

GENERIC · POWERTRAIN

P0D13

OBD-II TROUBLE CODE

P0D13

Battery Charging System Negative Contactor A Control Circuit Low

P0D13 indicates that the battery charging system's negative contactor control circuit is reporting a low voltage condition, meaning the control module has detected a short to ground or an open circuit on the ground-side control wire for the negative contactor. The negative contactor is a high-current relay that connects the battery's negative terminal to the charging system, and when its control circuit is low, the contactor may fail to close or open as commanded.

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

Symptoms you may notice

- Battery warning light illuminated on the dashboard
- Charging system may fail to engage, leading to a dead battery after driving
- Vehicle may enter a reduced power or limp mode
- Intermittent electrical accessories or flickering lights
- Often no symptoms besides the warning light, especially if the contactor remains in its default state

Common causes, most likely first

- Damaged or chafed control wire shorted to ground
- Failed negative contactor coil (open or shorted internally)
- Corroded or loose electrical connector at the contactor or control module
- Faulty control module driver circuit
- Poor ground connection at the contactor mounting point
- Water intrusion or contamination in the contactor housing

How to diagnose and fix it

- Inspect the control circuit wiring for obvious damage, chafing, or corrosion, and repair as needed
- Disconnect the contactor and measure the control circuit resistance to ground to check for a short
- Test the contactor coil resistance and compare to specification; replace if out of range
- Check for tight and clean connections at the contactor and control module, cleaning or tightening as required
- Verify the control module is commanding the contactor by back-probing the control wire with a scope or meter
- If the control module driver is faulty, replace or reprogram the module as needed
- Clear the code and perform a road test to confirm the repair



Don't overlook the ground side

- A low control circuit code often results from a short to ground in the wiring harness, not a failed contactor, so always inspect the wire routing near sharp edges or heat sources.
- The negative contactor may be part of a battery management system that also controls charging and load shedding, so a fault here can cause multiple unrelated symptoms.
- Some vehicles use a latching contactor that only needs a momentary pulse to change state; a low circuit may prevent it from latching, leaving the contactor stuck open or closed.
- A weak or failing battery can cause the control module to set this code falsely due to low system voltage during cranking, so load-test the battery before condemning the contactor.
- After repairs, some vehicles require a relearn or initialization procedure for the battery monitoring system to clear the code permanently.

Can I keep driving with P0D13?

If the battery warning light is on and the charging system is not working, the vehicle may stall or leave you stranded once the battery drains, so limit driving to a short distance to a repair shop. Avoid turning off the engine if possible, as it may not restart.

Tools that help

- Digital multimeter
- OBD-II scanner
- Wiring diagram for the specific vehicle
- Test light
- Socket set and wire repair tools

Reading P0D13

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

Often seen with

P0562 System Voltage Low · **P0563** System Voltage High · **P0D14** Battery Charging System Negative Contactor A Control Circuit · **P0D15** Battery Charging System A High Voltage Interlock Circuit/Ope · **P0D16** Battery Charging System A High Voltage Interlock Circuit Per



See it working

Watch the animated explainer [Car Relay Test Bench: Test 4-Pin and 5-Pin Relays](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0d13/>

