

GENERIC · CHASSIS

C00A3

OBD-II TROUBLE CODE

C00A3

Driveline Control Module Rear Differential Unit A Control Circuit Driver

C00A3 indicates that the driveline control module has detected a fault in the electrical circuit that drives the rear differential actuator, often an open, short, or excessive current draw on the driver output. The module commands the rear differential unit to lock or modulate, but the driver circuit cannot deliver the expected current, so the module sets this code and may disable the function.

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

Symptoms you may notice

- Illumination of the driveline or stability control warning light, often with no other noticeable symptoms
- The rear differential may fail to lock or unlock when commanded, reducing traction in low-grip situations
- A clunk or hesitation from the rear axle during acceleration or cornering as the actuator attempts to engage
- The vehicle may default to a reduced-power or limp mode if the module deems the fault critical
- In some cases, the driver may notice abnormal tire wear or handling instability due to the differential staying in one state

Common causes, most likely first

- 1 Damaged or corroded wiring harness between the driveline control module and the rear differential actuator
- 2 Failed rear differential actuator solenoid or motor, causing an open or shorted circuit
- 3 Blown fuse or relay supplying power to the actuator driver circuit
- 4 Poor ground connection at the chassis or differential housing
- 5 Internal fault in the driveline control module driver circuit
- 6 Water intrusion or debris in the actuator connector causing high resistance



How to diagnose and fix it

- 1 Inspect the actuator connector and wiring for corrosion, chafing, or loose pins, and clean or repair as needed
- 2 Check the fuse and relay for the rear differential actuator circuit and replace any blown fuse
- 3 Measure resistance across the actuator solenoid or motor and compare to the manufacturer's specification
- 4 Back-probe the driver circuit at the module and command the actuator with a scan tool to verify voltage and current
- 5 Perform a voltage drop test on the ground circuit to ensure less than 0.1 volts loss under load
- 6 If the circuit and actuator test good, substitute a known-good module or perform a module relearn procedure
- 7 Clear the code and test-drive the vehicle in conditions that command the rear differential to confirm the repair

When the actuator is not the culprit

- A common misdiagnosis is replacing the rear differential actuator when the real fault is a chafed wire behind the fuel tank or near a suspension pivot point.
- The code can set intermittently due to water intrusion into the connector after heavy rain or car washes, so always check for signs of moisture.
- Some vehicles require a relearn or calibration of the driveline control module after any actuator or wiring repair, otherwise the code may return.
- A weak battery or charging system can cause the module to log this code if voltage drops during actuator command, so verify battery health first.
- The driver circuit may be shared with other functions, so a fault in a related system can set C00A3 even if the differential actuator itself is fine.

Can I keep driving with C00A3?

You can usually drive the vehicle with this code, but avoid aggressive acceleration, sharp turns, or off-road conditions that demand rear differential locking until the fault is repaired. If the vehicle enters limp mode or the warning light flashes, stop and have it towed to prevent driveline damage.

Tools that help

- OBD-II scan tool with bidirectional control capability
- Digital multimeter
- Wiring diagram for the driveline control circuit
- Test light or load probe
- Socket set and trim removal tools



Reading C00A3

- C** Chassis: brakes, steering and suspension.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 0** Brakes, steering and suspension.
- A3** The exact fault within that area.

Often seen with

C00A2 Driveline Control Module Power Transfer Unit Control Circuit · **C00A4** Driveline Control Module Rear Differential Unit B Control Ci · **U0102** Lost Communication with Transfer Case Control Module

See it working

Watch the animated explainer [How a Supercharger Works: Roots Blower in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/c00a3/>

