

GENERIC · NETWORK

U3566

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

U3566

Anode Inlet Pressure Sensor 1 Circuit

This code indicates that the powertrain control module has detected an abnormal condition in the electrical circuit for the anode inlet pressure sensor, which is used in hydrogen fuel cell systems to monitor the pressure of hydrogen gas entering the fuel cell stack's anode. The computer compares the sensor's signal voltage against expected values and sets this code when the signal falls outside the normal operating range or the circuit shows an open, short, or erratic behavior.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Network	Generic (all makes)	Medium	Intermediate	Network communication

Symptoms you may notice

- Illumination of the malfunction indicator lamp (MIL) on the dashboard, often with no other noticeable symptoms.
- Reduced power output or a limp mode condition if the fuel cell system limits operation to protect the stack.
- Rough running or hesitation during acceleration due to improper fuel delivery to the anode.
- A noticeable hissing or smell of hydrogen in severe cases, indicating a possible leak in the anode circuit.
- Inability to start the vehicle or sudden shutdown while driving if the pressure reading is implausible.

Common causes, most likely first

- 1 A faulty anode inlet pressure sensor that has drifted or failed internally.
- 2 Damaged or corroded wiring harness or connector at the sensor, often due to vibration or moisture intrusion.
- 3 A short to ground or short to voltage in the sensor signal circuit.
- 4 An open circuit in the sensor's power or ground circuit, such as a broken wire or poor ground connection.
- 5 A clogged or restricted anode inlet filter or valve causing actual pressure deviations that the sensor correctly reports.
- 6 A malfunctioning pressure regulator or anode inlet valve that affects the pressure reading.
- 7 A software issue in the powertrain control module requiring a reflash or update.



How to diagnose and fix it

- 1 Use a scan tool to retrieve the freeze frame data and verify the code is current, then inspect the sensor and its wiring for obvious damage or corrosion.
- 2 Check the sensor's reference voltage and ground at the connector with a multimeter to confirm the circuit integrity.
- 3 Perform a resistance test on the sensor and compare it to the manufacturer's specification to determine if the sensor is faulty.
- 4 Inspect the anode inlet filter and valve for blockages or restrictions that could cause a legitimate pressure deviation.
- 5 If the sensor and wiring are good, check for a software update or known issues from the manufacturer for the powertrain control module.
- 6 Replace the anode inlet pressure sensor if it fails electrical testing, then clear the code and verify the repair with a test drive.
- 7 If the code persists after sensor replacement, perform a voltage drop test on the entire circuit and inspect the PCM connector for terminal tension issues.

Before replacing the anode pressure sensor

- A common misdiagnosis is replacing the sensor when the real problem is a clogged anode inlet filter or a sticking valve that causes actual pressure fluctuations the sensor correctly reports.
- The code can be set by a poor ground connection at the chassis or engine block, which affects the sensor's reference voltage and is often overlooked during diagnosis.
- In some cases, the code may be intermittent due to vibration or heat, so a wiggle test of the harness while monitoring live data can reveal a wiring fault that static tests miss.
- A low hydrogen tank pressure or a failing pressure regulator can cause the sensor to read outside the expected range, triggering this code even though the sensor itself is fine.
- Always check for technical service bulletins (TSBs) for the specific vehicle, as some manufacturers have released updated wiring harnesses or software calibrations to address this code.

Can I keep driving with U3566?

It is generally safe to continue driving with this code if the vehicle runs normally, but avoid aggressive acceleration or long trips until the fault is repaired. If you notice rough running, a hydrogen smell, or reduced power, stop driving and have the vehicle inspected immediately, as a fuel cell system fault can lead to a breakdown or safety hazard.



Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Hand tools for connector and sensor removal
- Pressure gauge for hydrogen system (if qualified)

Reading U3566

U Network: communication between the vehicle's control modules.

3 Generic (SAE) code: it means the same thing on every OBD-II vehicle.

5 Network communication.

66 The exact fault within that area.

Often seen with

P0A0F Engine Failed to Start · **P0A1F** Battery Energy Control Module A Performance · **U0100** Lost Communication With ECM/PCM A · **U3565** Hydrogen Supply Line A Pressure Sensor 2 Circuit · **U3567** Anode Inlet Pressure Sensor 2 Circuit

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/u3566/>

