

GENERIC · POWERTRAIN

P0933

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0933

Hydraulic Pressure Sensor Range/Performance

P0933 indicates that the transmission control module (TCM) has detected an abnormal signal from the hydraulic pressure sensor, which monitors the pressure of transmission fluid in the hydraulic circuit. The sensor's output voltage or signal pattern falls outside the expected range for the current operating conditions, or its performance is erratic, prompting the TCM to set this code and often illuminate the warning light.

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, particularly when the transmission is cold or under load.
- The transmission may enter limp mode, limiting vehicle speed and gear selection.
- Slipping between gears or a sudden loss of power during acceleration.
- Erratic or inconsistent shift points that vary without driver input.
- In some cases, the vehicle may fail to engage a gear or hesitate before moving.

Common causes, most likely first

- 1 Faulty hydraulic pressure sensor (also called transmission fluid pressure sensor) sending an incorrect signal.
- 2 Damaged or corroded wiring and connectors between the sensor and the transmission control module.
- 3 Low or contaminated transmission fluid affecting hydraulic pressure and sensor readings.
- 4 Internal transmission hydraulic issues, such as a sticking valve body or worn pump, causing actual pressure deviations.
- 5 A malfunctioning transmission control module (TCM) or its software, though this is less common.
- 6 Poor electrical ground connection for the sensor or TCM, leading to signal interference.



How to diagnose and fix it

- 1 Check the transmission fluid level and condition; top off or replace fluid if it is low or contaminated.
- 2 Inspect the hydraulic pressure sensor and its wiring harness for physical damage, corrosion, or loose connections.
- 3 Use a scan tool to monitor live data from the pressure sensor and compare it with expected values under various operating conditions.
- 4 Perform a voltage drop test on the sensor's power and ground circuits to rule out excessive resistance.
- 5 If the sensor signal is erratic, replace the hydraulic pressure sensor with a known-good unit.
- 6 Clear the code and test-drive the vehicle to verify the repair; if the code returns, further diagnose the TCM and internal transmission components.

What the pressure sensor code hides

- A P0933 code is often set by a sensor that is still functioning but has drifted out of calibration, so it may not trigger a hard failure or drivability symptom until the TCM's adaptive learning can no longer compensate.
- Mechanics frequently replace the pressure sensor only to find the real problem is a chafed wire in the harness near the transmission case, so always perform a wiggle test on the wiring before condemning the sensor.
- Low transmission fluid from a slow leak can cause pressure fluctuations that mimic a faulty sensor, so a fluid level and leak check should precede any electrical diagnosis.
- The TCM may set P0933 as a result of a momentary voltage spike or low battery voltage during cranking, so check for other low-voltage codes and ensure the battery and charging system are healthy.
- On some vehicles, the hydraulic pressure sensor is integrated into the valve body, making replacement more involved and increasing the risk of misdiagnosis if the valve body itself is worn.

Can I keep driving with P0933?

If the vehicle is in limp mode or shifting severely, avoid driving until diagnosed to prevent further transmission damage. If the only symptom is the warning light and the vehicle drives normally, you can drive cautiously to a repair shop, but avoid heavy acceleration or towing.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Transmission fluid level dipstick or scan tool for fluid level
- Wiring diagram for the specific vehicle
- Basic hand tools for sensor removal



Reading P0933

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

Often seen with

P0841 Transmission Fluid Pressure Sensor/Switch 'A' Circuit Range/ · **P0871** Transmission Fluid Pressure Sensor/Switch 'C' Circuit Range/ · **P0932** Hydraulic Pressure Sensor Circuit · **P0934** Hydraulic Pressure Sensor Circuit Low · **P0935** Hydraulic Pressure Sensor Circuit High

See it working

Watch the animated explainer [How the EVAP System Works: Fuel Vapour and Leak Test](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0933/>

