

GENERIC · POWERTRAIN

P072D

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P072D

Stuck in Gear 2

P072D is a generic transmission code indicating that the transmission control module has detected a stuck-in-gear-2 condition, meaning the transmission is commanded into second gear but the expected gear ratio is not achieved or the gear cannot be disengaged. The computer typically compares input shaft speed to output shaft speed and flags the code when the calculated ratio remains fixed in second gear regardless of commands.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	High	Professional	Transmission

Symptoms you may notice

- Transmission holds second gear and will not upshift or downshift automatically
- Engine RPM rises unusually high at highway speeds due to lack of top gears
- Harsh or delayed engagement when shifting from Park or Neutral into Drive
- Transmission may feel like it is slipping or binding during acceleration
- Often no symptoms besides the warning light if the fault is intermittent
- Reduced fuel economy and elevated transmission fluid temperature on longer drives

Common causes, most likely first

- Faulty shift solenoid or solenoid pack sticking in the second-gear position
- Internal transmission mechanical failure such as a broken band, clutch pack, or sprag
- Valve body contamination or stuck shift valve preventing normal hydraulic control
- Degraded or contaminated transmission fluid causing erratic solenoid and valve operation
- Damaged wiring or corroded connector at the transmission solenoid pack
- Transmission control module software fault or internal failure
- Low transmission fluid level due to a leak, causing poor hydraulic pressure



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm the code is current and not history
- 2 Check transmission fluid level, condition, and smell; top off or recommend a fluid service if degraded
- 3 Inspect the transmission wiring harness and solenoid pack connector for corrosion, chafing, or loose pins
- 4 Command each shift solenoid with a bidirectional scan tool and compare actual gear ratio to commanded gear
- 5 Perform a resistance and voltage drop test on the affected shift solenoid circuit
- 6 Remove the transmission pan to inspect for debris, then test or replace the shift solenoid or valve body as needed
- 7 If electrical and hydraulic checks pass, perform internal transmission inspection for band, clutch, or sprag failure

What a stuck second gear really tells you

- A stuck-in-gear-2 code often sets because the transmission defaults to second gear as a limp-home strategy when any critical sensor or solenoid fails, so the root cause may be unrelated to second gear itself. Technicians who replace the transmission immediately often miss a simple solenoid connector corrosion issue that mimics a failed internal component.
 - The code can be set by a faulty output speed sensor or input speed sensor rather than a mechanical fault, because the computer cannot calculate the correct ratio without accurate speed signals.
 - Some vehicles use a separate transmission control module that can store this code due to a software calibration issue, and a reflash may resolve it without any hardware replacement.
- A stuck second gear can also be caused by a broken accumulator spring or a stuck 1-2 shift valve in the valve body, which are inexpensive parts but require valve body removal to access.

Can I keep driving with P072D?

Driving with a confirmed stuck-in-gear-2 condition is not recommended beyond limping to a repair shop, because the transmission may overheat and suffer further internal damage. Avoid highway speeds and heavy loads, and do not continue driving if the fluid smells burnt or the warning light flashes.

Tools that help

- OBD-II scan tool with bidirectional control and transmission data capabilities
- Digital multimeter for circuit and solenoid resistance testing
- Transmission fluid level dipstick or scan tool fluid temperature reading
- Socket set and torque wrench for pan and valve body removal
- Transmission jack and safety stands for under-vehicle access



Reading P072D

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
7	Transmission.
2D	The exact fault within that area.

Often seen with

P0700 Transmission Control System Malfunction · **P072E** Stuck in Gear 3 · **P072F** Stuck in Gear 4 · **P0732** Gear 2 Incorrect Ratio · **P0752** Shift Solenoid 'A' Stuck On

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/p072d/>

