

GENERIC · POWERTRAIN

P2C97

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2C97

Hybrid/EV Battery Disable Circuit Low

P2C97 indicates that the hybrid or electric vehicle's battery disable circuit has a low voltage condition, meaning the control module expects a specific voltage on the disable circuit but sees it persistently below the threshold. This circuit is a safety feature designed to isolate the high-voltage battery during service or a crash, so a low signal can prevent the system from enabling or may trigger a fail-safe shutdown.

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

Symptoms you may notice

- Illumination of the hybrid system warning light or service vehicle soon message
- The vehicle may refuse to start or enter 'Ready' mode, leaving you stranded
- Reduced power or a limp-home mode if the vehicle does drive
- Inability to shift out of Park or engage drive due to safety interlock
- Often no symptoms besides the warning light, especially if the fault is intermittent
- Audible click or relay cycling from the battery pack area when attempting to start

Common causes, most likely first

- 1 A damaged or corroded wiring harness in the battery disable circuit, often at connectors or where the harness passes through the battery enclosure
- 2 A faulty battery disable switch or service disconnect plug that is not fully seated or has internal contact wear
- 3 A short to ground on the disable circuit wiring, pulling the signal low
- 4 A failed hybrid/EV battery control module or battery energy control module (BECM) driver circuit
- 5 Water intrusion or contamination in the disable circuit connector causing low resistance to ground
- 6 A defective relay or contactor in the high-voltage battery pack that feeds back a low signal
- 7 Loose or corroded ground connection shared with the disable circuit, causing a voltage drop



How to diagnose and fix it

- 1 Verify the service disconnect plug is fully seated and latched, then clear the code and retest
- 2 Inspect the disable circuit wiring and connectors for corrosion, chafing, or water intrusion, repairing as needed
- 3 Measure resistance from the disable circuit to ground to check for a short, and compare with the factory specification
- 4 Back-probe the disable circuit at the control module connector and measure voltage while wiggling the harness to catch intermittent faults
- 5 Check the ground circuit for the disable switch and control module, cleaning and tightening as required
- 6 If the circuit tests good, substitute a known-good disable switch or relay to rule out a faulty component
- 7 As a last step, follow the manufacturer's diagnostic flow to test the control module and replace only if confirmed defective

What the disable circuit really does

- The battery disable circuit is a safety interlock, not a charging or drive function, so a low signal often prevents the vehicle from entering Ready mode rather than causing a drivability complaint.
- A common oversight is replacing the battery control module when the actual fault is a partially unseated service disconnect plug that looks connected but has high contact resistance.
- Intermittent low signals frequently trace to water intrusion in a connector near the battery pack, especially after a car wash or heavy rain, and the code may not reset until the connector is dried and sealed.
- Some vehicles set P2C97 when the 12-volt auxiliary battery is weak, because the control module misreads the disable circuit voltage during low system voltage conditions.
- A short to ground on the disable circuit can be caused by a pinched harness under the rear seat or cargo area, so always inspect where the harness passes through body seams.

Can I keep driving with P2C97?

Do not drive the vehicle if it will not enter Ready mode or if the warning light is accompanied by a reduced power message, because the high-voltage system may be disabled or in a fail-safe state. If the vehicle drives normally with only the warning light, limit driving to a short distance to a qualified repair facility and avoid high-speed or heavy-load operation.

Tools that help

- Digital multimeter with back-probe pins
- Manufacturer-specific scan tool capable of reading hybrid/EV battery control module data
- Wiring diagram and connector pinout for the disable circuit
- Insulation resistance tester (megohmmeter) for high-voltage circuit checks
- Trim removal tools to access connectors under seats and panels



Reading P2C97

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

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0A0F** Engine Failed to Start · **P2C96** Hybrid/EV Battery Disable Circuit/Open · **P2C98** Hybrid/EV Battery Disable Circuit High

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/p2c97/>

