

ADVANCED DRIVER ASSISTANCE SYSTEMS (ADAS) PROGRAM

1 Standard® offers more than 900 Advanced Driver Assistance System (ADAS) components

2 Standard® ADAS components 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?[™]
Here's what's in ours.**

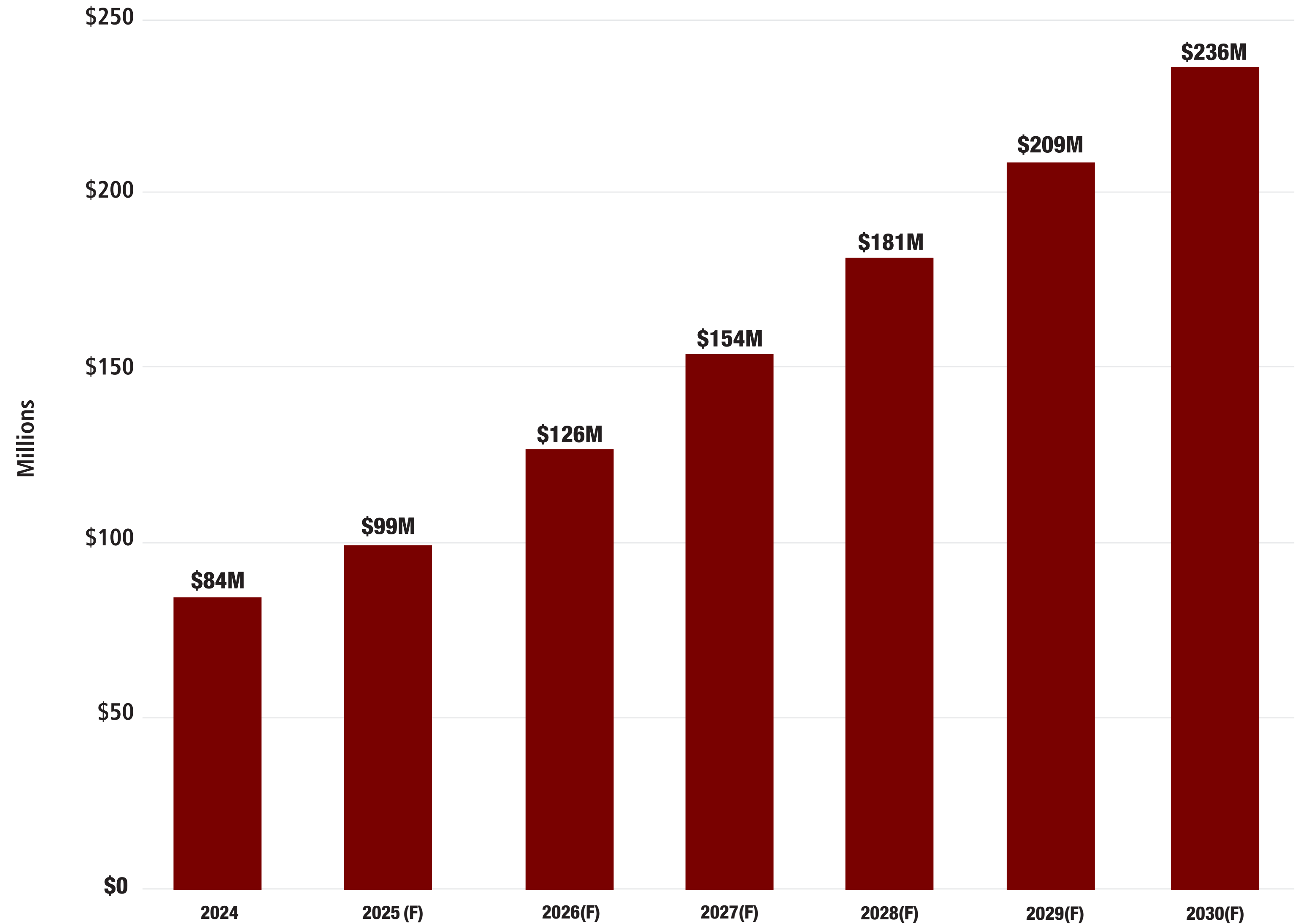


Growing Market

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.

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

Aftermarket Sales of ADAS Components



Source: MEMA Aftermarket

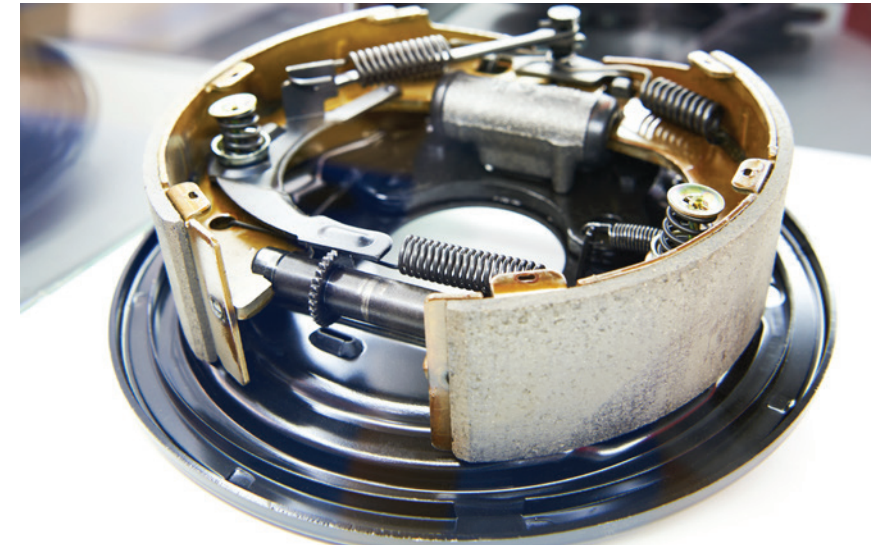


Timeline

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



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



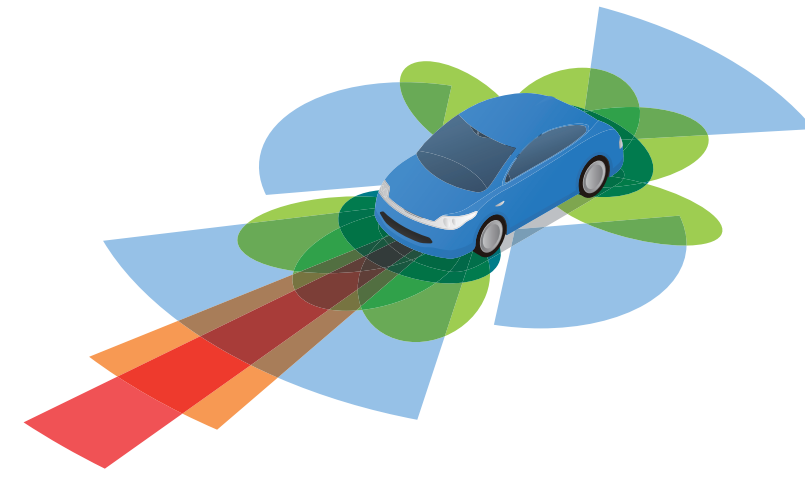
2018

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, putting the motorist at risk.

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



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. Standard® 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 StandardBrand.com.



PPS153

Ford / Lincoln SUVs & Vans
(2024-18) VIO: 2.3M



PPS302

Toyota SUVs
(2022-19) VIO: 2.7M



PPS240

Mazda Cars & SUVs
(2023-17) VIO: 1M



PPS212

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 StandardBrand.com.

Standard® 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.



BSD144

Blind Spot Detection Sensor
Ford / Lincoln Trucks & SUVs
(2023-21) VIO: 1.6M



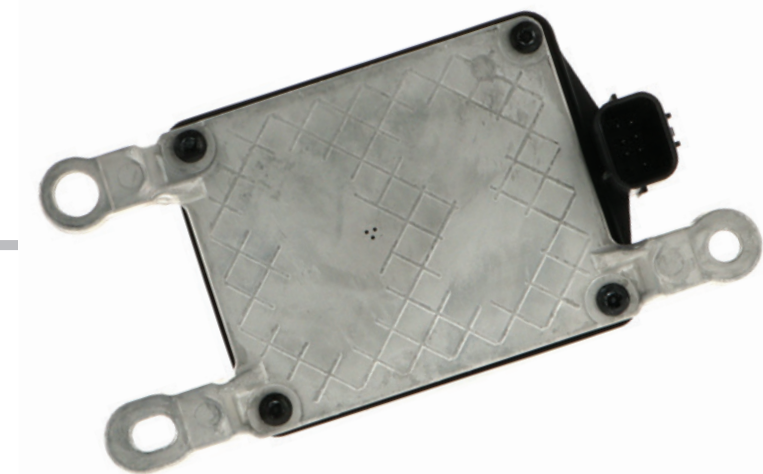
PAC567

Park Assist Camera
Honda SUVs
(2020-18) VIO: 1.1M



LDS62

Lane Departure System Camera
GM Trucks & SUVs
(2016) VIO: 772K



CCD89

Cruise Control Distance Sensor
Nissan Cars & SUVs
(2024-17) VIO: 656K



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.

Standard® 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

Standard® 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

Standard® 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

Standard® 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

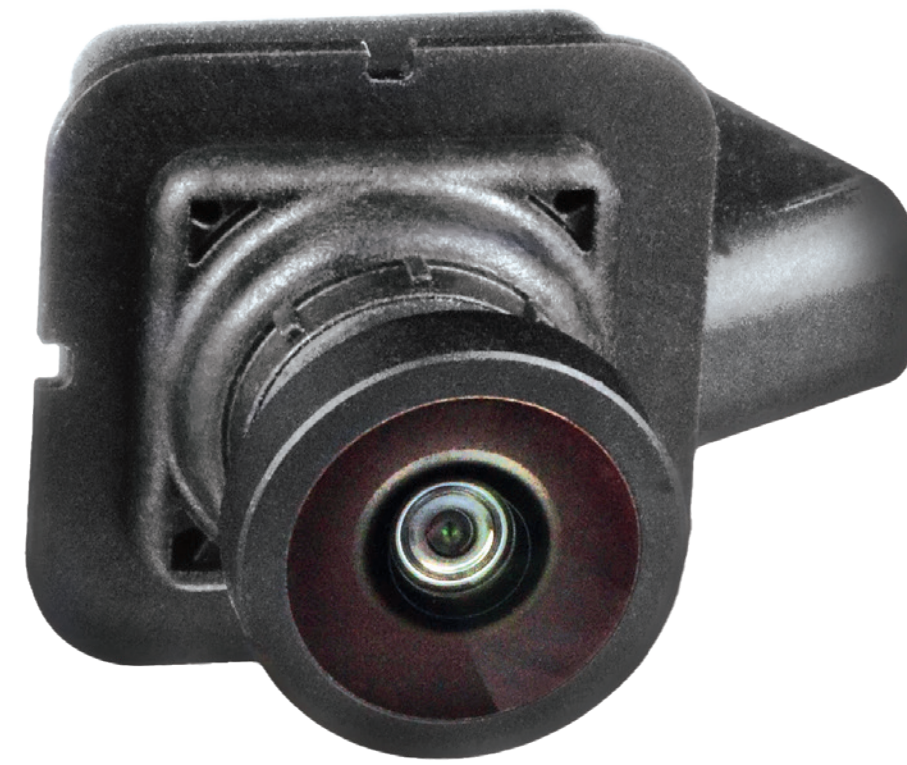


ADAS Cameras

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. Standard® 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 Standard® 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.

Standard® 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

IMPORT



PPS65

Toyota Trucks & SUVs
(2023-14)



PPS120

Audi / VW / BMW
(2024-14)



PPS181

VW Cars & SUVs
(2010-06)



PPS87

Mercedes-Benz Cars
(2015-08)



PPS57

Toyota Tundra
(2021-14)

DOMESTIC



PPS44

GM Trucks, SUVs & Vans
(2023-06)



PPS46

GM Cars, Trucks & SUVs
(2023-13)



PPS45

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



PPS64

Ford Trucks
(2020-15)



PPS153

Ford / Lincoln SUVs & Vans
(2024-18)



Top Movers: Park Assist Cameras

IMPORT



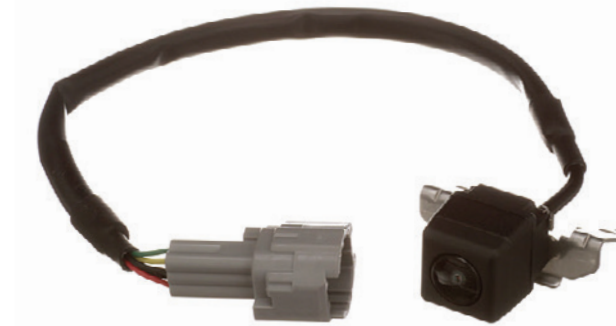
PAC112
Honda Accord
(2017-14)



PAC262
Subaru Outback
(2014-11)



PAC164
Honda Accord
(2015-14)



PAC16
Hyundai Sonata
(2015-10)



PAC166
Toyota Tacoma
(2015-14)

DOMESTIC



PAC111
Ford Vans
(2019-15)



PAC22
Dodge / RAM Cars & Trucks
(2018-13)



PAC20
Ford Explorer
(2015-13)



PAC109
Dodge Journey
(2020-12)



PAC12
Ford / Lincoln Trucks
(2014-12)



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.

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



ABS Sensors

Standard® 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



Accelerator Pedal Sensors

Standard® 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

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

270+ SKUs / 86M VIO



Ride Height Sensors

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

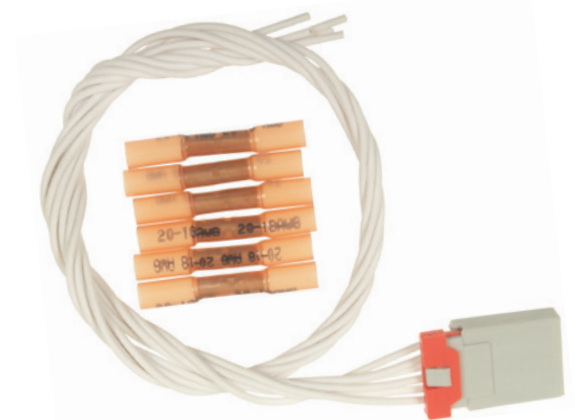
35 SKUs / 28M VIO



Parking Brake Actuators

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

60+ SKUs / 83M VIO



Electrical Connectors

Standard® 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



Standard[®] Quality

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

Standard[®] Park Assist Sensors

Keeps Drivers Safe
Advanced ultrasonic detection technology alerts the driver of objects within the vehicle's path

European Manufactured
Engineered and manufactured in SMP's IATF 16949 and ISO 9001-certified Poland facility



Integrates with Safety Systems
Designed to match the performance of the original

PPS45
Chrysler / Dodge / Jeep / RAM
(2022-09)

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



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. Standard'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.



PPS1K

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

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

PPS1K Contents

Part #	Qty	Vehicle Makes	VIO Coverage
S1497	16	Chrysler, Ford, GM	32.6 Million
S2269	16	Chrysler, Ford, GM	32.5 Million
S2393	16	BMW, Ford, GM	16.7 Million
S2316	8	Audi, Chrysler, Ford, Volkswagen, Volvo	11.3 Million
S1415	8	Toyota	2.0 Million

Standard[®] Pro Training Tech Tip

Standard[®] 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



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

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

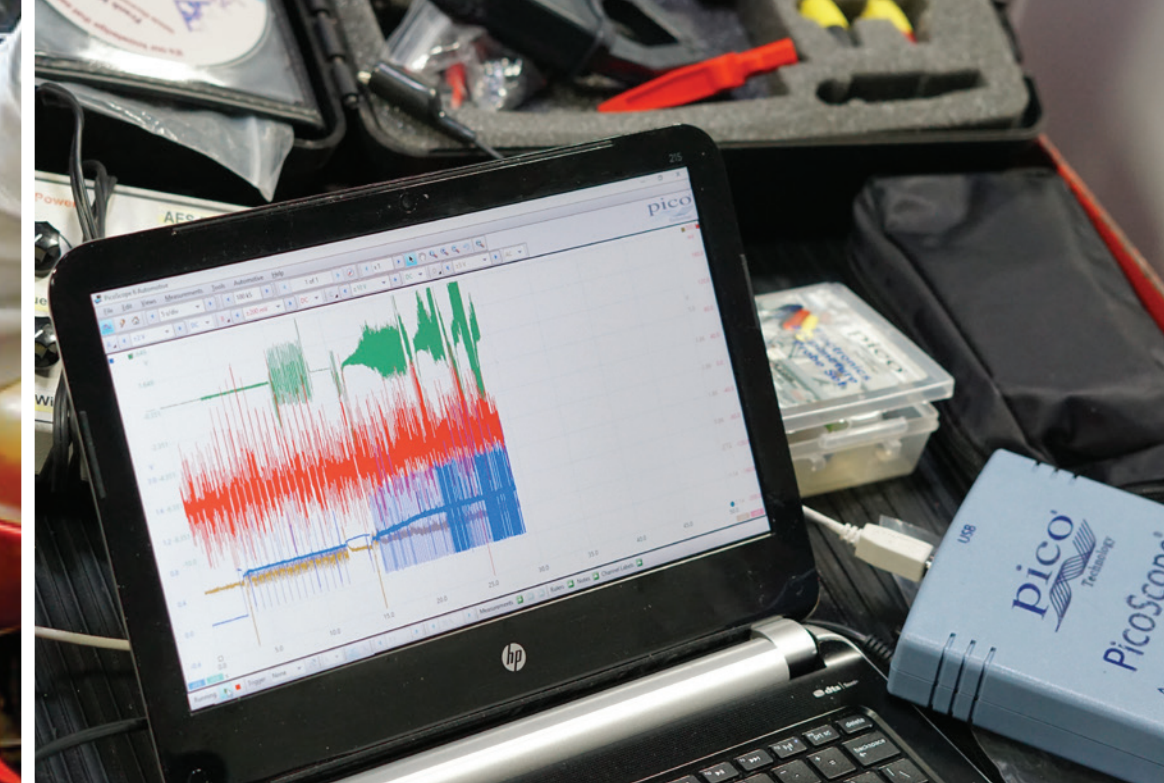


Standard® Professional Training

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

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

An extension of Standard® training, our extensive YouTube video library has over 700 technical and installation videos.



Available Classes

ADAS Calibration Tips From The Pro
Advanced Scan Tool Diagnostics
Driver Assist Systems Overview



Available Classes

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 **StandardBrand** YouTube channel

