



U031D

Software Incompatibility With Parking Assist Control Module A

U031D is a communication fault indicating that the parking assist control module (PAM) reports a software incompatibility with another module on the vehicle's network. The computer has detected that the software versions or calibration files between the parking assist module and a related module do not match, preventing proper operation of the parking assist system.

SYSTEM Network	CODE TYPE Generic (all makes)	SEVERITY Medium	FIX DIFFICULTY Professional	AREA Software and configuration mismatches
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Symptoms you may notice

- Parking assist system disabled with a warning message on the dashboard
- Parking sensors may not detect obstacles or may give false alerts
- Automatic parking features may not function
- Often no symptoms besides the warning light
- In some cases, other driver assistance systems may be affected if they share data with the parking assist module

Common causes, most likely first

- 1 Software or firmware mismatch between the parking assist control module and another module, often after a module replacement or software update
- 2 Incorrect calibration data loaded into the parking assist module
- 3 Aftermarket or non-OEM software installed on one of the modules
- 4 Failed or interrupted software update or programming event
- 5 Communication network issues (e.g., CAN bus) causing corrupted data exchange
- 6 Faulty parking assist control module itself
- 7 Issues with the gateway module or central configuration preventing proper software handshake



How to diagnose and fix it

- 1 Use a scan tool to read all modules for stored codes and check for software version mismatches
- 2 Verify that all modules have the latest manufacturer-approved software and calibrations
- 3 Perform a software update or reprogramming of the parking assist control module and any related modules as needed
- 4 Check for and clear any communication fault codes that may be interfering with the software compatibility check
- 5 Inspect wiring and connectors at the parking assist module and related modules for damage or corrosion
- 6 If software is correct, replace the parking assist control module and program it to the vehicle
- 7 Perform a system reset and relearn procedure after repairs

Software Mismatch Often Follows Module Replacement

- This code frequently appears after a parking assist module is replaced without proper programming or when a used module is installed that has different software.
A battery disconnect or low voltage during programming can corrupt module software and trigger U031D even if no hardware is faulty.
- Some vehicles require a specific sequence of module programming and configuration that, if skipped, leads to incompatibility codes.
- The code may be stored in the parking assist module itself or in the gateway module, so scanning all modules is essential for accurate diagnosis.
Intermittent CAN bus faults can cause temporary software incompatibility errors that may not reappear after clearing, so always check for underlying communication issues.

Can I keep driving with U031D?

The vehicle is generally safe to drive because parking assist is a convenience feature, but be aware that parking sensors and automated parking may not function. Avoid relying on parking assist systems until the fault is repaired.

Tools that help

- OBD-II scan tool with module programming capability
- Manufacturer-specific diagnostic software
- Digital multimeter for checking wiring and voltage
- CAN bus interface tool for network diagnostics
- Battery maintainer to ensure stable voltage during programming



Reading U031D

- U** Network: communication between the vehicle's control modules.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 3** Software and configuration mismatches.
- 1D** The exact fault within that area.

Often seen with

U0100 Lost Communication With ECM/PCM A · **U0121** Lost Communication With Anti-Lock Brake System (ABS) Control · **U0140** Lost Communication With Instrument Panel Cluster · **U031C** Software Incompatibility With Brake System Control Module B · **U031E** Software Incompatibility With Parking Assist Control Module

See it working

Watch the animated explainer [How the PCV System Works: Crankcase Ventilation](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/u031d/>

