

GENERIC · POWERTRAIN

P07AD

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P07AD

Transmission Friction Element F Stuck On

P07AD indicates that the transmission control module has detected a hydraulic or mechanical condition where friction element F is applied or stuck on when it should be released. The computer typically monitors speed sensors, pressure switches, or adaptive shift logic and sets the code when the element's state does not match the commanded state.

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

Symptoms you may notice

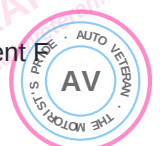
- Harsh or delayed shifts, especially when the affected element should release
- Transmission stuck in a single gear or fails to upshift/downshift
- Illuminated check engine light or transmission warning lamp
- Reduced fuel economy due to slipping or dragging clutches
- Overheating transmission fluid from continuous friction element engagement
- Often no symptoms besides the warning light in early stages

Common causes, most likely first

- Sticking or failed shift solenoid or solenoid valve body
- Internal hydraulic leak in the valve body or clutch circuit
- Mechanical failure of the friction element itself (worn clutches, broken return spring)
- Contaminated or degraded transmission fluid causing valve sticking
- Faulty transmission control module (TCM) or wiring to solenoids/sensors
- Incorrect fluid level or wrong fluid type
- Stuck check valve or accumulator piston in the hydraulic circuit

How to diagnose and fix it

- Verify fluid level and condition; top off or replace fluid if contaminated
- Scan all modules for related codes and check freeze-frame data
- Perform a road test with a scan tool to monitor commanded vs. actual gear and solenoid states
- Test solenoid resistance and function; replace faulty solenoids
- Inspect valve body for sticking valves or debris; clean or rebuild as needed
- Check wiring and connectors between TCM and transmission for shorts/opens
- If hydraulic and electrical checks pass, remove transmission for internal inspection of friction element



What P07AD really tells you about element F

- A stuck-on friction element often causes binding during shifts, which can be mistaken for harsh engagement from another gear.
- Some vehicles use adaptive learning that can mask early symptoms until the element fully sticks, so the code may appear before noticeable drivability issues.
- A faulty pressure switch or speed sensor can falsely report a stuck element, leading to unnecessary transmission replacement if not properly diagnosed.
- Fluid contamination from clutch material is both a cause and a result of a stuck element, so flushing alone may not fix the root problem.
- The code can be set by a momentary electrical glitch in the solenoid circuit, so always check for intermittent wiring faults before internal repairs.

Can I keep driving with P07AD?

Driving with a stuck friction element can cause internal transmission damage and overheating, so it is best to limit driving to a diagnostic facility. Avoid heavy acceleration or towing until the fault is repaired.

Tools that help

- OBD-II scan tool with transmission monitoring capability
- Digital multimeter for circuit and solenoid testing
- Transmission fluid pressure gauge
- Factory service information for solenoid and valve body specifications
- Transmission jack and stands for internal inspection

Reading P07AD

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

Often seen with

P07A0 Transmission Friction Element G Slip Detected · **P07A1** Transmission Friction Element H Slip Detected · **P07A2** Transmission Friction Element A Performance/Stuck Off · **P07A3** Transmission Friction Element A Stuck On · **P07A4** Transmission Friction Element B Performance/Stuck Off



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/p07ad/>

