

GENERIC · POWERTRAIN

P2D69

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2D69

Battery Charging System Positive Contactor D Circuit

P2D69 indicates that the battery charging system's positive contactor control circuit has a fault, typically an open, short, or excessive resistance in the wiring or the contactor coil itself. The powertrain control module (PCM) monitors this circuit and sets the code when the commanded state does not match the actual voltage or current feedback.

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

Symptoms you may notice

- Illumination of the battery/charging system warning light or service vehicle soon message
- The vehicle may fail to start or enter a 'ready' state because the high-voltage battery contactor does not close
- Intermittent loss of charging or reduced power mode while driving
- Audible clicking or no click from the contactor area when the ignition is turned on
- Often no symptoms besides the warning light, especially if the fault is intermittent

Common causes, most likely first

- 1 Open or high-resistance wiring in the positive contactor control circuit (broken wire, corroded terminal, or loose connector)
- 2 Failed positive contactor coil (open or shorted internally)
- 3 Faulty PCM driver for the contactor control circuit
- 4 Short to ground or short to voltage on the control circuit
- 5 Poor ground connection for the contactor or PCM
- 6 Damaged or corroded connector pins at the contactor or PCM
- 7 Aftermarket accessories improperly tapped into the charging system wiring



How to diagnose and fix it

- 1 Perform a visual inspection of the contactor, wiring harness, and connectors for damage, corrosion, or loose pins
- 2 Use a scan tool to command the contactor on and off while monitoring the control circuit voltage and current feedback
- 3 Measure resistance of the contactor coil and compare to specification; replace if out of range
- 4 Check for continuity and voltage drop on the control circuit from the PCM to the contactor, repairing any open or high-resistance faults
- 5 Test for short to ground and short to voltage on the control circuit with the PCM and contactor disconnected
- 6 Verify PCM driver operation by back-probing the control circuit and observing the signal when commanded
- 7 Clear codes and perform a road test to confirm the repair and ensure no pending codes return

Contactor Circuit Checks Before Parts Replacement

- A common oversight is assuming the contactor itself is faulty when the real problem is a corroded connector pin or chafed wire in the control circuit, so always perform a voltage drop test under load.
- The PCM may set P2D69 even when the contactor is functioning, if the feedback circuit is skewed by a poor ground or a failing driver, so do not replace the contactor without verifying the control signal.
- Intermittent faults often occur due to vibration or temperature changes, so wiggle-test the harness while monitoring live data to reproduce the condition.
- Aftermarket alarms or remote starters tapped into the charging system wiring can introduce resistance or shorts that trigger this code, so inspect for non-factory wiring.
- A weak or failing 12-volt battery can cause low voltage during cranking that mimics a contactor circuit fault, so always load-test the battery and check charging voltage first.

Can I keep driving with P2D69?

If the warning light is on and the vehicle fails to start or enter ready mode, do not attempt to drive because the high-voltage battery may be disconnected. If the vehicle drives normally but the light is on, limit driving to a short distance to a repair facility and avoid heavy electrical loads.

Tools that help

- OBD-II scan tool with bidirectional control and live data
- Digital multimeter with voltage drop and resistance capability
- Wiring diagram for the specific vehicle
- Back-probe kit or breakout box
- Insulated hand tools and terminal pick set



Reading P2D69

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

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0A0F** Engine Failed to Start · **P2D68** Battery Charging System Negative Contactor C Control Circuit · **P2D6A** Battery Charging System Positive Contactor D Stuck Closed · **P2D6B** Battery Charging System Positive Contactor D Stuck Open

See it working

Watch the animated explainer [Four-Stroke Engine Notebook: The Otto Cycle Explained](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2d69/>

