

GENERIC · POWERTRAIN

P073D

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P073D

Unable to Engage Neutral

P073D indicates that the transmission control module commanded the transmission into neutral but did not receive confirmation that neutral was actually engaged, typically because the neutral position switch or internal gear position sensor did not report the expected state. The computer compares the commanded gear to the actual gear ratio and sets this code when the ratio does not match neutral within a calibrated time window.

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

Symptoms you may notice

- The check engine light or transmission warning light illuminates on the dashboard.
- The transmission may fail to shift into neutral when the driver selects neutral, leaving the vehicle in gear or in a default limp mode.
- Harsh or delayed engagement when shifting from neutral to drive or reverse.
- The engine may rev or the vehicle may lurch when neutral is requested, especially during a rolling stop.
- Often no symptoms besides the warning light, with normal driving behavior in many cases.
- The transmission may default to a fixed gear or fail-safe mode, limiting vehicle speed.

Common causes, most likely first

- Faulty transmission range sensor or neutral safety switch providing an incorrect position signal.
- Worn or misadjusted shift linkage or cable preventing the transmission from physically reaching neutral.
- Internal transmission valve body issue, such as a stuck neutral control solenoid or valve.
- Low or contaminated transmission fluid causing delayed or incomplete neutral engagement.
- Electrical wiring damage, corrosion, or poor connection at the transmission range sensor or control module.
- Transmission control module software calibration issue or internal fault.
- Mechanical wear inside the transmission, such as a failed clutch pack or brake band that affects neutral state.



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, and record freeze-frame data to understand when the fault occurred.
- 2 Check transmission fluid level and condition according to the manufacturer's procedure, and top up or service if needed.
- 3 Inspect the shift linkage and cable for binding, wear, or misalignment, and adjust or replace as required.
- 4 Test the transmission range sensor or neutral safety switch with a multimeter for continuity and correct voltage signals in each gear position.
- 5 Inspect the wiring harness and connectors between the range sensor and the transmission control module for damage or corrosion.
- 6 Perform a bidirectional scan-tool test to command neutral and observe whether the transmission actually engages and whether the sensor reports the change.
- 7 If electrical and external checks pass, follow the manufacturer's diagnostic flow for internal valve body or transmission repair, which may require professional service.

What Most Techs Miss on P073D

- A misadjusted shift cable is one of the most common causes of this code, yet many technicians replace the range sensor first without checking cable alignment.
- The code can set intermittently due to a loose ground connection at the transmission or chassis, which corrupts the position sensor signal only under certain electrical loads.
- Some vehicles use a learned neutral position in the transmission control module, and the code may appear after a battery replacement or module reset until a relearn procedure is performed.
- P073D does not always mean the transmission is mechanically failing; a simple sensor or wiring fault can trigger it, so avoid condemning the transmission prematurely.
- Aftermarket or remanufactured range sensors sometimes have incorrect resistance values that cause repeat codes even though the part is new.

Can I keep driving with P073D?

The vehicle is generally safe to drive if it still moves and shifts normally, but avoid situations where neutral is needed, such as a car wash or towing, and do not ignore the warning light. If the transmission enters limp mode or fails to engage drive or reverse, stop driving and have it inspected promptly.

Tools that help

- OBD-II scan tool with bidirectional control and transmission module access
- Digital multimeter
- Manufacturer service information for shift linkage adjustment and sensor testing
- Basic hand tools for linkage and sensor access
- Transmission fluid level gauge or dipstick



Reading P073D

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 7** Transmission.
- 3D** The exact fault within that area.

Often seen with

P0705 Transmission Range Sensor Circuit Malfunction · **P0706** Transmission Range Sensor Circuit Range/Performance · **P0707** Transmission Range Sensor Circuit Low · **P0708** Transmission Range Sensor Circuit High · **P0730** Incorrect Gear Ratio

See it working

Watch the animated explainer [How Crank and Cam Position Sensors Work](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p073d/>

