

GENERIC · POWERTRAIN

P0D04

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0D04

Control Pilot Charging Ventilation Switch Intermittent/Erratic

P0D04 means the electric vehicle supply equipment (EVSE) control pilot circuit has reported an intermittent or erratic signal from the charging ventilation switch, which tells the vehicle whether the charging location is properly ventilated for battery cooling. The computer detected the ventilation switch signal dropping out or jumping between states when it should remain stable during charging.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Hybrid propulsion

Symptoms you may notice

- Charging session may stop unexpectedly or fail to start
- Charging indicator light flashes or shows a fault
- Often no symptoms besides the warning light
- Reduced or interrupted charging speed
- Message on the dash about charging system or ventilation
- In rare cases, the vehicle may refuse to accept a charge

Common causes, most likely first

- 1 Faulty charging ventilation switch or its connector
- 2 Damaged or chafed wiring in the control pilot circuit
- 3 Water or corrosion intrusion in the charge port or EVSE connector
- 4 Poor ground connection at the charge port or EVSE
- 5 Intermittent fault inside the EVSE (charging station) itself
- 6 Software glitch in the charging control module
- 7 Loose or worn pins in the control pilot connector



How to diagnose and fix it

- 1 Inspect the charge port and EVSE connector for debris, moisture, or bent pins
- 2 Check the ventilation switch connector for tightness and corrosion
- 3 Perform a wiggle test on the control pilot wiring while monitoring live data
- 4 Measure resistance and continuity of the ventilation switch circuit
- 5 Try a different known-good EVSE to rule out the charging station
- 6 Clear the code and retest; if it returns, follow the manufacturer's diagnostic flow for the control pilot circuit
- 7 Replace the ventilation switch or repair wiring as indicated by test results

Charging ventilation switch faults often misread

- A faulty EVSE is frequently overlooked because the code points to the vehicle, yet the charging station's control pilot signal can cause the same intermittent fault.
- The ventilation switch is often part of the charge port assembly, so technicians sometimes replace the entire port when only the switch or its pigtail is faulty.
- Intermittent codes can be set by a single low-voltage spike during plug-in, so the fault may not reappear until the next charging session.
- Corrosion inside the charge port from car washes or road splash is a common hidden cause that visual inspection alone may miss without disassembly.
- Some vehicles use the control pilot line for both ventilation and proximity detection, so a fault in one function can mimic the other.

Can I keep driving with P0D04?

You can usually drive the vehicle normally because this fault affects charging rather than propulsion, but avoid relying on charging until the issue is resolved. Do not attempt repeated charging sessions if the vehicle repeatedly aborts the charge, as this may indicate a safety interlock problem.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- EVSE tester or known-good charging station
- Trim removal tools
- Contact cleaner and dielectric grease



Reading P0D04

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

Often seen with

P0C94 Hybrid/EV Battery Temperature Sensor K Circuit Low · **P0C95** Hybrid/EV Battery Temperature Sensor K Circuit High · **P0D03** Control Pilot Charging Ventilation Switch Circuit High · **P0D05** Control Pilot Charging Ventilation Switch Stuck Off · **P0D06** Control Pilot Charging Ventilation Switch Stuck On

See it working

Watch the animated explainer [Four-Stroke Engine Cutaway: Intake to Exhaust](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0d04/>

