

## COLLISION REPAIR PROGRAM

# Highlights

1

Standard® offers more than 8,000 parts that may need to be replaced in the event of a collision

2

Collision categories available include Lighting, ADAS, Door/Body, Cabin, Sensors, Connectors and more

3

Standard® parts are designed and tested to correctly integrate with the complex electrical systems of modern vehicles



## What's in your box?™



When OE Fails . . . Trust Standard®

[StandardBrand.com](http://StandardBrand.com)



# What's New

## Active Grille Shutter Actuators

In addition to an industry-leading offering of Active Grille Shutters, Standard® now offers many popular Actuators. These are easily damaged in collisions and can also fail when debris clogs the active grille shutter.

For a complete listing of Active Grille Shutter Actuators, visit [StandardBrand.com](http://StandardBrand.com).



**AGA1000**  
Ford F-150  
(2022-21)  
VIO: 870K



**AGA1008**  
Ford Trucks & SUVs  
(2021-18)  
VIO: 2.3M



**AGA1006**  
Ford Fusion  
(2017-13)  
VIO: 890K





# ADAS Components

Advanced Driver Assistance Systems (ADAS) in today's vehicles are already helping to save lives and prevent injuries.

Minimizing human error has been identified as a key factor in reducing the number of vehicle collisions resulting in serious injury and death.

Two of the more popular ADAS components are park assist sensors and park assist cameras.



## Park Assist Sensors

Vehicles use multiple park assist sensors on front and rear bumpers to report distance to an object, utilizing an ultrasonic signal. These sensors are often damaged in front or rear bumper collisions.

Standard® Park Assist Sensors are direct-fit replacements that match the damaged OE units they are replacing.

90+ SKUs / VIO: 133M



## Park Assist Cameras

Easily damaged in a rear collision, park assist cameras have been mandatory in the U.S. since 2019. Most cameras are replaceable without additional programming or calibration.

As premium replacements for the failed OE unit, Standard® Cameras are "plug & play" – no programming required. Each Camera is rigorously tested to match OEM vehicle-specific performance.

220+ SKUs VIO: 112.9M

## Did You Know

Park assist cameras have become one of the hottest ADAS components. If damage is minor, many motorists may opt NOT to go through an insurance claim and replace only the damaged camera/sensor.





# ADAS Components

Sophisticated collision-avoidance components are ever-expanding in today's vehicles. Standard® continues to grow this important safety category.



## Did You Know

Blind spot detection sensors are also prone to failure due to corrosion from salt spray entering the casing and destroying the circuit board inside.



## Blind Spot Detection Sensors

Located in the rear quarter area, typically just behind the bumper cover, blind spot detection sensors are often damaged in rear-end collisions.

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 / VIO: 51.5M



## 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 fit, form and precise performance to match the original application they are replacing.

43+ SKUs / VIO: 28.6M



## Cruise Control Distance Sensors

Located behind the front grille opening area, cruise control distance sensors are often damaged in a frontal collision.

Standard® CCD Sensors are designed and manufactured to stringent quality standards to match the original for an easy install and to deliver precise performance.

75+ SKUs / VIO: 37.1M



## Steering Angle Sensors

Located in the steering column, these sensors are often damaged in frontal collisions.

Crash Avoidance Systems are dependent on accurate, timely data from the steering angle sensor. Standard's vehicle-specific Steering Angle Sensors are designed and tested to integrate with ADAS systems.

265+ SKUs / VIO: 204M





# ADAS Coverage and Opportunities

Standard® offers an aftermarket-leading 750+ ADAS numbers in key ADAS categories, and we're continually adding to this growing product line.

Since many of today's vehicles have multiple advanced ADAS parts per vehicle, we're covering more than 500 million part replacement repair opportunities!

## Standard® ADAS Repair Opportunities





# 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

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

Engineered and manufactured in SMP's IATF 16949 and ISO 9001-certified 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

### Standard® PPS45

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

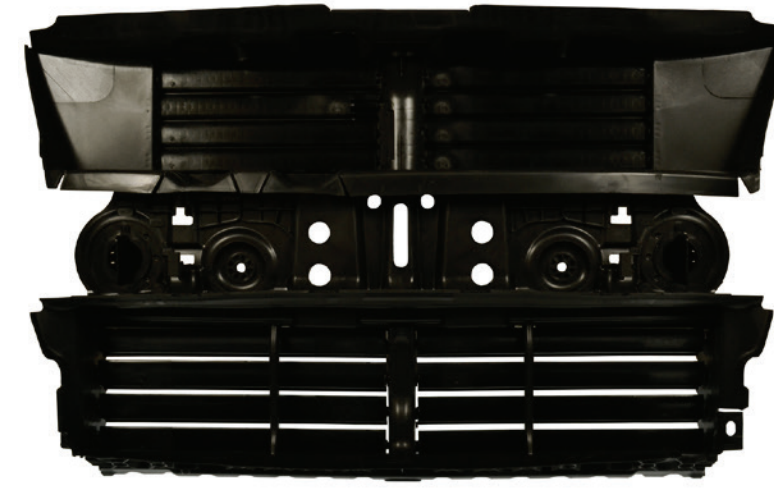




# Underhood Components

Active grille shutters offer the latest technology to improve fuel economy, but they are the first point of contact in a front-end collision and are damaged easily.

Charge air coolers are mounted in the front of the vehicle, while ambient air temp sensors are mounted inside or near the front bumper. Both are extremely vulnerable during a front-end collision.



## Active Grille Shutters

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These are high OE-failure components due to motor burnout as well as crashes. Standard® AGS are direct-fit and specifically engineered for the application they are replacing, and are built from high-grade industrial plastic to resist corrosion and withstand extreme engine temperatures. All Standard® AGS undergo 100% end-of-line testing.

35+ SKUs / VIO: 22.5M

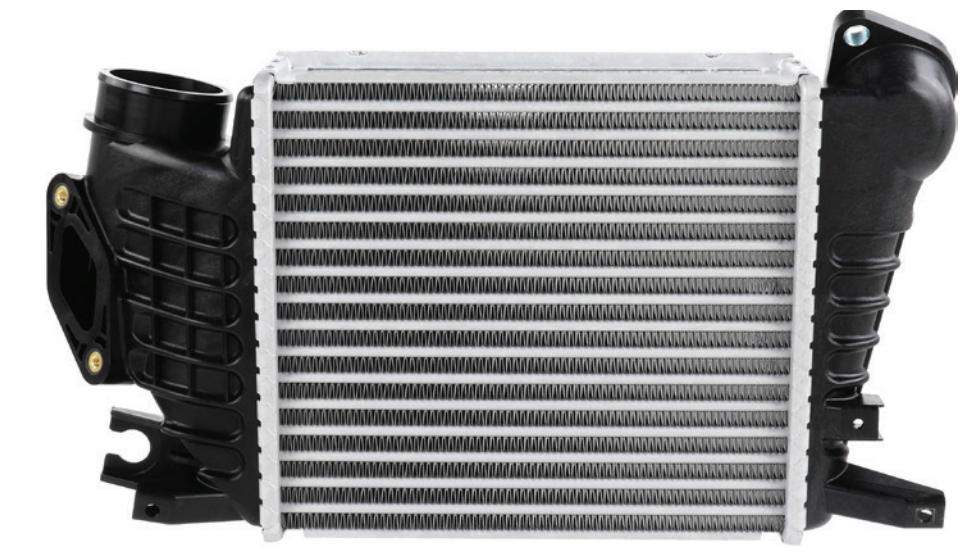


## Ambient Air Temp Sensors

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Standard® offers a full line of Ambient Air Temp Sensors covering import and domestic vehicles through model-year 2022. Each Standard® ATS is a direct-fit OE replacement, manufactured from the highest-quality materials, and extensively tested to ensure proper fit, performance and durability.

120 SKUs / VIO: 224M



## Charge Air Coolers

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Designed, manufactured and tested to stringent quality standards matching the original to deliver precise vehicle-specific performance. Standard® Charge Air Coolers are 100% new, not remanufactured, and built from the highest-quality materials to withstand harsh underhood conditions for a long service life. 100% factory tested for air/water leaks.

8 SKUs / VIO: 5.7M



## Active Grille Shutter Actuators

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Precision-engineered Actuators are a direct-fit OE replacement that work with OEM and Aftermarket active grille shutters.

11 SKUs / VIO: 12.4M





# Standard® Quality

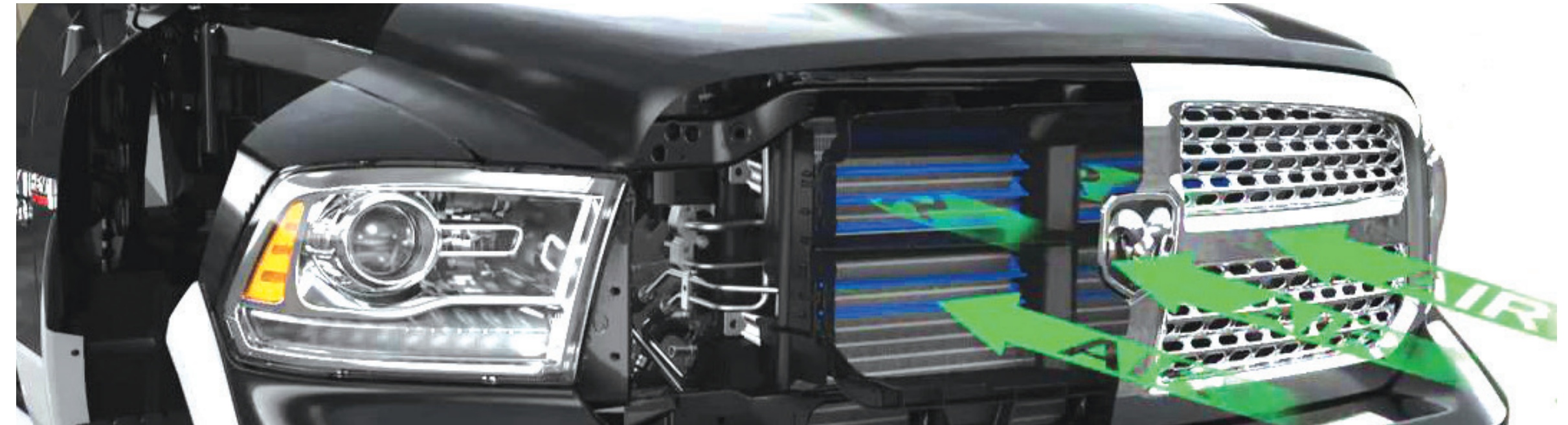
The active aerodynamics market is growing each year as vehicle technology advances. These are high OE-failure components, and Standard® is ahead of the curve with this latest technology as we've been expanding our Active Grille Shutter offering for years.

## Did You Know

Electric and hybrid vehicles also use active grille shutters to improve aerodynamics and assist with cooling the battery and drive motor.



## Standard® Active Grille Shutters



The Active Aerodynamics Market Has Arrived

**OE-EXACT**

**CCPC** CERTIFIED  
AUTO PARTS



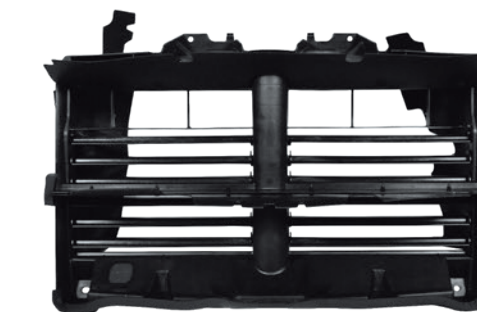
**AGS1036**  
Nissan Altima  
(2022-19)



**AGS1002**  
Ford F-150  
(2017-15)



**AGS1023**  
Chevrolet Bolt EV (2019-17)  
Chevrolet Malibu (2018-16)  
Buick LaCrosse (2019-17)



**AGS1003**  
RAM 1500  
(2017-13)



**AGS1035**  
Buick Enclave  
(2020-18)



Collision Repair Program

StandardBrand.com



# Lighting Components

Most lighting components are located in or near the headlamp assembly where they can be easily damaged in a front-end collision.

HID modules are prone to damage due to sensitive internal circuitry, and headlight level mechanisms often include actuator arms that are easily bent or damaged.

Located to maximize visibility, center high mount stoplight assemblies are unprotected, with lenses and interior components that often break on impact.



## HID Modules (HID Headlight Ballasts)

Standard® HID Modules feature OE-match internal circuitry with heavy-duty casings around electronics for durability. DOT-certified to comply with Federal Motor Vehicle Safety Standards.

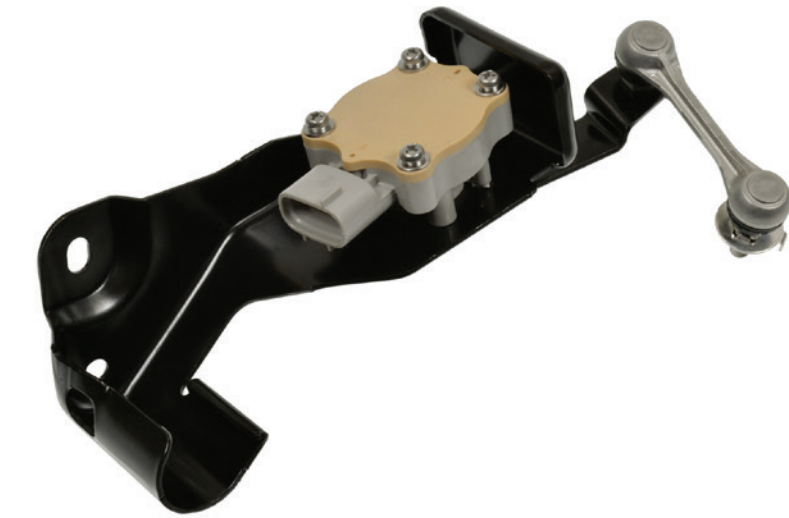
55+ SKUs / VIO: 27M



## Hi-Temp Headlight Connectors

“Plug & play” between the factory harness and new bulb for easy installation on vehicles with HID headlights. Hi-temp Connectors prevent melting caused by high-intensity bulbs.

8 SKUs / VIO: 100M+



## Headlight Level Sensors

Direct-fit replacements restore the headlight self-leveling system function for improved visibility. These Sensors undergo rigorous testing to ensure proper performance under all conditions.

44 SKUs / VIO: 11M



## Center High Mount Stoplight Assemblies

Quality-designed to prevent water intrusion, which can lead to brake light failure, these OE-matching replacements ensure proper fit, form, and function for an easy installation.

34 SKUs / VIO: 41M





**STANDARD® COLLISION  
REPAIR PROGRAM**

# Standard® Quality

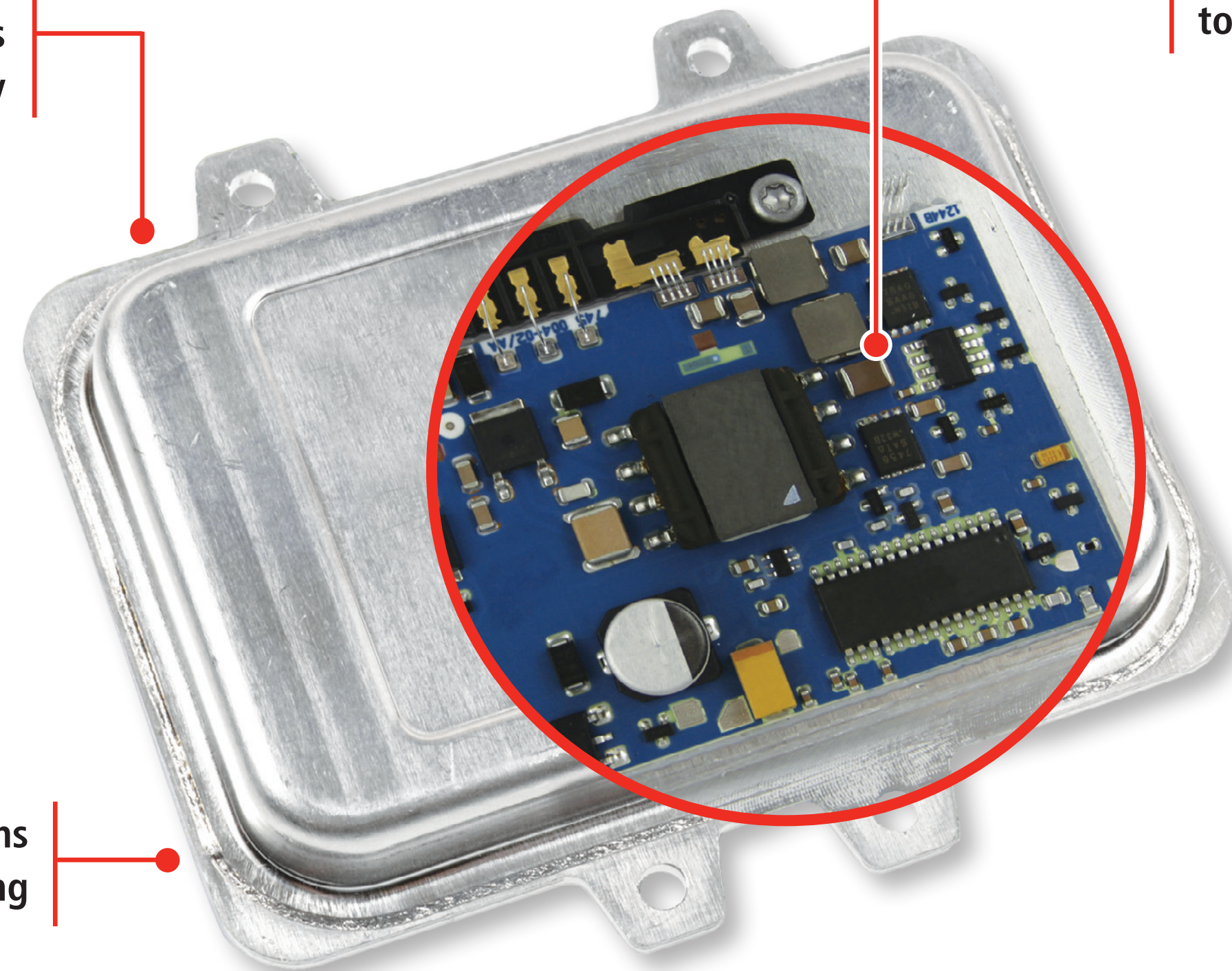
To restore proper lighting function to failed OE HID light systems due to overheating, moisture intrusion or collision damage, we created direct-replacement HID Headlight Modules — parts that match the fit, form, and function of the originals.

As DOT-certified parts, our HID Headlight Ballasts comply with Federal Motor Vehicle Safety Standards.

## Standard® HID Headlight Ballasts

Heavy-duty casings  
around electronics  
ensure durability

Internal circuitry  
matches OE design  
to ensure performance



'Plug & play' design means  
no need for reprogramming

**HID110**  
GM, BMW, VW, Hyundai,  
Mercedes-Benz  
(2016-02)





# Standard<sup>®</sup> Quality

Failed headlight level sensors can create dangerous driving conditions.

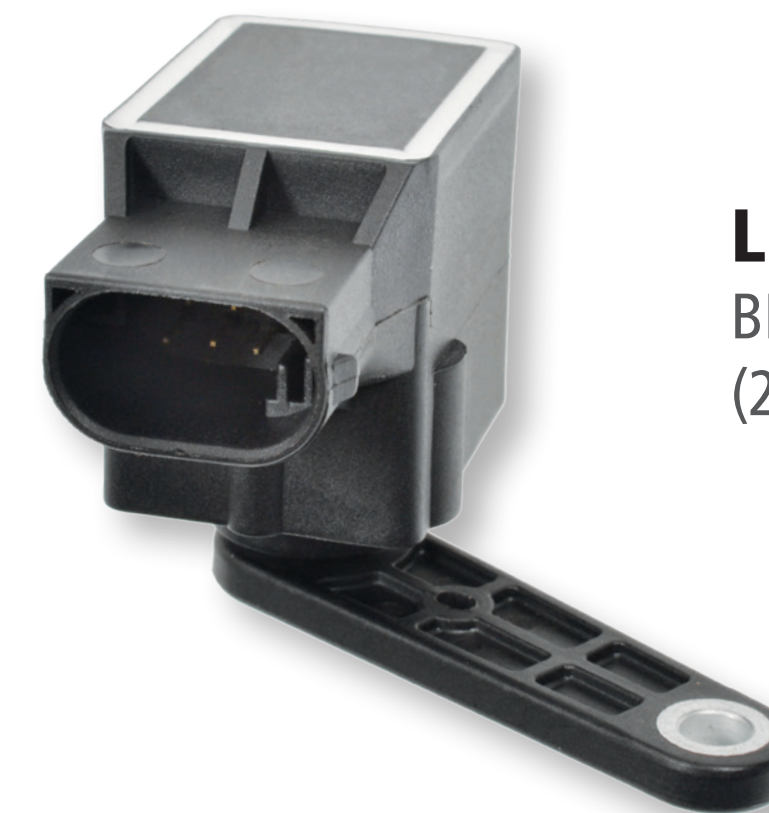
As direct replacements for the failed OE sensors, our Headlight Level Sensors work with the vehicle's self-leveling headlight system to adjust the beams to the appropriate height. Once installed, the Sensors can even compensate for headlights that have shifted because of a loaded trunk.

## Standard<sup>®</sup> Pro Training Tip

To prevent broken linkage, check the mounting bracket for corrosion and rust. If you notice any, clean it with rust penetrant.

## Standard<sup>®</sup> Headlight Level Sensors

Direct-fit replacement restores headlight self-leveling system function for improved visibility



**LSH100**  
BMW, Mini  
(2014-97)



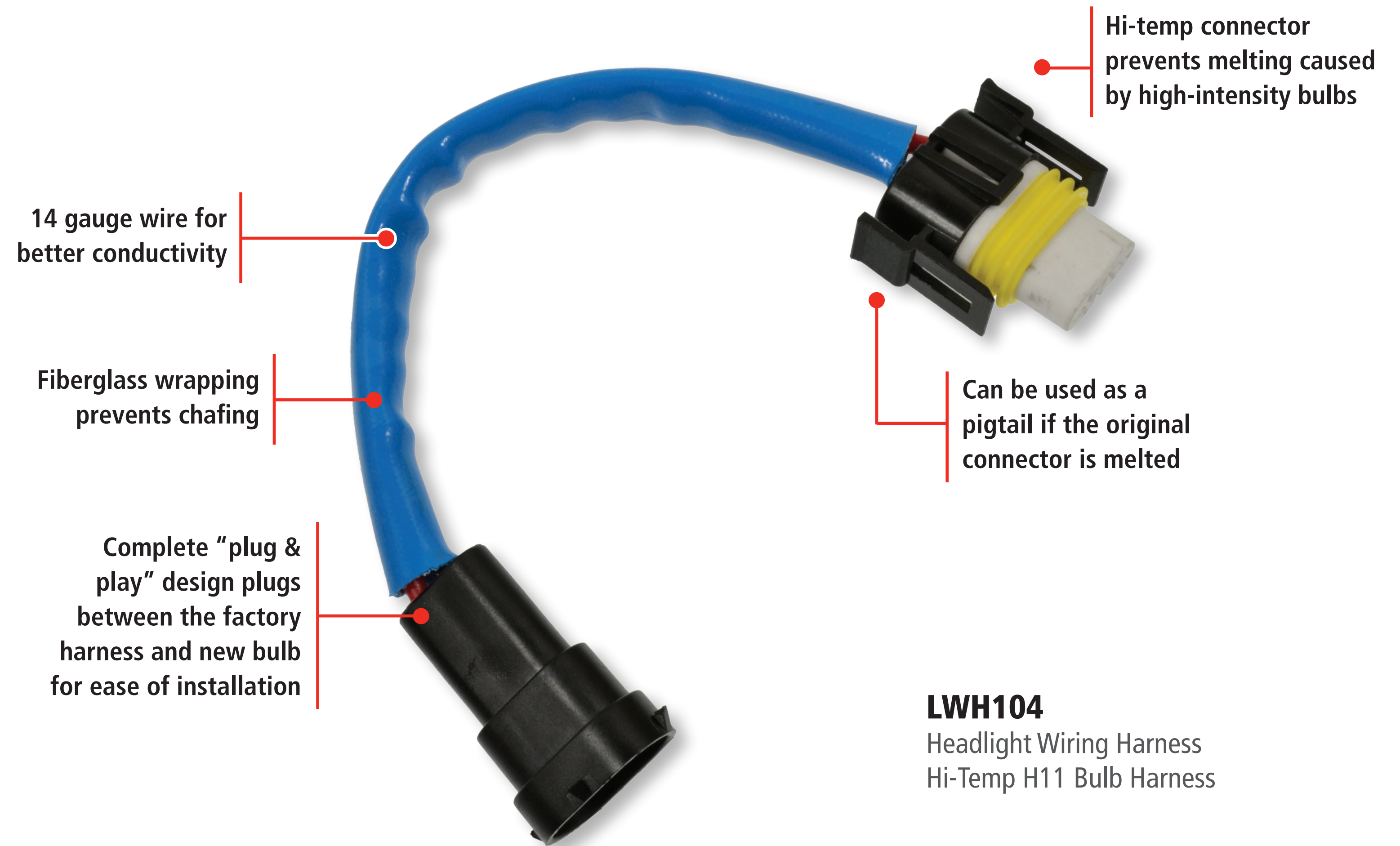


# Standard<sup>®</sup> Quality

The heat generated by today's OE automotive light bulbs can melt the bulb's connectors. To prevent this, Standard<sup>®</sup> Headlight Wiring Harnesses are built with hi-temp connectors that can withstand extreme heat.

The harnesses also have 14 gauge wire for better conductivity and a "plug and play" feature that lets you plug the harness right between the factory harness and the new bulb.

## Standard<sup>®</sup> Hi-Temp Headlight Wiring Harnesses





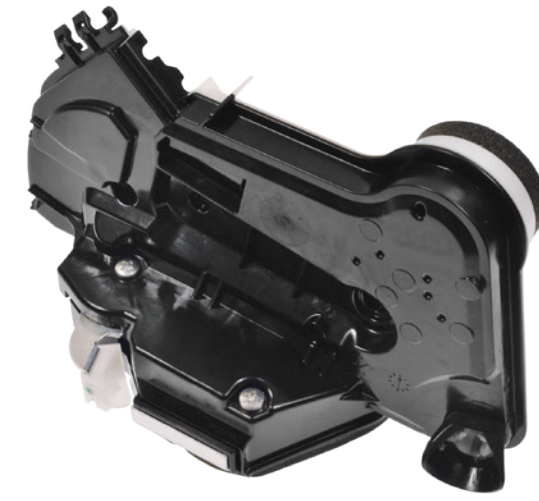
# Door/Body Components

Door lock actuators are mounted in the doors and can be damaged any time a door is impacted.

Trunk latches/actuators and liftgate actuators are located in the trunk or liftgate area and are easily damaged in a rear-end collision, while hood latches and actuators are impacted by a front-end collision.

## Did You Know

The door lock actuator on the driver's door is the most replaced as it experiences more wear than the others.



## Door Lock Actuators

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This growing line features integrated and non-integrated Actuators. All Standard® DLAs meet FMVSS (Federal Motor Vehicle Safety Standards) requirements for door ejection safety.

1065 SKUs / VIO: 820M

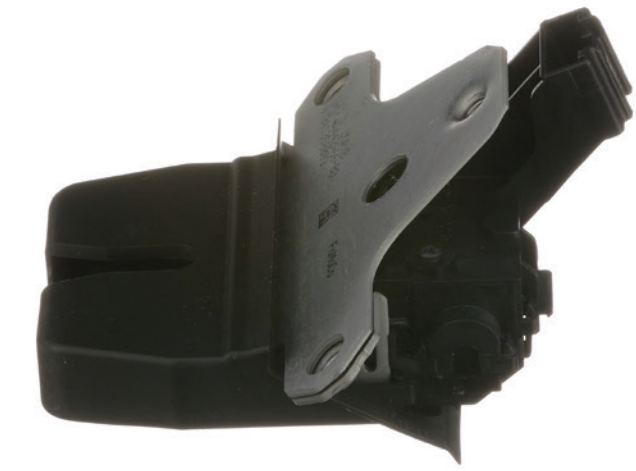


## Hood Latches and Actuators

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Direct-fit OE replacement features "plug & play" design for easy install. Designed to meet FMVSS (Federal Motor Vehicle Safety Standards).

10 SKUs / VIO: 14M



## Trunk Lock Actuator

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Matches the original for application-specific performance and an easy install. Designed to meet Federal Safety Standards.

8 SKUs / VIO: 11M



## Liftgate Actuators

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Direct-fit OE replacement ensures proper fit and form to precisely match the function and performance of the original unit.

8 SKUs / VIO: 11.5M



# Standard® Quality

Standard® Integrated Door Lock Actuators combine electrical actuation with latch mechanization. Standard® offers a line of Integrated Door Lock Actuators that are all direct OE replacements to ensure proper fit, form, and vehicle-specific function.

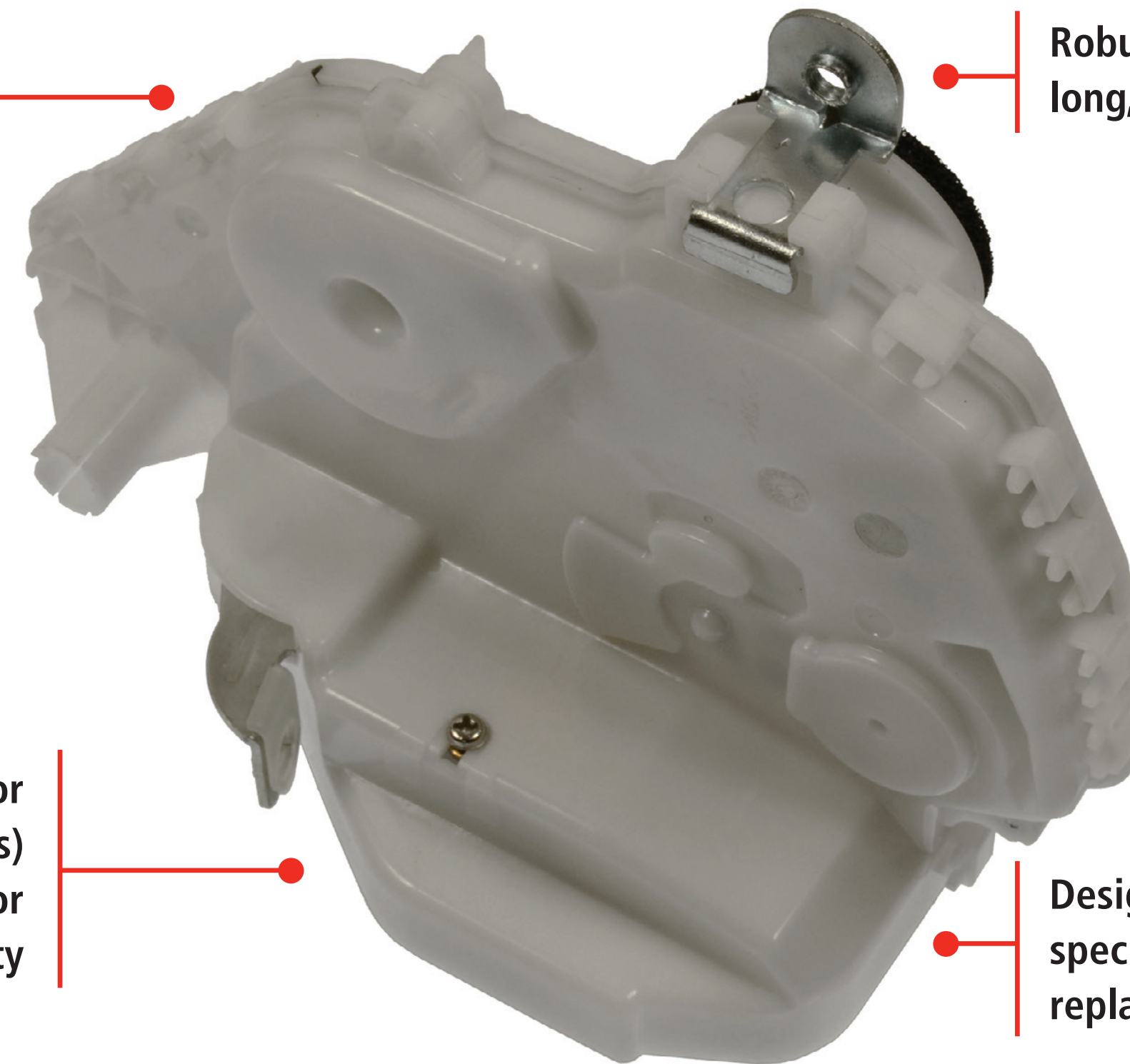
## Standard® Integrated Door Lock Actuators

'Plug & play' design means no wire splicing for easier installation

Robust construction ensures long, trouble-free service life

Meets FMVSS (Federal Motor Vehicle Safety Standards) No. 206 requirements for door ejection safety

Designed and tested to OE specifications for a direct-fit replacement



**DLA1439**  
Honda Pilot  
(2015-09)

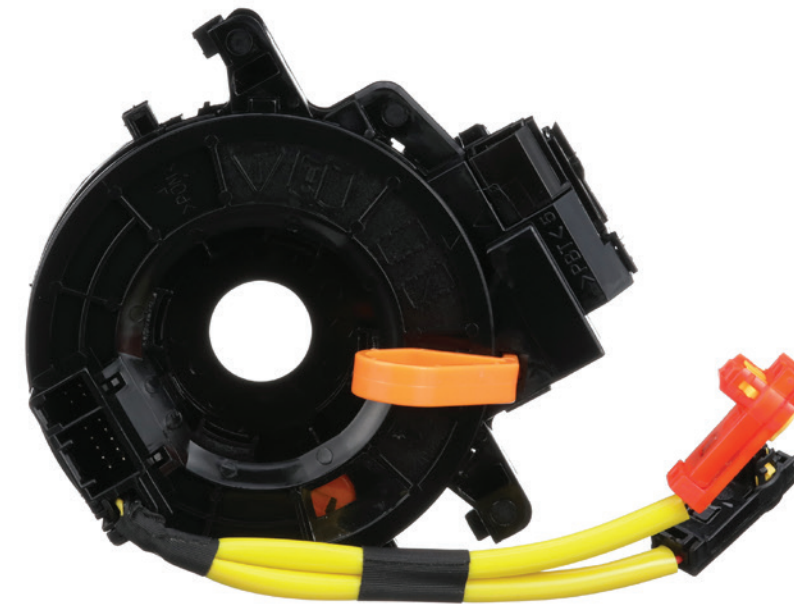




# Cabin Components

Driver-operated combination switches and airbag clock springs are all vulnerable in a collision.

Standard® offers a complete line of top-quality Switches along with the supporting Sensors.



## Airbag Clock Springs

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When airbags are deployed, high heat is generated that melts the connector behind the airbag requiring the clock spring to be replaced.

Standard® Clock Springs are direct-fit replacements featuring premium components to ensure superior application-specific performance.

200+ SKUs / VIO: 148.6M

## Combination Switches

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These driver-operated switches are attached to steering columns which are designed to collapse upon impact, destroying the switch.

Designed, manufactured and tested to stringent quality standards matching the original to deliver precise vehicle-specific performance.

1018 SKUs / VIO: 356M

## Power Window Switches

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Collisions, water damage and general wear and tear can all lead to a failed power window switch.

Standard® Power Window Switches are rigorously tested for fit, form and performance to match the original they are replacing.

1,380+ SKUs / Over 1 billion repair opportunities





# Undercar Sensors

Any collision that impacts the wheels is likely to damage the TPMS and ABS sensors.

The vehicle speed sensor is located in the transmission, or on the rear of the transfer case for 4WD vehicles. Speed sensors are usually plastic and are subject to damage in a collision.

Ride height sensors are a highly sensitive suspension system component with fragile linkages that can also be easily damaged in a collision.



## TPMS Sensors

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The QWIK-SENSOR® Multi-Frequency TPMS sensor is available in rubber or metal stem. Combine with Standard® OE-Matching TPMS for 99% coverage. Also offering a full line of service kits and TPMS tools.

230+ SKUs / VIO 283M



## Vehicle Speed Sensors

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Features OE-exact connectors and terminals delivering the precise OE output signal to ensure accurate readings and performance. 100% tested.

470+ SKUs / 353M Repair Opportunities



## ABS Sensors

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Direct-fit replacements demonstrate flawless performance, matching the OE for form, fit, and critical function. Superior quality control with extensive laboratory and real-life product testing.

2,600+ SKUs / 837M Repair Opportunities



## Ride Height Sensors

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Standard® Ride Height Sensors come complete with sensor, linkage and mounting bracket for a complete assembly and easy installation.

27 SKUs / VIO: 27M



# Engineering & Performance

The ABS speed sensors on some newer vehicles measure more than just the speed of each wheel. They also monitor the direction which the wheel is rotating. Whether a wheel is rotating forward or backward, the sensor will send a unique signal to the ECU that lets the vehicle know the speed and direction of each wheel. This data is used by the electronic safety systems to help keep everyone in the vehicle safe.



Aftermarket  
Competitor

Uses one simple sensor to measure wheel speed

Generates the same signal for forward and reverse

Doesn't give the ECU enough information, especially in emergency situations



Standard<sup>®</sup>  
ALS684

Uses multiple micro sensors to measure wheel speed and wheel rotation

Generates separate signals for forward and reverse

Provide the ECU with accurate and complete information to keep crash avoidance systems operating as designed



# Standard<sup>®</sup> Quality

As an expert manufacturer, we have complete control of the process to deliver a trouble-free sensor.

All Standard<sup>®</sup> VSS (Vehicle Speed Sensors) undergo environmental and endurance testing for signal amplitude and polarity to ensure consistent product reliability and application-specific performance.

## Standard<sup>®</sup> Pro Training Tip

To test for VSS malfunction, check for diagnostic codes ranging between P0500 and P0503. The VSS can also be checked with a scan tool or undergo a resistance check.

## Standard<sup>®</sup> Vehicle Speed Sensors



### SC468

Ford Cars & Trucks  
(2014-99)





# Standard<sup>®</sup> Quality

Our Single Sensor Program features the QWIK-SENSOR<sup>®</sup> Multi-Frequency TPMS Sensor, combining all frequencies in one single sensor.

Straight from the factory with rubber or aluminum valve stem installed, additional interchangeable valve stems are also available separately.

## One Single Sensor is All You Need.

**QS106M**  
With factory-installed aluminum valve stem

**QS106R**  
With factory-installed rubber valve stem

Required sensor programming can be completed before or after installation and while under pressure

Application-Specific Integrated Circuit (ASIC) features an accelerometer that uses multi-axis positioning which allows the TPMS system to accurately display POD (Pressure on Demand)

Surface-mounted, dual band antenna enhances signal integrity and reliability without compromising battery life to ensure data is transmitted accurately

Independently tested to match OE protocols for precise form, fit and function – including LOCSYNC, PAL, POD, and WAL advanced TPMS technologies

Available for both domestic and import applications with 314.9MHz - 434MHz TPMS systems



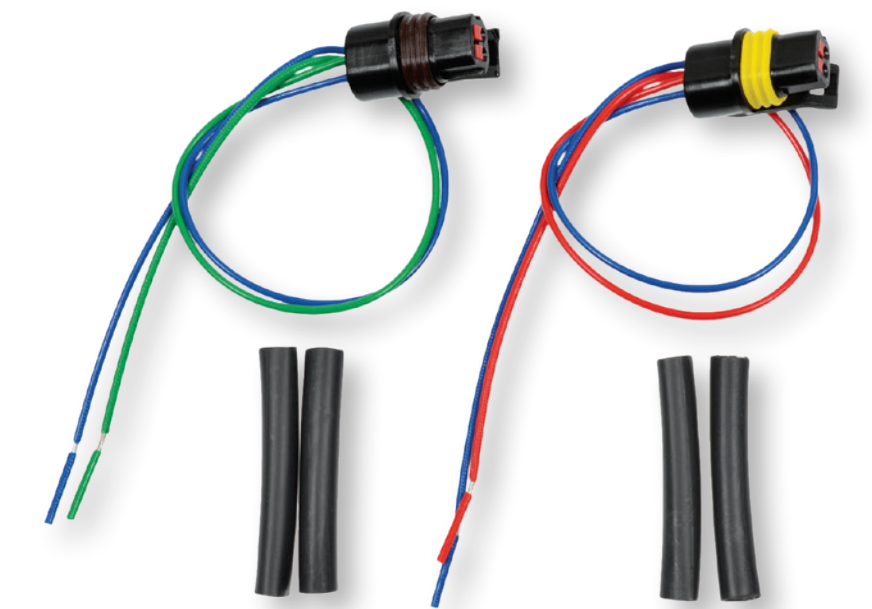
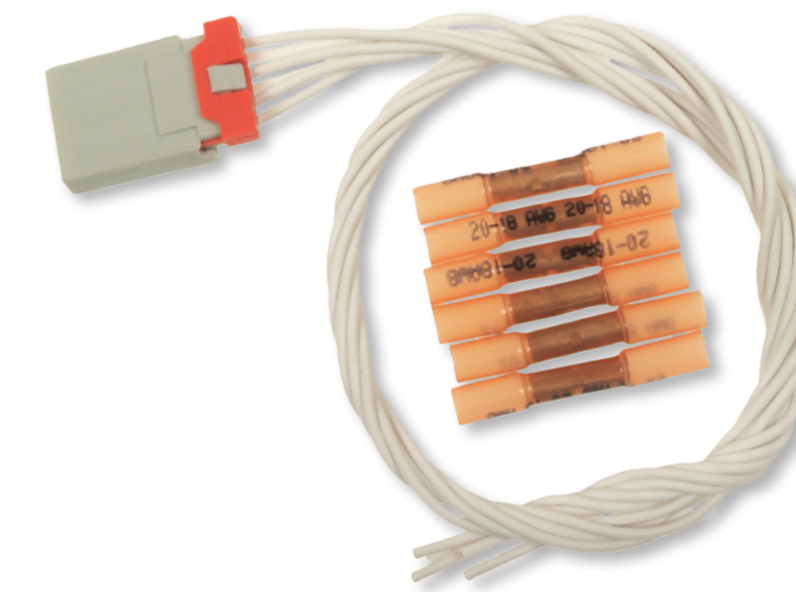
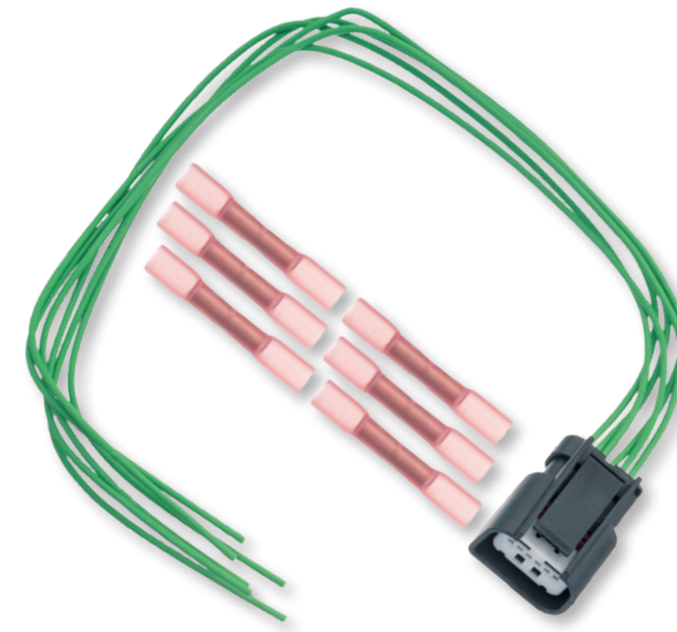


# Sensor Connectors

Whenever a sensor is damaged in a collision, it is recommended that the connector is also replaced. Standard® offers more than 450 different Sensor Connectors to help get vehicles back on the road.

For more information, search "Sensor Connectors" at [StandardBrand.com](http://StandardBrand.com).

## Standard® Sensor Connectors



ABS Sensor Connectors

Cruise Control Distance Sensor Connectors

Knock Sensor Connectors

Accelerator Pedal Sensor Connector

EGR Valve Position Sensor Connectors

Mass Air Flow Sensor Connector

Air Intake Temperature Sensor Connectors

Engine Oil Level Sensor Connectors

Misfire Sensor Connector

Ambient Air Temperature Sensor Connectors

Engine Oil Temperature Sensor Connectors

Oxygen Sensor Connector

Blind Spot Detection Sensor Connectors

Engine Speed Sensor Connectors

Park Assist Sensor Connectors

Camshaft Position Sensor Connectors

Exhaust Gas Temperature Sensor Connectors

Steering Angle Sensor Connectors

Crankshaft Position Sensor Connectors

Fuel Pressure Sensor Connectors

Vehicle Speed Sensor Connectors

...and more





# 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 new Park Assist Connector Kit gives technicians a total of 64 popular connectors to help get your customers back on the road quickly and safely.



**PPS1K**

Includes the 5 most popular connectors, 64 total 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<sup>®</sup> Pro Training Tech Tip

As experienced ASE-certified automotive technicians themselves, Standard<sup>®</sup> Pro Trainers are experts in engine and sensor technology.

Here's what they say to look out for when replacing a high-tech component after a collision.



**During a collision repair, before replacing an ADAS Component, always refer to specific service information for the procedures required for that component**



**Before installing any replacement part after a collision, make certain that the mounting surface is true to the original location**





# 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 500 technical and installation videos.



## Available Classes

Driver Assist Systems Overview  
Diagnosing Vehicle Networks  
CAN Diagnostics



## Available Classes

Advanced Driver Assist Systems  
ADAS Calibration Techniques



For information on replacing collision components, search “Collision” on the **StandardBrand** YouTube channel

