

GENERIC · POWERTRAIN

P0E3A

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0E3A

DC/DC Converter Voltage Sensor B Intermittent/Erratic

P0E3A indicates that the powertrain control module has detected an intermittent or erratic signal from the voltage sensor circuit of DC/DC converter B, which is a device that steps voltage up or down for hybrid and electric vehicle systems. The computer sets this code when the sensor's reported voltage jumps, drops out, or otherwise behaves unpredictably beyond a calibrated window for a set period.

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 with no other symptoms
- Intermittent charging system warning or reduced power mode
- Fluctuating or dimming interior and exterior lights
- A sudden loss of accessory power or infotainment reset
- Rough running or stalling if the converter supplies critical low-voltage systems
- No noticeable drivability change in many cases

Common causes, most likely first

- 1 Loose, corroded, or damaged wiring and connectors at the DC/DC converter voltage sensor B circuit
- 2 Failing voltage sensor B internal to the DC/DC converter assembly
- 3 Poor ground connection for the converter or sensor reference circuit
- 4 Water intrusion or contamination in the converter connector
- 5 Failing DC/DC converter causing unstable output that the sensor faithfully reports
- 6 Intermittent open or short in the sensor signal circuit due to chafing or heat damage
- 7 Rarely, a software calibration issue in the control module



How to diagnose and fix it

- 1 Inspect and wiggle-test the converter voltage sensor B connector and harness while watching live data for signal dropout
- 2 Check for corrosion, water intrusion, or loose pins at the converter and sensor connectors
- 3 Measure resistance and voltage drop on the sensor ground and reference circuits to rule out wiring faults
- 4 Compare sensor B voltage readings against a known-good meter at the converter output to verify sensor accuracy
- 5 If wiring and sensor check out, perform a converter output test under load to confirm stable operation
- 6 Replace the faulty voltage sensor or converter assembly only after electrical verification
- 7 Clear codes and road-test with live data to confirm the intermittent signal is resolved

Intermittent signals often hide simple wiring faults

- A voltage sensor B code frequently originates from a chafed wire or loose pin that only acts up under vibration or temperature swings, so a static meter check can pass while the fault remains.
The DC/DC converter voltage sensor is often integrated into the converter assembly, making replacement costly; always verify the sensor signal at the connector before condemning the unit.
- This code can be set by a weak 12-volt battery or charging system issue that causes unstable reference voltage, so check the base electrical system first.
- Intermittent codes may not store freeze-frame data, so capturing live data during a test drive is more reliable than relying on stored values.
A poor ground shared with other modules can create erratic sensor readings that mimic a failed converter, so inspect ground points before parts replacement.

Can I keep driving with P0E3A?

You can usually continue driving if the only symptom is a warning light, but avoid long trips or heavy electrical loads until the fault is diagnosed. If the vehicle enters reduced power mode or charging system warnings appear, have it checked promptly to prevent a no-start or stall.

Tools that help

- OBD-II scan tool with live data and graphing capability
- Digital multimeter with min/max recording
- Back probe pins or breakout leads
- Wiring diagram for the DC/DC converter circuit
- Insulated hand tools and terminal pick set



Reading P0E3A

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- E** Hybrid propulsion.
- 3A** The exact fault within that area.

Often seen with

P0562 System Voltage Low · **P0A94** DC/DC Converter A Performance · **P0E39** DC/DC Converter Voltage Sensor B High · **P0E3B** Hybrid/EV Battery Coolant Pump Overspeed · **P0E3C** Hybrid/EV Battery Coolant Pump Underspeed

See it working

Watch the animated explainer [How a Six-Speed Manual Gearbox Works](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0e3a/>

