qualified high-voltage technician before attempting to drive any distance.



Tools that help

- OBD-II scan tool with live data and high-voltage system capability
- Digital multimeter with low-resistance measurement and continuity mode
- Insulation resistance tester (megohmmeter) rated for high-voltage systems
- Manufacturer-specific service information and wiring diagrams
- High-voltage safety gloves and insulated tools
- Trim removal tools for accessing connectors and panels

Reading P0A0B

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
A	Hybrid propulsion.
0B	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 · **P0A0E** High Voltage System Interlock Circuit A Intermittent · **P0A0F** Engine Failed to Start · **P0A1F** Battery Energy Control Module A Performance

See it working

Watch the animated explainer [How Regenerative Braking Works in Electric Cars](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0a0b/>

