

ADAS PROGRAM

Highlights

1

NAPA® Echlin® offers more than 900 Advanced Driver Assistance System (ADAS) components

2

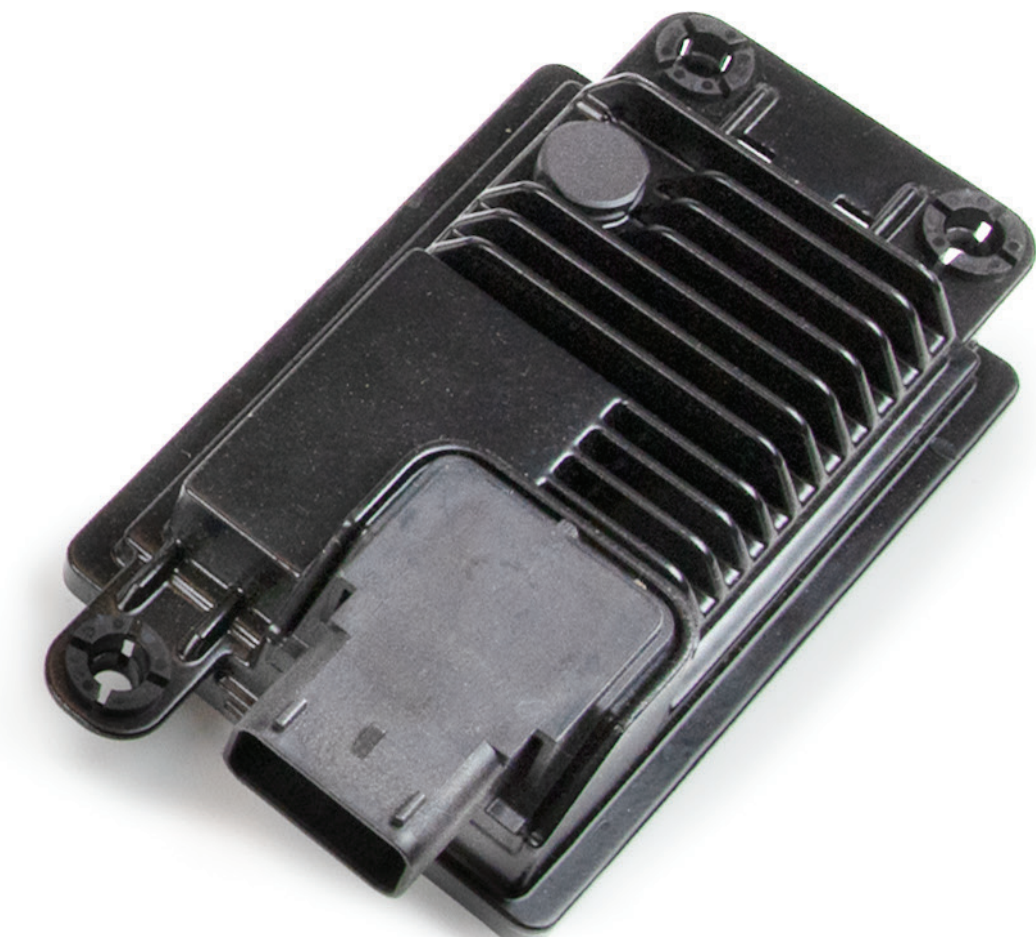
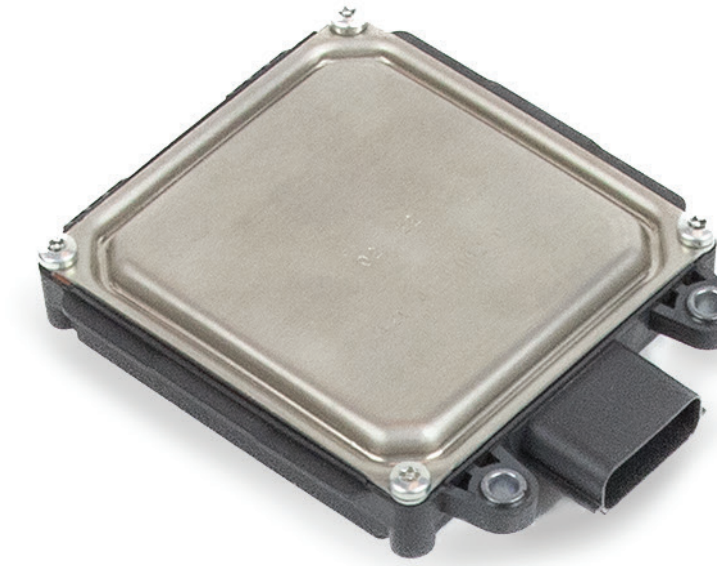
NAPA® Echlin® ADAS components are designed to integrate correctly with electronic crash avoidance systems

3

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



What's in your box?™



ECHLIN LOOKS RIGHT. FITS RIGHT. PERFORMS RIGHT.

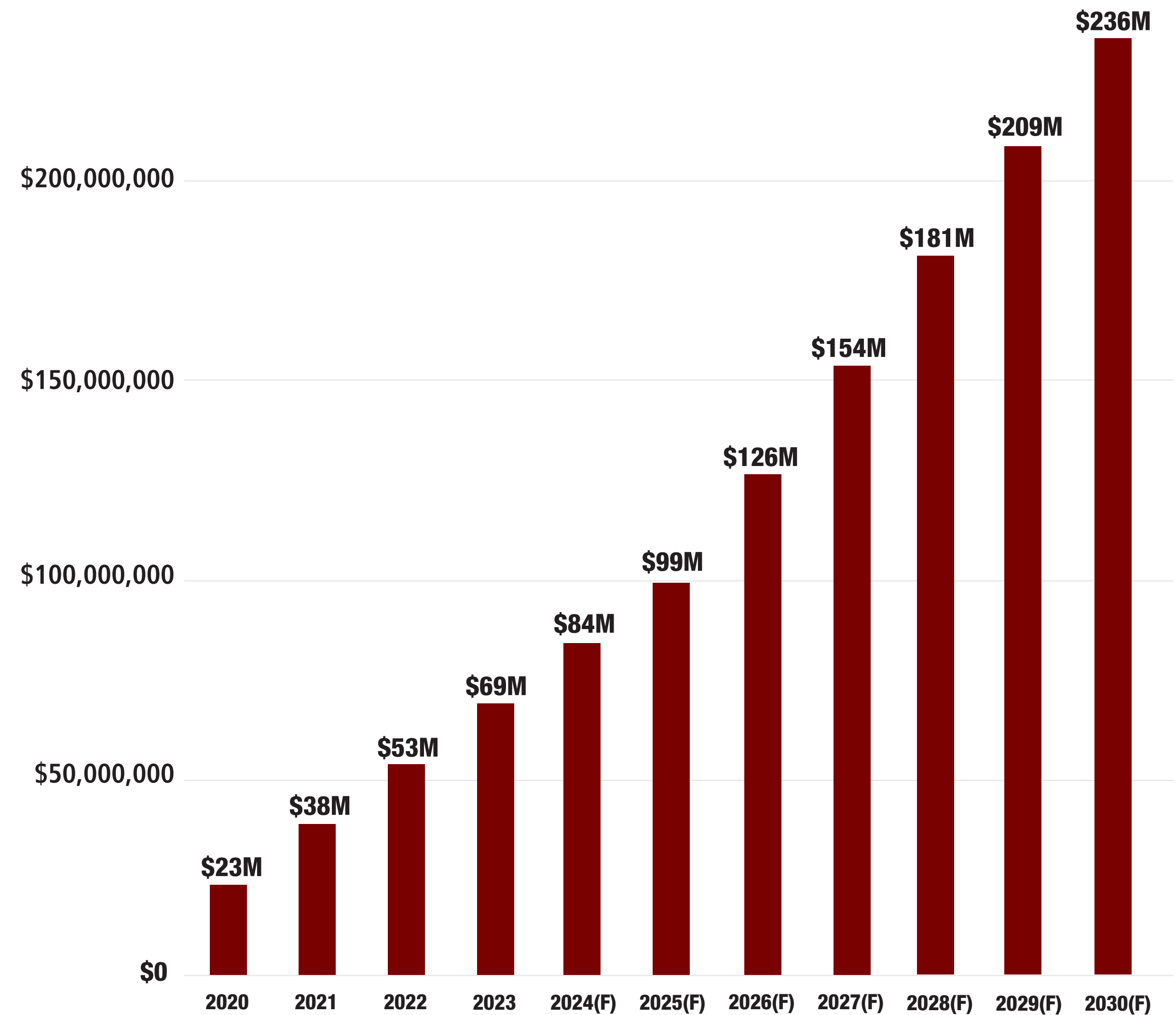
NAPAEchlin.com

Growing Market

ADAS components are one of the fastest growing categories in our industry. These sophisticated cameras and sensors are entirely powertrain neutral, meaning whether a vehicle is gas, hybrid or electric, the components and systems are the same. ADAS is here to stay, and it is going to grow exponentially in the coming years.

Between 2023 and 2030, sales of ADAS components will grow by 343%

Aftermarket Sales of ADAS Components



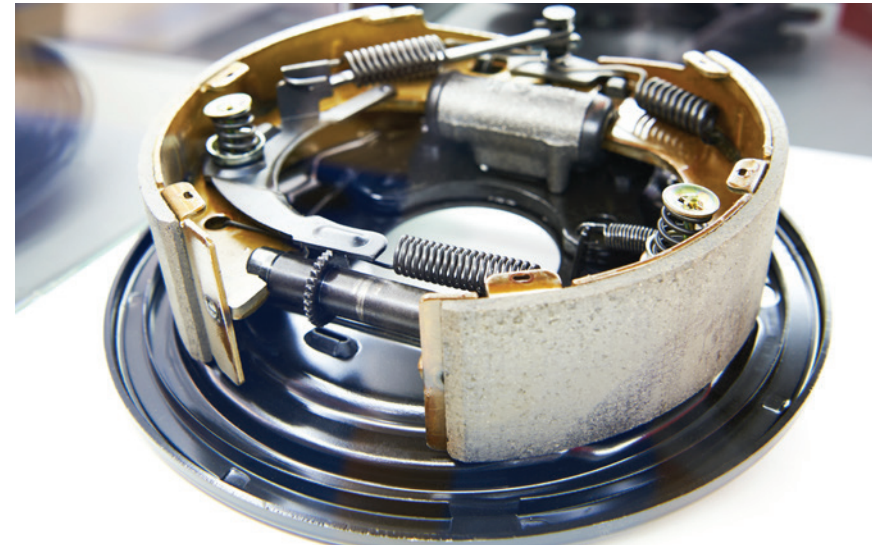
Source: ADAS Aftermarket Study, AASA 2022

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.

Did You Know

The gyro processor used in the prototype of the first ESC system came from a toy helicopter. It wasn't fast enough, so engineers sourced another from the warhead of a missile.



1969

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



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



2005

The Volvo S80 was equipped with Blind Spot Monitoring



2012

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



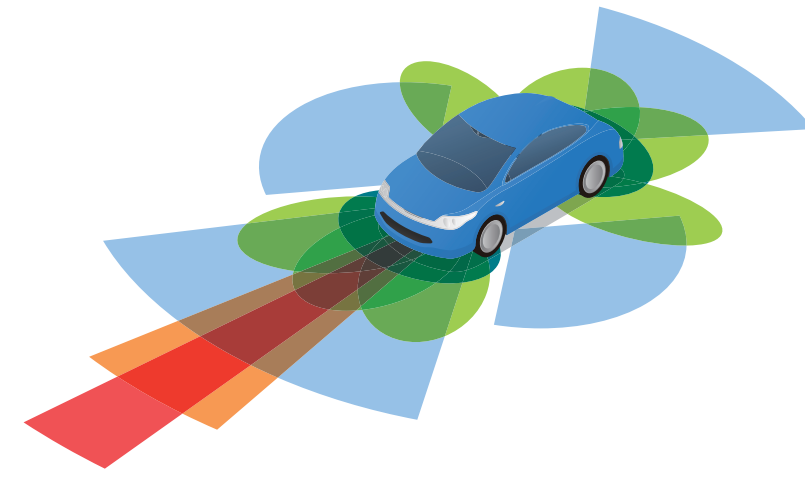
2018

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 low-quality replacement parts can reduce the effectiveness of all Electronic Safety Systems.

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



1

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



2

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



3

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



Advanced Driver Assistance
Systems depend on
real-time data from multiple
components including ABS
sensors and throttle
position sensors



Steering angle sensors
must be recalibrated after
every wheel alignment



ADAS can lower crash
rates by 20%, but only if
the systems are properly
maintained

What's New

Park Assist Sensors

Park assist sensors are of the most frequently replaced ADAS components. NAPA® Echlin® 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](https://www.napaechlin.com).



PAS1179
Ford SUVs
(2019-15)
VIO: 2M



PAS1737
Nissan / Infiniti Cars
(2023-13)
VIO: 2.3M



PAS1751
GM Cars, Trucks & SUVs
(2024-20)
VIO: 2.5M



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.

Tech 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.



LDW51
Lane Departure System Camera
Nissan SUVs
(2019-14)
VIO: 2.2M



PAW591
Park Assist Camera Kit
Ford Trucks & SUVs
(2022-17)
VIO: 2.7M



BSW143
Blind Spot Detection Sensor
GM Cars & SUVs
(2022-18)
VIO: 1.3M



Advanced Sensor Program

Advanced Driver Assistance Systems rely on multiple sensors to provide real-time 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.

NAPA® Echlin® Pro Training Tip

Salt and corrosion can damage blind spot detection sensors and their connectors.



Blind Spot Detection Sensors

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

126 SKUs / 104M Repair Opportunities



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



Steering Angle Sensors

NAPA® Echlin® Steering Angle Sensors are rigorously tested for fit, form and precise performance to match the original application they are replacing.

284 SKUs / 224M VIO



Park Assist Sensors

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

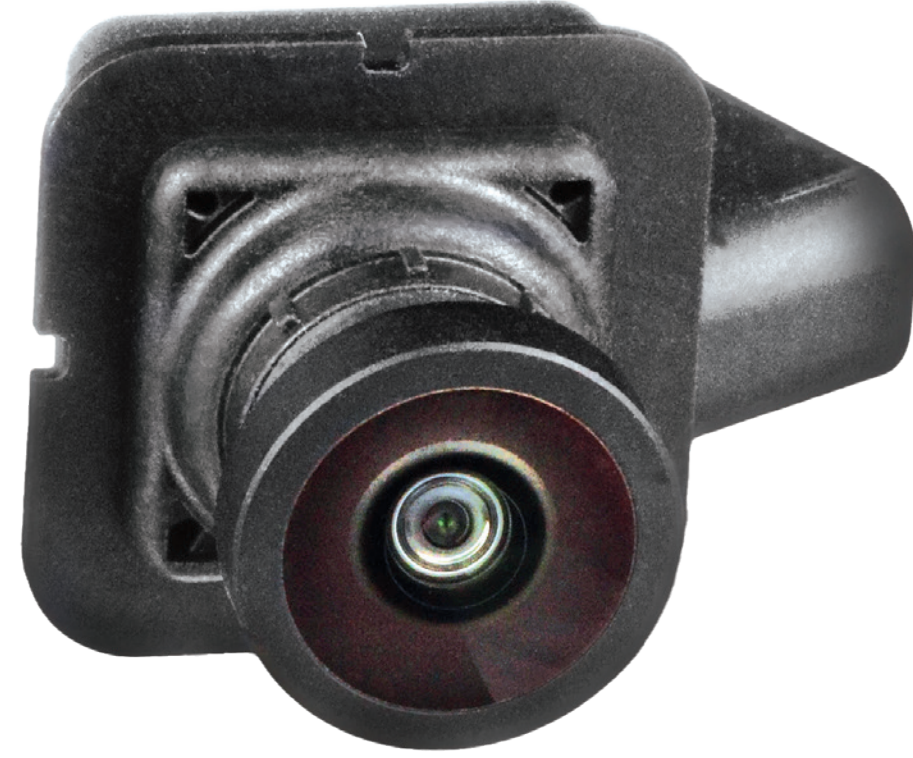
126 SKUs / 500M Repair Opportunities

ADAS Cameras

Park assist cameras have been mandatory on every new vehicle since 2018, and were fitted on many popular vehicles prior to being regulated by law. This is a growing category, and NAPA® Echlin® has over 230 different Park Assist (or back-up) Cameras to make sure you don't have to go back to the dealer.

NAPA® Echlin® Pro Training Tip

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 NAPA® Echlin® cameras are 'plug & play' — no programming required.

Rigorously tested to match the OEM vehicle-specific performance.

233 Cameras / 122M 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.

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

46 SKUs / 36M VIO

Top Movers: Park Assist Sensors

DOMESTIC



PAS1125

GM Trucks & SUVs
(2020-06)



PAS1127

GM Cars, Trucks & SUVs
(2020-13)



PAS1126

Chrysler, Dodge, Jeep & RAM
(2021-09)



PAS1133

Ford Trucks
(2019-15)



PAS1100

Ford Trucks & SUVs
(2022-00)

IMPORT



PAS1501

Toyota Trucks & SUVs
(2020-14)



PAS1719

BMW / Volvo Cars & SUVs
(2015-07)



PAS1714

Volvo Cars & SUVs
(2014-07)



PAS1716

Audi, VW, Volvo Cars & SUVs
(2021-06)



PAS1506

Toyota RAV4
(2018-16)

Top Movers: Other ADAS Components

DOMESTIC



PAW20

Park Assist Camera
Ford Explorer
(2015-13)



PAW22

Park Assist Camera
RAM Trucks
(2018-13)



BSW42

Blind Spot Detection Sensor
Dodge & Chrysler Vans
(2016-13)



BSW107

Blind Spot Detection Sensor
GM SUVs
(2017-15)



CCW18

Cruise Control Distance Sensor
Ford Trucks
(2020-15)

IMPORT



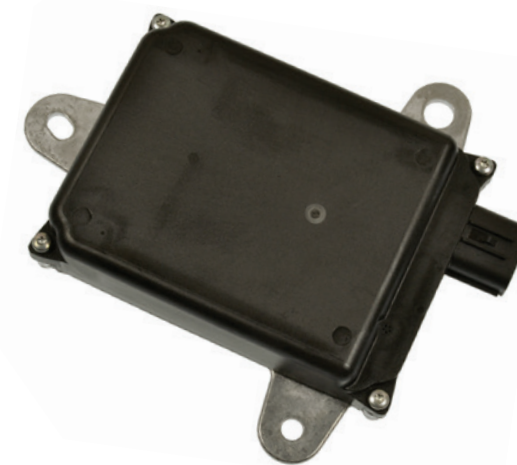
PAW365

Park Assist Camera
Toyota RAV4
(2018-16)



LDW21

Lane Departure System Camera
Toyota RAV4
(2018-17)



BSW63

Blind Spot Detection Sensor
Toyota Tacoma
(2017-15)



BSW86

Blind Spot Detection Sensor
Mercedes Cars & SUVs
(2016-12)



CCW40

Cruise Control Distance Sensor
Nissan SUVs
(2018-16)

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.

NAPA® Echlin® provides technicians with the additional Sensors and Connectors needed to keep electronic safety systems operating correctly.



ABS Sensors

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

2,522 SKUs / 724M Repair Opportunities



Accelerator Pedal Sensors

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

409 SKUs / 269M VIO



Throttle Position Sensors

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

277 SKUs / 88M VIO



Ride Height Sensors

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

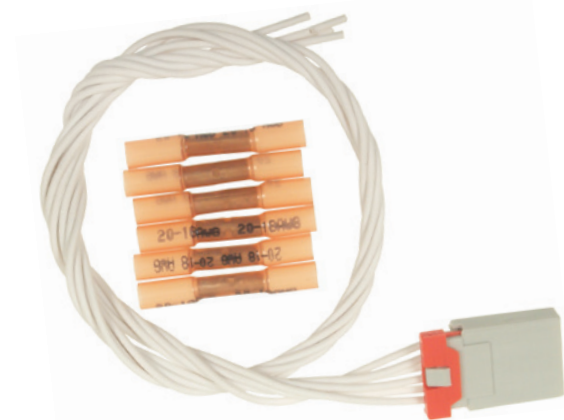
29 SKUs / 24M VIO



Parking Brake Actuators

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

30 SKUs / 60M VIO



Electrical Connectors

NAPA® Echlin® 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

NAPA® Echlin® Quality

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

NAPA® Echlin® Park Assist Sensors

Advanced ultrasonic technology matches the object detection range of OE ensuring the driver is alerted of objects within the vehicle's path

Engineered and manufactured in SMP's Poland facility

Designed to match the performance of the original and integrate with electronic safety systems

Includes a new seal to help keep moisture out for a long service life



NAPA® Echlin® PAS1126

Chrysler, Dodge, Jeep & RAM
(2022-09)

NAPA® Echlin® Pro Training Tech Tip

NAPA® Echlin® 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.



Anytime 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 read and follow service information exactly and completely when performing a calibration – no short cuts



Different manufacturers utilize different versions of calibrations — static is performed in the service bay and dynamic is performed while driving in specific conditions

Always check manufacturers' service information for the vehicle you're working on



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

Park Assist Connector Kit

Park assist sensor connectors are easily damaged in accidents, even minor ones. They are also prone to failure from salt and corrosion. NAPA® Echlin's Park Assist Connector Kit gives technicians a total of 64 of the most popular connectors to help get your customers back on the road quickly.



EMPK13

Includes the 5 most popular Connectors for a total of 64 pieces

Shop time-saver – Technicians have the parts they need at their fingertips

EMPK13 Contents

Part #	Qty	Vehicle Makes	VIO Coverage
EC995	16	Chrysler, Ford, GM	32.6 Million
EC2172	16	Chrysler, Ford, GM	32.5 Million
EC2293	16	BMW, Ford, GM	16.7 Million
EC2219	8	Audi, Chrysler, Ford, Volkswagen, Volvo	11.3 Million
EC913	8	Toyota	2.0 Million

NAPA® Echlin® Professional Training

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

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

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



Available Classes

**ADAS Calibration Tips From The Pro
Driver Assist Systems Overview**



Available Classes

**Advanced Driver Assist Systems
ADAS Calibration Techniques
Body Electronics
Vehicle Communication Diagnosis
Unleash the Power of Your Scan Tool**



For information on replacing collision components, search “Collision” on the **NAPA® Echlin®** YouTube channel

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