

GENERIC · POWERTRAIN

P0D06

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

## P0D06

# Control Pilot Charging Ventilation Switch Stuck On

P0D06 indicates that the control pilot circuit, which manages communication between the charging station and the vehicle during electric vehicle charging, has detected a ventilation switch that remains in the 'on' position when it should be off. The computer monitors the ventilation switch signal and sets this code when the switch stays active longer than expected, potentially affecting battery cooling and charging safety.

| 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
- A warning light on the dashboard, often the check engine light or a dedicated EV system light
- Reduced charging speed or inability to use certain charging stations
- Audible alerts or messages on the vehicle's information display related to charging
- Often no symptoms besides the warning light, with charging functioning normally

## Common causes, most likely first

- Faulty ventilation switch that is stuck closed or shorted
- Damaged wiring or connector in the control pilot circuit, such as corrosion or chafing
- Failed charging port assembly or onboard charger module
- Software glitch in the vehicle's charging control module
- Water intrusion into the charging system components
- Poor ground connection for the ventilation switch circuit

## How to diagnose and fix it

- Use an OBD-II scanner to confirm the code and check for related codes in the charging system
- Inspect the charging port and control pilot circuit wiring for visible damage, corrosion, or loose connections
- Test the ventilation switch with a multimeter to verify if it is stuck on or has continuity when it should be open
- Check the charging control module for software updates and apply any available manufacturer updates
- Perform a voltage drop test on the ground circuit for the ventilation switch
- Replace the ventilation switch if testing confirms it is faulty
- If the switch and wiring are good, diagnose the charging control module or onboard charger for internal faults

## Ventilation switch faults often misdiagnosed

- A stuck ventilation switch can be caused by a simple mechanical jam in the switch itself, which is often overlooked in favor of complex electrical diagnostics.
- The control pilot circuit is sensitive to resistance changes, so even minor corrosion in a connector can mimic a stuck switch and set this code.
- Some vehicles use the ventilation switch signal for battery thermal management, so a fault may not prevent charging but could reduce charging efficiency in extreme temperatures.
- After replacing a component, the code may not clear immediately because the control module requires a complete charging cycle to re-learn the switch state.
- This code can be set by a low 12-volt battery or poor ground, so always verify battery health and ground connections before replacing parts.

## Can I keep driving with P0D06?

You can generally continue driving the vehicle, but charging may be limited or unavailable, so plan for reduced electric range. Avoid using high-power charging stations until the fault is repaired, as the ventilation system may not function correctly.

## Tools that help

- OBD-II scanner with EV support
- Digital multimeter
- Wiring diagram for the charging system
- Basic hand tools for trim removal
- Insulation resistance tester

## Reading P0D06

|           |                                                                      |
|-----------|----------------------------------------------------------------------|
| <b>P</b>  | Powertrain: engine, transmission and emissions.                      |
| <b>0</b>  | Generic (SAE) code: it means the same thing on every OBD-II vehicle. |
| <b>D</b>  | Hybrid propulsion.                                                   |
| <b>06</b> | The exact fault within that area.                                    |

## Often seen with

**P0C94** Hybrid/EV Battery Temperature Sensor K Circuit Low · **P0D05** Control Pilot Charging Ventilation Switch Stuck Off · **P0D07** Battery Charging System Positive Contactor A Circuit · **P0D08** Hybrid/EV Charge Cord Fault



### 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/p0d06/>

