

By Mike Imlay

EMERGING POTENTIAL

Selling ADAS and New-Tech Safety



■ The tremendous growth potential of the ADAS aftermarket was on full display at the recent 2017 SEMA Show. Brandmotion—an early leader in cameras, blind-spot monitoring, collision-avoidance and parking-assist systems—was one of a growing number of companies introducing attendees to the emerging technologies.

With 2018 well under way, if your business hasn't yet tapped into the Advanced Driver Assistance Systems (ADAS) aftermarket, doing so now could have you leading a new trend. Available from a range of infotainment and consumer-electronics manufacturers, current aftermarket safety-enhancement offerings run the gamut from do-it-yourself to professionally installed products encompassing head-up displays, forward-crash avoidance, blind-spot detection, night vision, lane-departure warning, adaptive front lighting, and surround-view camera systems, along with backup cameras and sensors. What's more, their market potential is huge.

Recent SEMA-led research (see "Be Informed!" sidebar) estimates the current value of the ADAS aftermarket at just under \$1 billion, with that figure anticipated to increase at 9%–10% annually through 2021, when it will reach \$1.51 billion. Passive park-assist units currently make up the bulk of aftermarket offerings, but major aftermarket manufacturers are at work advancing other ADAS technologies,

lowering costs and making integration into consumers' vehicles easier than ever.

"Smart guys in the aftermarket will add these kinds of products to their product lines," observed Paul Goldberg, vice president of sales and marketing for Epsilon Electronics, maker of the Power Acoustik Drive Alert plug-and-play dash unit, a product featuring forward-collision and lane-departure warnings along with built-

in GPS and DVR capabilities. "Most dealers as well as mass-market retailers are looking for ways to increase sales as well as provide good upgrades for their consumers. This is an opportunity to really transition into a growing area."

Meeting The Need

"We've been coming across National Safety Council and other government reports on the safe-driving movement and finding that there's a huge opportunity for the aftermarket," confirmed Jeff Varick, president of Brandmotion, in a recent *SEMA News* overview of ADAS technologies (November 2017, p. 30). "The biggest thing I've been talking about lately [is] the fact that, of the 40,000 lives lost on American roads last year, 10,000 could've been saved if every vehicle on the road had the same safety technologies as new vehicles coming out of the factories. The fascinating thing about that is those are lives that only the aftermarket can save because the cars have already left [the factories], they're already part of the [millions of] vehicles on the road."

As proof of this burgeoning market, Varick also noted the flood of national, regional and municipal planners and auto-industry leaders embracing Vision Zero, a worldwide movement to reduce roadway fatalities and serious injuries to a zero point in the coming decade. Launched in 1997 in Sweden, the program advocates new technologies and traffic safety measures to achieve its lofty goal. In fact, thanks to a combination of new regulations, consumer demand and an industry-wide push for safe autonomous vehicles, OEMs are already racing many ADAS innovations to market.

"What we're seeing, of course, is ADAS lane-departure warning and so forth com-

ing into the market in the OEM [models],” said Cesar Olaes, director of sales and operations for Vision Tech America, maker of BOYO brand driver-assist products. “Starting this year, all ’18-and-up car and truck models have mandatory backup cameras installed. So the OEMs are currently taking away some aftermarket business because of government regulation.”

However, Olaes pointed out that even with OEMs now offering various ADAS features on newer models, the aftermarket has a tremendous opportunity in filling the gaps. For example, some newer packages mitigate blind spots on the passenger side by engaging a camera with the right turn signal. Although an improvement over standard rearview mirrors, these systems are limited to one side of the vehicle. Plus, a driver must rely on a view screen to see a potential hazard.

By contrast, a microwave sensor system with audible alerts—like those available in aftermarket brands such as BOYO—can “spot” objects entering multiple blind spots and warn a driver without visual contact. Additionally, OEMs currently offer differing ADAS packages depending on vehicle trim levels, meaning that many new models still lack all the bells and whistles.

“There’s still plenty of room for the aftermarket to play in the driver safety space,” said Olaes. “Retailers basically need to become better educated about the products and then educate their customers as well. If you’re going to install a backup



■ Metra Electronics' new iBeam replacement mirror features temperature sensors, an integrated compass, a 4.5-in. LCD screen and two video inputs for a rearview camera and a secondary feed. The rearview is activated only when the vehicle reverses.

camera, then you can offer blind-spot detection. Or instead of going with the backup camera, [consumers] can go with a 360-degree all-around-view system where they can see around the whole vehicle, front, left, right and back.”

Like others watching the ADAS aftermarket, Olaes anticipates that drivers will also come to rely on the driver-assist technologies featured in their newer vehicles and inevitably miss them on their older models.

“Most people have more than one car—a classic, an antique or just an old car like a pickup truck that they use only when they

need to,” he said. “They’re going to have their other car and feel lost because it’s missing that technology. They’re going to want it there, too. It’s going to help us in sales, because there are a lot of used vehicles out there. A lot of people don’t buy new vehicles. They play it smart and buy used vehicles because they don’t want to deal with drive-off depreciation. That’s where we come in.”

Overcoming Obstacles

With such an obvious opportunity staring the industry straight in the eye, why haven’t more aftermarket manufacturers, retailers and jobbers jumped into the ADAS marketplace?

“It is my belief that these emerging technologies—be it ADAS, hybridization or vehicle connectivity—are looked at as impedances to business more than opportunity,” said BOOSTane President Ian Lehn. “Therefore it’s not that these topics aren’t being discussed; it’s just that they aren’t being discussed in a light of possibility.”

Lehn is the chair-elect for the SEMA Emerging Trends & Technologies Network (ETTN), a network dedicated to helping SEMA members anticipate and stay on top of the latest automotive technologies.

“Innovation at this level is often looked at as a change or a deviation from the status quo and therefore a hindrance,” he said. “However, this should be considered the complete opposite. Our industry has always shown its largest growth in the



■ Whistler's WBU-900 Wireless Digital Backup Camera offers consumers a novel alternative to costly installation. Like other backup cameras, it attaches to the rear license plate, but it transmits images wirelessly, recharging itself with built-in solar panels.

face of great adversity, and if we accept, acclimate and adapt, that same growth will continue.”

Lehn emphasized that more technology equals more products.

“That has been the case for generations across all aspects of our industry,” he said. “In ADAS, for example, could the hardware used for lane correction also be used to aid in off-roading/rock crawling, with some software upgrades? Or could we be utilizing various fuel technologies with the influx in hybridized systems? The first issue will be identifying the systems associated with those new technologies—cameras, infrared, sonar and so forth. With what is at stake for the OEMs in bringing those types of advanced systems to the general public, the locations and implementations are kept very secure. For that, the SEMA Garage has worked very diligently with the OEMs to obtain CAD models and utilize 3D scanning to build out an extensive Tech Transfer repository, which is available to all qualified SEMA-member manufacturers and allows them to design their products with those systems in mind.”

Lehn also noted that—ready or not—ADAS will affect virtually every industry segment, even general parts makers.

“The next hurdle will be certification of our member companies’ new products,” he explained. “Depending on what is altered or how invasive the new part is to an OEM ADAS system, there will be regulations [regarding the] liability based off of what is changed. Whether it is obstructing a lane-departure sensor with a new spoiler or changing braking distances of assisted braking with a larger-diameter tire, all of those will need to be assessed and certified. Rest assured, though, ETTN is aware and working with the SEMA Political Action Committee on Capitol Hill and the SEMA Garage to obtain those capabilities, just as the SEMA Garage’s emissions lab now works with the California Air Resources Board and the Environmental Protection Agency.”

Despite the hurdles, the number of companies embracing ADAS has been growing, albeit slowly, Olaes said. Based in Fullerton, California, Vision Tech America began manufacturing rearview camera



■ **Jobbers will increasingly rely on specialized tooling to install, calibrate and repair ADAS systems. Bartec USA introduced the QST250 Parking Sensor Tester at the 2017 SEMA Show. Its leading-edge tech quickly checks ultrasonic parking sensors for function, relative signal strength and frequency with a simple aim of the tool.**

solutions in 2005. The company now also offers microwave blind-spot detection systems and other driver-assist technologies under its own BOYO brand and through private-label contracts to other companies.

“We started 12 years ago when there weren’t many companies,” Olaes said. “We actually pioneered the first rearview license-plate camera, and we have a utilities and application patent on it. Now you’re talking about a handful or more of companies doing backup safety. There’s a lot of competition out there now compared to when we first started.”

That competition includes products that consumers can purchase at automotive retailers, big boxes and electronics stores to install themselves, as well as more complex systems requiring professional installation. For more than 60 years, Metra Electronics has offered a variety of mobile electronics kits to jobbers, expanding its product lines in more recent years to driver-assist technologies.

“Metra Electronics sees a great opportunity in the market for installers to retrofit vehicles with safety systems such as backup cameras, blind-spot detection, 360-degree view cameras and more,” said Bill Jones, president of the company based in Holly Hill, Florida. “More and more consumers want to have the latest safety features in their vehicles, but today’s complex technology can cause challenges when

installers add aftermarket cameras to a factory radio.

“This year, we’re introducing many new solutions by Axxess that are designed to solve challenges with integrating aftermarket cameras into OEM systems. For commercial fleets, owners will want options to not only prevent accidents but also allow them to keep an eye on their vehicles and record driving history in the event of an incident. Our iBeam Vehicle Safety Systems [brand] has debuted a new pro commercial line of heavy-duty cameras, monitors and DVRs designed specifically for commercial use.”

Selling Points

If manufacturers and retailers have been hesitant to adopt the new ADAS technologies, they are not alone. Although SEMA research indicates that the aftermarket for ADAS is poised to take off, the demand among consumers to date has been a gradual climb, according to Goldberg.

“I can’t say that people are rushing to the store to buy this kind of thing,” he said. “But I have noticed that there was a distinct uptick in sales of these kinds of products through major retailers during the holiday season. However, consumers are historically hesitant to invest in safety items that may be cumbersome, technically involved or difficult and confusing to use.”

Goldberg believes that there's a simple value proposition that will soon overcome this reluctance: Keep your family safe and save money on your insurance.

"The technologies are not all that expensive," he said. "Almost anybody can afford some of the more basic camera and related safety technologies. It's not like you're going to have to invest thousands of dollars to improve the safety of your car. Some of the statistics that are out there show that there were approximately 75,000 back-over accidents last year alone, and those could've easily been prevented with a backup camera. In terms of front-collision avoidance, there were somewhere around 80,000 accidents resulting from people not keeping proper distance. It especially becomes exacerbated during the winter season when roads get slick.

"Another statistic is that almost a quarter million accidents are caused by illegal or inadvertent lane departures. Those are also related to blind-spot issues. Regardless, if you're swerving in and out of your lane, maybe you need a little extra driver assistance. From that perspective alone, I think any consumer would consider this type of simple upgrade."

Besides the lower insurance premiums a more safe-driving consumer can anticipate, many insurers now offer discounts for vehicles equipped with properly installed aftermarket ADAS products. Thus, a consumer can expect even a simple product to pay for itself in the first year and accrue continual dividends as each year goes by.

What's Trending?

Navigating the ADAS aftermarket can seem bewildering, given the wide range of products and solutions. One manufacturer might offer collision warning via a plug-and-play dash-mounted unit employing cameras and GPS to determine warnings. Another system may make use of professionally installed microwave sensors. According to Alvin Klement, national sales manager of CrimeStopper, what's trending is more dependent on the type of dealer than the technology.

"We support and sell blind-spot detection, rear and side cameras, radar and microwave parking assist, remote start and more," Klement said. "There are many [dealers] who are intimidated and won't take small risks. The most feared is park-



■ Along with microwave lane-departure systems, backup cameras and more, BOYO debuted the Carrobot C2-Lite heads-up display at the recent SEMA Show. It connects to both Androids and iPhones to assist in safer driving.


ing assist and drilling holes in bumpers with little experience, while other dealers do thousands. The most inquired about is microwave blind spot, which resides behind the bumper in most automobiles. That tech is four times as expensive and gets sold far less frequently than parking assist, [which] has a higher rate of sale in OEMs. Lane departure is an up-and-coming feature with ADAS solutions that currently reside more in dash-mounted

DVR cameras that aren't quite as adapted to the OEM look yet.

"Where a lot of the current safety/collision avoidance and parking-assist solutions look like self installations, they aren't. The tools and skill sets needed are beyond the average consumer but are dependent on the specific solution. Knowledge of vehicle needs in all aspects—as well as a deep knowledge of brand and features available on what years—would be a large help to




■ Metra Electronics also offers the iBeam 360 Degree 3D View Camera System, which includes four cameras for a 360-degree panoramic view. The system is custom calibrated to each specific vehicle make and model and is an example of a growing number of dealer-only safety-tech products.



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■ The Crime Stopper brand offers a number of professional-install ADAS products, including a range of parking-assist kits like this PARK-PCMU Premium system. Suitable for trucks, SUVs and cars, it includes audible alerts and sensors mountable in both metal and plastic bumpers.

ensure they are prepared for what's needed. The installation part will vary depending on which technology they will support or not."

Goldberg believes that smart retailers will also rely on established manufacturers with proven track records and R&D that ensures that their products interact properly with other vehicle systems, including OEM head units.

"If installation is required—certainly proximity sensors, radar, sonic sensors and things of that nature—most consumers are not going to drill holes in their bumper to install them," he said. "The thing about everything in the marketplace, and in consumer electronics especially, is that we put a lot of product out there, and if there's something not working right or the consumer is having problems, the real measure at the end of the day is how quickly we rise to the occasion to take care of that consumer. We're in that position. We're organized to do it; we have technical support; we have call-in numbers; we have access via e-mail and text; so it's really easy to get a hold of us [whether] you're having problems installing the product or have questions about its operation."

Meanwhile, SEMA is making education in aftermarket ADAS products a top priority at the annual SEMA Show and other venues. Additionally, SEMA partnered with the Mobile Electronics Association's recent KnowledgeFest in Long Beach, California, to deliver a joint ADAS forum focused on aftermarket channel aware-

ness, business opportunities and workshop training. For members considering entry into the ADAS segment, the association's research and educational programs will continue to provide a boost.

"After years of educating our members on many of the advanced technologies on the horizon, we are now seeing many such products finding their way onto today's vehicles and retailer shelves," explained Nathan Ridnour, SEMA vice president of councils and membership. "With that in mind, SEMA will be doing more to create educational opportunities designed to help today's manufacturers and retailers better understand how and why to create, sell and install these products. We are finding that teaching our members these more practical skills will help increase adoption rates, grow sales and, ultimately, build stronger businesses."

Be Informed!

The tremendous potential ahead for the specialty-equipment industry is detailed in "SEMA Advanced Vehicle Technology Opportunities." To download a copy of the report, go to www.sema.org/avt-opportunities.

For additional information about ADAS technologies and how they may impact your business, visit the SEMA Garage Vehicle Technology webpage at www.semagarage.com/services/vehicletechnology. ■