

FACT SHEET

ADVANCED DRIVER ASSISTANCE SYSTEMS (ADAS) REPAIR COSTS



Background

Today's vehicles, even base models, are equipped with increasingly sophisticated technology. This includes Advanced Driver Assistance Systems (ADAS), which use information from various sensors to "see" the world outside the vehicle.

AAA conducted a study of three vehicles to better understand the costs of replacing and/or calibrating ADAS sensors in typical collision and repair scenarios.

To understand the impact of advanced driver assistance systems on vehicle repair costs, particularly following a minor collision, AAA pursued this line of inquiry:

- What additional repair costs are incurred when specific ADAS cameras and sensors are damaged and/or must be calibrated?

Key Findings*

Repair costs for damaged cameras and sensors:

- Front radar sensors used with **automatic emergency braking and adaptive cruise control** systems: \$500 to \$1,300
- Front camera sensors used with **automatic emergency braking, adaptive cruise control, lane departure warning and lane keeping** systems: \$600 to \$800
- Front, side mirror or rear camera sensors used with **around-view systems**: \$740 to \$1,600
- Front or rear ultrasonic sensors used with **parking assist** systems: \$300 to \$1,000
- Windshield replacement for vehicles equipped with **automatic emergency braking, adaptive cruise control and lane departure warning** systems: \$360 to transfer and calibrate windshield mounted camera to new glass.

*Results only include the cost to repair ADAS and do not factor in body work or other collision-related repairs.

What is ADAS?

ADAS, or Advanced Driver Assistance Systems, are safety systems designed to alert a driver of a potential obstacle in the vehicle's path with the intent of avoiding a collision. These systems, located throughout the vehicle, use a combination of cameras and sensors to detect objects and then communicate to the driver.



Methodology

AAA evaluated three top-selling 2023 models in popular categories. The vehicle models were The 2023 Ford F-150, 2023 Nissan Rogue, and 2023 Toyota Camry. Each vehicle selected was equipped with the highest available level of ADAS functionality.

To establish repair part types and costs, all replacement parts discussed are original equipment manufacturer (OEM) components charged at their suggested list prices and obtained using CCC Estimating (Certified Collateral Corporation).

To establish mechanical labor costs, this work uses four common repair scenarios to determine the portion of the overall repair cost attributable only to the ADAS components and related labor. Labor rates used in calculations report are an average of the labor rates used in estimates from the two sources (Michigan and Southern California). The labor rate used for sheet metal (body labor) is \$75.00 per hour, and the rate for mechanical labor is \$110.00 per hour.

There are a number of variables that come into play when calculating repair costs for ADAS systems. Factors determined to be baseline values include: vehicle year, make, model, trim and options; repair part types and costs; repair labor operation times; auto body facility labor rates; dealer service department labor rates; and third-party auto glass replacement and ADAS sensor calibration costs.

AAA Recommendations:

- Understand the type of technology your vehicle has, how it performs and how much it would cost to repair should a system become damaged or require re-calibration.
- Select a repair facility that is equipped to repair and calibrate advanced safety systems.
- Following a vehicle repair, request proof that safety systems were properly repaired and calibrated.
- Prioritize routine ADAS updates when necessary to ensure they work as intended.