

GENERIC · POWERTRAIN

P0E72

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0E72

Hybrid/EV Battery Internal Isolation Performance

P0E72 indicates that the hybrid or electric vehicle battery pack has failed an internal isolation performance test, meaning the battery management system detected an abnormal drop in electrical resistance between the high-voltage battery and the vehicle chassis. The computer monitors isolation resistance and sets this code when the measured value falls below the manufacturer's specified threshold, signaling a potential safety hazard.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

High

FIX DIFFICULTY

Professional

AREA

Hybrid propulsion

Symptoms you may notice

- Illumination of the high-voltage system warning light or master warning indicator
- Often no symptoms besides the warning light, especially in early stages
- Reduced power output or a 'turtle mode' limp-home strategy
- Inability to start the vehicle or engage the high-voltage system
- Intermittent warning light that appears during damp or rainy conditions
- Possible audible alerts or messages on the driver information display

Common causes, most likely first

- 1 Moisture or condensation inside the high-voltage battery pack
- 2 Insulation breakdown in high-voltage wiring or connectors due to chafing or age
- 3 Internal battery cell leakage or contamination causing a path to the case
- 4 Damaged or degraded isolation monitoring circuit within the battery management system
- 5 Coolant leaks inside a liquid-cooled battery pack
- 6 Foreign objects or debris bridging high-voltage components to the chassis



How to diagnose and fix it

- 1 Retrieve all stored codes and freeze-frame data with a scan tool capable of reading hybrid/EV-specific modules
- 2 Perform a visual inspection of high-voltage cables, connectors, and the battery pack exterior for damage, corrosion, or moisture
- 3 Use an insulation resistance tester to measure isolation between high-voltage bus and chassis at the service disconnect
- 4 Isolate sections of the high-voltage system by disconnecting modules one at a time to locate the fault
- 5 Inspect the battery pack for signs of coolant intrusion or condensation, and check the battery management system for software updates
- 6 Repair or replace the faulty high-voltage cable, connector, or battery pack component as indicated by the isolation test
- 7 Clear codes and perform a road test to verify the isolation resistance returns to normal and the code does not reset

Isolation faults hide in damp connectors

- A common oversight is assuming the battery pack itself is faulty when the real cause is a moisture-laden connector or a chafed cable behind a wheel arch.
- The isolation fault may only appear under certain conditions such as high humidity or after a car wash, so a dry-weather inspection can miss it entirely.
- Some vehicles set this code when the isolation monitoring system itself is faulty, not because the high-voltage system has a genuine insulation problem.
- Aftermarket accessories or improper previous repairs that pierce high-voltage wiring can create a subtle isolation path that only shows up on a Megger test.
- The code can be stored alongside other high-voltage codes, and clearing it without fixing the root cause may lead to a repeat failure and potential safety risk.

Can I keep driving with P0E72?

Do not continue driving with this code active, as a high-voltage isolation fault poses a serious shock hazard and can lead to sudden loss of power. Have the vehicle towed to a qualified hybrid/EV service center for diagnosis and repair.

Tools that help

- Hybrid/EV-capable scan tool
- Insulation resistance tester (Megger)
- Digital multimeter
- High-voltage safety gloves and insulated tools
- Service information and wiring diagrams



Reading P0E72

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
E	Hybrid propulsion.
72	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
 · **P0E71** Control Pilot Signal Frequency Too High · **P0E73** Coolant Bypass Valve A Control Circuit/Open

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/p0e72/>

