

GENERIC · POWERTRAIN

P07E9

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P07E9

Transmission Range Control A Circuit Performance

P07E9 indicates that the transmission control module (TCM) has detected a performance fault in the 'A' range control circuit, which is responsible for confirming that the transmission is in the commanded range. The TCM monitors voltage or current on the circuit and sets this code when the signal does not match expected values for the current gear or range.

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

Symptoms you may notice

- Illumination of the check engine light or transmission warning light
- Transmission may enter limp mode, limiting vehicle speed and gear selection
- Harsh or delayed shifts, or failure to shift into certain gears
- Inability to engage certain ranges, such as reverse or drive
- Often no symptoms besides the warning light, especially if the fault is intermittent

Common causes, most likely first

- 1 Faulty transmission range sensor or internal mode switch
- 2 Damaged, chafed, or corroded wiring in the range control circuit
- 3 Loose or contaminated electrical connector at the transmission
- 4 Failed transmission control module (TCM) or internal circuit fault
- 5 Mechanical issue inside the transmission, such as a stuck valve or actuator
- 6 Low or contaminated transmission fluid affecting range sensor operation

How to diagnose and fix it

- 1 Perform a visual inspection of the transmission wiring harness and connectors for damage or corrosion
- 2 Check transmission fluid level and condition according to the manufacturer's procedure
- 3 Use a scan tool to read live data and verify the range sensor signal in each gear position
- 4 Test the range sensor circuit for continuity, voltage drops, and shorts using a multimeter
- 5 Inspect and clean the transmission range sensor and its connector, then re-test
- 6 If the sensor is faulty, replace it and clear the code to see if it returns
- 7 If the code persists, diagnose the TCM and internal transmission components as per service information



Range circuit faults often misdiagnosed

- A loose ground connection at the transmission can cause intermittent range circuit performance codes that mimic a failed sensor.
- Aftermarket electrical accessories or poor previous repairs to the harness are common causes of this code that many technicians overlook.
- The code can be set by a mechanical issue inside the transmission even when the electrical circuit tests perfectly, so do not replace the TCM without confirming the sensor signal.
- On some vehicles, the range sensor is integrated into the transmission and not serviceable separately, requiring transmission removal for replacement.
- Intermittent faults may only appear when the transmission is hot or after driving over rough roads, so a wiggle test of the harness while monitoring live data is essential.

Can I keep driving with P07E9?

If the vehicle drives normally and the light is steady, you can drive cautiously to a repair shop, but avoid heavy loads or aggressive driving. If the transmission is in limp mode or shifting erratically, stop driving and have the vehicle towed to prevent further damage.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Socket set and trim removal tools
- Transmission fluid level gauge

Reading P07E9

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
7	Transmission.
E9	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 · **P07E8** Transmission Range Control A Circuit/Open · **P07EA** Transmission Range Control A Circuit Low



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/p07e9/>

