

GENERIC · POWERTRAIN

P0893

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0893

Multiple Gears Engaged

P0893 indicates that the transmission control module (TCM) has detected two or more gear ratios engaged simultaneously, which is mechanically impossible in a functioning automatic transmission. The TCM monitors input and output shaft speeds to calculate the actual gear ratio and compares it to the commanded gear; when the calculated ratio matches more than one gear, it sets this code.

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

Symptoms you may notice

- Illuminated check engine light or transmission warning light
- Transmission stuck in a limp mode, often limited to one gear
- Harsh or delayed gear engagements
- Vehicle may not move when shifted into drive or reverse
- Unusual noises from the transmission, such as clunking or grinding
- Often no symptoms besides the warning light, especially if the fault is intermittent

Common causes, most likely first

- 1 Faulty transmission control module (TCM) or software calibration issue
- 2 Internal transmission mechanical failure, such as a broken band or clutch pack
- 3 Sticking or failed shift solenoid
- 4 Valve body malfunction causing improper hydraulic pressure
- 5 Wiring harness damage or poor electrical connections to the transmission
- 6 Contaminated transmission fluid or low fluid level
- 7 Speed sensor failure providing incorrect input or output speed signals

How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related transmission codes
- 2 Inspect the transmission fluid level and condition; top off or replace if necessary
- 3 Check the wiring harness and connectors at the transmission for damage or corrosion
- 4 Test the shift solenoids and speed sensors for proper resistance and operation
- 5 Perform a bidirectional scan tool test to command each gear and observe ratio changes
- 6 Inspect the valve body for sticking valves or debris
- 7 If internal mechanical failure is suspected, remove the transmission for teardown and inspection



Before you replace the transmission

- A low battery or charging system issue can cause the TCM to log false codes, so always check battery voltage and connections first.
- In some vehicles, a software update for the TCM is available to correct false P0893 settings without any hardware replacement.
- The code can be set by a momentary glitch in the speed sensor signal, so intermittent occurrences may not require immediate repair.
- After any transmission repair, the TCM adaptive learning must be reset and a relearn drive cycle performed to prevent the code from returning.
- A stuck shift solenoid can cause two gears to engage hydraulically, but the root cause may be debris in the valve body rather than the solenoid itself.

Can I keep driving with P0893?

Do not continue driving with this code active, as driving with multiple gears engaged can cause severe transmission damage and unsafe driving conditions. Have the vehicle towed to a qualified repair shop for diagnosis.

Tools that help

- OBD-II scan tool with bidirectional control and transmission data
- Digital multimeter
- Transmission fluid pressure gauge
- Wiring diagram and service information
- Socket set and basic hand tools

Reading P0893

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

Often seen with

P0700 Transmission Control System Malfunction · **P0730** Incorrect Gear Ratio · **P0731** Gear 1 Incorrect Ratio · **P0732** Gear 2 Incorrect Ratio · **P0750** Shift Solenoid 'A'



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/p0893/>

