

GENERIC · POWERTRAIN

P0853

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0853

Drive Switch Input Circuit

P0853 indicates that the powertrain control module (PCM) has detected an unexpected voltage or signal condition on the drive switch input circuit, which typically involves the transmission range sensor or a dedicated drive-range switch. The PCM expects a specific voltage when the gear selector is moved to Drive, and this code sets when the input does not match the expected state for a calibrated amount of time.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Transmission

Symptoms you may notice

- The check engine light or service engine soon light is illuminated on the dashboard.
- The transmission may not shift correctly or may stay in a single gear, often defaulting to a limp-home mode.
- The gear indicator on the instrument cluster may not display the correct range or may flash.
- The engine may hesitate or stall when shifting into Drive from Park or Neutral.
- Often no symptoms besides the warning light, especially if the fault is intermittent.

Common causes, most likely first

- 1 A faulty transmission range sensor (also called a park/neutral position switch) that fails to send the correct drive signal.
- 2 Damaged or corroded wiring in the drive switch input circuit, including open or shorted circuits.
- 3 A poor electrical connection at the sensor or PCM connector, often due to water intrusion or loose pins.
- 4 A misadjusted or misaligned transmission range sensor causing incorrect voltage signals.
- 5 A failed drive switch internal to the transmission, if the vehicle uses a separate drive-range switch.
- 6 A PCM software issue or internal fault, though this is less common and should be diagnosed last.



How to diagnose and fix it

- 1 Use an OBD-II scanner to retrieve all stored codes and freeze-frame data, then clear the code and test-drive to see if it returns.
- 2 Visually inspect the transmission range sensor and its wiring for obvious damage, corrosion, or loose connections.
- 3 Check the sensor's electrical connector for proper voltage and ground signals using a digital multimeter, comparing to manufacturer specifications.
- 4 Test the continuity and resistance of the drive switch input circuit from the sensor to the PCM to rule out open or shorted wires.
- 5 Adjust or replace the transmission range sensor if it fails electrical or alignment tests, following the factory service procedure.
- 6 If the sensor and wiring are good, check for technical service bulletins (TSBs) or PCM software updates that may address false settings.
- 7 After repairs, clear the codes and perform a relearn or adaptation procedure if required, then verify the fix with a test drive.

Before you replace the transmission range sensor

- A loose or corroded ground connection at the transmission or chassis can cause the drive switch input to read incorrectly, mimicking a failed sensor.
- On many vehicles, the transmission range sensor is integrated with the neutral safety switch, so a no-crank condition may accompany P0853.
- Intermittent P0853 codes often trace to a chafed wire harness near the transmission mount or exhaust, where heat and vibration damage insulation.
- Some vehicles use a separate drive switch inside the valve body; a failed solenoid or low fluid pressure can set this code even when the external sensor is fine.
- A weak battery or charging system fault can cause voltage spikes that confuse the PCM and set false drive switch codes, so always check battery health first.

Can I keep driving with P0853?

You can usually drive the vehicle with P0853, but the transmission may enter limp-home mode and limit gear selection, so avoid highway speeds and heavy loads. If the vehicle fails to engage Drive or slips, stop driving and have it towed to prevent transmission damage.



Tools that help

- OBD-II scanner with live data capability
- Digital multimeter
- Factory service information or wiring diagrams
- Basic hand tools (socket set, screwdrivers)
- Jack and jack stands or ramps for under-vehicle access

Reading P0853

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

Often seen with

P0705 Transmission Range Sensor Circuit Malfunction · **P0706** Transmission Range Sensor Circuit Range/Performance · **P0850** Park/Neutral Switch Input Circuit · **P0851** Park/Neutral Switch Input Circuit Low · **P0852** Park/Neutral Switch Input Circuit High

See it working

Watch the animated explainer [Car Relay Test Bench: Test 4-Pin and 5-Pin Relays](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0853/>

