

GENERIC · POWERTRAIN

P0999

OBD-II TROUBLE CODE

P0999

Shift Solenoid 'F' Control Circuit High

P0999 means the powertrain control module (PCM) has detected an abnormally high voltage on the control circuit for shift solenoid 'F', which is one of the solenoids that manages hydraulic pressure inside the automatic transmission. The PCM commands the solenoid by grounding or pulsing its control wire, and when the voltage on that wire stays higher than expected, the PCM flags the circuit as faulty and may disable the affected shift strategy.

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

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms at first
- Harsh or delayed shifts, especially when the transmission tries to engage the gear controlled by solenoid 'F'
- Transmission stuck in a single gear or defaulting to limp-home mode
- Slipping or flaring during upshifts or downshifts
- Poor fuel economy or unusual engine RPM behavior at cruising speed
- In some cases, the transmission may not engage certain gears at all

Common causes, most likely first

- 1 Open or damaged wire in the solenoid 'F' control circuit, such as a broken conductor or corroded connector terminal
- 2 Failed shift solenoid 'F' itself, with an open internal coil or shorted winding
- 3 Poor electrical connection at the transmission pass-through connector or solenoid harness
- 4 Faulty powertrain control module (PCM) driver circuit for solenoid 'F'
- 5 Contamination or debris in the transmission valve body causing abnormal solenoid load
- 6 Low or degraded transmission fluid affecting solenoid operation and circuit feedback
- 7 Aftermarket or incorrect solenoid installed previously, causing a mismatch in resistance



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm P0999 is the only transmission-related code
- 2 Inspect the transmission wiring harness and connectors for chafing, corrosion, or loose pins, especially near the solenoid 'F' circuit
- 3 Measure resistance of solenoid 'F' at the transmission connector and compare to the manufacturer's specification
- 4 Check for battery voltage on the control wire with the key on and the PCM disconnected to rule out a short to power
- 5 Perform a voltage drop test on the ground side of the solenoid circuit while commanding the solenoid on with a scan tool
- 6 If the circuit tests good, remove the transmission pan and inspect solenoid 'F' for debris, damage, or incorrect resistance
- 7 Replace the faulty solenoid or repair the wiring as needed, clear codes, and verify the fix with a road test and live data

What a high-voltage solenoid code really means

- A high-voltage code on a solenoid control circuit often points to an open circuit rather than a shorted solenoid, because an open wire lets the PCM see full system voltage on the control side.
- Technicians sometimes replace the solenoid only to find the real fault is a corroded pin in the transmission pass-through connector, which is a common corrosion point on many vehicles.
- P0999 can be set by a faulty PCM driver, but this is rare; always rule out wiring and solenoid resistance before condemning the computer.
- Debris in the valve body can mechanically bind a solenoid, causing the PCM to see unexpected voltage feedback and set a circuit code even though the electrical parts test fine.
- A low or dirty transmission fluid condition can alter solenoid performance and trigger circuit codes, so fluid condition should be checked before any parts are replaced.

Can I keep driving with P0999?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration or highway speeds because the transmission may default to a limp-home gear and shift harshly. If the vehicle enters limp mode or refuses to shift, stop driving and have it towed to prevent transmission damage.



Tools that help

- OBD-II scan tool with live data and bidirectional control capability
- Digital multimeter with resistance and voltage drop functions
- Transmission wiring diagram and connector pinout for the specific vehicle
- Jack and jack stands or a vehicle lift for undercar access
- Transmission fluid drain pan and hand tools for pan removal
- Solenoid resistance specification chart from the service manual

Reading P0999

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

Often seen with

P0700 Transmission Control System Malfunction · **P0750** Shift Solenoid 'A' · **P0973** Shift Solenoid 'A' Control Circuit Low · **P0974** Shift Solenoid 'A' Control Circuit High · **P0998** Shift Solenoid 'F' Control 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/p0999/>

