

GENERIC · POWERTRAIN

P0A8A

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0A8A

14 Volt Power Module Current Sensor A Circuit Intermittent

P0A8A indicates that the 14-volt power module has detected an intermittent fault in the current sensor circuit for channel A, which monitors current flow through the auxiliary battery system. The control module sets this code when the sensor signal momentarily drops out or becomes erratic, often due to a loose connection or failing sensor, rather than a continuous failure.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Hybrid propulsion

Symptoms you may notice

- Illumination of the check engine light or service vehicle soon message
- Often no symptoms besides the warning light, especially if the fault is truly intermittent
- Intermittent charging system warning light or voltage gauge fluctuation
- Reduced or disabled stop-start function on vehicles equipped with that feature
- Electrical accessories may dim or behave erratically during moments of fault
- Possible stored history codes for low voltage or communication loss in other modules

Common causes, most likely first

- 1 Loose, corroded, or damaged wiring and connectors at the current sensor or power module
- 2 Failing current sensor internal to the 14-volt power module assembly
- 3 Intermittent open or short in the sensor signal circuit due to chafing or heat damage
- 4 Poor ground connection for the power module or sensor return circuit
- 5 Low or unstable auxiliary battery voltage causing sensor readings to drop out
- 6 Water intrusion or contamination in the power module connector
- 7 Internal fault in the 14-volt power module itself, though less common than wiring issues



How to diagnose and fix it

- 1 Perform a visual inspection of the 14-volt power module, current sensor, and all related connectors for corrosion, loose pins, or damaged wires
- 2 Check the auxiliary battery state of charge and perform a load test to rule out low voltage as the root cause
- 3 Use a scan tool to monitor live current sensor data for channel A while wiggling harnesses and connectors to reproduce the intermittent fault
- 4 Measure resistance and voltage drop on the sensor signal and ground circuits to identify high resistance or intermittent opens
- 5 Check for technical service bulletins (TSBs) or software updates for the power module that address false or intermittent current sensor codes
- 6 If wiring and battery are confirmed good, replace the current sensor or the 14-volt power module assembly as required by the manufacturer's procedure
- 7 Clear codes and perform a road test with accessories cycling to verify the repair and ensure the code does not return

Intermittent codes demand a different diagnostic approach

- An intermittent current sensor code often leaves no trace in freeze-frame data, so technicians must rely on live data monitoring and wiggle tests rather than static measurements.
- A weak or failing auxiliary battery can cause the power module to log this code even when the sensor circuit is intact, because voltage sags confuse the current measurement.
- Many vehicles set P0A8A as a history code only, and clearing it without addressing a loose connector will almost certainly lead to a comeback.
- The 14-volt power module on some platforms is part of a combined assembly that includes the DC-DC converter, making sensor replacement a costly guess if wiring is not ruled out first.
- Corrosion inside a connector that looks fine from the outside is a frequent culprit, especially on vehicles with battery boxes located in damp areas or under the hood.

Can I keep driving with P0A8A?

The vehicle is generally safe to drive because the fault is intermittent and the 14-volt system usually maintains operation, but avoid long trips or heavy electrical loads until the cause is found. If the charging warning light comes on steadily or voltage drops, pull over and stop driving to prevent a no-start or stall condition.

Tools that help

- OBD-II scan tool with live data and graphing capability
- Digital multimeter with min/max recording
- Wire piercing probes or back-probe kit
- Battery load tester
- Manufacturer service information for connector pinouts and procedures



Reading P0A8A

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- A** Hybrid propulsion.
- 8A** The exact fault within that area.

Often seen with

P0562 System Voltage Low · **P0A8B** 14 Volt Power Module System Voltage · **P0A8C** 14 Volt Power Module System Voltage Unstable · **P0A8D** 14 Volt Power Module System Voltage Low · **U0111** Lost Communication With Battery Energy Control Module 'A'

See it working

Watch the animated explainer [How a Gyroscope Works: Gimbals and Precession](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0a8a/>

