



C00A1

Driveline Control Module

C00A1 is a generic SAE J2012 code that indicates the driveline control module has stored a fault within its own internal diagnostics or communication network. The module, which oversees power delivery to the wheels in all-wheel-drive and four-wheel-drive systems, has detected a condition that prevents it from reliably commanding the driveline, such as a loss of communication with other modules or an internal circuit error.

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

Symptoms you may notice

- The all-wheel-drive or four-wheel-drive system may default to two-wheel drive, reducing traction in slippery conditions.
- A warning light or message on the dashboard indicating a driveline or AWD/4WD fault.
- The vehicle may exhibit hesitation, binding, or clunking during acceleration or turns if the driveline remains partially engaged.
- Often no symptoms besides the warning light, as the module may set the code without affecting normal driving.
- In some cases, the transmission may enter limp mode or shift harshly if the driveline module shares data with the transmission control module.
- The driver may notice a slight delay or failure of the vehicle to engage four-wheel drive when selected.

Common causes, most likely first

- 1 A weak or failing battery or poor battery connections causing low voltage to the driveline control module.
- 2 Corroded, damaged, or loose wiring and connectors in the driveline control module circuit, including the power, ground, and CAN bus lines.
- 3 A faulty driveline control module itself, due to internal electronic failure or water intrusion.
- 4 Software corruption or a need for a module reprogramming or calibration update.
- 5 A failed sensor or actuator within the driveline system, such as a differential lock motor or a wheel speed sensor, that the module monitors.
- 6 Communication network issues, such as a shorted or open CAN bus, that prevent the driveline module from exchanging data with other modules.
- 7 A poor ground connection at the driveline control module or at a shared ground point on the chassis.



How to diagnose and fix it

- 1 Perform a battery and charging system test to ensure stable voltage, as low voltage is a common trigger for module communication codes.
- 2 Inspect and clean the driveline control module connectors and grounds, looking for corrosion, loose pins, or damaged wires.
- 3 Use a scan tool to retrieve all stored codes and freeze-frame data, and check for communication codes in other modules to determine if the fault is isolated.
- 4 Check the CAN bus integrity with a multimeter or oscilloscope to rule out network shorts or opens that could set this code.
- 5 If the module is accessible, verify power and ground at the module connector with a test light or multimeter while wiggling the harness.
- 6 Reprogram or update the driveline control module software if a known calibration issue exists for the vehicle.
- 7 If all external checks pass, replace the driveline control module and perform any required relearn or calibration procedures.

What the driveline module code really means

- C00A1 is often set by a low voltage event, such as a battery that was drained or jumped, and may clear after the battery is fully charged and the code is cleared.
- A bad ground shared with other modules can cause the driveline module to set this code even though the module itself is healthy.
- The code does not always indicate a failed driveline control module; communication faults from other modules on the CAN bus can trigger it as a secondary code.
- After replacing the driveline control module, a calibration or programming procedure is usually required, and skipping it can lead to recurring codes or poor driveline performance.
- Water intrusion into the module connector or housing is a frequent cause on vehicles that see off-road use or live in wet climates, and it is often overlooked during diagnosis.

Can I keep driving with C00A1?

If the vehicle drives normally and only the warning light is on, you can usually continue driving, but avoid relying on all-wheel drive and schedule diagnosis soon. If the vehicle exhibits binding, clunking, or loss of power, stop driving and have it towed to prevent damage to the driveline.



Tools that help

- OBD-II scan tool with module communication capabilities
- Digital multimeter
- Test light
- Battery tester and charger
- Oscilloscope for CAN bus analysis
- Factory service information for wiring diagrams and calibration procedures

Reading C00A1

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.
A1	The exact fault within that area.

Often seen with

C0561 ABS Disabled Warning Indicator Request · **P0562** System Voltage Low · **U0001** Loss of Bus Communication · **U0102** Lost Communication with Transfer Case Control Module · **U0122** Lost Communication With Vehicle Dynamics Control Module

See it working

Watch the animated explainer [EV Powertrain Trainer: How an Electric Car Drives](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/c00a1/>

