

GENERIC · POWERTRAIN

P087E

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P087E

Clutch Position Sensor B Circuit Intermittent

P087E indicates that the powertrain control module (PCM) has detected an intermittent fault in the electrical circuit for clutch position sensor B, which is used on vehicles with automated manual or dual-clutch transmissions to monitor clutch engagement. The PCM sets this code when the signal from sensor B momentarily drops out, spikes, or becomes erratic beyond a calibrated threshold, often due to a loose connection or chafed wire rather than a failed sensor.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Transmission

Symptoms you may notice

- Illumination of the check engine light or transmission warning light, often with no other noticeable symptoms
- Intermittent harsh engagement or slipping when pulling away from a stop
- Occasional failure to start because the clutch pedal position is not recognized
- Jerky or delayed gear changes, especially at low speeds
- A momentary loss of power or hesitation during acceleration
- The transmission may default to a limp-home mode after repeated fault detection

Common causes, most likely first

- 1 Frayed, chafed, or intermittently shorted wiring in the clutch position sensor B circuit
- 2 Loose, corroded, or backed-out terminals at the sensor connector or PCM connector
- 3 Internal intermittent failure of the clutch position sensor B itself
- 4 Poor ground connection shared by the sensor or PCM
- 5 Mechanical wear in the clutch pedal linkage or actuator causing the sensor to move out of range
- 6 Electrical interference from aftermarket accessories or a failing charging system
- 7 A software calibration issue in the PCM that misinterprets brief signal glitches



How to diagnose and fix it

- 1 Inspect the clutch position sensor B connector and wiring for looseness, corrosion, or chafing, and repair as needed
- 2 Perform a wiggle test on the sensor harness while watching live data to reproduce the intermittent fault
- 3 Check the sensor's reference voltage and ground at the connector with a multimeter, comparing to manufacturer specifications
- 4 Measure the sensor's signal voltage through its full travel and look for dropouts or dead spots
- 5 Verify the PCM connector terminals are clean and tight, and check for water intrusion in the connector
- 6 If the circuit and sensor test good, reflash or update the PCM calibration if a technical service bulletin applies
- 7 Replace the clutch position sensor B only after all electrical and mechanical checks have passed

Intermittent clutch sensor faults that fool technicians

- A clutch position sensor B code is often set by a momentary voltage drop caused by a worn ignition switch or a failing relay that briefly cuts power to the sensor circuit, not by the sensor itself.
Technicians frequently replace the clutch position sensor only to find the real fault is a chafed wire inside the bellhousing area where heat and vibration take their toll.
- On dual-clutch transmissions, a low battery or weak charging system can cause the PCM to log this code because the sensor signal becomes unstable during cranking.
- The code can be stored by a single event, so clearing it and performing a long test drive with live data logging is often more revealing than static meter checks.
Aftermarket clutch pedals or floor mats that restrict pedal travel can cause the sensor to intermittently exceed its expected range and set P087E without any electrical defect.

Can I keep driving with P087E?

You can usually drive with P087E if the vehicle behaves normally, but avoid aggressive acceleration or heavy towing until the fault is repaired. If the transmission enters limp mode or the engine fails to start, stop driving and have the circuit inspected promptly.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Back probe pins or breakout leads
- Wiring diagram for the clutch position sensor circuit
- Basic hand tools for trim and connector access



Reading P087E

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

Often seen with

P0805 Clutch Position Sensor Circuit · **P0806** Clutch Position Sensor Circuit Range/Performance · **P0807** Clutch Position Sensor Circuit Low · **P087D** Clutch Position Sensor B Circuit High

See it working

Watch the animated explainer [Manual Car Driving Simulator: Learn Clutch Control](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p087e/>

