

GENERIC · POWERTRAIN

P07AE

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P07AE

Transmission Friction Element G Performance/Stuck Off

P07AE indicates that the transmission control module has detected a performance problem with friction element G, meaning the clutch or brake that applies that element is not holding or releasing as commanded. The computer typically compares engine speed, turbine speed, and output speed during a commanded apply or release and flags the code when the expected ratio change does not occur within a calibrated time window.

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

Symptoms you may notice

- Illumination of the check engine light or transmission warning light, often with no other noticeable symptoms at first
- Harsh or delayed shifts, especially when the affected element is commanded to apply
- Slipping during acceleration or a flare in engine speed before a shift completes
- Failure to engage a specific gear range, sometimes leaving the transmission in limp mode
- Shuddering or binding during coast-down or when the element is released
- Transmission may default to a single forward gear and reverse, limiting vehicle speed

Common causes, most likely first

- 1 Degraded or burnt transmission fluid causing poor friction coefficient and sticky valve operation
- 2 Sticking or worn shift solenoid or actuator responsible for applying friction element G
- 3 Internal hydraulic leak in the valve body, accumulator, or apply circuit for element G
- 4 Worn or glazed clutch plates or brake band for friction element G
- 5 Failed or contaminated transmission fluid pressure sensor or speed sensor feeding incorrect data to the control module
- 6 Valve body wear or debris blocking the apply oil passage for element G
- 7 Software calibration issue in the transmission control module causing incorrect apply timing



How to diagnose and fix it

- 1 Check transmission fluid level and condition; top off or replace fluid if burnt or contaminated
- 2 Scan all modules for stored and pending codes, and record freeze-frame data to see when the code set
- 3 Verify solenoid operation and circuit integrity with a bidirectional scan tool, commanding element G on and off
- 4 Perform a transmission line pressure test and compare to specification for the affected gear range
- 5 Inspect the valve body and apply circuit for debris, sticking valves, or leaking accumulators
- 6 Remove and inspect the transmission pan for clutch material or metal debris, which indicates internal wear
- 7 If internal wear is confirmed, overhaul or replace the transmission and recalibrate the control module

What the code does not always mean

- A P07AE can be set by a simple low-fluid condition or a clogged transmission filter, so always verify fluid level and condition before condemning internal parts.
- The code often sets only during a specific driving condition, such as a commanded 3-4 shift under light throttle, and may not appear during a short test drive.
- A faulty wheel speed sensor or output speed sensor can cause the control module to calculate an incorrect ratio and falsely flag friction element G.
- After a transmission replacement or valve body service, the control module may need a relearn or adaptive reset procedure to prevent the code from returning.
- Some vehicles use a separate transmission control module that can store this code without illuminating the check engine light, so a full module scan is essential.

Can I keep driving with P07AE?

Driving with P07AE is not recommended because the transmission may slip, fail to shift, or enter limp mode without warning, which can cause further internal damage. If you must move the vehicle, drive at low speed directly to a repair facility and avoid heavy acceleration or towing.

Tools that help

- Bidirectional scan tool with transmission control module access
- Transmission fluid pressure gauge
- Digital multimeter
- Transmission jack and safety stands
- Fluid pump and drain pan



Reading P07AE

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

Often seen with

P0730 Incorrect Gear Ratio · **P0740** Torque Converter Clutch Circuit Malfunction · **P07AD** Transmission Friction Element F Stuck On · **P07AF** Transmission Friction Element G Stuck On · **P07B0** Transmission Friction Element H 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/p07ae/>

