



CASE STUDY

Identify & Perform Every OE-Required Calibration and Navigate Reimbursement

Gary Machiros of Angie's Service Inc. in Newbury, Massachusetts, is not new to ADAS. In fact, he got started not long after Autel released the IA800, its first system to use cameras for target placement, about four years ago. "We calibrate every vehicle that comes through our shop with Autel equipment and have done so since our first purchase," Machiros said.

Over the years, the demand for ADAS calibrations at Angie's Service Inc. has grown significantly, with the shop now performing about 50 calibrations weekly. This growth is a testament to the shop's expertise and status as the go-to calibration shop for the area's collision and mechanical shops.

What sets Machiros apart in the world of ADAS calibrations is his systematic and innovative approach.

He has embraced new tools and software and has identified a new type of technician with a specialized skill set for ADAS calibrations. This combination of tools, software, and expertise has allowed Machiros to implement a highly efficient approach to ADAS calibrations at Angie's.

ADAS Blueprinting with adasThink

It starts with a blueprint and estimate process when the vehicle enters the collision shop. The vehicle is assigned to a technician, who starts the first estimate. Once the vehicle is disassembled, Machiros says, you find the extent of the damage and the affected systems. The second estimate or the revision is done. "That's when we are going to start to think about ADAS and other things such as resets that need to be done on the vehicle to bring it back to safe pre-collision condition," Machiros said.

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A vital tool in Machiros' process is adasThink. adasThink is a software platform that uses the collision estimate to produce a report identifying the safety and convenience systems on the vehicle, as well as the OE-required ADAS calibrations and procedures to repair that vehicle.

Working by the estimate line items detailing what repair needs to be performed, adasThink will list what procedure — reset, initializations, ADAS calibrations — the OE requires. For example, Machiros referenced a CCC-generated estimate that outlined the repairs to be performed and parts to be replaced on a Honda with significant rear-end damage, including the replacement of right and left quarter panels, rear body panels, rear suspension support, lift gate, muffler, and muffler gasket.

The adasThink report of the estimate stated that based on repairs being performed, the OE required four ADAS operations and three safety operations to be performed. The report links to ALLDATA for detailed procedures and the OE position statements documenting under what conditions the manufacturer requires these additional services. For this Honda, adasThink listed the OE requirement for a Blind Spot radar learning value reset and installation angle check as well as a static calibration of the front radar unit.

Honda requires both because of the structural body parts that were replaced. Before using adasThink, Machiros said he would spend a great deal of time researching service data and revisiting the vehicle to determine what repair required a calibration. Since finding adasThink, he's used it on every vehicle in his shop.

Documenting OE-Required Repairs

Machiros said that just as adasThink is valuable for blueprinting the repair, it is equally helpful in drafting the repair invoice and working with insurance adjusters. He speaks about the danger of opinions rather than

facts working their way into vehicle repair and the confidence the adasThink report gives him to do the job right. "The OEM requires a procedure based on the knowledge of the people who built the car and the engineers who designed it. Those are the facts," Machiros said.

In his view, the task is straightforward: His job is to bring the vehicle back to pre-collision status, and the automakers tell him how to get there.

When drafting his invoice, he simply refers to the language on the adasThink report and includes the OE position statement when needed. In the case of this Honda, Machiros said, the vehicle was hit in the rear, and the adasThink report states that when such damage occurs, the front camera has to be calibrated. "Now the insurance adjuster might have an issue with that, and we might need to have a conversation, [and I will say] I didn't design the car. I need to do what the OEM wants me to do. I am not going to take on any of the liability because I didn't do a procedure. This has to be done. This is a safety issue. The OE is concerned that it [the force of the accident] jarred the camera, and it needs to be calibrated. So, we're not going to argue. We need to do what needs to be done to ensure the car is safe," Machiros said.

Machiros said he also takes the language on the Autel tablet Calibration Preparation screen and places it on the invoice to document that the time listed on the invoice was justified. The preparations, which include filling the gas tank and coolant reservoirs, adjusting the tire pressure, and checking for additional cargo, are required by the OE to ensure the vehicle matches its calibration criteria. "By including all that detail in your invoices, you start to establish a relationship with the insurance adjuster. It might even get you more work," Machiros said.

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The IA900: Everything You Need

Machiros was also an early adopter of the Autel IA900 system, which offers a holistic approach to vehicle repair — diagnostics, visual inspection, alignment, and ADAS calibrations — and he says he has never been disappointed, especially when he compares the Autel system with those of other manufacturers. “Autel is the only company to offer a total approach, giving you everything you need for calibration,” Machiros said.

Everything includes diagnostics and service capabilities that are at the foundation of the Autel brand, including pre- and post-scan and the numerous initializations and resets often required as part of a collision repair. “What’s great about Autel is that many of these procedures are built into the tools. Autel has been doing diagnostics for 15 years, and all the resets and relearns that are often needed are in the tablet. ... The Autel systems are so accurate we’ve never had a vehicle returned for recalibration,” Machiros said.

Read, Comprehend, Execute

Finding automotive technicians is a widespread industry challenge. Indeed, a recent study found that the U.S. will need over 100,000 new automotive technicians per year through 2026 just to keep up with demand. ADAS calibrations require a different skill set than the typical collision or mechanical repair technician, Machiros said.

In his hiring, he is looking for someone who is motivated and likes to learn. “Today, you really don’t need to be a technician to calibrate cars. Can you read, comprehend, and execute? Do you have some computer skills? I would really like to see them be lifelong learners. I could find someone with no automotive experience and teach him or her to perform a complete ADAS calibration. This is a huge win,” Machiros said. He credits the IA900 camera positioning system, which enables the frame-to-vehicle setup to be quickly and precisely executed, and the system’s detailed instructions and easy-to-navigate interface with simplifying the process.

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Classroom and Hands-On Training

Machiros was also quick to recognize the Autel two-day ADAS calibration training class as an opportunity for shops to give their technicians a thorough introduction to the understanding of the hardware — cameras, radar, lidar — behind Lane Departure Warning, Blind Spot Detection, and Forward Collision Warning systems on today's vehicles and a hands-on experience with using the Autel systems to calibrate them.

When Machiros speaks about ADAS calibrations, he's enthusiastic. Because, like the technicians

he seeks, he's a lifelong learner, and he sees substantial opportunity for both learning and revenue in his future. "We're seeing double and sometimes triple the calibration work because we are working on more and more later model vehicles. This workload will only grow with the increase of late model cars on the street. With more radar, cameras, and other systems incorporated into the vehicle, accurate ADAS calibrations become even more necessary. Right now, there is a huge potential for independent outfits to service local body shops."



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