

GENERIC · POWERTRAIN

P0943

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0943

Hydraulic Pressure Unit Cycling Period Too Short

P0943 indicates that the hydraulic pressure unit's cycling period is shorter than the manufacturer's expected range, meaning the pump or actuator is running more frequently than normal to maintain pressure. The computer monitors the time between pressure cycles and flags the code when that interval falls below a calibrated threshold, often due to internal leakage or a weak pump.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Transmission

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Frequent or continuous operation of the hydraulic pump motor, which may be heard as a humming or whining noise
- Harsh or delayed gear shifts if the hydraulic system is used for transmission control
- A soft or inconsistent brake pedal feel on vehicles with hydraulic brake assist
- Dashboard warning messages related to the hydraulic system or stability control

Common causes, most likely first

- 1 Internal leakage in the hydraulic pressure unit, such as worn seals or valves
- 2 A weak or failing hydraulic pump that cannot maintain pressure efficiently
- 3 Low or contaminated hydraulic fluid, reducing system efficiency
- 4 A faulty pressure sensor providing inaccurate readings to the control module
- 5 Restricted hydraulic lines or a clogged filter causing pressure drops
- 6 Electrical issues with the pump motor or its control circuit, leading to intermittent operation
- 7 A software calibration issue in the control module, though less common



How to diagnose and fix it

- 1 Check the hydraulic fluid level and condition, topping off or replacing fluid as needed
- 2 Inspect the hydraulic system for visible leaks, damaged lines, or loose fittings
- 3 Test the pressure sensor and its wiring for proper signal output and continuity
- 4 Measure the pump motor's current draw and compare to specifications to identify a weak pump
- 5 Perform a pressure test on the hydraulic unit to confirm internal leakage or pressure loss
- 6 Repair or replace the faulty hydraulic pressure unit or pump if tests indicate internal failure
- 7 Clear the code and verify the repair by monitoring live data for the cycling period

What the cycling period really tells you

- A short cycling period often points to internal leakage rather than a completely failed pump, so replacing the pump without testing may not fix the issue.
- The code can be set by a marginal pressure sensor that reports falsely low pressure, causing the pump to run more often than necessary.
- On some vehicles, the hydraulic pressure unit is shared with the anti-lock brake system (ABS) or stability control, so related codes may also be present.
- A weak battery or charging system can cause the pump motor to run slower, leading to insufficient pressure and a shorter cycling period.
- After repairs, the control module may need a relearn or calibration procedure to reset the adaptive pressure values.

Can I keep driving with P0943?

It is generally safe to drive with this code if the vehicle behaves normally, but avoid heavy braking or towing until the issue is diagnosed. If the brake pedal feels soft or the pump runs continuously, stop driving and seek professional service immediately.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Pressure gauge set for hydraulic systems
- Factory service information for pressure specifications
- Fluid extractor or syringe for hydraulic fluid



Reading P0943

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

Often seen with

P0942 Hydraulic Pressure Unit · **P0944** Hydraulic Pressure Unit Loss of Pressure · **P0945** Hydraulic Pump Relay Circuit/Open · **P0946** Hydraulic Pump Relay Circuit Range/Performance

See it working

Watch the animated explainer [How ABS Works: Anti-Lock Brakes in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0943/>

