### **ADVANCED DRIVER ASSISTANCE SYSTEMS** (ADAS) PROGRAM

NAPA<sup>®</sup> Echlin<sup>®</sup> offers more than 900 Advanced Driver Assistance System (ADAS) components

Echlin<sup>®</sup> ADAS components integrate correctly with electronic crash avoidance systems

ADAS components are powertrain neutral they are the same whether the powertrain is gas, diesel, hybrid or electric

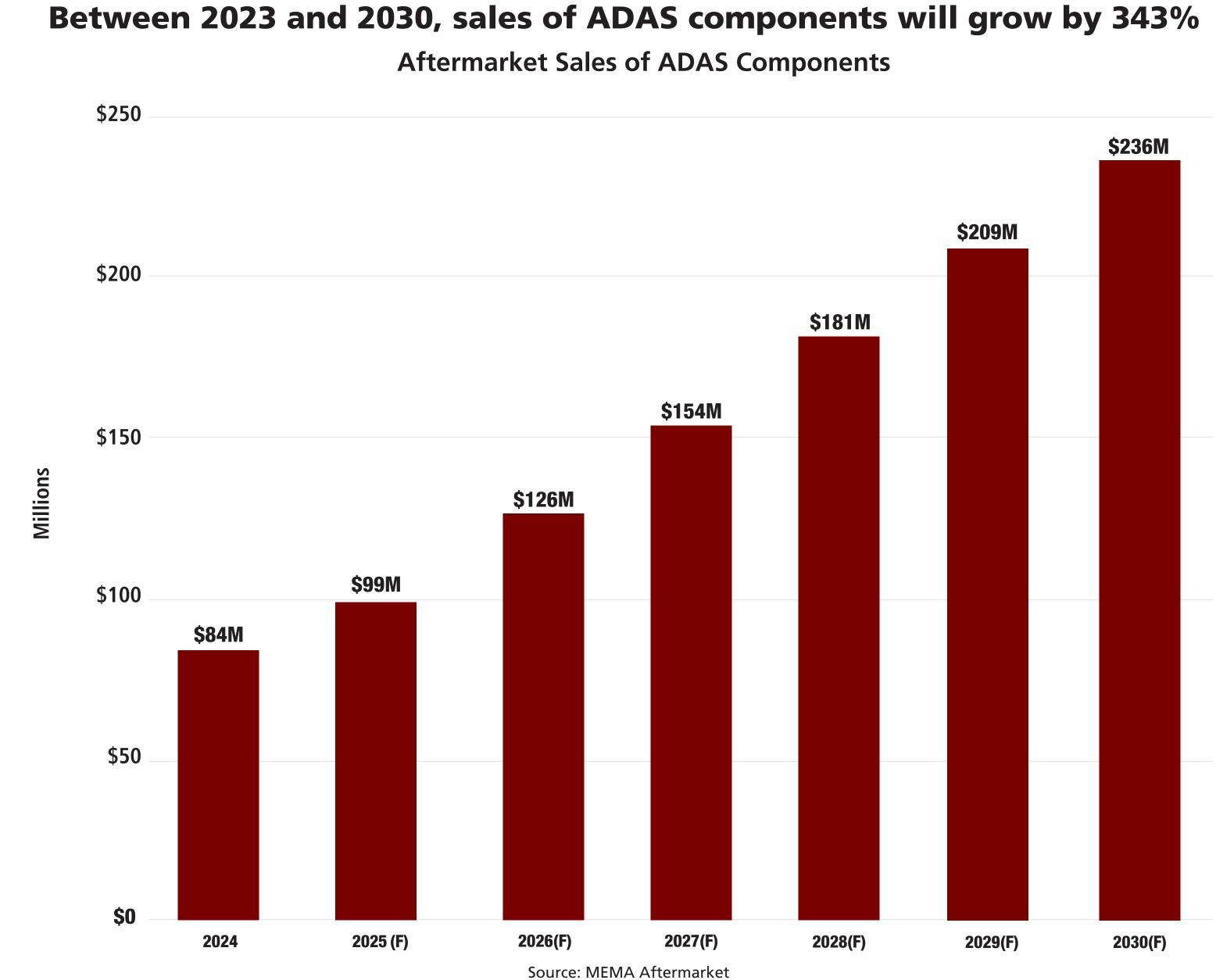
### What's in your box?<sup>™</sup> Here's what's in ours.





### Growing Market

ADAS is one of the fastest-growing segments in the industry. The rapid adoption of new components like park assist cameras and sensors have created more opportunities for both general repair facilities and collision shops. As more vehicles equipped with ADAS components age, repair opportunities will continue to grow.





### Timeline

Driver Assist Safety Systems aren't new. In fact, they have been around in some form for over 50 years. Newer, more advanced electronic safety systems are built on the foundations of ABS and Electronic Stability Control.



1969

Ford introduced "Sure Track," the first Anti-Lock Brake System, on the Thunderbird



#### 2005

The Volvo S80 was equipped with **Blind Spot Monitoring** 

#### **Did You Know**

The first ADAS system was cruise control, invented by Ralph Teetor in 1948.



**ADAS Program** 



#### 1971

Buick introduced "MaxTrac," the first traction control system, on all full-size cars



#### 1995

The first Electronic Stability Control system was available from **Mercedes-Benz** 





2012

All new light-duty vehicles sold in the U.S. were required to have **Electronic Stability Control** 



#### 2018

New vehicles built after May of 2018 were required by law to have a back-up camera

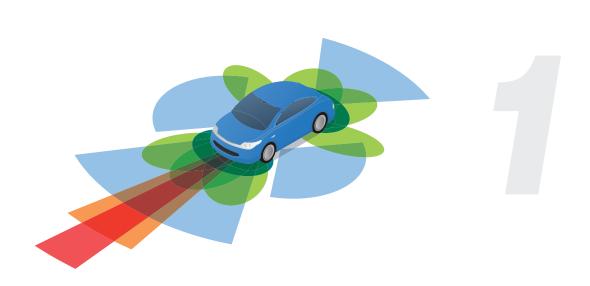




## Sales Opportunities

Electronic safety systems like Electronic Stability Control and Automated Emergency Braking are programmed for brand-new components. Worn or lowquality replacement parts can reduce the effectiveness of all electronic safety systems, putting the motorist at risk.

### **Explaining ADAS to your customers will help you** sell more premium parts







UITS POUR SYSTÈME DE GESTION DU MOT RODUCTOS PARA EL MANEJO DEL MOTOR



#### **How ADAS Works**

Your customers' vehicles may have safety features they don't even know about. When they understand how these systems work, they can make better decisions about their vehicle.

#### Talk About "Systems," Not "Parts"

When we talk about parts, it is easy for customers to bring up price. Instead, talk about how a particular component is part of a complex electronic safety system. This helps your customer see more value in the quality parts you are recommending.

#### **Recommend Premium-Quality Replacement Parts**

The ability of electronic safety systems to keep your customers safe depends on the performance of both electronic and mechanical components. Only using premium parts helps make sure your customers get the benefits and capabilities of their vehicles' crash avoidance systems.



### Impact on Vehicle **Systems**



**Steering and braking are** often connected to Advanced **Driver Assist Systems. If** a camera or sensor is not working correctly, the vehicle may perform erratically





If a new ADAS component is not calibrated per the vehicle manufacturer's guidelines, the part may not work as intended



Altering the vehicle ride height can affect the performance of Advanced **Driver Assist Systems** 

## What's New

#### Park Assist Sensors

Park assist sensors are one of the most frequently replaced ADAS components. Echlin<sup>®</sup> is regularly releasing new Park Assist Sensors to make sure you have the parts needed to service your customers' vehicles.

For the most current applications, be sure to check out our catalog at NAPAEchlin.com.







**PAS1798** Toyota SUVs (2022-19) VIO: 2.7M





**PAS1185** Audi / VW Cars & SUVs (2024-15) VIO: 2.1M











## What's New

#### **ADAS Components**

The industry's most complete ADAS program never rests. We are regularly introducing new parts across all of our ADAS categories, so you don't have to go back to the dealer.

For the most current applications, be sure to check out our catalog at NAPAEchlin.com.

#### **Echlin® Pro Training Tip**

After a collision, the mounting surface of blind spot detection sensors and cruise control distance sensors must be returned back to factory specifications or the component will not be able to be calibrated correctly.











### Advanced Sensor Program

Advanced Driver Assistance Systems rely on multiple sensors to provide realtime data to both the driver and the vehicle. Sensors that have failed or are not correctly calibrated may put the motorist and the occupants at risk.

#### **Echlin® Pro Training Tip**

Salt and corrosion can damage blind spot detection sensors and their connectors. Always inspect and clean the connectors when a blind spot detection sensor is installed.



#### **Blind Spot Detection Sensors**

Echlin<sup>®</sup> BSD Sensors are direct-fit replacements to ensure proper fit and performance. All BSD Sensors undergo extensive quality testing and product validation.

125+ SKUs / 104M Repair Opportunities



#### **Steering Angle Sensors**

Echlin<sup>®</sup> Steering Angle Sensors are rigorously tested for proper fit and precise performance to match the original application they are replacing.

270 SKUs / 230M VIO





#### **Cruise Control Distance Sensors**

Designed and manufactured to stringent quality standards to match the original for an easy install and to deliver precise performance.

75+ SKUs / 37M VIO



#### **Park Assist Sensors**

Echlin<sup>®</sup> Park Assist Sensors are direct-fit replacements utilizing advanced ultrasonic technology that exactly matches the detection capabilities of the original sensors.

200+ SKUs / Over 1 Billion Repair Opportunities



### ADAS Cameras

Cameras are becoming more and more common on new vehicles. While park assist cameras have been mandatory in the U.S. since 2018, others, like lane departure system cameras, are currently optional on many vehicles. Echlin<sup>®</sup> has nearly 300 Park Assist Cameras and 50 Lane Departure System Cameras to make sure you don't have to go back to the dealer.

#### **Did You Know**

Low-quality glass or a poor installation of a replacement windshield can affect the performance of lane departure system cameras.







#### Park Assist Cameras

Easily damaged in a rear collision, park assist cameras have been mandatory in the U.S since 2018. A premium replacement for the failed OE unit, most Echlin<sup>®</sup> cameras are 'plug & play' — no programming required.

**Rigorously tested to match OEM vehicle-specific** performance.

285 Cameras / 154M VIO

#### Lane Departure System Cameras

Located on the windshield behind the rearview mirror, lane departure system cameras are now also in side-view mirrors for additional protection.

**Echlin® LDS Cameras are rigorously tested** for precise fit and performance to match the original application they are replacing.

49 SKUs / 36M VIO



### **Top Movers: Park Assist Sensors**







**PAS1177** Audi / VW / BMW (2024-14)

**PAS1191** VW Cars & SUVs (2010-06)

### DOMESTIC



**PAS1125 GM Trucks, SUVs & Vans** (2023-06)



**PAS1126** Chrysler / Dodge / Jeep / RAM (2022-09)





PAS1501 Toyota Trucks & SUVs (2023-14)



PAS1504 Toyota Tundra (2021-14)





**PAS1127** GM Cars, Trucks & SUVs (2023-13)



**PAS1133** Ford Trucks (2020-15)





### **Top Movers: Park Assist Cameras**







**PAW16** Hyundai Sonata (2015-10)

### IMPORT

### DOMESTIC



**PAW109** Dodge Journey (2020-12)



**PAW111 Ford Vans** (2019-15)







### **Related** Parts

Mechanical and electronic components must function as designed to keep electronic safety systems operating correctly. Sensors send information to electronic control modules hundreds of times per second, and the vehicle's computer sends commands back to help keep the motorist safe.

Echlin<sup>®</sup> provides technicians with the additional Sensors and Connectors needed to keep electronic safety systems operating correctly.



#### **ABS Sensors**

**Echlin® ABS Sensors always** match the fit and performance of the OE, even when OE uses a complex multi-directional sensor

2,500 SKUs / 730M Repair Opportunities



#### **Ride Height Sensors**

**Echlin® Ride Height Sensors are** engineered and tested to provide the ECU with timely and accurate data to make decisions about vehicle performance and safety

35 SKUs / 28M VIO







#### **Accelerator Pedal Sensors**

**Echlin® Accelerator Pedal Sensors** are tested for output to make sure they perform on every vehicle in every situation

380+ SKUs / 231M VIO

#### **Throttle Position Sensors**

**Echlin®** Throttle Position Sensors are tested and calibrated to electronically lock voltage output for accuracy

270+ SKUs / 86M VIO

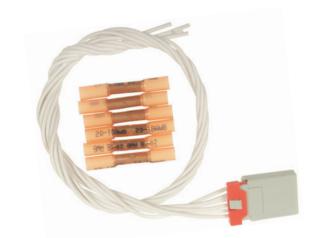




#### **Parking Brake Actuators**

**Popular Echlin® Parking Brake Actuators** include the required hardware and an **O-ring for proper installation** 

60+ SKUs / 83M VIO



#### **Electrical Connectors**

Echlin<sup>®</sup> offers hundreds of electrical connectors to help keep ADAS systems operating correctly

**Steering Angle Sensor Connectors** Park Assist Sensor Connectors Lane Departure System Connectors **ABS Sensor Connectors and more** 



## Echin® Quality

Park assist sensors help keep your customers safe. The quality and performance of the part matters, which is why Echlin<sup>®</sup> tests each part to make sure it integrates correctly with safety systems, and functions in all conditions.

**PAS1126** Chrysler / Dodge / Jeep / RAM (2022-09)



#### **Echlin<sup>®</sup> Park Assist Sensors**





## Echlin® **Pro Training Tech Tip**

Echlin<sup>®</sup> Pro Trainers have installed hundreds of ADAS components and trained thousands of technicians. Here's what they say to look out for during an install.

Any time an ADAS component is removed and reinstalled (even if it wasn't replaced or unplugged) it needs to be checked to see if a calibration is required per service information

Always check and follow the manufacturer's service information for the vehicle you're working on

**ECHLIN**. **ADAS Program** 



**Different manufacturers** suggest different types of calibrations — static is performed in the service bay and dynamic is performed while driving in specific conditions



**Ensure that all prerequisites** are met and correct (vehicle ride height, fuel tank level, tire pressure, etc.) prior to performing a calibration







## Echin® Professional Training

#### Award-Winning In-Person, Live Virtual, and Online Learning

Echlin<sup>®</sup> Pro Training delivers accredited classes that educate technicians in the latest automotive repair technologies, and techs can earn CEU credits.

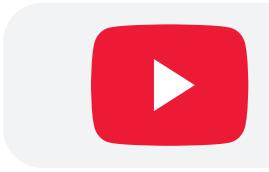
An extension of Echlin<sup>®</sup> training, our extensive YouTube video library has over 500 technical and installation videos.





**Available Classes** 

**ADAS Calibration Tips From The Pro Advanced Scan Tool Diagnostics** 



(NAPA) ECHLIN. **ADAS Program**  **Driver Assist Systems Overview** 



**ADAS Calibration Techniques** 

**Advanced Driver Assist Systems** 

**Body Electronics** 

**Diagnostic Strategies** 

Vehicle Communication Diagnosis

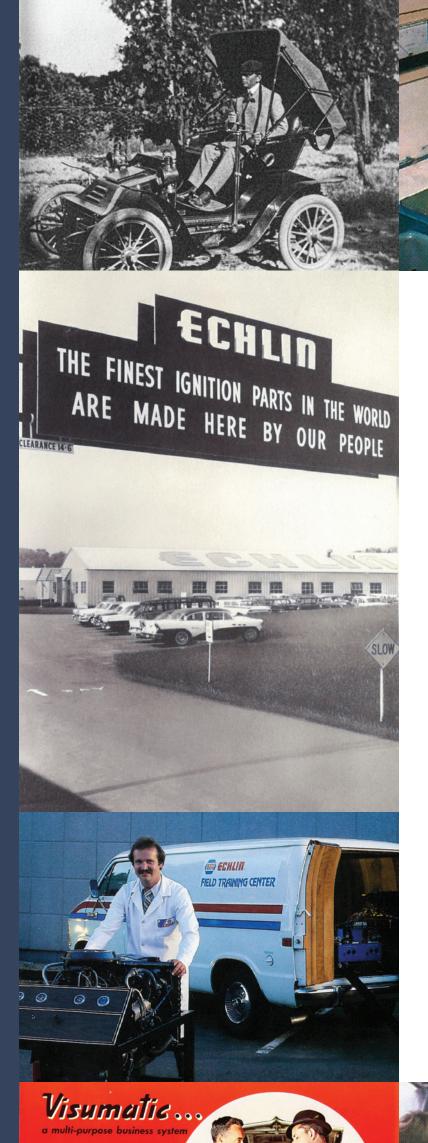
Unleash the Power of Your Scan Tool

For information on replacing collision components, search "Collision" on the NAPAEchlin YouTube channel

### **100 Years of** Excellence

For 100 years, marketing support materials and advertisements have been created to build Echlin<sup>®</sup> into a well-known, trusted, and reputable national brand.

Building brand loyalty and recognition with professional technicians takes decades. For 100 years, Echlin<sup>®</sup> has been supporting NAPA<sup>®</sup> with national advertising campaigns and more recently, effective technical training programs. Most importantly, the Echlin<sup>®</sup> brand has endured because generations of professional technicians know they can trust what's in the box.



FOR BRINGING IN REPE









Visumatic ... FOR BRINGING IN REPEAT BUSINESS

# **YEARS OF EXCELLENCE**

