



Fulfilling the Promise of ADAS through Recalibration and Education

By Ed Sprigler

A future with self-driving cars is an exciting prospect—and a safer one too. The technology, known as Advanced Driver Assistance Systems (ADAS), that will help make this future possible is already operating in a growing number of vehicles. A 2015 survey by McKinsey & Company estimates that up to 17 percent of new car buyers in the U.S. choose to purchase optional ADAS and experts project growth in ADAS use to range from 10 to 29 percent per year through 2020.

ADAS, which includes blind-spot cameras and alerts, lane-departure warnings and automatic emergency braking, is already a clear benefit to both vehicle and pedestrian safety. A study of German accident data shows that 25 percent of the more than 2,000 accidents analyzed could have been avoided with current ADAS technologies. Other studies show that in the U.S. alone ADAS has the potential to prevent approximately 9,900 fatalities and 30 percent of all vehicle crashes each year.

Of course, the promise of ADAS assumes that these systems are operating optimally at all times. This is especially true as drivers get used to relying on ADAS in the course of normal driving. Vehicle owners and drivers must become aware of how ADAS works and how to maintain and make sure these systems are operating as they should and at maximum capacity and precision.

Developing a Solution for Today and Tomorrow

Windshield replacement is a perfect example of how drivers can ensure that ADAS continues to work as intended following repair or maintenance. Nearly all vehicles with ADAS supported by front-facing cameras require that ADAS be recalibrated after the windshield is replaced. In this case, windshield replacement often requires removal of the camera sensor pack from the old windshield and placement on the new windshield.

To make sure that camera is working correctly and providing accurate data to the driver assist features, the system must be recalibrated to reflect the camera's exact position in relation to the center of the windshield and the vehicle itself. If measurements are incorrect, the system could operate incorrectly. For example, if not recalibrated correctly, the camera sensor could send wrong signals to vehicle safety systems and possibly the driver. Or, the camera sensor could incorrectly sense that the vehicle is drifting into another lane and make adjustments that compromise safety.

To avoid these issues, vehicle owners must ensure that any necessary ADAS recalibration occurs as soon as possible after windshield replacement. Recognizing that few service providers can replace auto glass and immediately recalibrate ADAS technology, Safelite AutoGlass®, a sister division of Safelite® Solutions and a preferred provider for its clients, spent over two years developing a best-in-class, one-stop glass replacement/ADAS recalibration solution.

Partnering with Bosch, a global leader in automotive component manufacturing and testing and repair shop technology, Safelite AutoGlass now provides thoroughly tested ADAS recalibration services. Safelite AutoGlass's highly trained technicians use Bosch equipment to provide recalibration services and outcomes that are more convenient than what customers can get from any specialist service provider in the aftermarket, including auto dealer service departments. The difference is that Safelite AutoGlass provides glass replacement and ADAS recalibration in one stop that is not only much more convenient but also reduces the concerns customers may have about driving to another location with ADAS technology that may not be operating an optimal level.

More vehicles on the road are coming equipped with ADAS technology, in fact, within the last year Safelite AutoGlass has seen a 100 percent increase in vehicles with ADAS equipped windshields. This means the demand for ADAS maintenance solutions that are both convenient and best in class will only grow. Safelite AutoGlass's ADAS recalibration services provides important capacity in the marketplace to help meet this demand. This is especially true if car dealership service departments are unable to support immediate recalibration with a consistent service experience either because of the lack of enough of necessary equipment, or they do not have enough trained technicians to handle growing demand for ADAS recalibration services.

Growing Importance

One thing is clear: As demand for ADAS recalibration services grows, so will the importance of providing these services. We are moving toward the age of the self-driving vehicles guided by precision tools. Ensuring the safety for everyone on the road in this emerging environment starts now by making sure ADAS is always carefully calibrated and working as intended.



About the Author

Ed Sprigler started his career in the vehicle glass repair and replacement industry in 1996, joining Safelite Group® in 2007. He currently serves as the Vice President of Strategic Initiatives and has been instrumental in Safelite's research and development of ADAS technology and the lead in the Safelite AutoGlass ADAS recalibration solution.

Endnotes

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- 2 Seunghyuk Choi, Florian Thalmayr, Dominik Wee, and Florian Weig, "Advanced driver-assistance systems: Challenges and opportunities ahead," February 2016, <http://www.mckinsey.com/industries/semiconductors/our-insights/advanced-driver-assistance-systems-challenges-and-opportunities-ahead>
- 3 Matthias Kuehn, Thomas Hummel and Jenoe Bende Benefit Estimation of Advanced Driver Assistance Systems for Cars Derived from Real-Life Accidents, Paper Number 09-0317, German Insurers Accident Research, Germany, https://udv.de/system/files_force/media/esv-2009_gdv_paper-09-0317.pdf
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