



C05EF

4WD/AWD Clutch B Position Control Error

This code indicates that the all-wheel-drive (AWD) or four-wheel-drive (4WD) control module has detected a position control error for clutch B, which is one of the clutches that engages or disengages the rear axle or distributes torque. The computer monitors the clutch actuator's commanded position versus its actual position and sets this code when the two do not match within a calibrated range or when the actuator fails to reach the commanded position within a specified time.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Chassis	Generic (all makes)	Medium	Intermediate	Brakes, steering and suspension

Symptoms you may notice

- The AWD or 4WD warning light illuminates on the dashboard.
- The vehicle may default to front-wheel drive only, with a noticeable loss of traction in slippery conditions.
- A clunking or binding sensation may be felt during low-speed turns or when the system attempts to engage the clutch.
- The vehicle may exhibit reduced power or hesitation when accelerating from a stop.
- In some cases, the driver may notice no symptoms besides the warning light, especially if the fault is intermittent.
- The transmission may enter limp mode or shift harshly if the clutch position error affects torque distribution.

Common causes, most likely first

- 1 A faulty clutch B actuator or its internal position sensor, which is the most common cause.
- 2 Wiring damage or corrosion in the circuit between the clutch actuator and the AWD control module.
- 3 A binding or mechanically stuck clutch B assembly due to wear, debris, or lack of lubrication.
- 4 Low or contaminated AWD clutch fluid, or a fluid leak that affects hydraulic pressure.
- 5 A failing AWD control module, though this is less common and should be diagnosed last.
- 6 A software calibration issue in the AWD control module that requires a reflash or update.
- 7 A weak or failing battery or charging system that causes voltage drops affecting actuator operation.



How to diagnose and fix it

- 1 Verify the battery and charging system are in good condition, as low voltage can cause false actuator position errors.
- 2 Inspect the wiring harness and connectors at the clutch B actuator and AWD control module for damage, corrosion, or loose pins.
- 3 Check the AWD clutch fluid level and condition, and top off or replace fluid if contaminated.
- 4 Use a scan tool to command the clutch B actuator through its full range and observe the position sensor feedback for smooth operation.
- 5 Perform a resistance and voltage drop test on the actuator circuit to rule out high resistance or open circuits.
- 6 If the actuator fails to follow commands or the position sensor signal is erratic, replace the clutch B actuator and perform a calibration or relearn procedure.
- 7 If all mechanical and electrical checks pass, check for technical service bulletins (TSBs) or software updates for the AWD control module before condemning it.

Before you replace the AWD clutch actuator

- A binding clutch pack or contaminated fluid can mimic an actuator failure, so always inspect the mechanical condition of the clutch before replacing electrical parts.
- Intermittent codes often stem from a poor ground connection at the AWD control module or actuator, which is frequently overlooked during diagnosis.
- Some vehicles require a specific drive cycle or calibration procedure after actuator replacement, and skipping this step will cause the code to return immediately.
- A weak battery can cause the actuator to move slower than expected, setting a position control error without any hard fault in the actuator itself.
- The code does not always mean the actuator is defective; a damaged tone ring or position sensor target inside the clutch assembly can also trigger it.

Can I keep driving with C05EF?

You can usually drive the vehicle with this code, but the AWD or 4WD system may be disabled, reducing traction in poor weather or off-road conditions. Avoid heavy acceleration or towing until the fault is repaired, and have the system diagnosed promptly to prevent further damage to the clutch assembly.

Tools that help

- OBD-II scan tool with bidirectional control and live data capability
- Digital multimeter for circuit testing
- Factory service information for the specific vehicle make and model
- Basic hand tools for inspection and actuator removal
- Fluid pump or syringe for checking and topping off AWD clutch fluid



Reading C05EF

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.
EF	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 · **C05E2** 4WD/AWD Clutch A Position Sensor Circuit Low · **C05E3** 4WD/AWD Clutch A Position Sensor Circuit High · **C05E4** 4WD/AWD Clutch A Position Sensor Circuit Intermittent

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/c05ef/>

