

GENERIC · POWERTRAIN

P07C6

OBD-II TROUBLE CODE

P07C6

Intermediate Shaft Speed Sensor A Circuit High

P07C6 indicates that the transmission control module (TCM) has detected an abnormally high voltage on the signal circuit for the intermediate shaft speed sensor 'A'. This sensor measures the rotational speed of an intermediate shaft inside the transmission, and a high voltage reading typically points to a short to power, an open circuit, or a faulty sensor.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Transmission

Symptoms you may notice

- Illumination of the check engine light or transmission warning light
- Harsh or erratic shifting, possibly with a default to a limp-home mode
- Transmission may slip or fail to engage certain gears
- Speedometer may read incorrectly or fluctuate
- Often no symptoms besides the warning light, especially if the fault is intermittent

Common causes, most likely first

- 1 Faulty intermediate shaft speed sensor
- 2 Damaged or corroded wiring harness or connector at the sensor
- 3 Short to voltage on the signal circuit
- 4 Open circuit in the sensor ground or signal return
- 5 Poor electrical connection at the TCM
- 6 Internal TCM fault (less common)

How to diagnose and fix it

- 1 Perform a visual inspection of the sensor, wiring, and connectors for damage or corrosion
- 2 Check for technical service bulletins (TSBs) related to this code for your vehicle
- 3 Use a scan tool to view live data from the intermediate shaft speed sensor and compare with other speed sensors
- 4 Measure resistance and voltage on the sensor circuit according to manufacturer specifications
- 5 Check for continuity and shorts to power or ground on the signal circuit
- 6 If the circuit tests good, replace the intermediate shaft speed sensor
- 7 If the sensor and wiring are intact, diagnose or reprogram the TCM as needed



Common Misdiagnosis of P07C6

- A high voltage reading on the sensor circuit often results from a short to power in the wiring harness, which can be caused by chafing against metal components, so inspect the entire harness route carefully.
- The intermediate shaft speed sensor may share a ground or reference voltage with other sensors, and a fault in a shared circuit can set multiple codes, so don't replace the sensor without checking related circuits.
- In some transmissions, the intermediate shaft speed sensor is used for shift scheduling and ratio control, and a faulty signal can cause harsh engagements that mimic valve body issues, leading to unnecessary repairs.
- Intermittent connections at the sensor connector can cause the code to set only under certain conditions like vibration or temperature changes, so wiggle-test the harness while monitoring live data.
- Always verify the TCM software is up to date; occasionally, a software calibration issue can cause false high-voltage readings, and reflashing may resolve the code without parts replacement.

Can I keep driving with P07C6?

It is generally safe to drive with this code if the transmission is not behaving erratically, but avoid heavy acceleration or towing until diagnosed. If the transmission enters limp mode or shifts harshly, seek professional diagnosis promptly to prevent further damage.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Basic hand tools for connector and sensor access

Reading P07C6

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
7	Transmission.
C6	The exact fault within that area.

Often seen with

P0715 Input/Turbine Speed Sensor Circuit Malfunction · **P0720** Output Speed Sensor Circuit Malfunction · **P0721** Output Speed Sensor Range/Performance · **P07C5** Intermediate Shaft Speed Sensor A Circuit Low · **P07C7** Intermediate Shaft Speed Sensor B Circuit Low



See it working

Watch the animated explainer [How a Gyroscope Works: Gimbals and Precession](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p07c6/>

