

GENERIC · POWERTRAIN

P095A

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P095A

Gear Shift Position Circuit C

P095A is a generic OBD-II code that indicates the transmission control module (TCM) has detected an implausible or out-of-range signal on the gear shift position circuit C. This circuit is typically part of a multi-wire position sensor or switch inside the transmission or at the shifter, and the TCM uses it to confirm the selected gear and control shift strategies. The code sets when the voltage or signal pattern on circuit C does not match the expected value for the current gear or operating condition.

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 enter limp mode, defaulting to a single gear or neutral.
- Harsh or delayed shifting may be noticed as the TCM loses accurate gear position information.
- The gear indicator on the instrument cluster may flash, show the wrong gear, or fail to display the selected range.
- In some cases, the vehicle may not start or may refuse to crank because the TCM cannot confirm park or neutral.
- Often no symptoms besides the warning light, especially if the fault is intermittent.

Common causes, most likely first

- A faulty gear shift position sensor or switch assembly, particularly the internal contact for circuit C.
- Damaged, chafed, or corroded wiring in the circuit C harness between the sensor and the TCM.
- Loose or contaminated electrical connectors at the sensor or TCM, causing intermittent signal loss.
- A defective transmission control module (TCM) or a software calibration issue misinterpreting the signal.
- Mechanical wear or misalignment in the shifter linkage or internal transmission range selector, causing the sensor to read incorrectly.
- Water intrusion or fluid contamination in the sensor connector or internal transmission harness.
- Aftermarket electrical accessories or poor grounds interfering with the reference voltage on the circuit.



How to diagnose and fix it

- 1 Connect a scan tool and record all stored and pending codes, then clear the code and test-drive to see if P095A returns immediately or only under specific conditions.
- 2 Visually inspect the gear shift position sensor and its connectors for corrosion, loose pins, or damaged wiring, and repair any obvious faults.
- 3 Back-probe the circuit C wire at the sensor and at the TCM to check for continuity, short to ground, short to power, and correct reference voltage with the key on.
- 4 Compare the sensor signal on circuit C with the signals from circuits A and B using a scan tool or oscilloscope to identify which channel is implausible.
- 5 If the wiring and connectors are good, replace the gear shift position sensor or switch assembly and clear the code.
- 6 If the code persists after sensor replacement, check for a TCM software update or perform a relearn/calibration procedure as required for the vehicle.
- 7 As a last step, substitute a known-good TCM or test the TCM on a bench to confirm internal failure before replacement.

Why circuit C faults are often misdiagnosed

- Many technicians replace the entire transmission range sensor when only one internal contact is worn, but the sensor is often a sealed unit and cannot be repaired separately.
- A poor ground connection at the transmission or chassis can cause a reference voltage shift that mimics a faulty sensor on circuit C, so always verify grounds before condemning parts.
- Intermittent P095A codes that appear only on rough roads or after rain often point to a chafed wire in the harness rather than a failed sensor, and a wiggle test while monitoring live data is the fastest way to confirm.
- Some vehicles use a linear position sensor on the shift rail rather than a traditional switch, and a mechanical binding in the shift mechanism can produce a plausible-looking but incorrect signal that sets this code.
- After replacing the sensor or TCM, many vehicles require a gear position relearn or adaptation reset; skipping this step can cause the code to return immediately even though the repair was correct.

Can I keep driving with P095A?

If the vehicle drives normally and the warning light is the only symptom, you can drive cautiously to a repair shop, but avoid aggressive acceleration or towing. If the transmission is in limp mode, shifting harshly, or the vehicle will not start, stop driving and arrange a tow to prevent further transmission damage.



Tools that help

- OBD-II scan tool with live data and transmission module capability
- Digital multimeter with back-probe pins
- Oscilloscope for signal waveform analysis
- Vehicle-specific service information for circuit pinouts and relearn procedures
- Basic hand tools and wire repair kit

Reading P095A

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
9	Transmission.
5A	The exact fault within that area.

Often seen with

P0705 Transmission Range Sensor Circuit Malfunction · **P0706** Transmission Range Sensor Circuit Range/Performance · **P0958** Auto Shift Manual Mode Circuit High · **P0959** Auto Shift Manual Mode Circuit Intermittent · **P095B** Gear Shift Position Circuit C Range/Performance

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/p095a/>

