

GENERIC · POWERTRAIN

**P07AA**

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

**P07AA**

## Transmission Friction Element E Performance/Stuck Off

P07AA indicates that the transmission control module has detected a performance problem with friction element E, meaning the clutch or brake that applies a specific gear ratio is slipping or not engaging when commanded. The computer compares expected input and output shaft speeds for the commanded gear and flags the code when the ratio falls outside the calibrated window, indicating the element is stuck off or failing to hold torque.

SYSTEM

**Powertrain**

CODE TYPE

**Generic (all makes)**

SEVERITY

**High**

FIX DIFFICULTY

**Professional**

AREA

**Transmission**

### Symptoms you may notice

- Illuminated check engine light or transmission warning lamp, often with no other noticeable symptoms
- Harsh or delayed shifts, especially when the affected gear is commanded
- Transmission slipping or flaring during acceleration in the affected gear
- Failure to engage a specific gear, causing the vehicle to stay in a lower gear or neutral
- Elevated engine RPM at highway speed due to a missed upshift
- Limp mode engagement with reduced power and fixed gear operation

### Common causes, most likely first

- 1 Low or degraded transmission fluid level causing insufficient hydraulic pressure to apply the element
- 2 Sticking or faulty solenoid that controls hydraulic pressure to friction element E
- 3 Worn or damaged friction plates or seals inside the transmission affecting element E
- 4 Valve body wear or contamination blocking fluid passages to the element
- 5 Internal transmission harness damage or poor electrical connection to the solenoid
- 6 Transmission control module software calibration issue or faulty module
- 7 Mechanical failure of the apply piston or return spring for the friction element



## How to diagnose and fix it

- 1 Check transmission fluid level and condition; top off or replace fluid if degraded
- 2 Scan all modules for stored and pending codes, and record freeze-frame data to confirm the fault conditions
- 3 Perform a road test with a scan tool monitoring commanded gear, input and output shaft speeds, and solenoid duty cycle
- 4 Inspect the solenoid and internal wiring for the affected friction element for resistance and continuity
- 5 Test hydraulic pressure at the appropriate port to verify the element is receiving adequate apply pressure
- 6 Remove the transmission pan to inspect for debris, and test or replace the suspected solenoid or valve body
- 7 If internal mechanical damage is confirmed, remove and overhaul or replace the transmission

## What P07AA really tells you about element E

- A P07AA code often sets without any drivability complaint because the transmission may compensate by adjusting shift pressure, so the warning light can be the only clue.
- Technicians sometimes replace the solenoid for element E only to find the real problem is a worn valve body bore or a leaking apply piston seal, so hydraulic pressure testing is essential before parts replacement.
- Low fluid level from a slow leak is a common cause that is easily overlooked, and the code may clear after topping off and clearing the adaptive learning.
- The code does not always mean the friction element itself is mechanically failed; electrical faults in the solenoid circuit or a faulty transmission control module can produce the same ratio error.
- Related codes such as P07A9 or P07AB may also be stored if the same element or its control circuit is intermittently faulty, so always review all transmission codes together.

## Can I keep driving with P07AA?

Driving with P07AA is not recommended because the transmission may slip or fail to engage a gear, leading to loss of power or further internal damage. If you must move the vehicle, drive gently at low speed and avoid heavy acceleration or highway speeds until the fault is repaired.

## Tools that help

- OBD-II scan tool with transmission monitoring capability
- Transmission fluid pressure gauge
- Digital multimeter
- Factory service information for solenoid resistance and pressure specifications
- Transmission fluid level dipstick or scan tool for fluid level check
- Basic hand tools for pan removal and solenoid access



### Reading P07AA

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

### Often seen with

**P0730** Incorrect Gear Ratio · **P0740** Torque Converter Clutch Circuit Malfunction · **P07A9** Transmission Friction Element D Stuck On · **P07AB** Transmission Friction Element E Stuck On · **P07AC** Transmission Friction Element F 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/p07aa/>

