

GENERIC · POWERTRAIN

P0877

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

## P0877

# Transmission Fluid Pressure Sensor/Switch 'D' Circuit Low

P0877 indicates that the transmission control module has detected an abnormally low voltage signal from the 'D' fluid pressure sensor or switch circuit, which is used to monitor hydraulic pressure inside the transmission. The computer expects a voltage within a specific range and sets this code when the signal falls below the minimum threshold, potentially affecting shift quality and transmission protection strategies.

| SYSTEM     | CODE TYPE           | SEVERITY | FIX DIFFICULTY | AREA         |
|------------|---------------------|----------|----------------|--------------|
| Powertrain | Generic (all makes) | Medium   | Intermediate   | Transmission |

## Symptoms you may notice

- Illumination of the check engine light or transmission warning light, often with no other noticeable symptoms
- Harsh or delayed gear shifts, especially when the transmission is cold
- The transmission may enter limp mode, limiting vehicle speed and gear selection
- Slipping or flaring during gear changes under load
- Erratic shift points or failure to downshift when accelerating

## Common causes, most likely first

- 1 Faulty transmission fluid pressure sensor or switch 'D' itself
- 2 Damaged, chafed, or corroded wiring in the sensor circuit, including the connector
- 3 Low transmission fluid level or degraded fluid causing incorrect pressure readings
- 4 A short to ground or open circuit in the signal wire between the sensor and the control module
- 5 Internal transmission hydraulic issues, such as a stuck valve or worn pump, causing actual low pressure
- 6 Poor electrical connection at the transmission control module or a faulty module



## How to diagnose and fix it

- 1 Check transmission fluid level and condition according to the manufacturer's procedure; top off or replace fluid if necessary
- 2 Inspect the sensor 'D' connector and wiring for damage, corrosion, or loose pins; repair or replace as needed
- 3 Use a scan tool to monitor live pressure sensor data and compare to specified values to confirm the fault
- 4 Perform a voltage drop test on the sensor circuit to identify excessive resistance or a short to ground
- 5 Test the sensor 'D' with a multimeter for resistance and voltage output according to the service manual; replace if out of specification
- 6 If the sensor and wiring are good, check transmission line pressure with a mechanical gauge to rule out internal hydraulic problems
- 7 Clear the code and perform a road test to verify the repair; reprogram or replace the control module only if all other checks pass

## Don't overlook the fluid and wiring

- A low fluid level or degraded fluid is a common cause of this code that is often missed because the sensor itself tests fine, but the actual pressure is low.
- The code can be set by a momentary glitch in the wiring harness, especially where it routes near hot or moving components, so a wiggle test of the harness is essential.
- Replacing the pressure sensor without checking the circuit voltage can lead to a repeat failure if the real problem is a chafed wire or corroded connector.
- Some vehicles use the same sensor for multiple pressure readings, and a failure in one circuit can affect other pressure-related codes, so always check for related codes before condemning a part.
- A faulty transmission control module is rare but possible; confirm power and ground to the module and look for other communication codes before replacing it.

## Can I keep driving with P0877?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration or towing because the transmission may be in a protection mode that can cause internal damage if ignored. If the transmission is slipping severely or the vehicle enters limp mode, stop driving and seek professional diagnosis.

## Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Transmission pressure gauge
- Wire repair kit and electrical contact cleaner
- Vehicle service manual for wiring diagrams and specifications



## Reading P0877

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

## Often seen with

**P0715** Input/Turbine Speed Sensor Circuit Malfunction · **P0841** Transmission Fluid Pressure Sensor/Switch 'A' Circuit Range/ · **P0875** Transmission Fluid Pressure Sensor/Switch 'D' Circuit · **P0876** Transmission Fluid Pressure Sensor/Switch 'D' Circuit Range/ · **P0878** Transmission Fluid Pressure Sensor/Switch 'D' Circuit High

## See it working

Watch the animated explainer [How an Automatic Transmission Works, Gear by Gear](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0877/>

