

GENERIC · CHASSIS

C0327

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0327

Encoder Motor

C0327 indicates a fault in the encoder motor circuit, which is part of the transfer case control system on vehicles equipped with an electronically shifted four-wheel-drive transfer case. The control module monitors the encoder motor's position and feedback signals and sets this code when the voltage or signal does not match the expected range for the commanded position.

SYSTEM

Chassis

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Brakes, steering and suspension

Symptoms you may notice

- Four-wheel-drive or low-range indicator light flashing or staying on
- Transfer case stuck in one range, often defaulting to two-wheel drive or neutral
- No response when pressing the four-wheel-drive selector button
- Grinding or clunking noise from the transfer case when shifting is attempted
- Often no symptoms besides the warning light if the fault is intermittent

Common causes, most likely first

- 1 Faulty encoder motor or its internal position sensor
- 2 Damaged or corroded wiring harness to the encoder motor
- 3 Loose or corroded electrical connector at the encoder motor
- 4 Failed transfer case control module (TCCM)
- 5 Mechanical binding in the transfer case shift mechanism
- 6 Blown fuse or poor ground connection for the encoder motor circuit

How to diagnose and fix it

- 1 Scan all modules for related codes and record freeze-frame data to understand when the fault occurs
- 2 Inspect the encoder motor wiring and connector for chafing, corrosion, or loose pins
- 3 Check the encoder motor fuse and verify good ground connections
- 4 Measure resistance and voltage on the encoder motor signal circuit and compare to factory specifications
- 5 Command the encoder motor through the scan tool and observe feedback to confirm motor operation
- 6 If the motor fails to respond correctly, remove and bench-test the encoder motor
- 7 Replace the encoder motor or repair the wiring as needed, then clear codes and verify proper four-wheel-drive engagement



Encoder Motor Faults That Fool Technicians

- A weak or failing battery can cause the encoder motor to draw excessive current and set this code, so always load-test the battery before condemning the motor.
- Corrosion inside the encoder motor connector is a common cause that mimics a failed motor, and cleaning the terminals often resolves the issue without parts replacement.
- The transfer case control module may set C0327 if the encoder motor is mechanically binding, even when the motor and wiring are electrically sound.
- After replacing the encoder motor, some vehicles require a calibration or relearn procedure with a scan tool to avoid repeat codes.
- This code can be set by a faulty ignition switch or poor ground that interrupts power to the transfer case control module, so check powers and grounds before replacing expensive components.

Can I keep driving with C0327?

You can usually drive the vehicle in two-wheel drive, but avoid relying on four-wheel drive and do not attempt to shift into low range until the fault is repaired. If the transfer case is stuck in neutral or makes grinding noises, stop driving and have it serviced.

Tools that help

- OBD-II scan tool with bidirectional control
- Digital multimeter
- Wiring diagram for the transfer case circuit
- Basic hand tools
- Battery load tester

Reading C0327

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

Often seen with

C0306 Ride Height Sensor Front Left



See it working

Watch the animated explainer **Turbocharger Trainer: Boost, Wastegate and Intercooler** on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/c0327/>

