

GENERIC · POWERTRAIN

P0D97

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0D97

Battery Charger Coupler Unlock Control Circuit High

This code indicates that the battery charger coupler unlock control circuit is reading a higher voltage than expected, which the computer interprets as a short to power or an open circuit in the unlock command path. The powertrain control module (PCM) or battery energy control module (BECM) monitors this circuit to ensure the coupler can safely release during charging, and it sets P0D97 when the voltage on the control circuit exceeds the calibrated threshold.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Hybrid propulsion

Symptoms you may notice

- The charge coupler may fail to unlock, preventing the charging connector from being removed.
- The charging system may not initiate or may stop charging unexpectedly.
- A warning light or message on the instrument cluster indicating a charging system fault.
- The vehicle may refuse to start or enter a ready-to-drive state if the coupler is not detected as locked.
- Often no symptoms besides the warning light, especially if the fault is intermittent.
- Audible clicking or no sound from the coupler lock actuator when attempting to unlock.

Common causes, most likely first

- A short to voltage in the unlock control circuit wiring, often due to chafed insulation or pinched harness.
- A faulty coupler unlock actuator or solenoid that has an internal short to power.
- Corrosion or water intrusion in the coupler connector or unlock actuator connector.
- A failed battery charger coupler assembly, including the lock mechanism or integrated sensor.
- A malfunctioning control module (PCM or BECM) that incorrectly drives the unlock circuit high.
- A poor ground connection for the unlock actuator, causing the control circuit to read high.
- Aftermarket accessories or improper previous repairs that tapped into the unlock circuit.



How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related codes in the charging system modules.
- 2 Inspect the unlock actuator connector and coupler assembly for corrosion, water intrusion, or loose pins.
- 3 Disconnect the unlock actuator and measure voltage on the control circuit to check for a short to power.
- 4 Perform a wiggle test on the harness while monitoring the circuit voltage to identify intermittent shorts.
- 5 Check the ground circuit for the unlock actuator using a voltage drop test.
- 6 If the circuit tests normal, test the unlock actuator with a known-good unit or follow manufacturer diagnostics.
- 7 Repair any damaged wiring, replace corroded connectors, and clear the code to verify the fix.

Unlock Circuit High Isn't Always the Actuator

- A short to voltage in the unlock control circuit often originates where the harness flexes near the charge port door hinge, not at the actuator itself.
- Water intrusion into the coupler connector can create a conductive path that mimics a short to power, so always inspect for green corrosion before condemning parts.
- The code can set intermittently if the unlock circuit is only pulled high when the vehicle is exposed to vibration or temperature extremes, making a wiggle test essential.
- Some vehicles use a smart actuator with integrated electronics that can fail in a way that backfeeds voltage onto the control line, so a simple resistance check may not reveal the fault.
- A weak or missing ground for the unlock actuator can cause the control circuit to float high, setting this code even though the actuator itself is good.

Can I keep driving with P0D97?

You can generally drive the vehicle, but avoid using the charging system until the fault is repaired because the coupler may not unlock or may fail to latch securely. If the coupler is stuck locked, do not force it, as that can damage the charge port and actuator.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Back probe pins or breakout box
- Wiring diagram for the specific vehicle
- Trim removal tools for accessing the charge port area



Reading P0D97

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

Often seen with

P0D95 Battery Charger Coupler Unlock Control Circuit/Open · **P0D96** Battery Charger Coupler Unlock Control Circuit Low · **P0D98** Battery Charger Coupler Unlock Control Circuit Performance · **P0D99** Battery Charger Coupler Temperature Sensor A Circuit

See it working

Watch the animated explainer [Four-Stroke Engine Cutaway: Intake to Exhaust](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0d97/>

