

GENERIC · POWERTRAIN

P0D01

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0D01

Control Pilot Charging Ventilation Switch Range/Performance

P0D01 indicates that the control pilot circuit, which manages communication between the charging station and the vehicle during electric vehicle supply equipment (EVSE) charging, has detected a ventilation switch signal that is out of expected range or not performing correctly. The computer monitors the pilot line for proper voltage levels and switch transitions, and it sets this code when the ventilation request signal does not match the commanded state or remains implausible for a calibrated time.

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

Symptoms you may notice

- Charging may not initiate or may stop unexpectedly shortly after plugging in
- The vehicle may refuse to accept a charge from certain EVSE units, especially those requiring ventilation
- A warning light or message on the instrument cluster indicating a charging system fault
- The charging session may default to a reduced power level or fail to enter the ventilation mode
- Often no symptoms besides the warning light, with normal charging behavior in mild conditions
- In some cases, the vehicle may fail to recognize the EVSE connection altogether

Common causes, most likely first

- Faulty ventilation switch or sensor integrated into the EVSE handle or charge port assembly
- Damaged or corroded control pilot circuit wiring between the charge port and the vehicle control module
- Water intrusion or contamination in the charge port connector causing signal degradation
- Software or calibration issue in the charging control module misinterpreting the pilot signal
- Failed charging control module or onboard charger not processing the ventilation request correctly
- EVSE equipment malfunction where the station sends an out-of-range ventilation signal
- Poor ground connection at the charge port or EVSE, affecting pilot signal reference



How to diagnose and fix it

- 1 Inspect the charge port and EVSE connector for debris, corrosion, or water intrusion and clean or dry as needed
- 2 Use a scan tool to view live control pilot voltage and ventilation switch status while connected to a known-good EVSE
- 3 Check the control pilot circuit wiring and connectors for continuity, shorts, or high resistance, repairing any damage
- 4 Test the ventilation switch or sensor with a multimeter and replace if it does not toggle correctly
- 5 Verify the EVSE is functioning properly by trying a different charging station or a known-compatible unit
- 6 Update the charging control module software if a calibration bulletin applies to the vehicle
- 7 Replace the charging control module or onboard charger if all external circuits and components test good

When the EVSE is the real culprit

- A common oversight is blaming the vehicle when the charging station itself is sending an erratic pilot signal, so always test with a second EVSE before replacing parts.
- The ventilation switch is often part of the charge port assembly and may not be available separately, leading to unnecessary replacement of the entire port when only the switch is faulty.
- Intermittent codes often stem from slight corrosion on the control pilot pin that only acts up in damp weather, so a thorough cleaning can resolve the issue without parts.
- Some vehicles only set this code after multiple drive cycles with a failed ventilation request, so a single occurrence may not indicate a hard fault.
- A weak 12-volt battery can cause the charging control module to misread pilot signals, so always verify battery health before diving into circuit diagnostics.

Can I keep driving with P0D01?

You can generally drive the vehicle normally because this code affects charging communication rather than drivability, but avoid relying on charging sessions that trigger the warning until the fault is repaired. If the vehicle fails to charge at all, do not attempt long trips that require public charging.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- EVSE tester or known-good charging station
- Wire terminal cleaning tools
- Vehicle service information for control pilot circuit specifications



Reading P0D01

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

Often seen with

P0C00 Drive Motor A Current Low · **P0C01** Drive Motor A Current High · **P0D00** Control Pilot Charging Ventilation Switch Circuit/Open · **P0D02** Hybrid/EV Charging System Voltage Out Of Range · **P0D03** Control Pilot Charging Ventilation Switch Circuit High

See it working

Watch the animated explainer [Manual Car Driving Simulator: Learn Clutch Control](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0d01/>

