

GENERIC · CHASSIS

C05E6

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C05E6

4WD/AWD Clutch A Position Control Error

This code indicates that the control module for the four-wheel-drive (4WD) or all-wheel-drive (AWD) system has detected an error in the position control of clutch 'A', which is responsible for engaging or disengaging drive to an axle. The computer compares the commanded clutch position with the actual position reported by a sensor and sets the code when the two do not match within a calibrated range for a set time.

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

Symptoms you may notice

- The 4WD or AWD warning light illuminates steadily on the dashboard.
- The vehicle may remain in two-wheel-drive (2WD) mode and refuse to engage all-wheel drive.
- A grinding or clunking noise may be heard from the transfer case or rear differential during engagement attempts.
- The vehicle may exhibit poor traction or wheel slip on slippery surfaces when AWD is expected to assist.
- In some cases, the driver may notice no symptoms besides the warning light, especially if the fault is intermittent.
- The transmission may shift harshly or enter a limp mode if the control module limits torque to protect the clutch.

Common causes, most likely first

- A faulty clutch actuator motor or solenoid that fails to move the clutch to the commanded position.
- A worn or damaged clutch pack inside the transfer case or rear drive unit, causing slippage or binding.
- A defective position sensor on the clutch actuator that sends an incorrect feedback signal to the control module.
- Damaged or corroded wiring and connectors between the control module and the clutch actuator or sensor.
- Low or contaminated fluid in the transfer case or rear drive unit, affecting clutch operation.
- A software glitch or corrupted calibration in the 4WD/AWD control module.
- Mechanical binding in the clutch linkage or actuator mechanism due to debris or lack of lubrication.



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, and record freeze-frame data to understand when the fault occurred.
- 2 Inspect the wiring harness and connectors at the clutch actuator and position sensor for damage, corrosion, or loose pins.
- 3 Check the fluid level and condition in the transfer case or rear drive unit, and top up or replace fluid as specified.
- 4 Test the clutch actuator motor and position sensor with a bidirectional scan tool to command movement and observe feedback.
- 5 Perform a calibration or relearn procedure for the clutch position using the scan tool if the actuator and sensor respond correctly.
- 6 If the actuator or sensor fails testing, replace the faulty component and recheck operation.
- 7 If the clutch pack is worn or damaged, disassemble the transfer case or rear drive unit and replace the clutch assembly as needed.

Before you replace the transfer case

- A low battery or charging system fault can cause the control module to set this code because voltage drops disrupt actuator operation and sensor readings.
- After replacing the clutch actuator or control module, a calibration procedure is often required; skipping it will immediately reset the code.
- The code can be set by a simple mechanical bind in the actuator linkage that a visual inspection and lubrication will fix, so always check for free movement before condemning electrical parts.
- Intermittent faults often stem from a chafed wire in the harness near the transfer case, which only shorts when the suspension moves over bumps.
- Some vehicles use the same clutch for both AWD engagement and hill-descent control, so a fault may appear only during specific driving conditions.

Can I keep driving with C05E6?

You can usually continue driving in two-wheel-drive mode, but avoid slippery conditions where AWD is needed and do not tow heavy loads until the fault is repaired. If the vehicle enters a limp mode or makes grinding noises, stop driving and seek professional diagnosis.

Tools that help

- OBD-II scan tool with bidirectional control and calibration capabilities
- Digital multimeter for testing wiring and sensor signals
- Factory service information for the specific vehicle make and model
- Basic hand tools including sockets, wrenches, and screwdrivers
- Fluid pump or drain pan for transfer case fluid service



Reading C05E6

- 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.
- E6** The exact fault within that area.

Often seen with

C0561 ABS Disabled Warning Indicator Request · **C05E5** 4WD/AWD Clutch A Position Not Learned · **C05E7** 4WD/AWD Clutch B Actuator Control Circuit/Open · **C05E8** 4WD/AWD Clutch B Actuator Control Circuit Performance · **C05E9** 4WD/AWD Clutch B Actuator Control Circuit Low

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/c05e6/>

