

**STANDARD® HYBRID AND
EV COMPONENTS**

Highlights

- 1 Over 4,000 parts for hybrid vehicles are available from Standard® and Four Seasons®
- 2 More than 1,900 parts for electric vehicles are offered by Standard® and Four Seasons®
- 3 Many of the same parts that fail on Internal Combustion Engine (ICE) vehicles also fail on hybrids and EVs



What's in your box?



StandardHEV.com

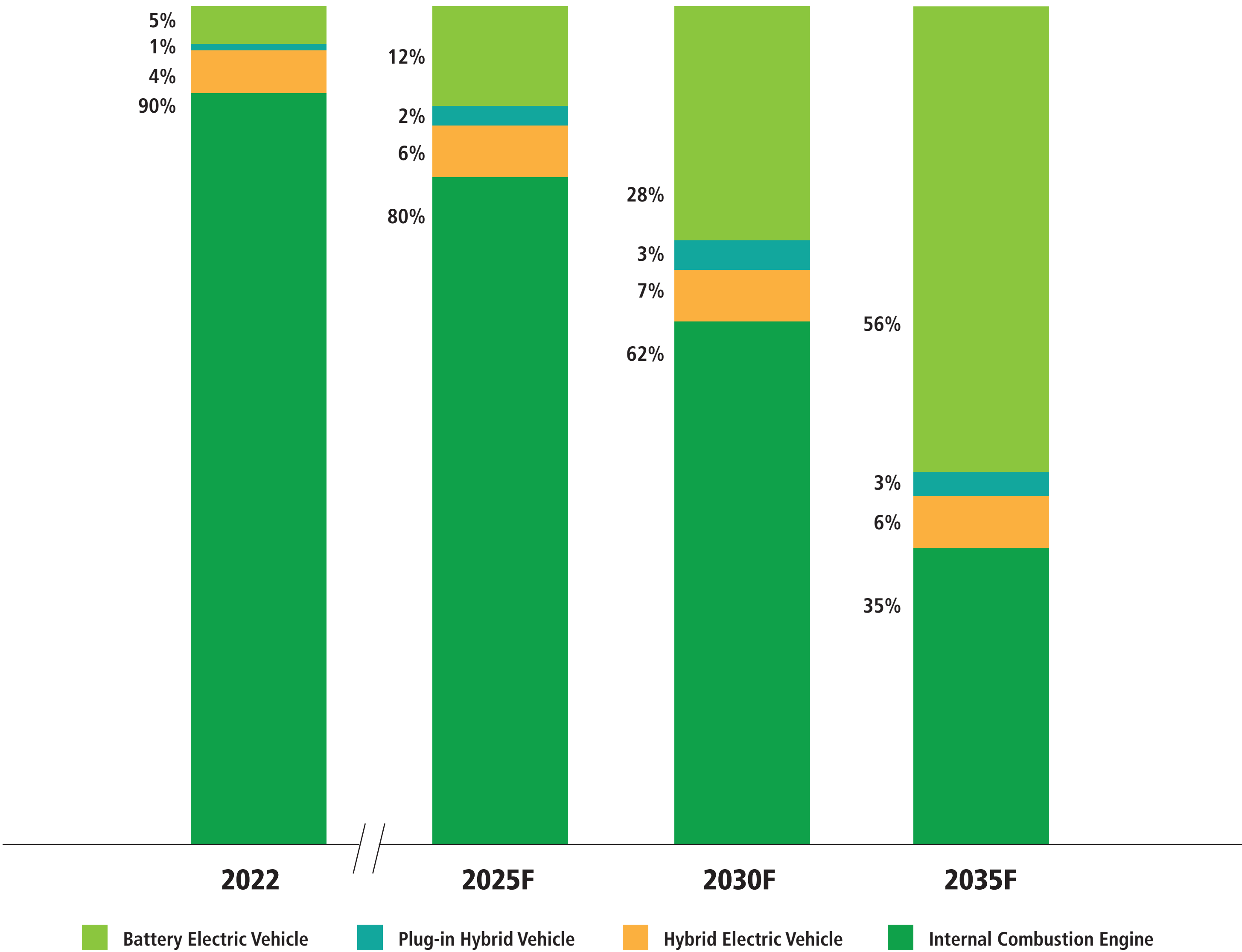
STANDARD® HYBRID AND
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Growing Market

Up to 95% of vehicles sold in 2022 still have an internal combustion engine (ICE), but this will change in the coming years. By 2030, only about 72% of new vehicles will have an internal combustion engine, with 10% of those vehicles being some type of hybrid.

By 2035, less than half of all new vehicles sold will have an internal combustion engine. It is estimated that 56% will be all electric, 3% will be electric plug-in hybrids, and 6% will be hybrid electric vehicles, while 35% will only have an internal combustion engine.

U.S. New Vehicle Sales by Powertrain Type



Source: 2022 Joint EV Trends and Outlook Forecast; Autocare Association & AASA

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Hybrids vs EVs

Hybrid and electric vehicles have more differences that people realize. Hybrids are generally sold by traditional automakers like Toyota, while most EVs are sold by luxury brands. The hybrid vehicle population is also much older when compared to EVs.

Did You Know

More than 55% of all registered hybrids are Toyotas

Sources: 2022 Autocare Association and AASA Joint EV Trends and Outlook Forecast, 2022 Autocare Association Factbook, HIS Markit Hybrid: Bridge to Electrification- August 2021, SMP Internal Data



HYBRIDS		ELECTRIC VEHICLES	
4,963,000	Current VIO	1,237,000	
1.7%	% of Total VIO	0.4%	
7.6 Years	Average Age	3.8 Years	
\$37.5K	Average Cost (New)	\$66K	
12%	Luxury Nameplate Share	75%	

76% of hybrids are registered outside of California

80% of new hybrids are crossovers

Over 70% of new EV registrations are Teslas

By 2030, EVs will account for 2-3% of the total vehicle population

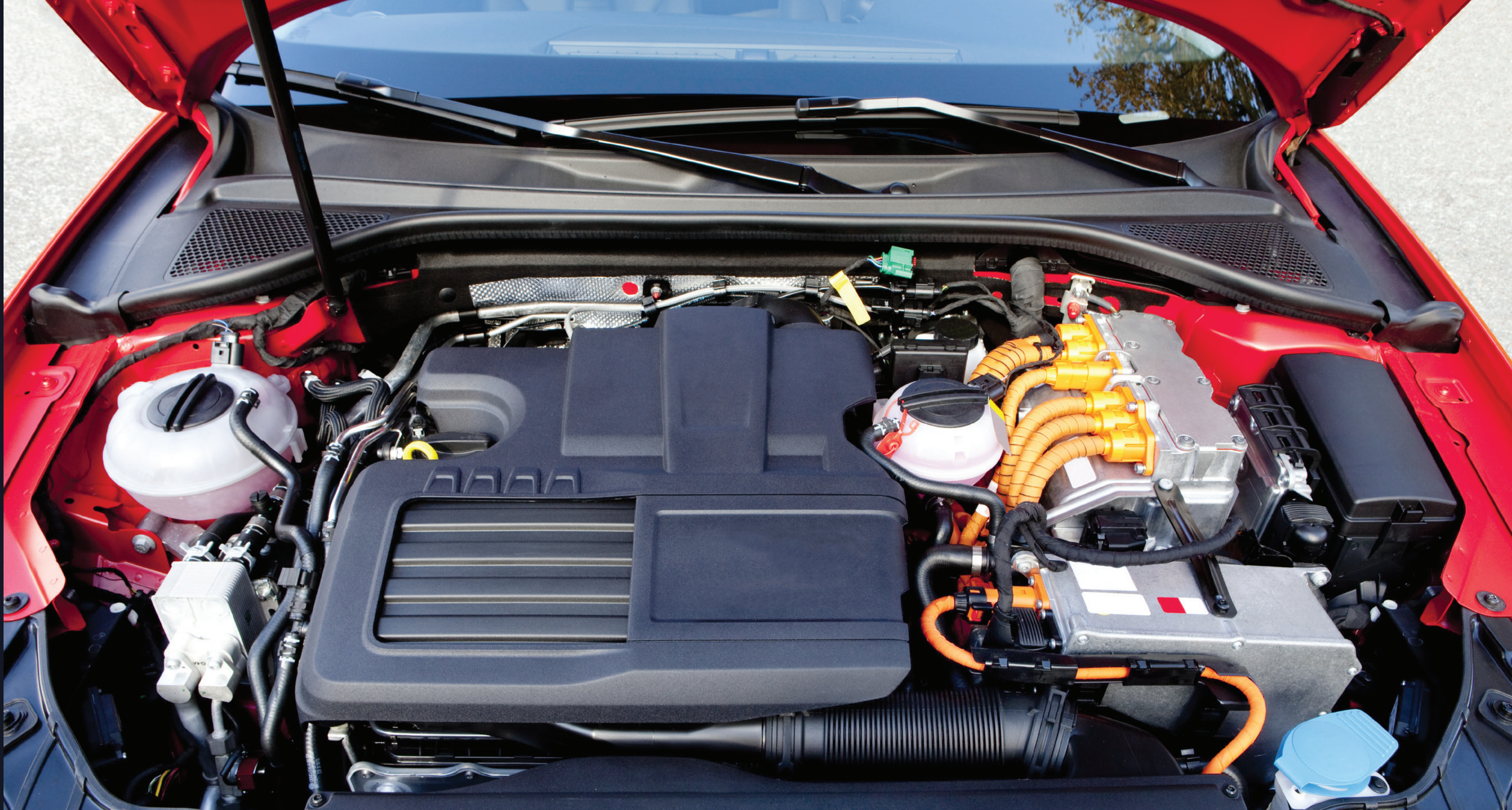
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Hybrid Sales Opportunity

With two different systems powering each vehicle, hybrids have more components compared to gas or diesel vehicles. Many hybrids are also more than 10 years old. More parts and an aging population means that hybrid service opportunities will grow in the coming years.

Did You Know

Hybrids like the Toyota Prius and Ford Interceptor Utility are becoming increasingly popular for fleets



ABS Sensors	EVAP	Variable Valve Timing
ADAS	Fuel Injection	Battery Cooling
Blower Motor Resistors	Ignition Coils	Charging Cables
Cam & Crank Sensors	Switches	Climate Control
Electronic Throttle Bodies	TPMS	...and more

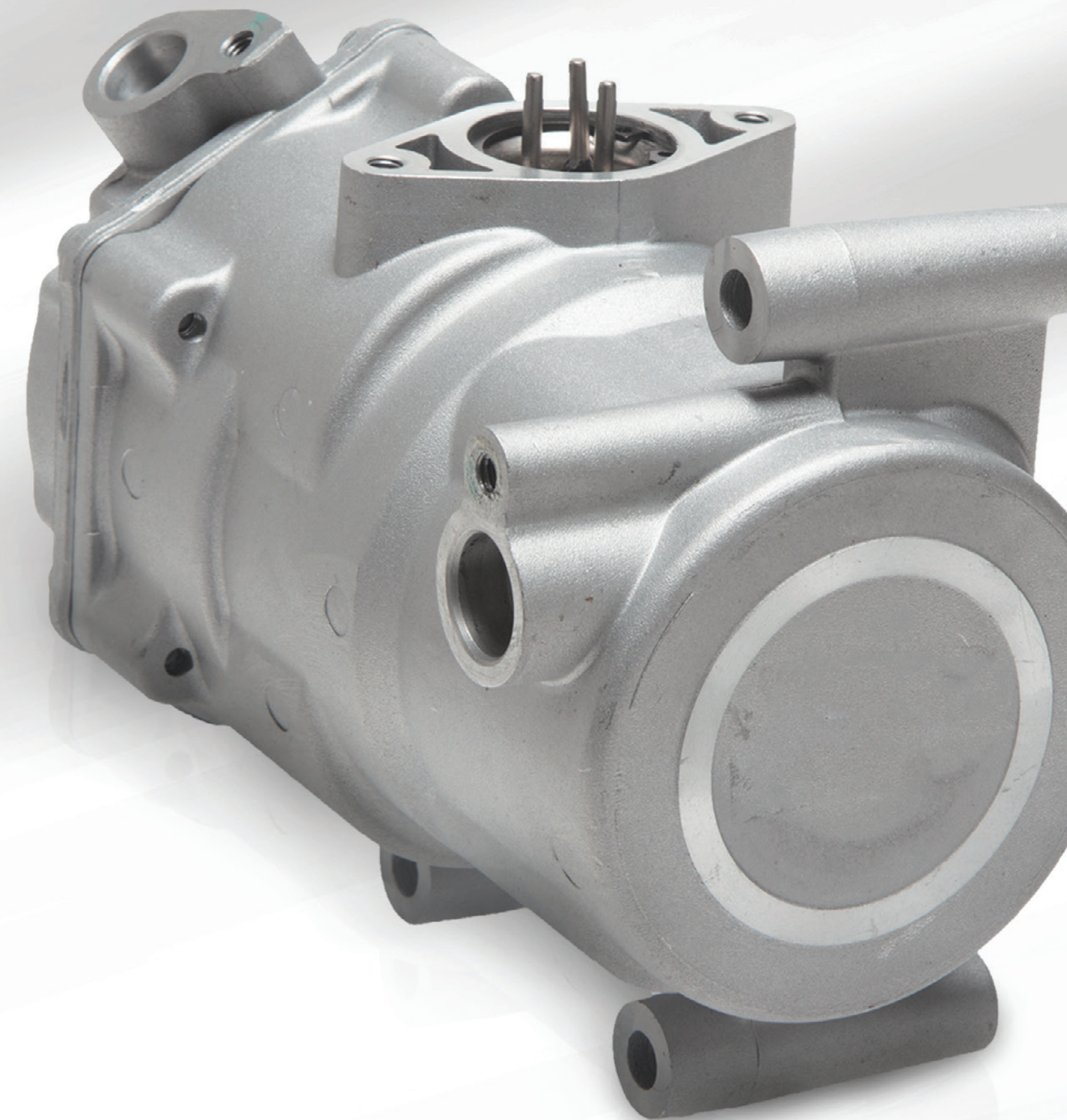
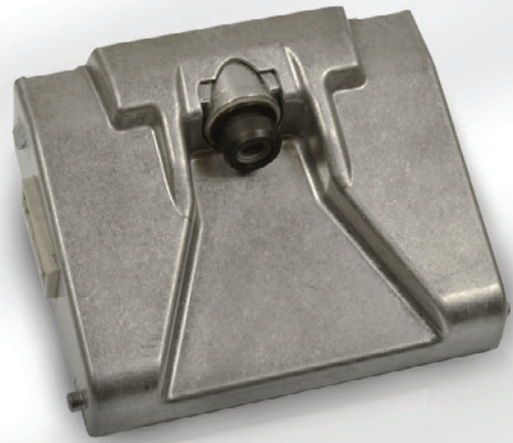
**STANDARD® HYBRID AND
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Powertrain Neutral Parts

Standard® and Four Seasons® have more than 50,000 parts that are powertrain neutral. That means the parts are the same whether the powertrain is gas, diesel, hybrid or electric.

Hybrids and EVs use the very same ADAS components, A/C compressors and thousands of other switches, sensors, actuators and connectors.

50,000+
POWERTRAIN NEUTRAL PARTS



STANDARD® AND FOUR SEASONS®

Hybrid Vehicle Coverage

With an aging population and almost 5 million vehicles on the road, service opportunities for hybrids are on the rise. Standard® and Four Seasons® have thousands of replacement parts for import and domestic hybrid vehicles.

Hybrid Coverage

4,000+
PARTS

150
MODELS

Standard® and Four Seasons® have 140+ parts for a 2014 Toyota Highlander Hybrid



STANDARD® AND FOUR SEASONS®

Electric Vehicle Coverage

Electric cars are still cars, and many of the same parts that fail on gas-powered cars fail on electric cars. We offer more than 1,900 parts for electric vehicles and our coverage is continuing to expand.

EV Coverage

1,900+
PARTS

40
MODELS

Standard® and Four Seasons® have 40+ parts for the 2019 Chevrolet Bolt EV



STANDARD® HYBRID AND EV COMPONENTS

What's New

Hybrid and EV Chargers and Adapters

Quick, efficient charging is critical for the daily use of plug-in hybrids and electric vehicles. Standard® offers an adapter which allows Teslas to be charged at any charging station, as well as direct OE replacement charging cables for popular Toyota vehicles.

For the most recent applications, check the online catalog at www.standardbrand.com



EVB001

Tesla Charging Adapter

Allows a Tesla owner to charge their vehicle with a J1777 charger or non-Tesla charging system

Charges at up to 19.2kW

Tesla Model 3 2023 - 2017

Tesla Roadster 2011 - 2008

Tesla Model S 2023 - 2012

Tesla Model X 2023 - 2016

Tesla Model Y 2023 - 2020



EVB004

Battery Charging Cable

SAE J1772 compliant, direct replacement charging cable for popular Toyota vehicles

Supplies 120 volts at 12 amps for a steady charging rate

Scion iQ 2013

Toyota Prius 2015-2012, 2010

Toyota Prius Prime 2022-2018

Toyota RAV4 EV 2014-2012

Toyota RAV4 Prime 2021

**STANDARD® HYBRID AND
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What's New

Sensors and Cameras for Hybrid and Electric Vehicles

Hybrids and EVs have the very same style ADAS components and TPMS sensors as traditional ICE vehicles. These categories will continue to grow, regardless of how vehicles are powered.

For the most recent applications, check the online catalog at www.standardbrand.com



PPS101
Park Assist Sensor
Chevrolet Bolt EV
(2020-17)



PAC173
Park Assist Camera
Lexus RX450h
(2015-14)



TPM382
TPMS OE Match Sensor
Chevrolet Volt
(2019)



STANDARD® HYBRID AND EV COMPONENTS

What's New

Underhood Components for Hybrid Vehicles

With more systems and more parts, hybrid vehicles present multiple service opportunities. From hybrid system parts to traditional parts, Standard® makes sure you have the parts you need to service your customers' hybrid vehicles.

For the most recent applications, check the online catalog at www.standardbrand.com



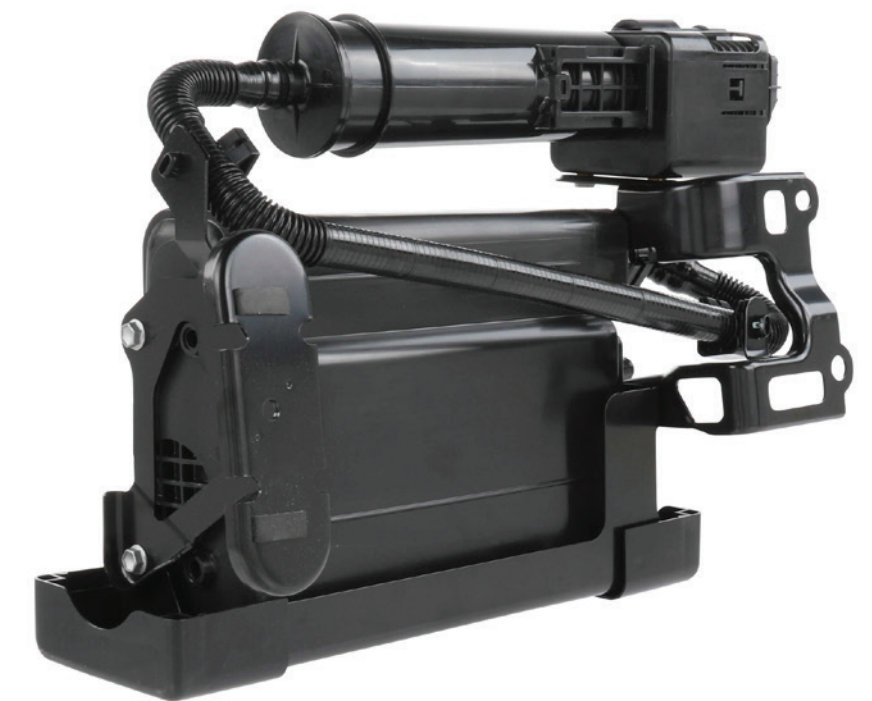
CPH101
Hybrid Drive Coolant Pump
Toyota and Lexus Hybrids
(2015-10)



PBA006 & PBA007
Parking Brake Actuators
Ford Fusion Hybrid and SSV
Plug-In Hybrid
(2020-19)



CP3730
Fuel Vapor Canister
Toyota Prius C
(2021-12)



FOUR SEASONS® HYBRID AND
EV COMPONENTS

What's New

Four Seasons® Battery Cooling Fans

Batteries in hybrid and electric vehicles require constant cooling. This helps both battery life and the range of the vehicle. Standard's sister company, Four Seasons® offers multiple battery cooling fans for popular import and domestic hybrid vehicles.

For a complete list of applications, visit 4s.com



76810

Toyota & Lexus Hybrid Cars
(2017-10)
VIO: 851K



76807

Toyota Hybrid Cars
(2009-04)
VIO: 432K



76809

Toyota & Lexus Hybrid Cars
(2020-18)
VIO: 362K



76803

Honda Hybrid Cars
(2016-05)
VIO: 184K



76802

GM Hybrid Cars
(2016-11)
VIO: 160K



76800

Ford & Lincoln Hybrid Cars
(2018-13)
VIO: 159K

STANDARD® HYBRID AND EV COMPONENTS

Top Movers

IMPORT
APPLICATIONS



UF596

Ignition Coil
Toyota and Lexus Hybrids
(2017-10)



UF487

Ignition Coil
Toyota and Lexus Hybrids
2015-01



TX40

Engine Coolant Temperature Sensor
Toyota and Lexus Hybrids
(2021-02)



CP620

Vapor Canister Purge Solenoid
Toyota and Lexus Hybrids
(2016-07)



TPM82

TPMS Sensor
Toyota and Lexus Hybrids
(2017-07)

DOMESTIC
APPLICATIONS



CP758

Vapor Canister Purge Valve
Ford Hybrids
(2020-15)



UF669

Ignition Coil
GM Hybrids
(2015-11)



ALS2249

ABS Wheel Speed Sensor
Ford Hybrids and EVs
(2018-12)



PPS46

Parking Aid Sensor
Chevrolet Hybrids and EVs
(2019-17)



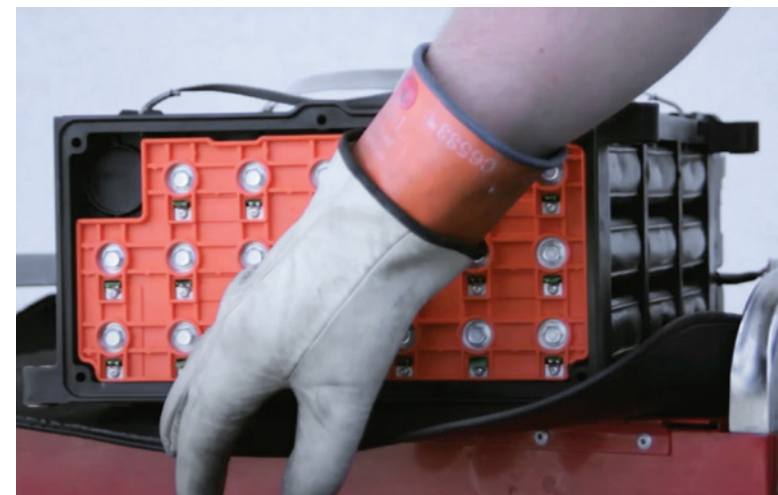
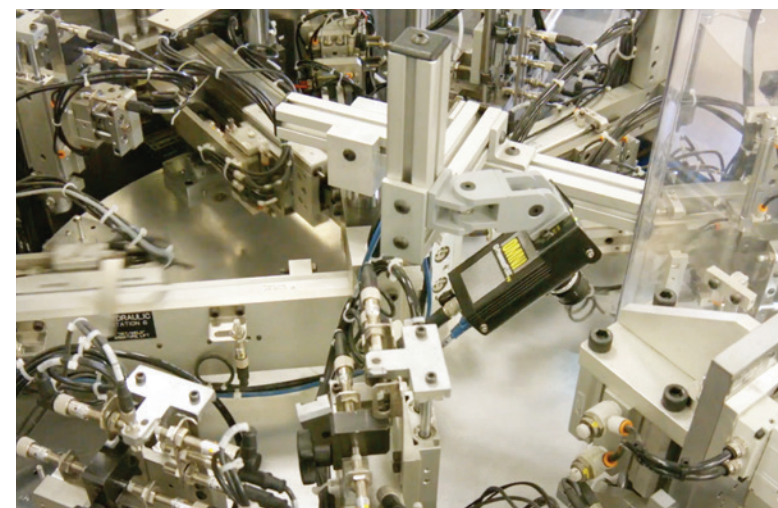
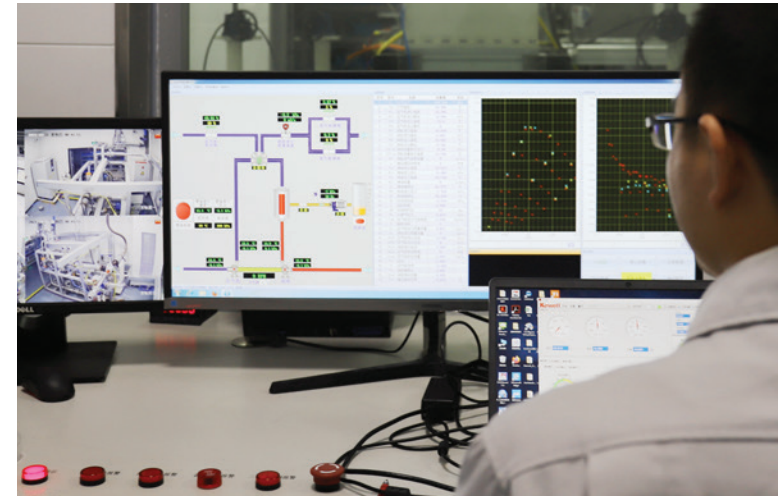
TPM362

TPMS Sensor
Tesla EVs
(2021-14)

**STANDARD® HYBRID AND
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Standard® Quality

Hybrid, EV, gasoline or diesel, our parts are engineered, manufactured and tested to function correctly in all driving conditions.



Research and Development

Standard® has 11 R&D Centers around the world including New York, South Carolina, Poland and Germany. We are committed to developing the best-performing aftermarket parts available

Precision Manufacturing

From start to finish, we are an expert manufacturer, validating all components including raw materials. Standard® manufacturing facilities are IATF-16949, ISO-9001 and ISO-14001 certified

Testing and Validation

Thermal shock, vibration salt spray and more, Standard® parts are subjected to a series of tests and undergo a detailed validation process

On-Vehicle Testing

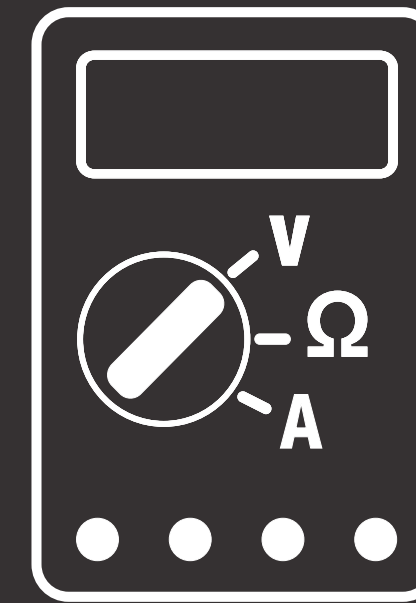
Hybrids and EVs have complex electronic systems. Our parts are tested on vehicles to make sure they function correctly and integrate with all electronic systems

**STANDARD® HYBRID AND
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Standard® Pro Training Tech Tip



Safety is the first priority when working on hybrids or EVs. Make sure you have an understanding of how the electric drive system works, and wear the appropriate gloves



Before servicing the high-voltage system, a technician should use the appropriate CATIII DVOM and perform a Live/Dead/Live test to ensure that the system is powered down and the meter is operating properly



If you are servicing the A/C system on an EV or hybrid, ensure that you are using dedicated A/C equipment. Contamination from the incorrect A/C oil can cause a system fault and shut the vehicle down

**STANDARD® HYBRID AND
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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 ADA-compliant YouTube professional installation video library has over 40 million views and 50,000+ channel subscribers.



For information
on replacing Hybrid
components, search
"Hybrid" on the
StandardBrand
YouTube channel



Available Classes

**Vehicle Electrification / Hybrid Tips
Powertrain Electronics**

Visit StandardBrandTraining.com

IN-PERSON TRAINING



Available Classes

**Electric Vehicle Safety Concerns
EV and Hybrid Service Tips
Late Model Hybrid Systems
Chevrolet Volt Overview
Toyota Hybrid Tips
Honda Hybrid Tips
Hybrid Battery Diagnosis**