

GENERIC · CHASSIS

C05E4

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C05E4

4WD/AWD Clutch A Position Sensor Circuit Intermittent

This code means the control module for the four-wheel-drive (4WD) or all-wheel-drive (AWD) system has detected an intermittent signal from the position sensor that monitors the clutch pack responsible for engaging the rear axle. The sensor circuit is not completely dead, but the voltage or signal drops out or jumps erratically, so the module cannot reliably confirm clutch position and sets this fault.

SYSTEM

Chassis

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Brakes, steering and suspension

Symptoms you may notice

- The 4WD or AWD warning light illuminates on the dashboard, often intermittently.
- The system may default to two-wheel drive, leaving the vehicle without all-wheel traction.
- A shudder or clunk may be felt during low-speed turns or when the system attempts to engage the clutch.
- The 4WD/AWD system may engage or disengage unexpectedly while driving.
- Often no symptoms besides the warning light, especially if the intermittent fault is brief.

Common causes, most likely first

- 1 Wiring harness damage or chafing between the clutch position sensor and the control module.
- 2 Corroded, loose, or contaminated electrical connector pins at the sensor or module.
- 3 Internal failure of the clutch position sensor causing an intermittent signal.
- 4 Mechanical binding or excessive play in the clutch pack linkage affecting sensor movement.
- 5 Water intrusion or debris in the sensor housing or connector.
- 6 Failing control module with intermittent internal circuit faults.
- 7 Poor ground connection shared by the sensor or module.



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, and record freeze-frame data to see when the fault occurs.
- 2 Visually inspect the sensor, its connector, and the wiring harness for damage, corrosion, or loose pins.
- 3 Wiggle-test the harness and connectors while watching live sensor data to reproduce the intermittent signal.
- 4 Measure sensor resistance or voltage with a multimeter and compare to the manufacturer's specification.
- 5 Check the sensor's ground circuit and reference voltage for drops or intermittents.
- 6 If wiring and connectors are good, replace the clutch position sensor and clear the code.
- 7 If the fault persists, test the control module and its connectors, and replace only after confirming a module fault.

Intermittent clutch sensor faults often misdiagnosed

- A loose or corroded connector pin is a far more common cause of this code than a failed sensor, so always inspect connectors before condemning parts.
- The code can set from a momentary signal dropout that leaves no current symptoms, so clearing it without checking live data often leads to a comeback.
- Mechanical issues inside the clutch pack, such as binding or worn linkage, can make the sensor signal intermittent even when the sensor itself is good.
- Water intrusion into the sensor or connector after off-road driving or a car wash is a frequent trigger that many technicians overlook.
- A weak battery or charging system can cause intermittent sensor signals on some vehicles, so check system voltage before deep electrical diagnosis.

Can I keep driving with C05E4?

You can usually drive the vehicle, but the 4WD/AWD system may be disabled or behave unpredictably, so avoid slippery conditions, heavy towing, or off-road use until the fault is repaired. If the warning light is accompanied by unusual noises or shuddering, have it checked promptly.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the 4WD/AWD system
- Terminal pick and electrical contact cleaner
- Jack and jack stands or a lift for underbody access



Reading C05E4

- C** Chassis: brakes, steering and suspension.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 5** Brakes, steering and suspension.
- E4** The exact fault within that area.

Often seen with

C05E0 4WD/AWD Clutch A Position Sensor Circuit · **C05E1** 4WD/AWD Clutch A Position Sensor Circuit Range/Performance · **C05E3** 4WD/AWD Clutch A Position Sensor Circuit High · **C05E5** 4WD/AWD Clutch A Position Not Learned · **C05E6** 4WD/AWD Clutch A Position Control Error

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/c05e4/>

