

GENERIC · POWERTRAIN

P0954

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0954

Auto Shift Manual Control Circuit Intermittent

P0954 indicates that the transmission control module (TCM) has detected an intermittent fault in the electrical circuit for the auto shift manual control, which is the system that allows the driver to manually select gears in an automatic transmission. The TCM monitors voltage or current on the control circuit and sets this code when the signal momentarily drops out or behaves erratically, rather than failing completely.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Transmission

Symptoms you may notice

- The malfunction indicator lamp (MIL) illuminates on the dashboard.
- The manual shift function may not respond or may work only intermittently.
- The transmission may stay in a single gear or default to limp mode.
- Gear selection indicators on the instrument cluster may flash or show incorrect positions.
- Often no symptoms besides the warning light, especially if the intermittent fault is brief.

Common causes, most likely first

- 1 A loose, corroded, or damaged electrical connector at the shifter assembly or transmission.
- 2 Chafed or broken wires in the harness between the shifter and the TCM, often near moving parts or heat sources.
- 3 A faulty shifter assembly or manual shift switch that sends inconsistent signals.
- 4 Water intrusion or contamination in the shifter circuit connector.
- 5 A failing transmission control module (TCM) or poor ground connection for the TCM.
- 6 Aftermarket accessories or poor previous repairs tapping into the circuit.



How to diagnose and fix it

- 1 Inspect and clean the electrical connectors at the shifter and transmission, looking for corrosion or loose pins.
- 2 Perform a wiggle test on the harness while monitoring live data for the manual shift circuit to locate intermittent opens.
- 3 Check for continuity and resistance in the suspect wires, repairing any chafed or broken sections.
- 4 Verify the shifter switch operation with a multimeter or scan tool bidirectional test.
- 5 Check TCM grounds and power feeds for integrity and clean any corroded ground points.
- 6 If the circuit tests good, substitute a known-good shifter assembly or TCM to isolate the fault.
- 7 Clear the code and perform a road test to confirm the repair, monitoring for recurrence.

Intermittent faults hide in connectors and harnesses

- A common oversight is replacing the shifter assembly when the real problem is a chafed wire hidden inside the console or near the transmission mount.
- The code can set from a momentary voltage spike caused by a weak battery or poor ground, so always check charging system health before condemning parts.
- In some vehicles, the manual shift signal is multiplexed over a data bus, so a fault in another module can mimic a shifter circuit problem.
- Intermittent codes often do not store freeze-frame data, making road testing with a scan tool connected essential to catch the fault in action.
- Aftermarket remote starters or alarm systems spliced into the shifter wiring are a frequent source of intermittent signals that set this code.

Can I keep driving with P0954?

You can usually continue driving if the transmission still shifts normally in automatic mode, but avoid relying on the manual shift function until the fault is repaired. If the transmission enters limp mode or refuses to shift, stop driving and seek professional diagnosis to prevent further damage.

Tools that help

- OBD-II scan tool with live data and bidirectional control
- Digital multimeter
- Wire piercing probes or back-probe kit
- Electrical contact cleaner
- Vehicle-specific wiring diagram



Reading P0954

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

Often seen with

P0705 Transmission Range Sensor Circuit Malfunction · **P0706** Transmission Range Sensor Circuit Range/Performance · **P0953** Auto Shift Manual Control Circuit High · **P0955** Auto Shift Manual Mode Circuit · **U0101** Lost Communication with TCM

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/p0954/>

