

GENERIC · POWERTRAIN

P0D47

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0D47

Battery Charger 14 Volt Output Current Sensor Circuit

P0D47 indicates that the battery charger's 14-volt output current sensor circuit has a fault, meaning the control module cannot reliably read the current flowing from the 14-volt charging system. The computer detects an abnormal voltage or signal from the current sensor, which may prevent proper regulation of the auxiliary battery charging.

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

Symptoms you may notice

- Illumination of the check engine light or service vehicle soon message
- Often no symptoms besides the warning light
- Auxiliary battery may not charge properly, leading to a no-start or reduced electrical performance
- Charging system warning light may also be on
- Possible electrical accessories running incorrectly or dimming lights
- In some cases, the vehicle may enter a reduced power mode

Common causes, most likely first

- 1 Faulty 14-volt output current sensor
- 2 Damaged or corroded wiring or connector at the current sensor
- 3 Open or short circuit in the sensor signal circuit
- 4 Failed battery charger control module
- 5 Poor ground connection for the sensor or module
- 6 Internal failure in the auxiliary battery pack
- 7 Software issue in the control module requiring reprogramming



How to diagnose and fix it

- 1 Perform a visual inspection of the current sensor and its wiring for damage or corrosion
- 2 Check for technical service bulletins (TSBs) related to this code for your vehicle
- 3 Use a scan tool to read live data from the current sensor and compare with actual current measurements
- 4 Test the sensor signal circuit for opens, shorts, and resistance
- 5 Check the sensor's ground circuit for continuity to chassis ground
- 6 If the sensor tests out of specification, replace the current sensor
- 7 If the sensor and wiring are good, diagnose the battery charger control module and reprogram or replace as needed

Don't overlook the auxiliary battery

- A weak or failing auxiliary battery can cause the current sensor to report out-of-range values, setting this code even when the sensor itself is fine.
- The current sensor is often integrated into the battery cable or module, so a simple cable replacement may be necessary rather than a standalone sensor.
- This code can be set by a loose or corroded ground connection that affects the sensor's reference voltage, which is a common oversight during diagnosis.
- In some vehicles, the 14-volt output current sensor is part of the battery monitoring system, and a reset or relearn procedure is required after replacement.
- A charging system fault may not illuminate the battery light immediately; the code can be stored pending before the light comes on, so scan tools are essential for early detection.

Can I keep driving with P0D47?

You can usually drive the vehicle with this code, but avoid long trips or heavy electrical loads because the auxiliary battery may not charge properly, which could lead to a no-start or reduced performance. Have the fault diagnosed soon to prevent being stranded.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Basic hand tools for trim and connector removal
- Battery load tester



Reading P0D47

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

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0A94** DC/DC Converter A Performance · **P0D46** Battery Charger 14 Volt Output Voltage Sensor Circuit Interm · **P0D48** Battery Charger 14 Volt Output Current Sensor Circuit Range/ · **U0111** Lost Communication With Battery Energy Control Module 'A'

See it working

Watch the animated explainer [How a MAP Sensor Works: Engine Vacuum and Load](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0d47/>

